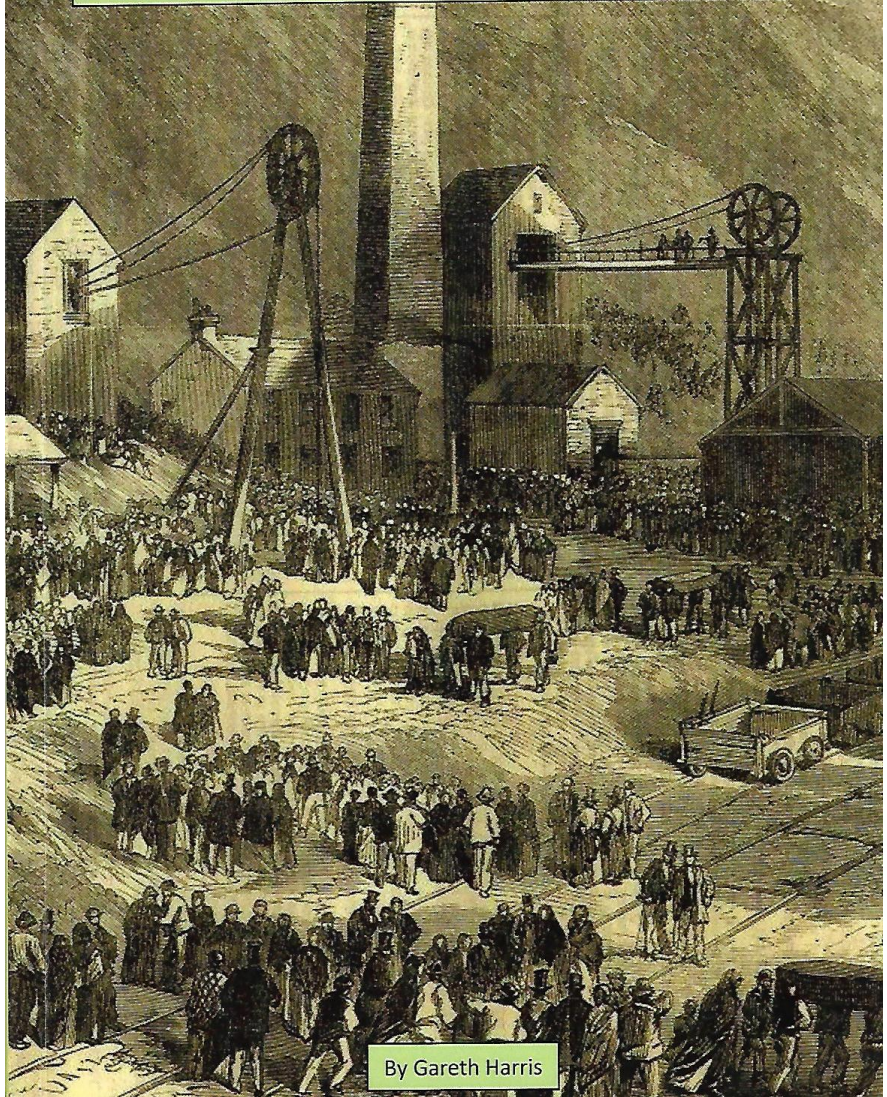


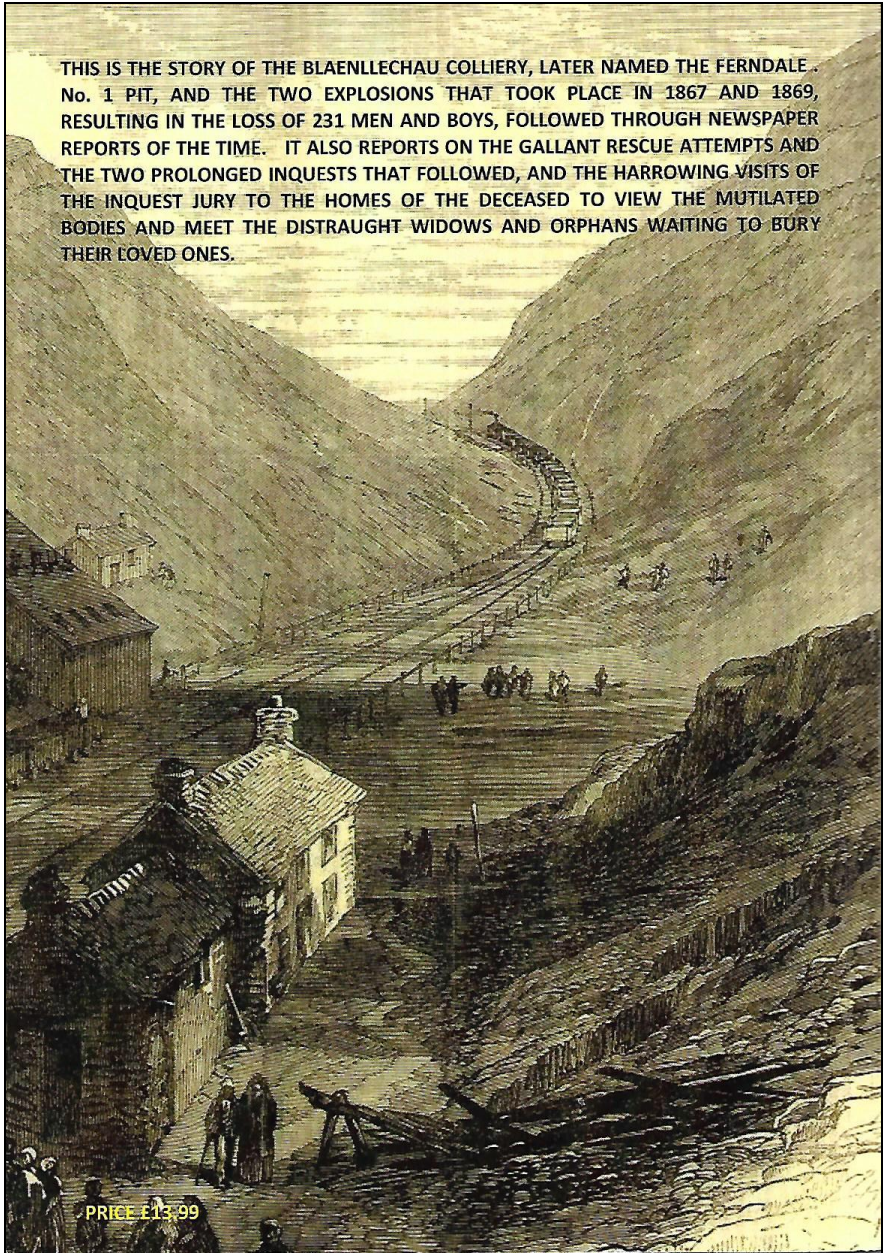
THE FERNDALE COLLIERY DISASTERS

of 1867 & 1869



By Gareth Harris

THIS IS THE STORY OF THE BLAENLECHAU COLLIERY, LATER NAMED THE FERNDALE No. 1 PIT, AND THE TWO EXPLOSIONS THAT TOOK PLACE IN 1867 AND 1869, RESULTING IN THE LOSS OF 231 MEN AND BOYS, FOLLOWED THROUGH NEWSPAPER REPORTS OF THE TIME. IT ALSO REPORTS ON THE GALLANT RESCUE ATTEMPTS AND THE TWO PROLONGED INQUESTS THAT FOLLOWED, AND THE HARROWING VISITS OF THE INQUEST JURY TO THE HOMES OF THE DECEASED TO VIEW THE MUTILATED BODIES AND MEET THE DISTRAUGHT WIDOWS AND ORPHANS WAITING TO BURY THEIR LOVED ONES.



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FOREWORD
by Mark Baker

It is a great honour and a privilege for me to write the foreword for Gareth Harris's book entitled the " The Ferndale Colliery Disasters 1867 & 1869. " I have many connections with the mining industry. My father and grandfather worked in the Ferndale pits up until their closure and many other relatives far to numerous to mention have also worked in the Ferndale pits, I too also worked in the mining industry starting in Mardy Colliery in 1977 at the age of sixteen and remaining there until its closure. So when Gareth asked me to do the foreword I was delighted to be able to agree to his request . Also close to my heart was the fact that I was born and bred and still live today in the village of Blaenllechau, a village that has been overshadowed for many years by its larger neighbour Ferndale. And when people refer to the Ferndale explosions very few realise that the actual colliery was in the village of Blaenllechau and the majority of the men killed were from this small village.

This book deservedly redresses some of these imbalances. Books such as these are written by authors who do it because of their great interest and love of the subject involved. They will never become rich or famous in doing so, and in some cases they actually have to bear the costs themselves. And that is why I so admire authors such as Gareth who will have put in many, many hours of endless research and effort into producing their books. Today the Ferndale colliery sites are grassed and green with very few remnants remaining to indicate what once existed or what terrible events occurred there. And with every passing day "Mother Nature" regains what was stolen from her, wiping the land clean of mans efforts .

So to with each passing year the old miners that worked in the Ferndale pits dwindle in number. Eventually all will succumb to time and their memories and recollections will die with them. And that is why books such as this are so very important. They give us a portal opening through which we are able to see and glimpse what the past was, and how it shaped and formed us into the communities and the people that we have become today Enjoy this book, take time to read it and embark upon a very pleasant journey into our precious past I promise you, it will be a very worthwhile and rewarding journey.

November 2012

INTRODUCTION

By the author

Having written books about the Albion Colliery disaster at Cilfynydd, the Great Western Colliery disaster at Hopkinstown, and the Dinas Colliery explosions, I had no real intention of writing another book about coal mining. However, the two explosions at Ferndale in 1867 and 1869 attracted my attention, and as the story of these are not widely known to the general public I thought a book should be available to those who are interested in coal mining or local history.

Through local and national newspapers of the time the story is told of not only the two explosions, but also the dire living and working conditions of the colliers and their families in a rural district which was well off the beaten track without proper road or rail communications either with the lower valley or the growing town of Aberdare that lay across the steep mountains to the east.

The coroner's inquests gives an insight into what working underground at this early period of coal mining in the South Wales coalfield was like and the dangers from explosive gas and falls of rock or coal that the workmen faced daily.

In 1866 Lionel Brough, H.M. Inspector of Mines for the South-West District would tell the South Wales Institute of Engineers that 'they had the worst roofs in the world in South Wales.'

To help the reader understand some of the terms used in a colliery of this period a 'Glossary of Mining Terms' is inserted at the rear of this book.

Please read and enjoy this book about a time when the name Ferndale was synonymous with death and desolation.

Gareth Harris
September 2012

Chapter one

The early days at Blaenllechau

In the mid-nineteenth century the Rhondda Fach still is a very narrow valley, thickly wooded and surrounded by hills broken only by a succession of small cliffs with a small but swift river along its bottom and no through road, making the top end almost impenetrable. This end, unlike the bottom, where two collieries had been sunk at Aber-Rhondda and Ynyshir, was very isolated, and the only site of industry were a few small levels to the No. 2 (house coal) seam opened by local farmers for their own use. For the infrequent travellers to this spot during the summer months the valley must have looked beautiful. However, between 1860 and 1914 it would change from a quite sanctuary to be part of a densely populated industrial district.

In November 1845, Thomas Thomas and his four brothers, who owned the land at the Blaenllechau and Maerdy farms, offered to sell the surface minerals and all rights to the Blaenllechau Farm to Lord Bute for £7,000, but as the coals seams were unproved the offer was rejected, and it would be ten years before David Davis, a coal pioneer of the Rhondda Fach, arrived at Blaenllechau.

David Davis had through hard industry obtained a small fund of capital first from a few shops at Aberdare and Hirwaun, and this being a success he became the owner of steam coal collieries in the district at Blaengwawr and Abercwmboi. Expanding his business in 1857 he leased the rights of 500 acres of Blaenllechau land from the Thomas brothers, which included their small disused level.

He began sinking for the No. 3 Rhondda seam, but ran into many difficulties, one initially being that everything, including machinery and materials, had to be carried from the Aberdare and Merthyr valleys by horseback, as the paths over the mountain were too narrow for the passage of carts. But more important was the fact that at the Blaenllechau site at which they were digging, when they reached the depth of 115 yards, they discovered that the vein had dwindled to practically nothing and their speculation had been in vain.

Soon, however, Lewis Davis, the son of David Davis, made a survey and suggested that his father sink to a much greater depth with the hope of reaching the steam coal seams, and after getting more favourable terms from the Thomas brothers, they recommenced sinking, and, on June 14th 1862, the four Feet seam was struck at a depth of 278 yards. And it was soon found that the seam was of better quality than the same seam found in the Aberdare valley. There were

three districts worked, the Blaenllechau, initially under the Blaenllechau Farm lands; the Rhondda, worked under the Rhondda Fechan farm, Ferndale; and the Duffryn, worked under the Duffryn Sarfwch Farm, Ferndale.

As soon as the seam was found advertisements were placed in the South Wales newspapers offering 'good work' at the Blaenllechau colliery near Ferndale. This presented difficulties about where they were to live. The sinkers, 40 in number, had lived in a single house "Y Lluest," but the colliers were accommodated in a large number of wooden huts called the 'Barracks' built by the company. The general area of the Blaenllechau Colliery was known as *Glynrhedynog, but was changed to Ferndale at this time by Delta Davies, first cashier of David Davis and Sons. * *The Welsh language translation of "Ferndale" as Glynrhedynog is controversial. Some believe the village was originally known as "Trerhondda" and a number of buildings still carry the name. Older Welsh speakers prefer to use "Trerhondda" over the Council-designated "Glynrhedynog".*

Once production began the output of the Ferndale pit (later known as the No. 1 pit) grew at an astonishing rate from 11,138 tons in 1864 to 94,691 tons in 1868. This was only made possible by the Taff Vale Railway being extended from Ynyshir to Blaenllechau, which opened for its first coal train in August 1862. The two sons of David Davis, David and Lewis, became partners with their father in 1866, and from then on the firm was known as 'David Davis & Sons.' After the sudden death of David Davis senior on May 19th 1866, the control of the firm fell to the two sons, and within a short while they had to deal with two major explosions that threatened the future of the company. This is the story of those catastrophes.

Frightful Colliery Explosion at Blaenllechau – over 170 men and boys killed – terrible destruction of property

The most awful calamity that ever befell South Wales happened on Friday last, the 8th of November 1867, at Blaenllechau, where an explosion of fire-damp took place in the Ferndale Colliery, by which nearly 200 human beings have been swept in a moment into eternity (wrote the '*Merthyr Express*' of Saturday, November 16th 1867). Of all the visitations of this description that have overtaken us, there is none as frightful, so appalling in its magnitude as this at Ferndale. We have had our Blaengwawr with 11 victims, our Bedwellty, with 27, the two Gethins with 47 and 34, our Middle Duffryn with 67, Cymmer with its 114, Risca with its 142, but Ferndale eclipses them all in the ghastly proportion of its sacrifice, and runs the figure up to 180 men and boys, a whole pit's

compliment, for of all the number who entered the east and west districts alive on Friday morning only two or three have escaped with the skin of their teeth to bare witness to the horrible holocaust.

So complete and overwhelming a calamity is previously unknown in the commercial history of the mining districts of the Principality – it is not quite an ‘Oaks’ (when 361 died in on Dec. 12th 1866), but on a smaller scale than the Yorkshire tragedy, and not as mournful. However, these dire disasters come upon us with such regularity, and yet with such awful suddenness, that one is almost inclined to say that a miner’s safety is beyond human ingenuity, and with all the light that science has brought to bare upon the subject it has yet failed to penetrate the deep gloom of the coal pit, and reveal to us the difficulties which seem to be inseparable in the way of rendering the workings of a mine absolutely safe. As it is, the pit which today bares an unblemished reputation for thorough and efficient ventilation – at the pit where, perhaps not one life out of ten that are lost in its workings is the result of a gaseous explosion, tomorrow becomes a volcano of fire, a pit of death, and acquires a black name for ever afterwards.

When the good Sir Humphry Davy invented the safety lamp there was an exclamation of joy throughout the mining world, and it was confidently hoped that his experiment, which had been so successful, had at last spared the collier’s life. How vain such a notion is we have had demonstrated to us by the most bitter facts, that, despite the safety lamps the fire-fiend has made his onslaught, and even making an ally of this very important instrument, burnt and scorched his victims to an agonising death. It happened just that when we ourselves in the moment of a respite from the old enemy, it issues from the fissures and holes of the pit, and before the hapless workmen are aware of his presence they are wrapped in a sheet of flame, or blown down in a whirlwind of fire, the surviving of which such frightful an ordeal is an intensity of suffering which, happily for our race, hardly comes in the ordinary catalogue of human afflictions. What would be given by coal owners, by all philanthropic hearts, could a system of mining absolutely safe be devised; how richly would the inventor be rewarded, for his human skill; but, unfortunately, coal-winning seems to be removed from the field altogether, and the black diamonds of the carboniferous measures are only won by a spirit of daring and adventure for which an awful penalty is exalted.

Deep in the bowels of the earth, the stores of wealth lie hoarded up for the use of mankind, but locked up along with them, far from their natural character is one

of the most destructive compounds known to chemists. Once the coal is tapped this dangerous product, hitherto so vastly confined, is let loose, and, as the mine extends, lurks in holes and corners ready at the first moment to release its latent power into action to lay the pit in ruins, scattering death and desolation in all its ramifications. Nothing can be more melancholy than that there should be such a tremendous sacrifice of life, and that the collier's occupation has become to be regarded as one of the most uncertain and deadly that men can be engaged in. It is not the simple blower which is of so much danger; it is the presence of the gas which is lurking in all the nooks and crannies overhead, by which a sort of atmosphere of gas extends throughout the whole pit, so that the ignition of a blower, which, without warning, is produced after a fall, fires the trail already laid, and transverses the workings with the rapidity of lightening, and with effects, too, hardly less terrible than those produced by that wonderful fluid.

Firedamp will always be found; it is incessantly exuding from the walls, roof, and the floor of the pit, and the bringing down of a thin slice of coal may be the removal of the partition which dams back a reservoir of gas sufficient to fill the whole colliery, and blow it to atoms. The collier's life is, therefore, in peril from the moment he leaves the surface and steps into the cage until he leaves the cage and walks the earth again. How large a share of our sympathy, then, does he deserve! He never thinks of his continual danger and the risk he runs every moment, not merely of being maimed or crippled by falls, for life, but of being overtaken by the blast of fire, and roasted alive. A soldier's is a charmed life compared with his; a thousand bullets may whiz through the air and around his head without grazing him; but the outbreak of a fire-fiend is a very different matter. *A dungeon horrible on all sides round; as one great furnace flings.*

There is no escape except but through the shaft, and towards that the flame sweeps with a roar that shakes the caverns below, burning, scorching, and smashing everything in its way, and consuming the vital oxygen of the atmosphere as it passes, so that nothing is left for the poor terror-stricken men behind, but "*A single bottom, all involved; With stench and smoke; with carbonic acid, a gas as deadly as the flame itself, but more merciful in its mode of killing.*" The victims of the flame are roasted, scarred, battered, and bruised, until they no longer resemble human beings, and die with an agony unutterable and inexpressible, while the victims of the after-damp drop calmly asleep and never awake. The contrast is painful and almost horrifying when we think that every lump of coal consumed has been won at the risk of a man's life! Well, indeed, do our colliers merit our sympathy, and in this indisputable are their claims to our everlasting gratitude, for were there not men with courage to brave the

terrors of the pit with its fearful associations, the world would lag and come to a deadlock; our cotton mills must be closed, our railways be idle and grass-grown, our blast furnaces cease to light up the vale, and our rolling mills and forges tumble into ruin; the magnificent triumphs of steam navigation will be as a dream of that which never was, and the whole fabric of society would be turned upside down.

We can do nothing without coal, but we cannot get coal without men who are willing to stand in jeopardy every hour for the whole term of their lives. Large is the sympathy which should be shown for the collier, for according to the present state of things, he is the base of that pyramid of labour at the apex of which stands national prosperity. But it is fearful to think that it frequently happens that the collier is himself the cause of these tremendous catastrophes which sweep men off by the hundred; a rash step towards a fiery face - the incautious plunging of a naked light in a gas pool overhead - or a ramble into abandoned workings where the ventilation is imperfect, has been the occasion of an explosion, which has almost moved the mine from its foundations and extinguished every spark of life within its dreary walls. In the case of the Ferndale explosion it is impossible to say how the gas exploded, there is not an atom of evidence come to light yet, upon which a reasonable conclusion can be formed, and it would be foolhardy therefore to venture on the quicksand of conjecture. It is enough to date to know that the colliery is the scene of an appalling calamity, and that the settlement at the head of the Rhondda Fach has been decimated of its breadwinners leaving behind a little army of widows and orphans, whose sole means of subsistence now is the world's charity, and who will, probably, soon be bidding farewell to Ferndale with the saddest of all recollections.

Blaenllechau, or Ferndale as it is known by the name of the colliery, is a wild region situated at the top of the Rhondda Fach, one of the most beautiful little valleys in south Wales, as tortuous as the valley of the Wye between Ross and Chepstow, in some places not more than eighty yards wide, with the hillsides covered with Welsh oak trees and the torrent of the Little Rhondda running a chequered and uneven course along the bed. Even now, when the leaves are brown and ready to drop at the first blast of November, and the riverbed is shallow and almost a drought, the valley possesses a beauty which is perfectly delightful to those who have an eye for the beauty of nature; in spring and summertime it must look a picture of loveliness. It branches out at the Rhondda Fawr, at Cymmer, the scene of a disastrous explosion, which occurred about 12 years ago, when the Cymmer Colliery fired, and 114 lives were lost. This place is

four miles or so from Pontypridd, and is the nearest point to which persons can go by rail to Ferndale, for, although the Rhondda Fach is traversed by railroad, yet it has no passenger train service, and, consequently, there is nothing to be done, but walk from the place, the distance by road to Ferndale being five miles, part of which is a rough road.

There is very little passenger traffic between Blaenllechau and Porth, or Cymmer, for the reason that the people of the former place are mostly from Merthyr and Aberdare, and therefore they walk over the hill to Cwmaman, when they have to transact business with the outer world. The distance from Aberdare is about four miles, from Cwmaman about two, but the route is terribly laborious for pedestrians. The only colliery there is the Ferndale, and the place depends for its support entirely upon this pit. The shaft of the colliery is in the parish of Llanwonno, but the workings extend far below into both Llanwonno and Ystrad, and the village itself is divided into the two parishes, part of the houses being built on the Llanwonno side of the valley and part on the Ystrad. They are all new, and are all occupied. Indeed, at this place, as at all new places, the colliery having been developed with great rapidity, stone buildings have not kept pace with the demand for accommodations, and the result is that the two long rows of wooden houses having been constructed after a fashion of the log shanties, erected by the backwoodsmen of the United States, but they are neater and internally more comfortably than the American shanties.

Nearly every house receives a lodger, and some of them have three or four lodgers. There are three or four shops, a public house, and a police station; the Taff Vale Railway Company has also a goods station and engine house. The total population of the whole place before the explosion was about 800.

Ferndale Colliery is one of the largest pits in the district, and belongs to the eminent firm of coal owners - Messrs. David Davis and sons, of Aberdare. It is comparatively a new pit, and is sunk a depth of 280 yards to the famous four-foot seam of Merthyr steam coal of which there is such a great demand by the steam packet companies on account of its evaporative power. The coal dips to the east, and the workings are divided into three large districts, mainly, - the South (Duffryn district), East (Blaenllechau) and West (Rhondda). The furthest distance which has been worked in one direction is about half-a-mile from the shaft. The ventilation is carried on by furnace through the upcast, and the pit has the reputation of being one of the safest collieries in the district. It was formerly managed by Mr. Curnew, now owner of the Plymouth Collieries, but at

the time of the explosion John Williams, formerly of the Werfa Pit, was the manager, but, unhappily, he is amongst the dead. A gentleman who was an intimate friend of Mr. Williams, informs us that some time ago he had a conversation with him about colliery management, and while discussing the duties of owners Mr. Williams said that at Ferndale he had the most liberal of proprietors he ever knew.

Their instructions to him were to avail himself of every means, and to spare no expense to ensure the safety of the pit by thorough and complete ventilation. This statement of the deceased manager is highly creditable to his employers, who are shown thereby to have had a proper conception of their duty; and it is all the more honourable, to them since it is a well known fact that many wealthy coal owners are exceedingly sharp upon their agents to the consumption of pit stores. It is generally believed that Mr. Williams was a great economist, or rather, in common parlance (that which conduces and insures the safety of life and properties is, after all, the truest economy) most sparing in his use of stores, that his employers, are able to turn out as much coal as possible at the smallest cost. We do not mean to say for one moment that in adopting such a course he was responsible for the catastrophe; far be it for us to impute to any person, from the manager to the humblest doorboy, the blame of this fearful misfortune.

There are other things having a vastly more powerful influence upon the condition of the pit that we are apt to consider - we refer chiefly to the state of the atmosphere. Now it is well known that according to the rarefaction or density of the atmosphere above is the condition of the ventilation of a pit, favourably or is adversely effected; the lighter the atmosphere the more perfect the ventilation, and when it becomes moist and heavy the ventilation is clogged and interfered with. The worst condition for the atmosphere of the colliery is a fog, which lies dull, heavy and motionless over the pit's mouth, like a mighty incubus determined to keep the foul air down, and stifle the men in their places. Colliery managers dread fog more than the fire-damp, for, with favourable conditions with the air above ground, they can, by adopting reasonable precautions reduce the danger of an explosion to a minimum, but with a fog they can neither get air down nor up - the atmosphere of the whole mine is comparatively stagnant, and if the men continue working the worst may be looked for at any moment.

For a whole week previous to the disaster on Friday the atmosphere had gradually become denser, and the morning found the earth enveloped in a thick

mist, and especially thick was it in the dingle at Blaenllechau, shut in by two ridges of lofty mountains, with a stream at the bottom. It was just the weather for explosions. On Thursday morning there was a very dense fog, but the day was brilliantly fine, and the moon rose at night clearly and well defined. On Friday morning the mist was denser than before - not a breath of wind was stirring - the air was as motionless as death, and nothing could be distinguished ten yards ahead. On that morning, when the night men came out of the pit, the dayshift went down - in all about 330 men and boys - 170 of whom went into the East and West workings, fearful perhaps some of them might have been that there was danger lurking in the air, but little dreaming, probably, that more than one half of the whole mass of them - most of them just entering the prime of life - were going down to their death. And oh! Such a horrible death.

The heart sickens at the contemplation of such a hideous spectacle, and though it may betoken a non-social part to confess it, one's eyes fill with tears while the tragic story hastens to its narration. All worked on, and no mishap occurred before dinner hour. The manager, Mr. Williams, went out to dinner, and returned about 1 o'clock, when he descended the pit again. The men resumed work, and the picks were in full swing, when, at half-past-one, there was a terrific report which rung through the whole mine, and must have chilled the hearts of the poor fellows there with terror. The fire-damp had exploded, and that with such tremendous force the blast, sweeping along the drifts with a fearful roar, shot through all the workings, and drove up the shaft with the violence of a whirlwind, carrying a cloud of dust and rubbish before it. It is even said that the flames were actually seen at the pit's mouth, but this is not certain. The banksman was blown from his post, and the other men riveted with consternation. The report of the explosion was heard far below the limits of the settlement there; the very houses on the mountainside rocked over the heads of their occupants, so dreadful was the shock, and the men and women ran horror-stricken to the pit's mouth to learn the sad tidings. The scenes which we have had to describe, unhappily, so many times, were here renewed - fathers, mothers, sisters, brothers, all congregated around the pit in an agony of grief and suspense for the fate of those dear ones who were down the dreadful mine. The grief of these people was heartbreaking - they were there alone, without a soul to help them, and their only comfort was in mutual solaces and hopes dashed already with despair.

As soon as the workmen at the top had recovered - for they were momentarily dismayed by the blast at the shaft - they lost no time in despatching messages across the mountain to the proprietors at Aberdare, and down the valley to

other collieries for assistance; but they had not to go far before they met people, breathless with haste, coming to meet them- the thunder of the explosion had traversed the coal seams, and told the sad history of disaster somewhere to the men working in the adjoining valleys, and an accurate guess was made as to the point at which the earth shaking discharged its fury.

The tidings spread like wildfire, and within a few hours the telegraph wire made it known all over the country. Meantime working parties were organised, and measures were taken to descend the pit in search of the workmen, as soon as the shaft had cleared sufficiently to render it safe to proceed down. Vast quantities of foul air came up, and it was necessary to act with great caution to avoid further accident. Of the three hitchers, two were blown into the drift and were found amongst the dead; but the third was alive, and, what was more remarkable still, very little injured. He was sent to the top with all possible haste. The violence of the blast appeared to have been nearly exhausted before it arrived at the Duffryn and South districts, for the men working in them were nearly all collected at the bottom of the shaft, whither they made their way directly on hearing the report. Their feelings may be imagined but can never be described. One hundred and thirty-eight of them were brought up unhurt, and twenty-one injured – some slightly, others badly; of those that were unhurt in body the mass volunteered to go down and explore the pit in search of their less fortunate comrades below. Proceeding carefully along the drift they came upon some bodies – not far from the shaft – which were immediately removed. Amongst them was the manager, Mr. Williams, who was found in a sitting position, with a kerchief in his mouth, and his hat drawn over his face. He had been killed by the choke-damp, and the explorers were thus deprived of his services in guiding them in the difficult work of getting out the bodies.

By four o'clock about twenty had been recovered, and people from the adjoining valleys were flocking in droves to the pit. The working parties then reported that the air was exceedingly foul, and the workings had been damaged to an incalculable extent – falls being encountered everywhere, and the airways blown into shapeless ruins, entirely stopping the ventilation of the inner workings. This disastrous intelligence threw a gloom over all present, and Mr. Davis, the proprietor, who shortly afterwards arrived on the spot, was overwhelmed with sorrow, which found vent in tears. Efforts were continued without cessation to get at the bodies, but the masses of rubbish which had to be cleared away, seriously retarded the recovery, and the repeated arrival of the cage at the top with "nothing in it" greatly embittered the sorrow of those who were waiting for their relatives.

After the first great fall had been removed about a dozen bodies were got out all dead. Going further into the workings other falls were encountered, and it took a long time to remove them. The poor fellows appear to have been shut up in batches between falls beyond all hope of being rescued alive. Even after a fall was removed some delay occurred before the bodies could be got at, by reason of the foulness of the air, which had to drawn off before the explorers could advance. The work continued in this manner and with like results all through the night, and by 5 a.m. Saturday, fifty-three bodies had been got out, included five living, but of the latter three were so frightfully burnt that no hopes were entertained of their recovery. If they should survive each would be a marvel of human endurance of the most excruciating pain with which flesh can be inflicted. The other – one of them a door-boy – were only slightly injured; but the rest – eighteen – were all dead.

On Friday evening, the intelligence came to Merthyr that an explosion had occurred at Ferndale, and that there were 250 lives lost. Of course such an enormous sacrifice of life as this could not fail to excite the public, and from the fact that a large number of Merthyr colliers went over to Blaenllechau shortly after the pit was opened, and others have been going since, the news created a mournful expression here, and hundreds of people could name a friend who had gone to work in this pit.

On Saturday morning, therefore, we started for the scene of the disaster in company with Mr. Curnew, of the Plymouth collieries, Mr. Henry Lewis, and some other gentlemen, walked from Abernant via Ynyscynon across the fields to Aberaman, and then took the Vale of Neath Railway to Cwmaman. Here we fell in with a stream of men and women and children from Aberdare, all bound for the same place, and constantly receiving accessions.

A brisk walk brought us to the head of Cwmaman, and then commenced the tug-of-war, of a sort of Alpine track, over huge boulders and monstrous masses of rocks, the ascent being almost perpendicular. Up this rugged path the stream of people and children walked sore and weary over the hard sharp stones, and when the “pinch” of the hill was overcome and the heather gained the single file, changed to open column. Thousands were passing to and fro – for a breadth of sixty-feet the mountain slope was in some places worn away or trodden into the mud. Every now and then we came upon a group of colliers returning from the pit who gave us the advice not to hurry forward, we should be there long before any more bodies were brought up.

At the top of the hill, where it first descends into the Rhondda Fach, we caught the first glimpse of the place, and it was a sight coming a long way to see. The long, dense, black line stretching from the summit of the hill along its slope a mile and a half down to the pit. Whenever we met a person from whom it appeared likely that we should obtain some information we made inquiry, but to no purpose, for contradictory reports were received. We first learnt that there were not above 50 men in the pit then; next that there were nearly 400; after that, the lampman had given out 700 lamps on Friday morning, then that nearly 100 persons had been brought up alive and were able to walk away. Arriving on the spot, however, we found that the colliers who had advised us not to hurry forward were in the right; we were there soon enough.

Exploring parties – many of them being at work ever since 3 o'clock on Friday afternoon – were there hard at work, under the guidance of Mr. W. Adams, the consulting engineer of the Messrs. Davis; Mr George Brown, of Mountain Ash; Mr. Burns, Aberdare; Mr. Williams, Taff Vale Railway, and other managers of collieries in the district, but not a single person had been brought up since 5 o'clock.

Seven horses found burnt to death in the drift were brought out and buried in the tip by the side of the river. A great many viewers from the neighbouring collieries were continually arriving and going down the pit. Mr. Curnew descended as soon as he arrived, accompanied by Mr. Henry Lewis of Plymouth Collieries. It was found then that there had either been a tremendous fall or the workings were blown to pieces in the East or West districts; the ventilation was entirely cut off, and it would take so long to remove the *debris* that by the time the bodies could be got out, even supposing there were communication between the outer works and those beyond the fall, they could not be alive now. It was then determined to clear one side first, and with that view the efforts of the working parties were directed to the clearance of one of the districts – the “dip” – in which from twenty to twenty-five men were known to be entombed.

The work progressed very slowly and with great difficulty; so violent was the concussion, that masses of rock had been detached which required to be disintegrated with quarrying tools before they could be got out. And to augment the obstacles their air was so foul and dangerous that lights could not be used, and for several hours Mr. Curnew's party groped their way forward in utter darkness, working on their hands and knees. They remained in this horrid atmosphere of pestilence and death from 11 a.m. to 5 o'clock in the afternoon, and Mr. Curnew then calculated that there were 20 yards of rubbish to work

through, which could not be cleared until Sunday morning, when the bodies would be got out – that was, supposing there was no other fall beyond them and the bodies. Mr. Curnew at the imminent risk of his own life, resolved to clear that fall away before he left; the whole of that district would then be explored by Mr. Morgan Joseph, at the head of a party would remain in all day Saturday, being succeeded on Sunday night by Mr. Jones with another party.

It was the opinion of many engineers on Sunday that the workings were so badly knocked about that it would be impossible to get all the bodies out in less time than a week. How far they were justified in their opinion the sequel will show. Mr. Davis went down the pit in the morning and remained down the greater part of the day. At three in the afternoon Mr. Wales, The Inspector of Mines, arrived from Swansea, and at once descended to the workings.

Throughout the day an immense concourse of people gathered around the mouth of the pit; so great were their numbers that their respiration affected the atmosphere to such an extent as to interfere with the working parties below the surface. A message was ultimately sent up stating that unless the ground was cleared from the mouth of the pit they could not well proceed with their work below. To the shame of the crowd it must be said that they were by no means ready to yield to this request, and had to be forced back by the police, who erected barricades to keep them back. A considerable area was thus cleared, and a stream of water having been sent down the shaft a report was received about an hour afterwards that the air below was very much improved. Whilst speaking of the crowd on Saturday – and on other days too – we regret that our duty as journalists compels us to state although the vast numbers behaved with becoming decency, yet a very considerable proportion of the young men present conducted themselves disgracefully, and, indeed, shamefully.

They handled their coarse jests and levities with and an utter disregard, and as if in mockery of the wounded feelings of a few who remained waiting for the recovery of their relations. The terrible solemnity of the occasion was unthought of, and they behaved as though they were at a fair or wake. At one time when a group of policemen attempted to turn a loaded tram, and did it awkwardly, there was a loud shout of laughter - and this at the very pit's mouth. A public-house was crowded with as noisy a lot of fellows as ever did homage to Bacchus, and while the coroner and his jury were viewing the bodies of the dead a drunken collier held forth to a crowd in front of a shop. It is scandalous that he had a single listener.

The work of clearing was continued without cessation throughout Saturday night. Shortly before six o'clock the explorers came upon a fall with an opening in it, through which they could see two horses alive inside. In order to preserve these horses water and fodder were passed into them through the hole in the fall, and ultimately one of them was brought up alive. Two horses were found dead in the stable, and another terribly burnt in the drift. Altogether more than 30 horses were in the pit at the time the accident happened, few of them had been recovered alive up to Saturday night, and all of them were powerful animals in first-rate condition. While carrying forward the brattices on Saturday night about 9 o'clock Mr. Curnew's working party became participators in one of the most extraordinary incidents of the many which occur on such momentous occasions as these.

They were erecting brattices in the Dip to carry air to the front, and working in complete darkness, it being too dangerous to burn lights in the presence of so much gas, when one of the men thought he heard a groan, and told his companions so. They had not heard it, but it was agreed to stop working, and the whole party dropped their tools and sat down. They waited several minutes breathless with awe and *"In solemn sorrow mixed with wild amazement, observing dreadful silence."* One can picture this group of men groping their way in passages dark as Erebus and filled with a sulphurous atmosphere powerful enough to kill any but those inured to foulness, in search of a band of their fellow human creatures in which they have reason to believe life was extinct. And we may imagine the cry of joy while sitting in that *"silence deep as death"* they heard it broken by the half-stifled groan of a human being, betokening that after all there was life in that grim lair of destruction.

They waiting with the sense of hearing acuter than it had ever before been perhaps, with hearts beating high with excitement, and in a short time they heard another groan. There could be no mistaking it; it was indeed a voice of one of the hapless for whom they were searching, and one of the workmen cried out "Blo 'rwyf fachen?" Receiving for an answer the joyful "Dyma Fi." Mr. Curnew, who was then sitting close beside the brattice, thought the voice proceeded from behind him, and thrusting his arm through the canvas felt the body of a man lying in the airway outside. That was the first they had reached since 5 o'clock that morning, and he was immediately brought to the shaft and sent up to the bank, where his arrival created the most intense excitement, and gave rise to new hopes for the safety of those below – hopes, we are sorry to say, that were doomed to the bitterest disappointment.

The name of the young man is Thomas Rowlands, 24 years of age, living with his parents at Blaenllechau. He was in a comatose state when found, but soon revived on arriving at the top. He was unable to give any account of the explosion – in fact the shock to his nervous system was so great that his senses were not perfectly restored on Sunday. He remembered sufficient however, to enable him to give this account of himself: He heard the explosion, and at once left his work to make his way to the bottom of the shaft, but encountered falls everywhere in the regular workings. He then rambled through a lot of the old workings and groped through them without knowing where he was all the afternoon and all Friday night. He was continually walking in and out of these passages all the time, and at last got into the drift again. He sat down occasionally to rest, but though strongly inclined to sleep he resisted the inclination, and kept himself awake. At last – but how long before he was found he could not say – he sank exhausted, but battled with all the energy which he could, from a consciousness that it was a matter of life or death, against the drowsiness which came over him, and finally, hearing the voices of men and the sound of tools at work, he spoke as audible as he was able, and happily attracted the attention of one of the workmen.

He states further that from the time of the explosion to about three hours before he fell down exhausted he was followed by another man some distance behind him, but by whom he did not know. He did not hear him afterwards, and it is probable that the poor fellow will be found amongst the dead. Rowlands worked in the “Glo-bach” (Blaenllechau district), where the explosion had terrific force, but he escaped with little injury, having two or three scars on his face. His parents and brother, who was also in the pit at the explosion, but came out unhurt, were fervent in their outbursts of joy and gratitude at his marvellous escape. That was the only person recovered that night, and the falls were found to be far more extensive than had been calculated upon. It was thought that there were not more than twenty yards in the Dip to work through. It would take until Sunday morning to accomplish this; but when Sunday came, apparently they were as far off as ever from the end of it.

Before proceeding further we should state that the injured persons who were brought up on Friday afternoon received every attention from the hands of doctors, of whom, besides Mr. Roberts, the surgeon of the works, there was Mr. Davies, of Cymmer; Mr. Phillips, Cymmer; Mr. Morgan, Pontypridd; Mr. Morgan, Aberdare; and Devonald, Cwmaman, the whole of them being zealous and unremitting in their attendance upon the unfortunate fellows.

The homes of these injured men were destitute of such creature comforts as they required under the circumstances, and orders were given by the proprietors to supply them, to an unlimited extent, with everything required. Indeed the conduct of the owners of the pit in this matter is worthy of the highest praise. Whatever could be done to ameliorate the suffering and assuage the grief of the bereaved families was cheerfully done. The following engineers were down the pit on Saturday, heading working parties besides those already named: Mr. George Adams; Mr. Burns; Mr. Bidder; Mr. Brown, of Cardiff; Mr. Thomas Lewis; Mr. Thomas, Cwmaman; Mr. W. T. Lewis and Mr. L. Lewis.

There was no difficulty in finding volunteers to go down into the workings, but it was impossible to obtain hitchers, and at last a couple of young men who were unacquainted with the work volunteered to go down to the assistance of the men at the bottom of the shaft, who were exhausted with long work. On Sunday the engineers finding no bodies amongst the rubbish, and the labour of clearing the falls materially retarded by the impurity of the air, which, in most places, would not admit lights with the most imminent risk of explosion, held a consultation as to what should be done, and Mr. George Brown, of the Navigation Colliery, and one or two of the others, advocated the re-lighting of the furnace, which had gone out after the explosion, as the most effectual means of drawing off the foul air from the workings.

Mr. Curnew and others objected on the ground that it was too soon to attempt so hazardous a proceeding, which might produce another explosion, and involve the ruin of everything. The controversy was maintained for some time, and ultimately work was resumed in the old way. Its progress was so incredibly slow that the proposition to re-light the furnace was renewed on Monday and Mr. Wales, the inspector, who was then down the pit, gave the weight of his long experience to the suggestion, and it was determined to attempt its execution at once.

Accordingly the pit was cleared of all except those who volunteered to perform the important task, and Mr. Curnew with those who had opposed the thing on the ground that there was too much explosive gas about to render it safe, stood by the office, and anxiously awaited the appearance of the first smoke at the mouth of the upcast shaft. Mr. Morgan Joseph and Mr. Henry Jones, undertook the duty, and it is impossible to speak too highly of the spirit of heroism which prompted and supported these brave gentlemen in the performance of this terrific task, for terrible indeed it was - and the instant the match was struck to ignite the materials in the flue might have been their last. Men on the surface

stood with throbbing hearts and eyes fixed intently on the upcast, every minute seemed an age. At 12.30 the furnace was lighted, and in a few minutes smoke appeared at the top, to the great joy and relief of the men who were awaiting the result of the experiment with minds prepared for the most disastrous news.

From that moment the ventilation improved immensely – the furnace soon roared away absorbing and passing over its huge surface of fire 80,000 cubic feet of air per minute, and changing the condition of the “current” in the workings from little better than stagnation to a hurricane, as some of the Merthyr Colliers called it, for they found it impossible to keep their lamps lighted except by sheltering them with their jackets.

The measure of the air that passed into the workings on Monday was supplied to us by Mr. B. P. Beddoe. Before the lighting of the furnace the quantity of air passing into the downcast was 39,600 cubic feet per minute; at 1.40 p.m. this quantity had increased to 65,700; at 2 p.m. 74,700; at 3.15 p.m. 85,500; and since then the quantity has averaged 130,000 cubic feet per minute. To provide against disaster and the rushing of too much gas to the furnace, two trusty men were stationed at the double doors of the in-take to watch the return and see that the gas did not flow to the flue in dangerous quantities. Several times the subtle compound floated down the return course in large quantities, and at one time got within seventy yards of the flue, but the men at the doors opened them and let in a rush of atmospheric air, which diluted the gas to a point at which it lost its explosive property, and the stream passed over the fire without danger.

Another effect of opening the doors was that by withdrawing a great portion of the in-take current, and directing it into the return at that point the pressure upon the gas coming down the latter course was greatly reduced, and the diluted gas reached the furnace slowly, and assisted instead of destroying the efficacy, as a withdrawer of the impurities in the workings. The work of clearing the falls then proceeded rapidly, there being by this time something like an organisation of relief parties to conduct and carry on the operations.

Mr. Curnew; Mr. Truran, of Dowlias; Mr. T. Lewis; Mr. L. Lewis; Mr. G. Brown; Mr. Kirkhouse, Cwmdare; Mr. Walker, Tondu; Mr. Beggs, Llwynypia; Mr. Morgan Joseph; Mr. Williams, the T.V.R. companies engineer; and others were down nearly the whole of the day; but when they came up at night they stated that it was not likely any more bodies would be got out that night – certainly not before 12 o’clock. They thought, however, from the fact that they were approaching a quarter from whence a strong and offensive smell came that they

were not far off from some bodies. They were then working in the dip, nothing having been done up to that time to recover those who were entombed in the West or Rhondda workings, where it was thought the fire raged more fiercely than in any other part of the pit – to judge from the condition in which the workings had been knocked about.

In the Duffryn district the ventilation was maintained with tolerable regularity and freedom, but it would appear that this in great measure was owing to the presence of mind of the fireman, Thomas James, who, when he heard the explosion, instead of running directly to the shaft, hurried through all the workings accompanied by two men – whose names, we believe are John Davies and John Morris – to see that everything was right. It was well they did so, for in several places they found doors blown down, and the main bridge, which carried the chief current over the road-way, was blown up. In those and other such places they replaced the wooden doors with canvas, and restored the ventilation. They were engaged in the examination of the workings, we are informed, from the time the explosion took place until 11 o'clock at night, when they got to the bottom of the shaft and ascended.

On Sunday the place was visited by thousands of people, the mountain from Cwmaman was black with a broad stream of passengers all day long. The valley from the Rhondda at Porth, was alive with people, and the T.V.R. Company, having put on free passenger trains for the emergency between Porth and Ferndale, poured scores of strangers into the desolate little village all the day long. Many a sorrow-stricken one came from long distances - from Merthyr, Aberdare, Hirwaun, Cardiff, Pontypridd, Rhymney, Tredegar, and, in fact from the whole mining district in quest of relations whom they knew to be working in the pit, but of whose safety or death they were ignorant. Some of them arrived in time to know that letters had been sent announcing the safety of those dear ones, but others had heard the mournful intelligence that there was such a person as they asked for in the pit, but he had not yet been brought up.

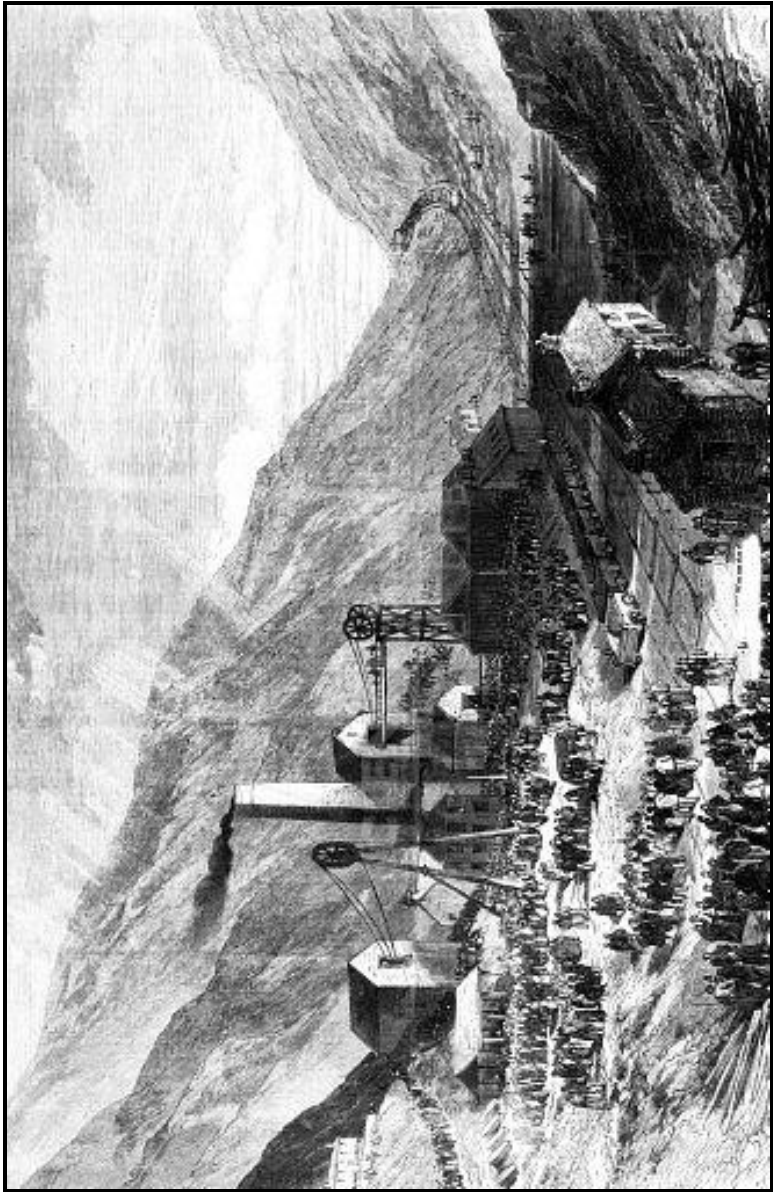
Then they collected around the pit's mouth, or sat on the hillside and told to each other the story of the lives of their lost friends, from their infancy and boyhood up to the hour when they left their home to earn good wages and save money at Ferndale. Pitiful, indeed, was it to hear those poor creatures – fathers, mothers, brothers, sisters, and worst of all, wives, who would not be comforted. Even old men tottering to the grave were there looking out for the grandsons. One said, "He was a weakly child, and never ought to have gone down a pit," as if health and strength would have saved him. Another said, "He was a hearty

boy, and very good to his mother." Who could hear these and recollections of the hapless boys and not feel moved to tears at their frightful fate?

But again we state, to the shame of thousands, that with a heartlessness that borders on the worst ruffianism the calamity was treated in a spirit of levity that mocked the despair and woe of the afflicted friends. The public-house was the scene of as much uproar as possibly could be. No doubt the landlord is not to blame for this, for it was his business to supply his customers, but his customers instead of going for refreshments and moving off, took their seats, or stood about outside and joined a babble of discordant sounds. We have heard, though we cannot vouch for it as fact, that a brewer sent a load of beer up to the place on speculation. If this be true he did infamously worse than all the rest by directly converting the occasion to a common fair. But we have our doubts about the genuineness of this statement, for the reason that a publican must have a special licence to sell off his duly licensed premises, and what magistrate would grant a license to sell beer on the scene of the most frightful disaster that can be imagined. In summary, we don't not feel disposed to believe it, but there was sufficient to condemn the crowd without this, and we record with sincere regret that away from the mournful habitations of the bereaved and with the exception of those who waited patiently for their friends, a stranger utterly ignorant of what had happened, would have asked what fair it was.

On Saturday Mr. George Overton Esq., coroner, proceeded to Pontypridd, where he empanelled a jury and formerly opened the inquest. They then visited the pit and afterwards inspected the bodies of as many as were then brought up. We accompanied them on their melancholy journey, and more harrowing scenes than those witnessed in the homes of these people were never witnessed. Gethin is not to be compared with it, for although we have this fact that the men at Blaenllechau earned more money than the men of Merthyr and Aberdare collieries by 60 or 70 per cent; yet, their homes are, in the majority of instances, the abodes of the most deplorable misery and destitution.

Instead of finding the well-furnished comfortable cottages, with its shining mahogany chest draws, and polished chairs and tables, and frequently book-cases filled with select books, it was next to nakedness itself that stared us in the face. Homes were visited which are unworthy of a name honoured with such pleasurable associations as that of "home;" nothing but the bare wall, with a broken stool, a cobbler's bench, and a rickety table. In many it was a relief finding the bodies decently washed and laid out in neat and clean beds; in the others there was such a dearth of means that the corpses lay in all their burnt



**Contemporary drawing of the Ferndale Colliery explosion 1867
(London Illustrated News November 23rd 1867)**

and ghastly disfigurement on the floor of the house, covered with sacks and canvas.

No attempt had been made to wash them, or to perform the solemn and mournful rights which our affections prompt us to observe towards those that were dear to us in life; and none but those who have the painful duty of personally inspecting the houses of the victims of such catastrophes can adequately comprehend the horrible spectacle of a human being burnt to a cinder, or roasted to death till their bodies become redder than fire; the skin peels from the flesh, and the flesh drops from the bones at the slightest touch.

It is sad to look upon the features of those that have died of the after-damp, though they do wear an expression of beatitude, but to look upon a mass of flesh and blood and bone half hidden from sight by coal dust and burnt clothes, with a woman a few yards off weeping in frantic agony, and little children alternately crying with their mother and playing with their companions, and to be told that this is all that is left of a strong man of thirty years – in the hey-day of life yesterday – is a sight to move the heart of a stoic.

But still, if one of these un-shapen masses of humanity be not enough to moisten the eye, come with us again to another house, and see a father and three brave sons of 20, 19 and 15 lying all in a row, just as they were brought from their Golgotha, with just enough of their faces to show that they were once members of the great human family, and that they had natural faculties which entered into the enjoyments of this life with the heartiness of the best amongst us.

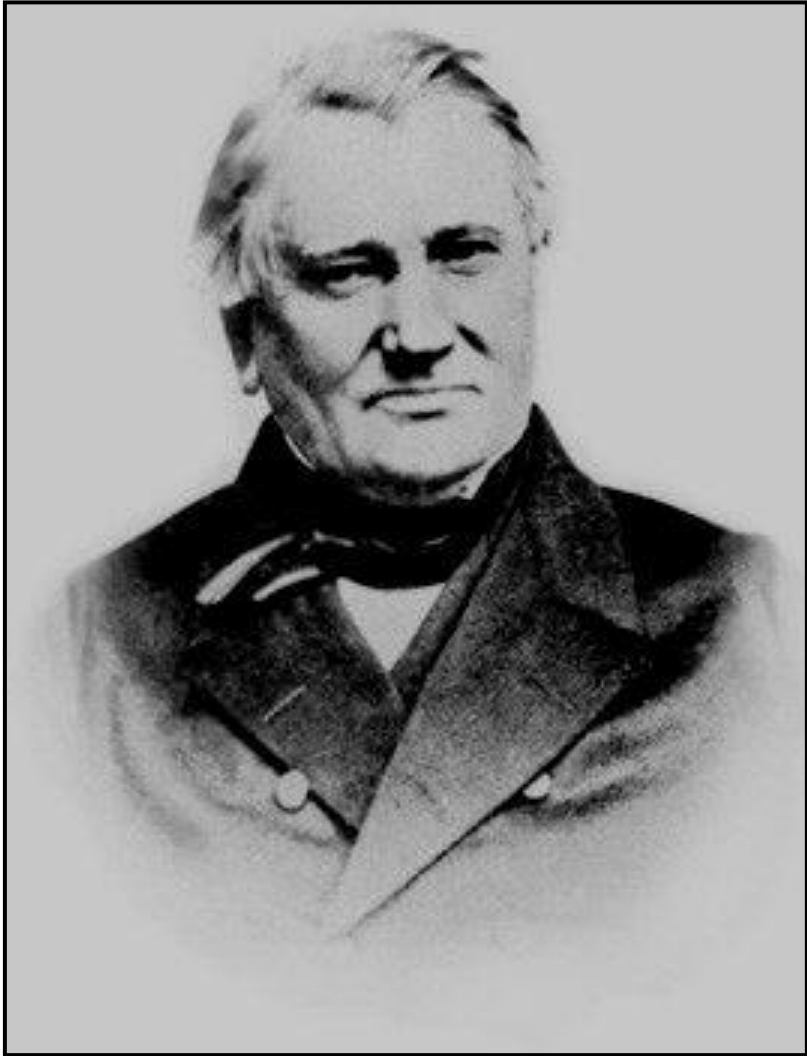
Terrible beyond description was this frightful scene – a glance at it was enough - and the eye involuntarily closed, while a shudder crept over one. In one house we were met by a woman with an infant in her arms crying bitterly. There was one lying dead and another injured in that house, but the woman told us that that was not half of the extent of her lot. Of six that went out strong and well on Friday one only had returned alive, and the rest, including the husband, remained down the pit. In another house the corpse of a man who had been suffocated and bruised lay on a plank opposite the door, while the poor wife, held by two women, was venting her grief in the most impassioned manner. We could not help noticing how strong was the hope of this afflicted woman. At the sight of the doctor she began to explain: “Mr. Roberts, Mr. Roberts!” and point with beseeching agony to the body of her husband, as if to say, “Make another try before you give him up.” Poor creature!

God help them in their awful distress, for no human heart can fathom the depth of their desolation. In another house lay a father and three sons, who had been killed by the after-damp; and a few doors off lay the fourth son of this decimated family, who had left, in addition to his mother, a young wife and child to lament his untimely fate. But even these heaps of death have been surpassed since Saturday, and when the bodies subsequently recovered were taken to their homes the appalling site was presented of seven being taken to one house and eight to another. Fifteen lives in two houses. Why, there was a small colony in itself. To exaggerate the calamities seems almost impossible, for every day and every hour brings forth something more startling and astounding than anything known before.

In all cases the coroner gave certificates of burial, as the bodies that were burnt already began to smell, and speedy internment was necessary. The coffins were supplied by the proprietors of the colliery, and, indeed, every expense connected with the funerals.

It was also announced by them that in as much as many of them had friends in Merthyr, Aberdare, and surrounding places, such relatives as desired to remove the bodies to those places for burial could do so, and the cost of conveyance by rail would be defrayed by them. In consequence of this kind and considerate offer, a considerable number availed themselves of it and many bodies were taken to Aberdare and Merthyr. On Monday some of them were buried at the cemetery, Aberdare, and attended by a large concourse of people. The manager, Mr. Williams, was taken to Aberdare, and interred on Monday morning.

On the same day eleven were buried in Llanwonno churchyard, about two miles from the village on the plateau of the mountain, the path to which is one of those zigzags by which the mountains are usually ascended. Up this path the long and sombre procession wound their laborious way on Monday afternoon, and to a spectator on the other side of the valley the sight was intensely solemn and awe-inspiring. Many navies were employed to dig more graves, and on Tuesday sixty graves were yawning to receive the precious morsels which had been consigned to them in such a batch by a cruel disaster.



David Davis senior, founder of the Ferndale collieries

On Tuesday seven were taken to Merthyr, where they arrived about 1 o'clock, and an immense procession of respectively-attired workmen preceded the biers in the procession to Cefn Cemetery.

We noticed in this melancholy train amongst the mourners a poor little woman who was following a husband and two sons to their last earthly abode. We fell in with her on the previous day going to Blaenllechau to prepare for the funerals, and she related the following remarkable story – a story which we record on account of its showing that amongst the colliers of this district as well as those of Derbyshire and the North of England, there are some superstitions to which they cling with great tenacity of belief. One of them is the “warning” – the belief in supernatural premonitions of events to come. This poor woman said she knew the explosion would occur. She knew it months ago, for one morning a lodger, amongst the killed, poor fellow, told her that when he came down from bed that he was sure there was something going to happen in the pit.

“Don’t talk of such a thing,” said the woman. “Blaenllechau is the finest ventilated pit in the Rhondda.” “I don’t care,” he replied, “for that, but I know something is going to happen. Last night I lay in bed with my eyes wide open and in full possession of my senses, and I heard the ‘warning.’ I heard a heavy report, and then the home shook, and then I heard the screams of women, and after the tramp of a lot of people at the door outside. I know that it is an explosion, and something will happen in the pit.” The people tried to talk him out of his belief, but it was impossible; he adhered to it, though he would not communicate his ‘vision’ to the workmen, because they should laugh at him. Strange to say, he continued to work in the pit in spite of his forgone conclusion that there would be a terrible explosion; he was in at the time it happened, and amongst the killed. The woman said it was a true prophecy, for her house shook to its foundations with the concussion.

She screamed and rushed wildly she knew not whither when she knew that her husband and sons were dead, and a multitude of people had been to look at the bodies. It was fulfilled to the letter. Another incident was communicated to us by an old man whilst standing at the pit’s mouth. He had had his grandson, Daniel Rowe, killed in the pit; poor little fellow, he was not recognised by his features, and came home minus an arm. After he had been placed in the coffin somebody came to the door with a parcel wrapped up in canvas. It was received unopened, and there was the poor little arm, all begrimed with blood and dirt! This old man, who had an intelligent manner about him, supplied another incident still more painful to our minds than the last. On Friday last two hearty

looking young men – strangers – came to the place, and, meeting him at the door of his house, they entered into conversation with him about the place, asking whether there were any prospects of good work there.

The old man told them what he knew, and advised them to apply to the manager. They went to the manager and were offered work in the pit. It was also arranged that they should go down with the fireman to see the workings that they might know what sort of place they were going to work in. They went down some time before dinner hour, and nothing has been heard of them since. It is certain however, that they are not amongst the living that escaped from the pit. Incidents such as these abound and serve to show beyond all the eloquence of words, how widespread is the desolation of such tragedies as this at Ferndale. To return to the colliery itself, on Monday evening after the workings had been to some extent cleared by the absorption of the foul air through the flue, the work of clearing the falls in the dip heading was pushed forward with great vigour, and at 12 o'clock or about that hour a batch of bodies was seen through the interstices of the fall, huddled together almost in a heap.

But they were beyond reach, and it not until some two hours later that a passage was made to them. They were all frightfully burnt, and the odour of the decomposition was almost unbearable, but it was rendered worse by the shaking of the bodies in bringing them over the falls – the skin actually peeling off the flesh in the hands of the men who handled them, and the flesh dropping from the bones. In this dreadful pass it was resolved that instead of sending up the corpses singularly they should all be conveyed to the bottom of the shaft and sent up in tram loads.

This was done, and at 5 o'clock the whole of the thirteen bodies were sent up at two or three at a time. In consequence of their bad condition it was impracticable to carry them to their houses in the usual way on stretchers, and the coffins were therefore brought to the pit's mouth and as the bodies were identified they were placed in the coffins intended for them. After the recovery of these thirteen, there were falls in the way, and the clearance of these took two hours more; at 11 o'clock in the morning only five and twenty had been got up, and amongst them were two men who could not be identified by their clothes for other means of identification were gone.

One poor woman several times gave instructions to a man looking out for her boy in these words: "My boy has a patch on the knee of his trousers." By no other means was it possible to establish identity. The unknown were therefore

placed in coffins, and taken to the mountain side, where they were deposited with lids unfastened, so that persons in search of relations, might inspect them. It seemed shocking, awful indeed to think of these two bodies, exposed, to the gaze of a vulgar crowd all day long, who by far the greater number who peeped into these coffins did so for their gratification of a morbid curiosity and nothing more. May it not be that they were the bodies of the two young men whom the old grandsire spoke, who guided by an evil destiny, had come down to the place in search of the means of living and gone down the pit to meet the most horrible of deaths? Who shall communicate the tidings to their relations. *Had they a father? Had they a mother? Or had they a near one, still and dear one, yet than all other?*

None of us can tell – none of us can recognise them – none of us knew who they were or where they come from, and we must accept that the dictum of the cold officials who say they are ‘unknown.’ It was a ghastly spectacle too, suggestive of the most gloomy and forbidding reflections, to see coffins, in scores, some rude and rough – others polished and decorated with gaudy emblems of the immortality which we believe is beyond this chequered life – and all of them with breast plates bearing the names and ages of the persons for whom they were intended.

Here was one for a powerful man six feet high when alive – and close behind a little box with the name of a lad scarcely in his teens. One by one, as space was cleared, they were taken to the shed at the pit’s mouth to receive the remains of the loved ones to be brought from below. On Sunday there was a loud outcry against the coffins. It was complained by the poor folk that the coffin makers had sent them mere shells of the frailest construction, as though they were for dogs and not for men. Many of them were rejected, and the carpenters had to almost re-make them before the relations would accept them.

Mr. Lionel Brough, the Government inspector of the South-Western district arrived at the colliery, and descended. He had not been down long before he had a remarkable escape from destruction, and we are sure that when it is read by the mining engineers of Britain, and especially of that of South Wales, they will rejoice with us at his escape.

He was at the bottom of the shaft waiting to come up to see a plan of the colliery, we believe. The signals had got into confusion, and two or three times when the cage was started there was a signal of an opposite character. It appears then that the man below had signalled for the cage to ascend and the

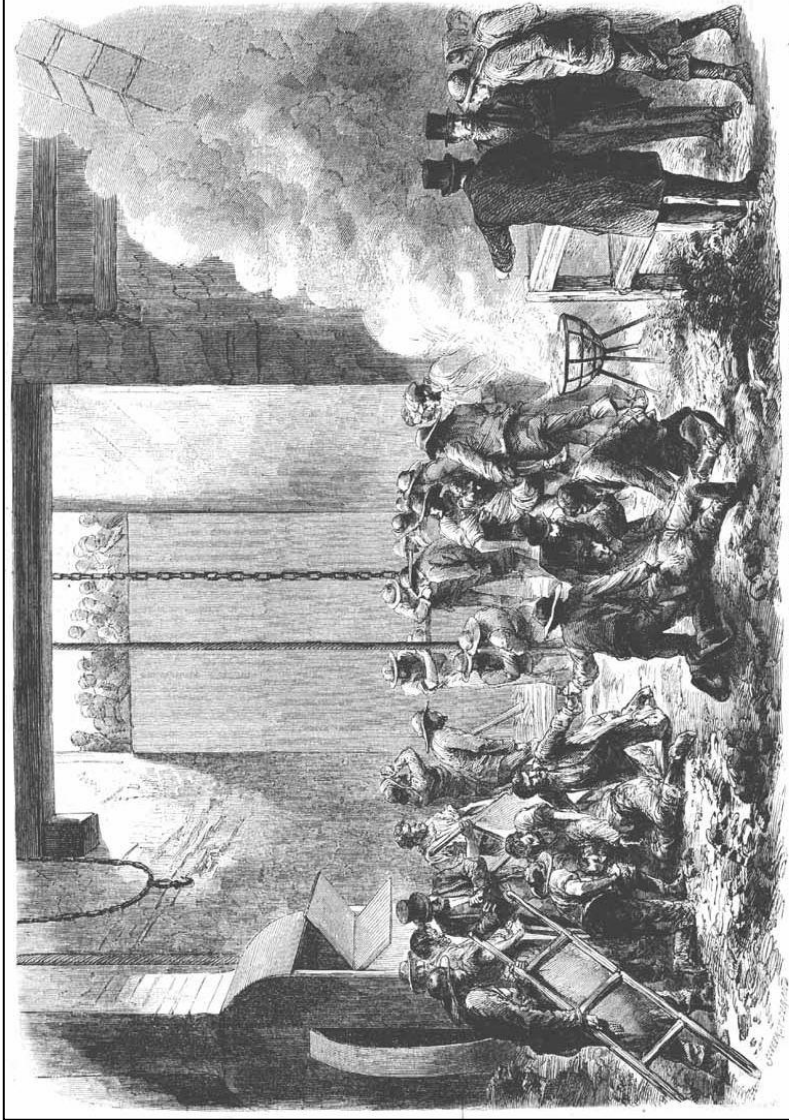
banksman signalled too quickly to the engineer. Mr. Brough, unaware of this, was taking a leisurely step to enter the cage, and had one foot on the cage when the engine started, and threw him with considerable violence back into the level at his whole length on his back.

It was feared that he had sustained a serious injury, but luckily he was not hurt at all beyond being somewhat shocked by an event so sudden and unexpected. Had he taken a firm step upon the cage he would have been thrown head foremost against the crown of the arch, or got crushed between the cage and the arch. The engine was signalled to stop, and the cage re-lowered. Mr. Brough then got in and came up. He censured the banksman for his inattention to the signals.

About two o'clock four other bodies were brought to the bottom of the shaft from the dip, but they were in such a frightful state that they had to be wrapped up in canvas before they could be taken up. They were then sent up in one lot in a tram, and the appearance of such a cargo of human beings at the top produced a painful impression upon the spectators. They were not a wit better than the mutilated carcasses of a knacker's yard, and the stench thrown off was fearful – the whole surrounding atmosphere being impregnated there with.

In the workings we are told that it is worse than ever had been experienced in any pit in South Wales before. After these, three others were brought to bank, and a young woman, about 25, pushed through the crowd to get a sight of them. No sooner did she get to the front, than she saw her husband amongst them, with his head almost blown off. She raised a piercing shriek of "Murder," and fell back into the arms of two men, who conducted her away. But her grief was of the most violent description, and she cried, till her voice could be heard quarter of a mile off, "What shall I do without him? My dear, my dear! What business have I to go home without my dear! How shall I hope to be forgiven for sending him down there?"

In barbarous contrast with this affecting scene we record another incident, the only one of its class that has been reported to us. One of the bodies came up with a valuable silver watch, and the guard around its neck. The corpse was sent away in the same condition exactly as it was brought up out of the pit; but on the route to the victim's house, some sacrilegious villain had the daring infamy to rob the dead of the little property which honesty had still left upon its person. Most heartily do we hope that the rascal will be discovered, and no corporal



ANGLAIRE. — Explosion de feu grisou dans la mine de Ferrière. — L'a misère amène à l'effort. (Après le croquis de M. H. Brette.)

punishment short of actual bodily injury will be too severe for so heinous a crime. Two bodies were got out subsequently, but after that we believe the air in the workings became so foul that the work was almost totally interrupted, and no more bodies got out that day. Up to six o'clock on that day the number of persons got out dead, including the unknown, was 91. The viewers and engineers who were in the pit at work on Monday were Messrs Curnew, H. Lewis, Matthew Bates (Cyfartha), and Herbert Kirkhouse, in the Rhondda district, from which they recovered 10 bodies. In the dip the explorers were headed by Messrs Batson, Bidder, Buxton, and H. Jones. They were all relieved by fresh men at night.

On Tuesday night, shortly after the day shifts had been relieved, the recovery of the bodies was interrupted by a sudden and unexpected change in the air in the pit. Immense quantities of gas escaped from the roof, so that within a few hours it was impossible to take a light to the face, and this condition of things getting worse instead of improving, the engineers in the pit consulted, and determined to alter the whole course of the ventilation as the most efficient means of clearing the pit of the gas in the face. This was an operation, which could not be accomplished for many hours at least. During the night two bodies were brought up, but no more. In the morning the inspectors, having ascertained the state of things on the previous night, concurred in the wisdom of this step that the engineers had taken and it was pushed forward as rapidly as possible. During the morning of Wednesday a body was recovered by Mr. Harrison, of the Dinas Colliery, and brought to bank.

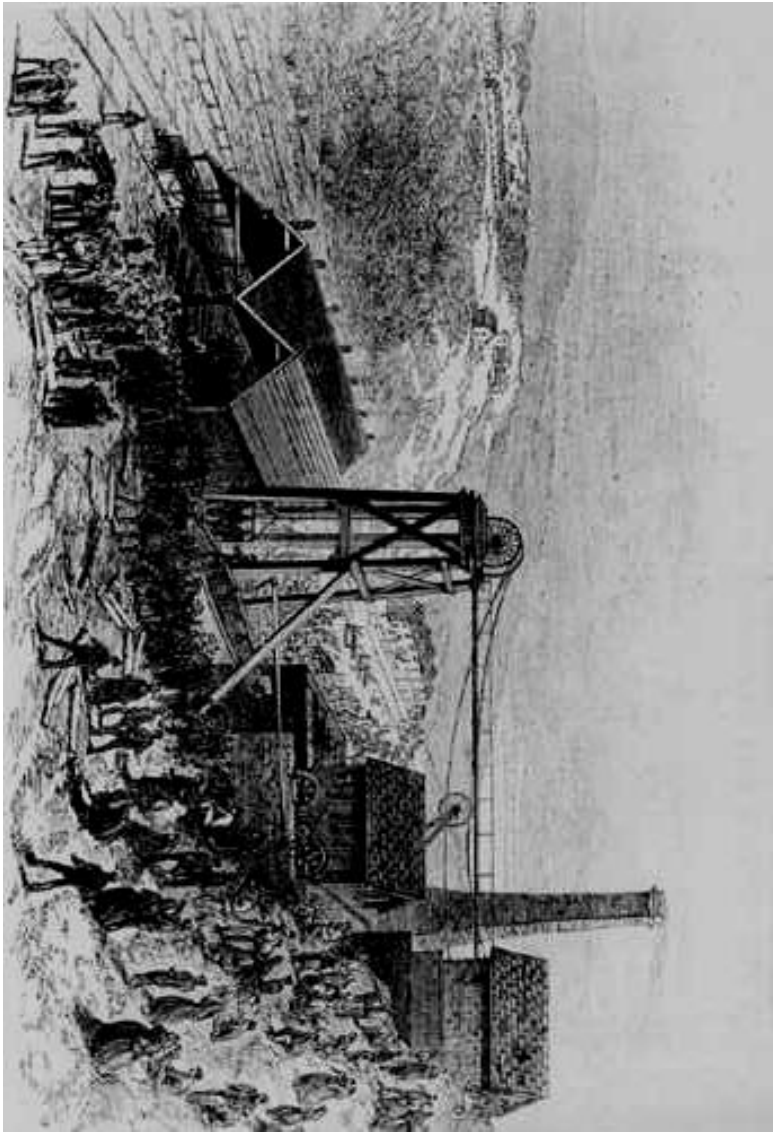
It was in a shocking state, and nobody could indentify it, but it was as that time generally believed to be David Jones alias "Da'r Capten," of Dowlais. Subsequently it was identified as David Williams, 19 years of age, of Pentyrch. Another body which had been in the Lime House since Tuesday, was becoming too offensive and dangerous to keep, and nobody appearing to claim it, it was about being screwed down when a poor woman came and recognised the body as that of her son, Edward Williams, 19, of Merthyr. It was then taken on one of the primitive Welsh carts without wheels to its final resting place – Llanwonno churchyard, and buried along with 22 others.

The sight of these mournful processions was extremely solemn, and the little valley re-echoed with the sound of weeping which came from the mourners. No bodies were recovered after that found by Mr. Harrison. The report of the stolen watch, we rejoice to say, has been explained, and the explanation is painfully interesting. A body, which had been identified from the face, was taken

to the house of his friends, but while being undressed a watch was discovered upon it. The people of the house knew that their relative had no watch, and on examining the clothes a piece was found on the knee of the trousers, which was not on the trousers of the young man belonging to that house. It was therefore concluded that they had brought home the wrong body, and this turned out to be the case. There has been no watch stolen from anybody. On Wednesday night it was expected that some 60 or 70 bodies would be got at during the night, but before morning further falls had taken place to upset this calculation. Some time before midnight as the men were working in the contractor's heading on the Rhondda side two heavy falls came down, which would throw the work back a day or two at least. It was all the more unfortunate that they occurred just then from the fact that a large number of bodies had been reached, and were on the point of being brought out – having already been put ready for removal to the bottom of the shaft. In view of the many falls which take place the engineers have determined to take away all the falls henceforth instead of merely making passages through them and bringing the bodies over.

There were not many people at the place on Thursday. About mid-day it began to rain, and the roads to the pit were in a dreadful plight. In the afternoon two bodies had been found, but were not brought up when we left. Several horses were exhumed from the falls, and brought up during the day, but though badly burned and knocked about they were not half the hideous spectacle that the bodies of the poor men presented. Another of the 21 who were brought up injured died on Wednesday night – reducing the number of injured survivors to eighteen. The name of the man who died on Wednesday was Thomas Davies, carpenter. He was in the stable, where it is alleged by some that the gas fired; but evidence appears to be forthcoming, which will satisfactorily dispose of this theory. The gas gauges were found blown away from the stable instead of towards it. Three or four of the injured are still so bad as to be not considered out of danger, but they are attended to without remission by the doctors. Nine of them were brought out in a state of insensibility, but respiration was soon restored by Dr. Sylvester's system of artificial respiration, which was adopted in preference to Dr. Marshall Hall's, and the men are now doing well.

It is satisfactory to find from all accounts that there will be fewer widows and orphans caused by this catastrophe than the number of killed would have led us at first to expect for the majority of the dead were single young men and boys. About seventy leave widows, and the average number of children is three, so that the number of widows and orphans falls little short of 300. This is an awful memorial of the disaster.



Another print of the 1867 disaster

Chapter Two

Frightful colliery Explosion at Blaenllechau - Additional particulars

Our report last week (wrote the 'Merthyr Express,' of Saturday, November 23rd 1876) placed the reader in possession of the most ample details of this sad affair down to Thursday evening, and, as at that time no more than half the bodies had been got up, we propose continuing our report of the progress of the matters daily, from that date, up to the hour of going to press, together with such incidents as have come to our knowledge since. On Wednesday night, or early on Thursday morning, last week, it will be remembered that the working parties in the Contractors heading, Rhondda district, had come upon a number of bodies which they were preparing to bring to the bottom of the shaft, when two heavy falls took place, which absolutely cut off the dead from them. The work of clearance had then to be done over again, but it proceeded very slowly, and none of the bodies were got out during the whole of Thursday. On Friday, however, the falls had been so far cleared, that three were recovered, their names being David Jones, 30; Williams Rees, 42; and John Edwards, 32. They were all frightfully burnt and mutilated – and besides, were so far decomposed that identification was impossible, except by the few rags of clothes that the terrible fire had still left about their charred remains.

On Saturday three others were got up, David Jones, 36; David Stevens, 36; and Robert Lamphorne, 32; all of whom had been burnt, but death was said to have been caused by the after-damp. These poor fellows were found in a group, and beside them some food, for it was conjectured that the hapless fellows were at dinner when the thunderclap of the explosion came with its dreadful consequences.

That evening a body was brought up but no-one could identify it, and it was placed in the lime house, where it remained all day Sunday, and on Monday till about mid-day, when some poor woman recognised a part of the clothing and boots, and the body was taken away as that of Howell Williams, 17 years of age. On Sunday afternoon another body was found and sent up, but that also could not be identified then and it was removed to the lime house. This was a little boy. He would seem to be in the focus of the explosion, for his face was altogether blown away, and a frightful wound was inflicted in the side from which the viscera of the abdomen protruded.

The poor little fellow, quite a child in size, was placed in the coffin facing downwards and nothing but a few patches of clothing left for identification. On

Monday he had not been recognised. As the bodies were in a such deplorable condition that they were handled with the utmost difficulty and danger of falling to pieces it was determined on Friday not to send any more to the bank wrapped in canvas, and the coffins were there ready to receive them and be screwed down immediately after identification had been established. This course, though having an appearance of harshness towards the sorrowing relatives of the deceased, was undoubtedly the wisest and most humane, as on grounds of public health, it was desirous not to expose the bodies to the atmosphere more than was necessary, decomposition being in rapid progress, and the effluvium thrown off being extremely offensive and all pervading.

Not only was the atmosphere of the valley around the pit strongly impregnated with the odour of the burnt bodies, but it was wafted in every puff of wind from the rubbish tipped from the pit, and every man who came up from the workings was a centre from which it radiated for hours afterwards. The very railway carriages that came between Porth and Ferndale seemed to have retained a portion of the disagreeable smell. A highly commendable precaution was taken by the proprietors at the top of the pit; after the experience of Thursday last, when about forty bodies had been brought up in a very bad state, the whole of the huts, smiths', and carpenters' shops, and &co. receiving a thick coating of gas tar, which from the fact of its containing great quantities of carbonic acid, acted as a powerful disinfectant, and no doubt contributed to the purifications of the atmosphere. In most of the cottages, too, where the bodies lay, disinfectants were used – and not too soon.

Since Wednesday last week, very few have visited the place except those who have gone on the melancholy errand of gleaning tidings of friends long unheard of, but supposed to be somewhere in the locality. The scene at the pit's mouth has therefore changed from that of a multitude of people from whom a continual murmur and buzz of conversation arose, to a few – not more than a hundred at most, in the majority of whose faces one read a tale of misery that required no more eloquent expositor. The scene changed as far more of the dismal and woe-begone about it than that which proceeded it, for now the idle, and curious, the sightseers, the morbid forever craving after scenes of thrilling excitement, have been satiated, and those who are left are the poor widows and mothers who have been at their post, day after day, with eyes red with weeping, and hearts broken with hopes too long deferred, or rather, may it be said with the anguish of despair – for to them – *“Hope never comes - That comes to all.”* Theirs are: -

“The fear and the sorrow. All the aching of heart, the restless, unsatisfied longing. All the deep pain and constant anguish of patience.

Which none know but those who are placed in similar heart-rending circumstances. One can form a notion of the feelings that move these poor creatures when we state that a considerable percentage of the mournful groups standing about the pit, shivering with the cold, or huddling for warmth under the boiler fires, came from long distances. The men at Ferndale came from all points of the compass, and their friends were scattered all over the country. Last week we fell in with an elderly man and woman from Kington, in Herefordshire. They had a son in the pit, and were waiting for his recovery, but they seemed calmly resigned to the fate that had over taken him, and their greatest anxiety was that his clothes would retain enough of their old features to enable them to identify him. They would have taken their boy to be buried in the parish churchyard where his grandparents peacefully slept, and from which could be seen the blue Welsh mountains which he had crossed not long before; but the body was too far gone then, and they must bury him with a crowd of others in the mountain churchyard, over which the storm cloud breaks on its rude descent to the valleys beneath.

On Sunday another poor woman, footsore and weary, a picture of the most abject misery, flitted about the sheds around the pit, shrunk within herself from pitiless blast that howled through the dingle. She was alone and friendless, knowing not a soul of the scores who passed and re-passed her, and speaking in a strange language; but it was too evident that she had come in search of somebody dear to her for about her was that wild, haggard, imploring look of inquiry which could not be found in the face of the ordinary visitor.

From inquiries we learnt she came all the way from Worcestershire, and being too poor to pay the railway fare she had trudged the whole distance! She had a son working in the pit, and for all that was known he was down amongst the dead, for nobody of his name had been brought up. The sorrowful story of the poor woman moved the hearts of those who heard her, and a collection was made for her on the spot, and if ever a gift was heavily freighted with good wishes and God’s blessing, surely that was.

On Monday several persons arrived from distant places – Blaina, Blaenavon, &c; to inquire after their relatives, but no intelligence could be given – the people on the spot knew as little as themselves beyond the facts that those who had been brought up, with one or two exceptions, had been claimed and buried, and that was a large number, but they did not know how many were yet down the pit.

Incidents are innumerable – as indeed in a catastrophe of this magnitude and nature always will be, and every day brings forth something new. One of the most remarkable and stirring of the whole that have come under our notice has been related to us by a gentleman of integrity who is engaged in clearing the workings.

In one part of the workings they found two bodies clasped in each other's arms. Efforts were made to separate them, but so rigid and firm was their embrace that it was impossible to sever them by ordinary methods, and it became necessary to break the arms of one them before the other could be released from the death lock. The bodies were those of a father and son, and they died in the act of kissing, their lips being, as it were, glued to each other.

Amongst the disagreeables that we have had to record is a circumstance that reflects upon the character of some of the workmen at Ferndale in anything but a creditable manner. As is always the case on such occasions colliers from the neighbouring districts have gone over to assist in the exhaustive work of clearing the pit and bringing out the bodies; but an unmanly jealousy of the intrusion of these men has been manifested by the colliers at Ferndale.

On Sunday night a number of colliers from the Aberdare valley went over with a view of working a turn at night and relieve the men there, who, being limited in number, it was thought would be glad with some assistance. Preparatory to descending the pit they went into the only public house, the Glynrhedynog Inn (Vale of ferns), in search of some refreshment. There they fell in with a lot of the men of Ferndale, who immediately accused them of desiring to supplant them, and take the bread out of their mouths.

The strangers denied that they had any such motives, but the resident colliers refused to believe their good intentions, and fell foul of them. The strangers defended themselves, and a regular row took place, and was carried on so furiously that the landlord had to send for the police. The constables stationed on the ground went to the inn, and found the two parties engaged in a savage fight, which required all their energy to put down. This episode cannot be mentioned except to the disgrace of the men of Ferndale. The only reason which we can think of that would prompt them to such an outrageous act was a desire to protract the painful operations now going on in the pit for the purpose of receiving the bonus of food and drink (in addition to high wages) which the owners of the pit find for the men engaged in the search for the bodies.

And that was the moving cause of their assault on the newcomers is evident from the fact that they told them that they were not wanted there – there were men

enough in Ferndale to do the work. Nevertheless the engineers of collieries in the adjoining valley did not entertain the same opinion – or if they did they did not think as much work could be got out of them as out of their own men, and so they brought companies of their own colliers who, from all we can hear, behaved admirably, and worked with a will while they were in the pit, being anxious to restore the dead to their friends with all possible expedition.

Towards the end of last week a disagreement arose between the engineers as to the best mode of proceeding in the pit. Some who had the reputation of being amongst the cleverest engineers in South Wales proposed that the workings should be cleared and put into something like order as they went, since it was impossible that any of the men could be recovered alive, and falls were continually happening to interfere with the getting at the bodies.

Others again, of equal ability in the management of mines, thought that the best course would be to get out the bodies – to bore through the falls, and establish a communication with them with the least possible delay. This diversity of opinion led to an attempt at proceeding by some systematic course, and it was therefore determined to vest authority in a few gentlemen whose experience qualified them for the trust.

The engineers selected were Mr. Morgan Joseph, Rhondda; Mr. R. Bedlington, Rhymney; Mr. H. Kirkhouse, Cwmdare; and Mr. Harrison, of Dinas. These gentlemen were entrusted with the conduct of operations in the pit in turns of 12 hours each, thus affording thirty-six hours' relief between each shift. Mr. Harrison went down first on Sunday; on Sunday night Mr. Bedlington took his place; on Monday Mr. Joseph; and on Monday night Mr. Kirkhouse; and so on subsequently. They have been assisted, however, by the managers of other collieries. On Wednesday, Mr. Wilkinson, of Cwmpennar, went over with about a score of his men, and other managers have done the same.

The course adopted was to bore through the falls in headings where batches of men were expected but otherwise to clear the falls as they went. This process, though retarding the immediate recovery of all the bodies was on the whole the best of all that were suggested, as results proved, for by proceeding thus better ventilation was maintained in the face and more work done.

On Tuesday morning the explorers had the satisfaction of coming once more upon a batch of bodies – if satisfaction it can be called, for surely there is only one circumstance which rendered it satisfactory, and that was the restoration of the dead to their friends. Otherwise the work was of the most terribly repulsive description that can be conceived. Imagine a dozen or twenty men groping their way along the dark passages of the mine, climbing over falls, and creeping through holes only just large enough to admit the human body, and breathing a hot atmosphere surcharged with the fasted exaltations of scores of human bodies in rapid decomposition; further, that these men come upon a heap of burnt and charred remains which they have to separate into bodies; that at the merest grasp not merely drops the flesh from the bones, but limbs drop from limbs, or remain in the hand that grasps them; that these bodies from which emanate the foulest of all odours, have to be taken up and rolled carefully in canvas with as little disturbance as possible, after the manner of the mummies of ancient Egypt; that they then have to be dragged over falls that ascend to the very roof of the workings – now over big rough stones – now sliding gently down a slope, and now jolting to pieces over the rugged way, or crushed in squeezing through the apertures of the falls until the canvas soaks with the liquefying flesh, and stench is beyond anything known above ground.

Just imagine this, and the reader will have a faint notion of the dreadful ordeal which those brave men have endured, who day after day have gone down the mine in search of their comrades. This picture, so far from being overdrawn, will convey but the most inadequate idea of the character of the work to be performed on these solemn occasions. We think sometimes how wonderful an organisation is the human body. So it is in life; but go down the pit and follow the explorers to the lair of death in the workings, and there will be seen at a glance the dark side of the picture, what low and base stuff we are made of, and how we crumble into thin empty air when the vital spark that animates us has fled.

But from this digression let us return to the bodies – which were removed to the bank closely wrapped in canvas. There they were received by a small number of persons, and as they were recognised placed in coffins and screwed down. One of the bodies brought up on Tuesday was Caleb Morris, and the scene, when it was identified by his poor widow, was sorrowful indeed.

Every day, from early morn to late at night since the fatal explosion, this woman with a child in her arms had hovered around the pit's mouth at frequent intervals walking up close to the pit's mouth and looking down with an eager, anxious eye for the cage. One would have fancied that she had been bereft of a

portion of her senses – or that they had been blunted by the weight of her sorrows, for beyond her wildly anxious look there was very little demonstrativeness about her; but when she recognised the form of her husband she burst into frantic exclamations of grief. “Oh Caleb anwyl! Gwrion Bach,” and similar cries uttered with passionate grief. The coroner’s clerk was on the ground daily, and issued certificates of burial, so the bodies were interred with as little delay as possible. At intervals during the whole of Tuesday and Wednesday bodies were brought up; the number recovered and brought out up to Wednesday evening being 145.

It was then calculated by Mr. Wales that there could not be more than 25 or 30 in the pit again. The exact number, however, was not then known to anybody, and to meet contingencies nearly 200 coffins were ordered. Amongst those brought up on Tuesday and Wednesday were three or four whose bodies could not be identified. They were placed in the lime house as usual, and all who desired to do so looked at them, but none could identify them, and on Wednesday afternoon they were placed on a rude drag employed by the farmers for carrying lime, hay, and &co. and taken to Llanwonno churchyard, the bodies being too bad to be kept longer with safety.

The boots of one of them were left in the lime shed as a possible means of recognition hereafter. It is known that there are several Englishmen from the Derbyshire and Yorkshire districts amongst the killed, and it maybe that they or some of them have been brought up unrecognisable and buried as “unknown.” Last week a boy’s leg and arm were found beside a fall, and in the expectations of finding the body under the fall it was cleared away at once, but no body was found, and has not been found yet. The limbs have been brought up and buried, and the body will no doubt be brought up again.

The unfortunate victims of this dire disaster were found in all sorts of attitudes – some sitting, some recumbent against the walls, but most of them on the floor of the pit. They were nearly all at considerable distances from their working places, from which it is evident that they met with a slow, and, perhaps, torturing death. One found was found stretched, face downwards on a fall, with his head just in the opening at the top between the fall and the roof, and his arms outstretched to their full length. He was a powerful man, and had got so far in his desperate efforts to escape, when his strength failed him, and he died while crawling over the fall. Another was found sitting on a tram, with his head supported by one hand, and a couple of lamps in the other. There was a calm expression on the countenance, but the body and the limbs were as rigid and

inflexible as though they had been frost-bound for years, and it was impossible to extricate the lamps from the fingers without breaking them.

Around him were four or five others in various positions. Some were found arm in arm, from which it would appear they were assisting each other from the inner workings to the outer. It was remarkable that though nearly all of them were burnt; and that badly, yet the loss of life might have been immensely less but for the fatal falls, which cut off the air from them, and produced death from suffocation. Everywhere evidence was found that the poor fellows had been trying to escape, but were baffled by the falls. Many falls, no doubt, occurred while the imprisoned men were moving about, for some of the bodies were exhumed from the falls, and a considerable number it is feared yet remain to be dug out.

Not one of them, however, can remain in the pit undiscovered, for the stench from the bodies is so overpowering that the explorers are literally led by their noses to the spots at which the remains lie. As the falls are passed it is known by the smell whether any human remains are under, and several have been passed which do contain bodies; the latter will not be got out until the fall is cleared in regular course.

And now as to the lamps found. One of the first things looked for after the recovery of the bodies at any colliery explosion is the cause of the disaster, and amongst the many things which if tampered with may lead to an accident there is none more likely than the safety lamp. At the last Gethin explosion substitutes for lamp keys were found in the form of hard cheese, so that suspicion would be totally disarmed by the detection of this apparently useless stuff on the workmen.

In the Ferndale pit a great number of lamps were found, some of them knocked about by the explosion, and others with their tops off, but in such sound condition as would be incompatible with the supposition that the top had been blown off, the thread of the screw in many cases being perfect. There were also two or three lamp keys found. The introduction of these is in direct contravention of one of the rules of the management of the pit, and to show that the workmen themselves know that they were infringing this rule, we have only to relate one fact which will also serve to show the great length to which men will go to baffle the watchfulness of those of those placed over them. A few days ago a cap was found in the workings, and while it was being examined for the purpose of ascertaining its owner, a lamp key was found artfully concealed in the crown.

No inspector would probably have dreamt of taking off the man's cap in search of a key. This incident demonstrates that in spite of the utmost precaution means will be devised by some heedless and selfish workmen to infringe the most important regulations, thereby placing the lives of a whole pit's complement of men and boys in such jeopardy as to be not worth a moment's purchase.

In addition to the bodies that have been recovered this week three or four valuable horses have been brought out alive. Probably the same cause which makes horses thrive in mines better than on the surface may have had something to do with the preservation of their life under circumstances which prove fatal to scores of human beings. Most of the corpses brought up this week have been buried in Llanwonno churchyard, but several have been brought to Merthyr, Aberdare, and other places, where they are met by immense bodies of workmen, all formed in processions and walking in front of the coffins to the places of internment.

The inquest was to have been opened for the hearing of evidence on Monday next (25th inst.), but in consequence of the delay which has arisen with the clearance of so many falls to retard the recovery of the bodies and the restoration of the pit, the inspectors – Mr. Wales, of the South Wales district, and Mr. Brough, of the South Western district, will be unable to complete their reports in less time than a fortnight – therefore, the inquiry will be adjourned to a fortnight hence.

In consequence of the inability of a great number of people in the whole district to procure copies of the '*Express*' last week through the extraordinary demand for the paper, we re-print the names of the killed which were then published, together with those which have been recovered since, revised by the Coroner's list, thus presenting a complete and accurate list of those killed.

The following were recovered on Friday and Saturday morning, 8th & 9th November, 1867:

(s = Suffocated, b = Burnt)

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|--|--------------------------------|
| 1. John Williams, 50, s, Manager. | 28. Edward Mosely, 26, s. |
| 2. Ben Morris, 29, b. | 29. Williams Griffiths, 23, b. |
| 3. Thomas Thomas, 48, s, 3 sons also. | 30. Edward Williams, 15, b. |
| 4. William Wells, 13, s. | 31. John Davies, 35, b. |
| 5. Thomas Thomas, 39, b | 32. James Driver, 18, 13, s. |
| 6. Thomas Thomas, 25, b, son of No. 3. | 33. David Jones, 14, bruised |

- | | |
|---|-------------------------------|
| 7. Thomas Vaughan, 23, carpenter. | 34. William Williams, 17, b. |
| 8. Thomas Lewis, 19, s. | 35. William Williams, 29, s. |
| 9. John Harris, 26, s. | 36. Robert W. Roberts, 12, s. |
| 10. John Owen, 25, b. | 37. John Williams, 25, s. |
| 11. Thomas Williams, 35, s. | 38. Miles Hughes, 13, s. |
| 12. David Davies, 25, b. | 39. William Hammond, 25, s. |
| 13. John Jenkins, 48, s. | 40. Morgan Griffiths, 44, s. |
| 14. Ben Saunders, 20, b & s. | 41. Morgan Griffiths, 15, s. |
| 15. Williams Walters, 14, b. | 42. Ben Morris, 50, b. |
| 16. Evan Jones, 14, b. | 43. John Morris, 21, b. |
| 17. John Swanscott, 57, s. | 44. Ebenezer Morris, 19, b |
| 18. John Lewis, 28, S. | 45. Daniel Morris, 16, b. |
| 19. Henry Rees, alias Hughes, 30, s. | 46. Evan Meredith, 29, b. |
| 20. Morgan Jones, 36, s. | 47. David Lewis, 33, b. |
| 21. Richard Burke, 24, s. | 48. John Richards, 14, b. |
| 22. Daniel Burke (bro. of above.), 22, s. | 49. David Thomas, 22, s. |
| 23. David Evans, 17, b. | 50. John Thomas, 16, s. |
| 24. David Morris, 18, s. | 51. Lewis Thomas, 13, s |
| 25. David Thomas, 22, b. | |
| 26. Evan Roberts, 25, s. | |
| 27. George Edwards, 15, s. | |

The following were got out Tuesday, November 12th 1867

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|--------------------------------|------------------------------|
| 52. James Roblin, 51, b. | 74. John Walters, 28, b. |
| 53. Evan Samuel, 21, b. | 75. Lewis Lewis, 38, b. |
| 54. Nathaniel Roach, 35. | 76. Edwin Lloyd, 30, b. |
| 55. Charles Owen 47. | 77. William Williams, 31, b. |
| 56. William Williams, 30, s. | 78. Roger Morgan, 16, b. |
| 57. Thomas Parfitt, 33, s. | 79. Thomas Edwards, 38, b. |
| 58. Ben Thomas Parfitt, 16, s. | 80. John Driver, 37, b. |
| 59. Daniel Rowe, 15, b. | 81. Joseph Brickley, 21, b. |
| 60. William Davies, 19, b. | 82. William Davies, 25, b. |
| 61. Evan Lewis, 21, b. | 83. Henry Williams, 19. |
| 62. David Davies, 15, b. | 84. Edward Griffiths, 19, b. |
| 63. John Davies, 22, b. | 85. Owen Owen, 17, b. |
| 64. Edward Williams, 19, b. | 86. William Nicholas, 15, b. |
| 65. John Neath, 19, b. | 87. William Thomas, 31, b. |
| 66. Henry Evans, 19, b. | 88. John Lewis, 32, b & s. |
| 67. Thomas Powell, 13, b. | 89. David Williams, b. |

- | | |
|---------------------------|-----------------------------|
| 68. John Davies, 25, b. | 90. William Parker, 28. |
| 69. John Pascoe, 20, b. | 91. William John Lewis, 48. |
| 70. Thomas Powell, 14, b. | 92. John Powell, 44, b. |
| 71. John Edwards, 59, b. | 93. John Prosser, 55, b. |
| 72. Henry Lewis, 28. b. | 94. John James, 24, b. |
| 73. James Prosser, 19, b. | |

Injured who have died of their wounds

- | | |
|--------------------------|------------------------|
| 95. Horatio Hawkins, 19. | 96. Thomas Davies, 26. |
|--------------------------|------------------------|

Brought out on Friday, the 15th inst.

- | | |
|-------------------------|------------------------|
| 97. David Williams, 28. | 98. David Jones, 30 |
| 99. William Rees, 42. | 100. John Edwards, 82. |

Brought out on Saturday 16th & Sunday 17th

- | | |
|----------------------------|---------------------------|
| 101. David Jones, 36. | 102. David Stevens, 36. |
| 103. Robert Laphorne, 32. | 104. Howell Williams, 17. |
| 105. Boy unknown about 17. | |

Brought out on Tuesday, 18th

- | | |
|---------------------------|----------------------------|
| 106. Jenkin Williams, 19. | 116. William Evans, 47. |
| 107. Benjamin Rees, 22. | 117. Isaac Thomas, 33. |
| 108. John Lewis, 30. | 118. Charles Jones, 22. |
| 109. David Nicholas, 45. | 119. John Williams, 23. |
| 110. Benjamin Lewis, 20. | 120. John Atkins, 27. |
| 111. Thomas Williams, 54. | 121. Man unknown. |
| 112. John Jones, 27. | 122. Caleb Morris, 41. |
| 113. Joseph Howlett, 33. | 123. Thomas Griffiths, 19. |
| 114. Robert Hughes, 18. | 124. Benjamin May, 19. |
| 115. Isaac Evans, 22. | 125. John James, 19. |

Brought out on Wednesday 20th

- | | |
|-------------------------|-----------------------------------|
| 126. George Copper, 27. | 136. Daniel Humphries 23. |
| 127. Peter Morgan, 33. | 137. Unknown – about 20. |
| 128. John Morgan, 22. | 138. David Jones, 33, contractor. |

- | | |
|---------------------------------------|-------------------------|
| 129. Joseph Evans, 35.
contractor. | 139. Thomas Miller, 25, |
| 130. William Griffiths, 19. | 140. Thomas Morgan, 35. |
| 131. Llewellyn Llewellyn, 23. | 141. John James, 25. |
| 132. Meredith Llewellyn, 20. | 142. David Evans, 23. |
| 133. Joshua Davies, 22. | 143. William Miles, 24. |
| 134. Thomas A. Richards, 22. | 144. Man unknown. |
| 135. John Hancock, 25. | 145. Man unknown. |

Brought out on Thursday, 21st

- | | |
|--|----------------------------------|
| 146. Charles Truscott, 19, b & s. | 154. Evan Jones, 33, b & s. |
| 147. John Griffiths, 17 b & s. | 155. Thomas Nicholas, 18, b & s. |
| 148. John Morris, 15, b & s. | 156. Richard Davies, 18, b & s. |
| 149. John Morgan, 22, b & s.
burnt. | 157. William Watkins, 22, badly |
| 150. John Davies, 23, b & s. | 158. Jenkin Jenkins, 40 b. |
| 151. John Samson Owen, 28. | 159. Henry Williams, 28. B. |
| 152. Henry Morris, 27, b & s. | |
| 153. John Lukey, 25, b & s. | |

The number of widows and orphans caused by this dire explosion is always a matter of anxiety second only to that of the deaths of the men themselves. At first sight one would infer from the great number of victims there would be an excessive list of widows, and children rendered fatherless, but in the present instance the proportion appears to be less than on any previous occasion – a result which arises from the circumstance that Blaenllechau, being a new and out of the way place, was peopled as much by single young men as married men with families.

A gentleman named John Humphreys, Esq; of Penlline, near Cowbridge, upon hearing of the disaster, sent a sum of money to be distributed amongst the bereaved families at once. Two gentlemen, into whose hands the money was placed, therefore made a house to house visit and other inquiries, from which they ascertained that the number of widows was 65, and of orphans about 130. In all cases, they distributed relief. If the orphans were properly apportioned to the widows it would give an average of two orphans for each widow; but this represents anything but the real state of the case. In some families the blow has fallen with overwhelming force, and in others the only mourner dependent on the deceased husband is the widow. The worst case of all is that of a poor

woman who saw her husband and three sons brought into the house dead, whilst six small children clamoured around her for bread!

Messrs. Davies, knowing that there must be a great amount of privation in the homes of the poor fellows, gave pecuniary relief to the distressed families at once, and we believe have made an arrangement for their provision temporarily at all events, allowing seven-shillings per week each widow and two-shillings each child.

As the calamity, however, is national in its calamity, we hope the entire burden will not be thrown upon their shoulders, willing though they may be to bear it, but that a good subscription will be made for the relief of the sufferers. At Pontypridd, Aberdare, and Cardiff, movements have been made already, and we hope Merthyr will not be backward, with the recollection of the noble aid, which was received for the widows of the first Gethin explosion. At Aberdare on Thursday night a magnificent beginning was made.

The Ferndale Explosion – its cause and its lesson

The '*Merthyr Express*' of November 23rd 1867, carried this article written by 'Tydfil': - The great shock caused by the calamity of Ferndale has somewhat lessened in force in all but the bereaved homes whence a father, a brother, or a son has been swept away; and now men are beginning to muse on the cause of this terrible event., and the more humane to devise means to prevent such things in future. The inquest will elicit, we dare to say, the special causes of the explosion, and on these it would not be prudent now to touch. It would not be prudent to the dead or the living, to give as hearsay statements, which possibly cannot be substantiated. So we leave these special points alone and refer more generally to matters that must have had a strong bearing on the accident.

Just look at the position of the colliery. The thousands who have visited this valley of the shadow of death will require no description from us, but the still great numbers who have been content with the description given last week in the '*Express*' will, we dare say, be glad with the attempt. Picture then a valley considerably less than the Merthyr valley in width and even less than that of Aberdare; the mountain boundary covered with brushwood and sloping most precipitously to the vale gives it at the most narrowest part more the appearance of a rift, or a ravine amongst the mountains than a valley. Beyond this from an elevated height the spectator sees range after range of mountains stretching away into the distance, their summits ragged and uncultivated.

At the narrowest part of Ferndale is Blaenllechau Colliery at a part be it observed where the mountains approach more closely to each other as at Troedyrhiw and at Mountain Ash. It is a noticeable fact that our richest coal beds are found in such a position and if the reader considers a moment he will understand the reason of this. It is obvious that when our coal deposits were formed a great part of the present structure of the mountain existed, and that the vegetation was borne down by the mighty current that swept through the vale and deposited in all places where the water as slightly dammed, such as deltas, places similar to elbows in the mountain side, as at the vale of Neath tunnel.

In such places it is evident that if not in the centre of the valley, or ravine, if a shoulder of the mountain affords a shelter to it as at Ferndale, the air moving about the surface is considerably affected, the current of air would in scientific parlance be embayed, and anyone proceeding to ventilate such a pit should at once bring into operation the *modus operandi* of Gethin – the large fan at the top of the shaft; for without this extra power of creating a current, whenever a certain condition of the atmosphere should arise, such as a foggy, heavy state, the air beneath at once is considerably checked, the power which keeps the gas from exuding or sweeps it away in inconsiderable quantities is weakened, the gas comes forth like a fiend glaring on the poor toilers who are labouring for their poor wives and children, and in a moment the tragedy is begun.

When the safety lamp was invented by Sir Humphry Davy the generous-hearted of the world were uproarious in their satisfaction. We were to have no more explosions. Until then partial explosions were common. At the Plymouth works it was a common occurrence to have an explosion every Monday morning. In the week the men would keep the gas from injuring them by dusting it out with their caps and jackets, but as there was no work on Sunday it had time to accumulate, and on the Monday when the men went into work with their naked candles some poor fellow or other would be burnt. But the explosions were at the most insignificant. We had no Risca; no Gethin; no Cymmer; no Ferndale. These tragedies have been played out in all their horrors since the introduction of the safety lamp.

No pit should be worked where a naked candle cannot be burnt in safety, for where a candle cannot burn no man ought to live. By using the safety lamp the gas accumulates in greater quantities without arousing alarm, and when a collier is wishful to increase his 'get' of coal, or to have a pipe of tobacco, opens his lamp, the train is already fired, and then follows death and destruction. All the scientific methods suggested in various leading periodicals are so much waste of ingenuity, and learning, so long as the collier is what he is, and it is clear enough

to the most unthinking that if we continue at the present state of things in our coal pits with those occasional super additions of ingenuity until the collier assists in his own protection, we shall be open to a series of those casualties , these desolating horrors of our coal valleys.

Wiser will it be at once to follow out the course taken by Mr. Crawshay with Gethin. Get a fan or other means to increase the current of air – get a barometer attached to each pit, let the fireman report the state of the barometer in the pit directly he returns from inspecting the mine, and we shall do more to prevent explosions than by any adoption of a scientific toy. It will be apparent to those who have followed us in our reasoning that Ferndale in its sheltered position, its deep workings, its fiery coal, was just the place where a great explosion ought to have been expected when the weather suited and special causes came into operation. So while lamenting as we all do this great loss of life, this torrent of evil, which has wrecked so many brave men, and cast around us poor waifs of humanity, widows and orphans, on the shore of desolation mute objects for our charity, it behoves all coal pit owners to take preventative measures, lest more frightful evils ensue again. We must read the accident in the light of a visitation and warning. TYDFIL.

A shameful event

The '*Merthyr Express*,' of Saturday, November 30th 1867 reported: - The recovery of bodies has proceeded slowly since our last report but it is believed that nearly all have now been got out. No fresh facts have transpired, but the following incident, which is reported in a daily contemporary is worth notice here: -

“A poor fellow (one of the killed) was taken to his long home, his name was known, but no relatives were present at the last rites. On arriving at Llanwonno churchyard, the vicar or rector, the Rev. W. Davies, refused to allow the corpse to enter upon consecrated ground unless the paltry sum of three shillings and sixpence (the burial fee) were paid. There was no one present who could pay it, and the coffin had to stand aside. A young fellow found out that the dead man was a fellow workman, labouring in the same stall; he had only four shillings in his possession. “Well,” said he, “I know he would have paid for me if I were in his place. I will pay for him.” The generous-hearted collier proffered the four-shillings and received sixpence change. On Friday and Saturday the following bodies were brought up and identified. Up to Thursday last the number of dead was 159.

Friday and Saturday, 22nd and 23^d

- | | |
|---|---|
| 160. John Hockings, 16, b. | 165. Benjamin Hope, 19, b & s. |
| 161. Thomas Jenkins, 57, b. | 166. Miles Skull, 18, s. |
| 162. George Robling, 20, b. | 167. John Lloyd, 23, fracture of skull. |
| 163. Edward Edwards, 13, b & s. | |
| 164. John Hopkins (alias Jones), 23, b & s. | |

Monday 25th

- | | |
|---|--------------------------------------|
| 168. David Powell (age not known), b & s. | 169. David Nicholas (age not known). |
|---|--------------------------------------|

Wednesday 27th

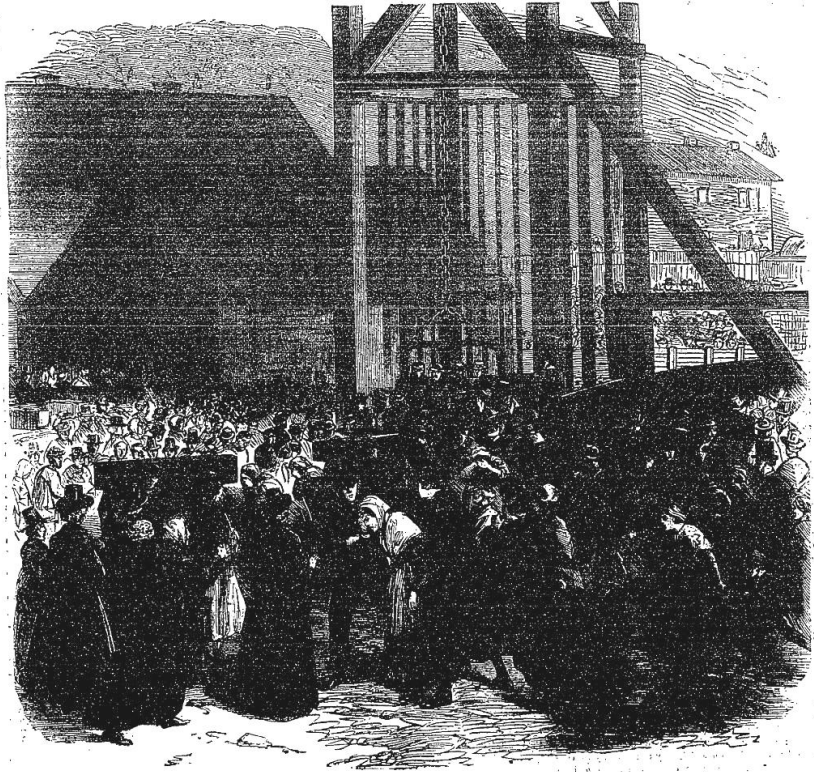
170. John Thomas, 25

Thursday 28th

- | | |
|--------------------------------|--|
| 171 John Davies, 50
wounds. | 172. Evan Richards, 45, b, Died of his |
|--------------------------------|--|

Two more unnamed bodies were recovered on Thursday, December 17th 1867. Rescued colliers who died in the following weeks and an unnamed skeleton that was discovered in 1868 made up the final total of 178.

The Relief Fund was now being raised rapidly – already the Central Committee at Aberdare have over £3,000 in contributions, including £200 from the Queen and £100 from the Prince of Wales, which the Rev. D. M. Jenkins received on Wednesday night. The inquest was formally adjourned on Monday to that day fortnight, the 9th December, at the New Inn, Pontypridd. The Mines Inspectors would not be ready with their reports before that date.



THE CALAMITOUS EXPLOSION AT FERDALE COLLIERY, GLAMORGANSHIRE: REMOVAL OF THE DEAD FROM THE PIT'S MOUTH
SEE PAGE 226.

Penny Illustrated News, Nov. 23rd 1867
Removal of the dead men from the pit's mouth.



DAVID DAVIS, JUNIOR.

David Davis Junior, joint proprietor of the Ferndale Colliery at the time of the disasters.

Chapter Three

The previous reports are from a weekly newspaper; there were very few daily newspapers at this time, but what can be gleaned from another newspaper, the '*Cardiff and Merthyr Guardian*,' is another account of the day of the explosion and the seven days that followed gives additional information and is well worth recording for its accounts of the scenes at the top of the pit and the recovery of the bodies: -

Friday & Saturday, November 8th & 9th 1867

Dreadful Colliery explosion at Ferndale

A dreadful explosion, resulting, it is feared, in a terrible loss of life, has occurred today at the Ferndale Colliery, situated near the Rhondda Fach, in the Rhondda Valley, and about seven miles from Pontypridd. The Ferndale Colliery is a well-known pit and belongs to Messrs. David Davis and Sons, of Cardiff, and was formerly known as the Blaenllechau Colliery. It is a comparatively new colliery, and, from the excellence of the nature of its coal, a very lucrative one. The proprietors obtained a prize at the late Paris exhibition, as exhibitors of coal. The workings, consequently, have been pushed forward with all despatch. Though two winding pits have been sunk, the one to the four-feet seam and the other to the nine-feet seam, yet it appears one only is at present fit for winding. Considering the quality of the coal in the colliery, considering its extent and plant, and cottages erected, it may certainly be considered one of the best collieries in South Wales.

On Friday morning at the Ferndale Colliery the weather was foggy. So dense was the mist that nothing could be distinguished half-dozen yards off, and in the neighbourhood of the colliery, which is situated at the bottom of a valley, between two ranges of lofty hills, the fog was particularly thick.

The explosion occurred between half-past one o'clock and one forty-five, and such was its terrific force that the concussion shook the whole mine. The report was heard throughout the whole valley. The blast swept along the main drift, and extended into all the workings. The men at the bottom of the shaft – those employed to hitch the trams on the cage - were blown violently into the sump and two killed, the third miraculously escaping in the most extra-ordinary manner without much injury. The blast then ascended the shaft with a tremendous roar, and drove the men at the top of the shaft from their posts. It was evident at once to those above that a frightful accident had occurred, and

steps were instantly taken to descend the pit as soon as the state of the air rendered it safe.

Messages were sent down the valley to the neighbouring pits, and over the mountains to Aberdare and Merthyr, and from all parts of the district workmen rushed to the scene of the disaster. A hope was first entertained that the fatalities were confined to a portion of the mine where only about 70 men were at work, but this has unhappily proved delusive, death and destruction having been carried in every direction. From 350 to 400 were working in the pit, and of these there was unfortunately every reason to fear not fewer than 300 had perished.

As soon as the cage could be worked, the overman and bank commenced operations for raising the men, who were waiting in terrible anxiety below, and in a comparatively short time the whole of the men in the South District, numbering 150, were brought up alive – the effects of the calamity being confined to the other district, where only a few escaped with their lives.

It was impossible to give an exact number either of those lost or saved, because no accurate count could be kept of those saved. As near as could be judged 150 had been rescued, and the others had all perished beyond question. The scene was soon most heart-rendering. The neighbourhood of the pit was thronged with thousands, the number continually increasing, for as soon as the occurrence of the disaster became known, the colliers from Messrs. Insole's pits at Porth, and those from the Great Western Colliery, started off for Ferndale, in order to render any assistance that lay in their power.

Mr. Davis, the principal proprietor, was present soon after the explosion, and gangs of men were organized and descended into the pit, but the air was very foul, and they had to proceed cautiously for fear of another explosion, the pit having been so shaken that large quantities of gas had escaped. They were also met by heavy falls in the airways, and in many instances the men had to be dug out with pick and shovel. The process was excessively slow, and it was found that almost all had been suffocated by the carbonic acid gas before the men could descend the shaft to their assistance. At about 5 o'clock Mr. Henry Jones, mining engineer, descend with a gang of about forty men, and proceeded the work with vigour in the face of many serious obstacles, and succeed in removing many bodies in the east district. From that time on Friday, until noon on Saturday, Mr. Jones remained at his post, by which time 49 bodies had been recovered. One-hundred men had come up, chiefly from the south-west,

scarcely injured. Twenty-nine were recovered in an injured state; and of the remaining men who were in the pit at the time of the explosion it is feared that nearly 100 remain, of which it was hoped some would be found alive.

The friends of those who were at work in the colliery rushed from their homes as soon as the first shock was heard, and it is impossible to portray the anxious sorrow depicted in every face, the joy which thrilled through the hearts of those who recognised a relative, father, husband, son, or brother amongst the saved, and on the other hand the terrible anguish when such relief of suspense failed to come. The number of those saved was impossible to estimate, for no record was kept of them, and in the excitement and confusion that naturally prevailed they were got away as soon as possible.

Well-known signals gave warning that men were coming up. A confused babbling of voices could be heard even at that distance, and now and again a poignant wail of anguish, not unlike an Irish keen, would rise above the hum. As the bodies of the unfortunate men were brought to the pit mouth, men and women who had relatives engaged in the colliery pressed forward to recognise the features of brother, father, husband, as the case might be, and scenes of a harrowing description, which were easily imagined but painful to describe, occurred constantly throughout that bitter Friday night. There were then 700 or 800 men and women assembled at the pit's mouth waiting to recognise the dying and the dead as they were landed and carried away.

The manager of the colliery, Mr. J. Williams, was down in the workings at the time of the explosion, and efforts were first made to find him, if possible, so that, if alive, his assistance might be had in directing operations for the rescue of the men. He was amongst the first found, but, unhappily, quite dead, having been suffocated with the choke-damp. Mr. Williams' death was evidently caused by suffocation, as he was not at all burnt, and his features were as placid and as composed as if he were asleep. His body was found with that of nine others, all of whom had been recognised by sorrowing relatives. As his corpse was brought to the surface it was seen that his features were but little altered. He was a gentleman fifty years of age who leaves a widow and a family. A reporter, nearing the pit's mouth, saw four men carrying a corpse on two boards, roughly nailed together, towards his home. It was the manager. Further on another body could be seen on the ground with a doctor by his side, feeling his pulse, and saturating his lips with ammonia, and with his body in a sitting position lifting his arms and forcing them down again, trying to produce or help the respiration of the lungs, while a crowd of anxious friends, relatives, and sympathisers stood around.

Some few yards distant, another doctor might be seen with ammonia in his hand, and the patient lying on his side, or in some other peculiar position, prescribed by medical science, while men stood by with jars of water to sprinkle on the faces of the dead and living alike. Children in scores were there, asking for their "dads," wives asking for their husbands, and all eagerly looking out for some "old familiar face," though, charred and disfigured.

Then the signal would again be heard, and men would come up the pit with boys slung over their shoulder like a small bag of flour, or a newly-killed sheep, holding them by their legs, and put them down for their mothers to recognise. Some of the bodies were fearfully scorched, the faces were the colour of a red Damask curtain, the teeth gnashed, the lips twisted, the hands violently clenched until the nails were driven into the flesh. Others again showed scarcely a trace of burning, but appeared to have died quietly and calmly, resolutely closing their teeth to prevent inhalation of the death-dealing choke-damp. Now and again the search party would find a body that had been burnt, and when there was an expression retained at all, it was one of the most terrifying agony that it is possible to conceive. Two horses that had been found alive jammed in between two falls and the searching parties have been able to keep them alive by pushing in hay and water and were later brought to the surface.

So the time passed on until 7 p.m. when the last of the recovered bodies for many hours were brought up. And it is a fact worthy of remark that *all* the men and boys brought up after 6 p.m. were dead. No one knew, or appeared to know at this time, how many men were down the pit, how many came up dead, injured, or well. In the lamp-room it was stated that 600 lamps had been given out that morning, but this must have been an exaggeration. Some affirmed that there must still be 280 men still below, others thought 80 was nearer the number. Time only would solve the number of this grisly catalogue.

At 8 p.m. many of the volunteers came up and stated that further progress at present was impractical, and that a consultation was necessary for the prosecution of further advances. At 9 p.m. another body of miner agents and volunteers descended the pit, and succeeded by 3 a.m. on Saturday morning in bringing 16 more dead bodies to the surface for identification.

The work of recovery went on without intermission during the whole of Friday night, many of the volunteers remaining at work until they could scarcely stand with fatigue. The bodies were generally recovered in batches of twelve or fifteen at a time, as the falls were removed, and then there was the prolonged interval of heartrending suspense. By 4 o'clock Saturday morning four or five

injured persons had been received above, almost all so frightfully injured that there was little hope of their recovery.

expenses, we believe, will be borne by the firm in whose service the unfortunate It is difficult to conjecture what has been the immediate cause of the accident; but it is feared long immunity from accident has made some of the workers careless, and so led to the disaster. Certain it is that some open lamps have been discovered, but it is thought possible that the explosion may have blown them open. Four carpenters at work in the new stable there are said to be using naked lights, and this is by some regarded as the probable cause of the disaster, but there is no definite information to be obtained on this subject, and, as is usual on such occasions there are all kinds of rumours afloat, everyone having his own suggestion to offer.

Two pairs of sawyers had been engaged during the whole of the night sawing boards for the construction of coffins. When the bodies were brought up they were conveyed into a neighbouring shed, where they remained until they were identified by their friends, and then they were removed to their respective homes. As one after another were carried off, each followed by a procession of mourners, marching in the bright moonlight of that very part of the night, through this most picturesque vale, the sorrowful scene was really beyond description.

Saturday, November 9th 1867

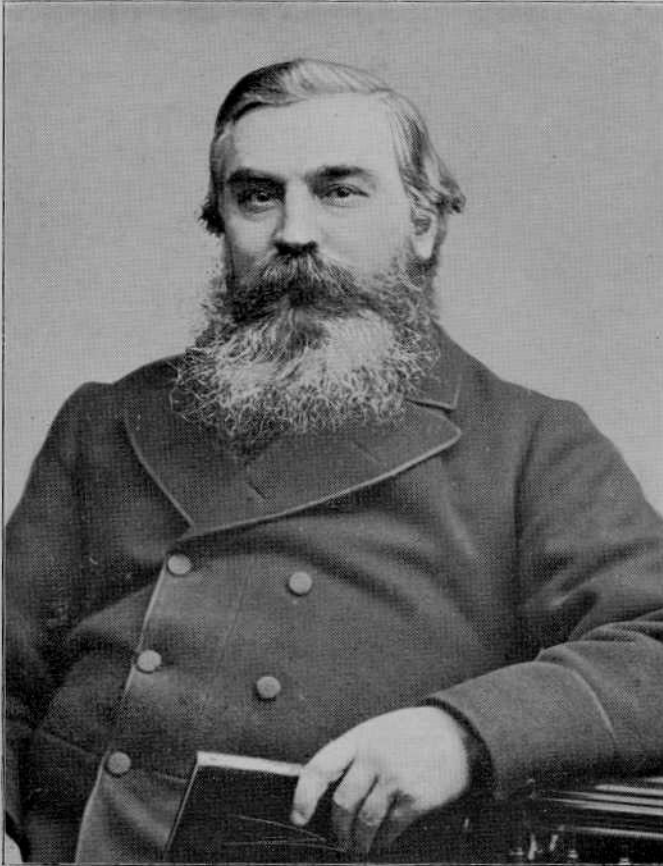
At 7 a.m. on Saturday it was estimated that about 43 had been brought up either dead, or so dreadfully burnt that death ensued soon after they reached the surface. Whilst there was any hope or chance of saving a single life, every human effort was of course made to do so, and they were brought up very rapidly. Now, however, all hope of safety for any of those below was gone; for experienced managers of other collieries who have been down all night say it is impossible that there can be any amongst the unfortunate workers still alive. Relatives and friends, however, are very naturally loathe to accept this decision as blasting all their hopes, and they linger still about the pit. One poor bonnetless creature has been there all night, with a young infant in her arms, and several other children at home, anxiously, but vainly, watching for her husband, who worked below.

She has incessantly cried and wailed in the most frantic manner and no sympathy or counsel could sooth her anguish, and it was not until after 6 o'clock

on Saturday morning that she seemed to lose all hope and consented to be led away. Others seemed to have passed beyond that stage of anxious sorrow that finds relief in the bitterest weeping, and now, with eyes sadly swollen and red, they really seem the most hopeless and pitiable of objects. At the time of the explosion there were 35 horses at work in the pit, and out of these 10 have been brought out alive. The other horses, of course, have been destroyed, and six or eight charred carcasses have been brought up. Some of the poor brutes had portions of their harness still on, but every vestige of hair was burnt off as if the bodies had been shaved!

On Saturday, the Coroner, Mr. George Overton arrived at the colliery, and a formal inquest was opened, and, of course, adjourned until the proper time arrives for the production of evidence. Mr. T. E. Wales, the Government Inspector for Mines for South Wales collieries, arrived about 2 o'clock on Saturday afternoon, and at once descended into and examined the pit. On returning to the surface he called together all the officers connected with the colliery, and those connected with the other collieries in the district that were present, and said he would be glad to hear the advice of any gentlemen present as to the best mode of proceeding for the recovery of the remaining bodies.

After a short but earnest deliberation it was resolved that shifts of gangs of men, of 12 or 15, should be formed to descend into the pit, to be under the sole control of the following gentlemen who are all mining engineers, namely: - Mr. Morgan Joseph, Ocean Steam Collieries Co. (Ystrad), Mr. T. Carnew, Plymouth Colliery (Merthyr), Mr. Henry Jones, Blaengwawr Colliery (Aberdare). These charge the men to be responsible for the proper locking of each man's safety lamp, and to remain in the pit for eight hours. This being agreed to, and as a sufficiency of volunteers who offered themselves, the first shift was determined upon, and evolved under Mr. Henry Jones, who had already been in the pit from Friday at 4 p.m. until Saturday at noon. And now he again came forward with renewed alacrity. It was agreed that the time of the first shift should be eight hours, namely, from 6 p.m. on Saturday evening until 2 o'clock on Sunday morning. The entire control of the three shifts was left to the hands of Mr. Adams, the consulting engineer. These necessary arrangements for a vigorous and systematic prosecution of the search having been made, the first gang descended into the east district at 6 o'clock on Saturday evening, and the universal feeling as these brave men went down to the painful task was, "May God grant his aid, and give them success." Mr. Wales then left by special train, announcing his intention of returning on Monday morning.



LEWIS DAVIS, AGED 48.

Lewis Davis, joint proprietor the Ferndale Colliery at the time of the explosions.

At this point the work of recovery was brought to a standstill, for the force of the explosion was such that the walls and roofs of the pit had been loosened, and enormous quantities of rubbish kept falling in all parts of the mine, choking up the airways, and absolutely cutting off all the communications.

Tram load after tram road of rubbish and masses of rock that had to be broken up with quarrying tools had to be removed, and this added to the delay. Thus the whole of this day was spent in clearing the fall in the Duffryn Level, behind which it is believed there are some 25 workmen. It is not thought that one of them can be alive, as the air current is completely cut off, and in the face of the workings the atmosphere is so foul and dangerous that the working parties have to grope their way in utter darkness.

Messages frequently came to bank that the air was exceedingly oppressive. The crowd at the bank – two or three thousand in number – who had pressed up close to the pit's mouth were then sent back by the police, and barricades put up so as to have an open space between the shaft. A stream of water was also sent down the shaft, and about an hour after this had been done the report was received that the air was greatly improved. The levels seem to have been injured to an extent beyond that of any other pit in this district that has been subjected to a similar calamity, so that, in addition to the awful and overwhelming sacrifice of human life, the proprietors will suffer a heavy loss in property.

A visit to the desolate homes (where there lay) disclosed cases of the most distressing character, whole families being swept off. In one house a father and three sons lay stretched in death as though they were calmly sleeping, and a fourth son lay dead a few doors off, leaving a young widow in an agony of grief. In another a family of six that went out well and hearty in the morning only one has been brought back alive, and he will be a cripple for life should he survive his injuries.

In some houses the poverty of the occupants was so great that they were destitute of the means of laying out the bodies, and consequently the corpses in all their ghastly disfigurement lay on the stone floor covered in sacks. In one house two lads injured lay on the floor as they were brought from the pit, their mates fearing to touch them lest they should kill them too soon. In most of the houses the distress and sorrow were intensified by the fact that others were to come to swell the list of victims. In all cases certificates of burial were given, and the funeral fellows have died.

Orders were given by Mr. Davis for an unlimited supply of everything requisite for the injured from the shops in the place, but sad to relate the generosity will not be largely drawn upon, for of all the 170 souls who were down the fatal pit, at the outside it is feared only two can survive their injuries. At 6 pm. on Saturday night the results of the frightful catastrophe stood thus: -

Recovered alive from the South District	150
“ injured “ “ “ “	20
Dead Bodies recovered	49
Remaining in the pit, upwards of	100
Total, upwards of	319

As to the cause of the accident it would not only be premature, but rash, to venture an opinion, as until the fall in the main drift is cleared away and the whole of the workings open to inspection it will be impossible to obtain any data upon which to found a rational opinion. The colliery, which has not long been in existence, has been rapidly extended, and it is sunk to the celebrated four-foot seam of Merthyr steam coal, about 300 yards from the surface. In ordinary work the colliery employs about 300 hands, nearly equally divided between the day and the night shift, and the most of them reside in the village, which is within a short distance of the pit.

The village is named after the colliery, Ferndale, though it is better known as Blaenllechau. There are now about 250 houses, including a considerable number of wooden shanties of the American type, but of better construction and far more comfortable. Every house is inhabited, and most householders have lodgers, the gross population of the village being about 800. It has communication with Cardiff by the Taff Vale Railway; but being at the top of the valley, and alone, with the population entirely dependent upon it, there is no passenger service, and consequently it is difficult to access, the road or rather route from Aberdare is simply a beaten path over a steep and rugged mountain. The nearest railway station is five miles off and the inhabitants seem shut out from the world each side of the mountains.

A gentleman tells his story

The Rhondda Valley, already remarkable as being one of the localities where colliery accidents are of considerable fatality, promises now to eclipse all other previous accidents in this neighbourhood by the one that happened at the Ferndale Colliery on Friday, November 8th. The Cymmer and Risca catastrophes

in Wales were household words among colliers. The dead in both places were over 100. Widows still mourned members of their bereavements, and still received compensation for the loss of their breadwinners. And now the Ferndale Colliery, South Wales, promises to eclipse all former accidents, and will now stand in equality with the North of England in the number of inhabitants consigned to the tomb at one time; in the number of widows and orphans it can make; in the length of the funeral train of the mourners and the amount of sorrow and devastation it can create in a populous neighbourhood.

A gentleman who chanced to be in the neighbourhood of the explosion, and who visited the scene on Saturday writes as follows in a local contemporary: - "It is not easy to reach the pit from Pontypridd. The Taff Vale Railway Co; have a mineral line, which is about the only mode of access to the place, there being no road for a vehicle, and the footpath is of such a character that it would scarcely be safe to trust a Welsh mountain pony upon it.

I managed to arrive there about 2 o'clock on Saturday morning. There were many thousands of people there – indeed the many mountain pathways that led to the district about the pit were crowded with men and women. Of course, I was too late to witness those dreadfully exciting scenes that are acted about the mouth of a colliery soon after the news that an explosion has taken place and has been made known at the cottages in which the colliers reside.

No bodies had been recovered since 5 o'clock this (Saturday) morning, and there were comparatively few of the female relatives of those still in the pit waiting about the bank with scared faces and behaving with a nervous querulousness of which they could be scarcely conscious. I mixed with the crowd, which pressed close and eager to look at each "basket" as it came up, and having a Welshman's ear, it was easy for me to understand all that was being said. I soon found out that not a few of the women folk there had relatives in it. A great number of the men that stood about me had, also, so it was not just mere curiosity that moved them. Some of them seemed to take for granted that each next basket would bring up the man or the men for whom they waited for, but so long as I stayed there they were disappointed.

It is not easy to ascertain what number had entered the mine on Friday, and I could not avoid the growth of a belief in me that the proprietors feared letting out the whole truth at once. The lampman has made a statement to the effect that he issued 600 lamps on Friday morning, but that would not justify the conclusion that the same number of men must have taken them. Many of the

men are supplied with two lamps. It is probable that more than 300 men went down. The explosion took place soon after 2 o'clock on Friday afternoon, and immediately after efforts were made to rescue the men, and these efforts resulted in the recovery of many living and more dead bodies. By 5 o'clock this morning, 45 dead bodies had been sent up, and 27 men were sent up living, but many of them suffering severely from burning or from the terrible effects of choke-damp. One of them has since died, and several others are in a hopeless condition.

There has not been any lack of needed scientific skill, or willing hands to do what their owners are bid; but the accumulation of gas in parts where the roadways are blocked up has prevented what otherwise might have been done. It was not possible to penetrate far into the workings, and very little progress has been made since 5 o'clock this morning. About noon the proprietors and several of the proprietors and managers of neighbouring collieries, with Mr. Adams, C. E; and Mr. Wales, the Government inspector, had a long discussion for the best means to be adopted under the circumstances.

It was decided, I am told, to pour in a quantity of water, and so relieve the pit of much of the gas. It is expected that sometime this Saturday night the mine will have been brought into such a condition that the men can proceed rapidly with the clearing of the workings. Of course everybody is aware, and the knowledge intensifies the anxiety that is felt, that every hour that passes diminishes the chances of saving the lives of those who are still below. I doubt if any previous accident recorded in the annals of coalmining can have proved fatal to so large a proportion of the population of the district as this one. There are not more than two houses in the village that will not have to take one or more dead bodies in the place of the living man or boy that left them on Friday morning. I have been in some of the houses, and the scenes witnessed there were of a truly heartrending character.

The first house I entered had two families residing in it, both couples only recently have married. One of the women sat scarcely heeding the child (her first born) which lay on her lap, as she gave way to excessive grief for the young husband she had lost. The other woman's excitement was terrible. Her husband was still in the pit, and the alternation of hope and despair, as shown in her face and in her movements about the house, is terrible to witness. Many of the bodies that I have seen are frightfully burnt about the face, the hair is singed, and eyes look like holes fixed with tar more than anything else. In one house I saw four men laid out on a coarse mattress on the floor, and within four

feet of the door. They were all much burned. In another cottage I saw the bodies of father and son 'laid out' together on a board and covered with clean sheets, The lad was not more than thirteen years of age. He had not suffered much from fire, but had been suffocated by the after-damp.

There was a sweet smile on his face, and it was hard to believe there had been anything like violence in his death. In another house I found a lodger had been taken in dead, and the housewife told me that her husband and two other lodgers were still in the pit. Of course she did not know whether they were dead or alive. There is one family from which the father and four sons have been taken by this dreadful calamity. I give you such notions as I can hastily; it is not possible to write with great accuracy or with much calmness amidst such scenes of death and suspense as I have ever witnessed before.

An idea of the slowness of the recovery of the bodies can be gathered from the fact, that, up to six o'clock on Friday, only thirty bodies had been brought out, and up to Saturday morning at 5 o'clock twenty more. Then seven dead horses were brought up and three more bodies, and then the searching parties came to a fall twenty yards in length, and through which, work vigorously as they might, they would not get through in under twelve hours, so at the close of Saturday evening the results of the tragedy were seen in their full certainty. Beyond this fall nothing could live, and thus 120 men, in rough numbers, were there not only dead, but for the time entombed."

Sunday, November 10th 1867

On Sunday all hope of safety for those below had been abandoned, as the managers of other collieries who were down in the pit the greater part of the night, on reaching the surface declared it to be an utter impossibility for anyone of the unfortunate workers to be still alive. It is believed that the explosion took place in a heading where some seventy colliers were, and the place becoming filled up, the only means of exit was cut off, and the remainder who were in the pit have been suffocated by the after-damp. The coal trade in this district has been in a depressed state for some time past, and several colliers from some of the small collieries in the neighbourhood of Porth have been working at Ferndale, and numbers of those who visited the pit on Saturday and Sunday had to walk several miles to obtain tidings, if possible, of relatives. An old and experienced manager who was in the pit during the whole of Friday night, says, although it has been his lot to witness the effects of many explosions, he never during the whole of his career beheld such a sight as that he witnessed below.

Rescue of another collier

Many of the bodies that had been brought up to the surface are frightfully burnt, the clothing completely destroyed, and in some cases portions of the bodies have been literally burnt away, the charred remains presenting a sickening and frightful spectacle. About nine o'clock on Saturday night one of the men under the direction of Mr. Curnew, thought he heard a groan close by, and upon that the whole party, who were working in complete darkness, agreed to rest a few moments. They sat down and remained silent, and in the course of a few moments another groan was heard close beside them. One of them then asked where the voice came from, and having been answered, proceeded to the spot on hands and knees, and found a young man about 24 years of age lying in the doorway. He was immediately removed and taken out, but was so stupefied by his long confinement that he could give no information beyond this: about three hours before his rescue he was followed by another man, but since then he had not heard him. On Sunday night the operations continued uninterrupted.

Messrs Davis are large colliery owners, and own two other pits in the district. The largest they have is Ferndale Colliery, which is, indeed, one of the largest in South Wales for the best kind of steam coal, employing over 350 men and boys, and turning out some 500 to 600 tons of steam coal per day. It has been in existence some six or seven years, and covers 1,200 acres, a portion of which is still un-worked, and although known as one of the deep and fiery collieries with which the Rhondda valley abounds, it has hitherto enjoyed an entire immunity from accidents from fire-damp in consequence of the complete arrangements for ventilating the workings, which has earned for the proprietors the opinion of Mr. T. E. Wales, the Government Inspector of Collieries of south Wales, that this was one of the best managed and ventilated pits of its class in the district.

The pit is divided into three districts – west, east, and south – and is ventilated by two shafts of “up” and “down” cast. It is worked on one level, about 300 yards deep. It appears there are two main headings running east and west, 1200 yards in length. The district in which the explosion took place is supposed to be the east, which forms a part of the well-known four-foot vein. Of course, at this moment it is impossible to form more than a guess as to the origin of the catastrophe, but there seems to be little doubt that the sufferers from the explosion were chiefly the men working in the east district. The whole of the pits have been stopped, and nearly all the managers and civil engineers of the district were at Ferndale on Sunday. The place was visited by thousands.

Monday, November 11th 1867

Notwithstanding that every exertion has been continued for the recovery of the bodies in the east district of the colliery, relays of men have been engaged uninterruptedly in clearing the rubbish, still up to 8 o'clock on Monday night none had been reached. A great deal remains to be done before the fall will be cleared away. The foulness of the air in the workings has proved a near insufferable barrier to any great progress being made; indeed, so bad is the air that no light of any description could be made use of, so that the operations have been conducted in total darkness.

Immediately after the explosion the furnace either went out or had to be put out, in consequence of the fire in it, and here, it may be stated, is the advantage of machine ventilation, because, although occasionally air machines go out of order, yet when explosions take place there is no necessity to stop them. The difficulty of erecting brattices for the conveyance of air to the front was very great, and in consequence of this a consultation was held amongst the engineers in the pit on Sunday night, and the result of it was that a resolution was arrived at to re-light the fires of the ventilating furnace, so that a more powerful draught could be had to draw off the explosive air in the workings. This movement was attended with great danger, as there was a considerable risk of a second explosion, which might put a stop to all proceedings.

The suggestion was warmly supported by Mr. Wales, the inspector, who decided that it should be done, and we are happy to state that the task was successfully accomplished by mid-day Monday, and soon afterwards the noxious gas was being drawn off from the workings in vast quantities, so that operations could be pushed on with redoubled vigour, and the engineers were so sanguine of a speedy removal of the whole of the fall in the 'dip', that they anticipated the bodies, about twenty in number, would be got out by midnight on Monday. This is, however, a mere conjecture, as it is utterly impossible for to know how great or extensive the fall is, and it not known whether they may not meet with a rapid succession of falls to the very extremity of the workings. There is nothing to warrant an opinion contrary.

As to the working of the furnace its effects were astonishing, and the following figures which are supplied by an engineer who took the measurement of the air passing into the pit will afford an idea of the relative conditions of the pit both before and after it was lighted. Before the furnace was lighted the quantity of air passing into the workings through the downcast shaft was 39,600 cubic feet

per minute. The furnace was lighted at 12.30 p.m. At 1.40 p.m. the quantity of air going through the workings had increased to 65,700 cubic feet per minute; at 2 p.m. to 74,700, at 3 p.m. to 85,500, and since then the quantity has averaged 100,000 cubic feet per minute.

Owing to the difficulty of getting to the whole truth in such an out of the way place such as this, Ferndale, some things have found their way into print which much be corrected (wrote the '*Daily News*.'); the details that have already appeared in our columns are, however, substantially corrected.

We are now able to state, with an accuracy that will be corrected to a very slight extent at subsequent events, that that at the time of the explosion there were 328 men and boys in the pit, divided by the east and west districts, in which were 170, and the Rhondda and south districts contained the remainder. These figures may be one or two over or under, but they are within that of the truth. Of those in the latter districts all escaped alive, the fire having spent its violence before it reached that part of the pit, but some twenty of them were slightly injured – none seriously – and they all came up alive; 138 were brought up unhurt, and twenty-one hurt – some badly.

Of the others in the east and west, not more than five were brought up alive, and of those three have died since. The number of dead brought up from the workings was 49; and there now remain underground 117 persons for whom inquiries have been made by their friends. It is not believed that a single individual of them can be alive now, and the poor friends at home have abandoned all hope of their safe return. Very much destitution prevails in the bereaved families, notwithstanding that the colliers in this pit earned at the least half as much again as the men and boys of the Merthyr and Aberdare valleys, and the high rate of wages paid attracted unencumbered men from all parts of the district.

In consequence of this calamity will be felt far and wide, and families from miles around will be thrown into mourning. In Merthyr, for instance, several distressing cases have occurred; in one house three or four sons got killed, and in another contiguous three married men have left young widows to bewail their dreadful fate.

On Monday several of the funerals took place. About a dozen internments took place in Llanwonno church, on the summit of the mountain, and a few were carried to Aberdare and Merthyr, where they had friends. Among the engineers

that have given valuable aid heading working parties are Mr. W. Adams, Mr. Curnew, Mr. L. Lewis, Mr. W. Lewis, Mr. H. Lewis, Mr Jones, Mr. George Brown, Mr. Burns, Mr. M. Joseph, Mr. Williams (of the Taff Vale Railway), Mr. Truman, Mr. Walker (of Tondy), & Co.

Tuesday, November 12th 1867

The wisdom of lighting the fires of the upcast shaft on Monday was apparent in a very few hours, the operations for the clearance of the falls having been carried out with an activity which was physically impossible before. Several hours elapsed before the extent of the fall could be ascertained, but about midnight, to the great relief of the workmen and engineers, a hole was made through which the bodies of several men could be seen inside. Nevertheless it was not until 3 o'clock on Tuesday morning that the bodies were reached. There were eleven persons lying there huddled together, all burnt, and some to a frightful extent. To avoid an increase in anxiety to those above ground it was agreed that the whole of the bodies should be moved to the bottom of the shaft and sent up in two or three lots, and this was accordingly done, the first lot arriving at the top about 5 o'clock. They were not to be recognised, except by the remains of the clothing about them, and were put into coffins immediately.

By 8 o'clock on Tuesday morning, nearly all the men were brought out of the east or dip headings. Parties were then set to work to clear the headings in the rise, and in consequence of the communication being totally destroyed in some places very slow progress was made in the recovery of the bodies. They were found in twos and threes, and sometimes eight or ten together, but the spectacle presented by them was of the most harrowing description. Trunks were found without heads, arms, or feet, and in one instance a boy was sent home without an arm, which was subsequently found and sent afterwards wrapped in paper. No more ghastly sight can be conceived than that which met the gaze of the spectators and explorers. The poor fellows had not been burnt, but blown by the force of the blast against the ragged sides of the mine with terrific violence, the flesh being torn and bones broken in a sickening manner.

Decomposition had already set in, and the stench exhaled was frightful, the very clothes of the workmen being so impregnated that it followed them wherever they went. By 10 o'clock twenty bodies had been brought up, and this number was gradually increased until 1 o'clock, when twenty-nine had been raised. A fall was then encountered, and some delay arose, but about 3 o'clock five more were sent up in a tram, each separately wrapped in canvas, the bodies being too

bad to be exposed to view. An hour afterwards three others were brought up, including one whose head had been blown off the trunk. The poor fellow, about twenty years of age, was recognised by his wife at the bank, and she, poor thing, uttered a scream of such agony that it was heard a long distance off. She was led away, crying "Murder! Murder!" with a horror that cannot be expressed. The scene at this time was most striking.

Fathers and mothers, who had been lingering around the pit in the cold raw air, stood expectantly, anxiously waiting. Coffins lay about in all directions, some beautifully decorated and bearing the name and age of the poor collier, whose body yet lay underneath the rubbish in the mine. Up to 4 o'clock thirty-seven bodies had been brought up, making in all eighty-seven dead, and it is feared that after all that when the whole of the bodies have been brought up they will be nearer 200 than 170.

Several more dead horses have been brought up, and one or two stated in our previous report as blocked up by a fall have been got out safe and sound. One Tuesday the Government Inspector, Mr. Lionel Brough, had a most narrow escape. He was in the act of descending by the cage, and had stepped therein, when, on account of some mistake on the signals, the cage was tossed violently up, and Mr. Brough thrown with some force back into the drift. But for the mere accident of him having a loose hold his head would have come into collision with the arch above, and certain death would have been the result. The escape was a most narrow one.

In connection with the explosion a singular case of superstition has transpired. A lodger told the mistress of a house a month before the accident that he had "found a warning" of the explosion, heard the screams, saw the dead, and, in fact, had the calamity presaged to him in a most remarkable way; and this is what he told to the men at the time. During the bringing up of the dead on Tuesday an accident occurred which is without parallel. A fireman named John Richards was amongst the dead. He was a better clad, better conducted man than the majority, and amongst other things had a good watch, which was found in his pocket and sent up to the top of the pit with the body. Between the top of the pit and his house his watch was stolen. This will show that the mind becomes habituated to the most horrible scenes.

Strange tales are afloat as to the cause of the accident, and it is necessary these should be recorded, so that the Coroner may investigate. This, however, is certain, that the workings were so hot on Friday morning that two young men

went out, and meeting with the manager told him they could really not stay below. We also learn from good authority that on assuming the management of the pit, Williams economized in a way to cause much prejudice, and led some of the colliers to leave. When he first went there, years ago, a man had the duty of clearing the airways, and for this he had four shilling and sixpence per day, with permission to take the coal which fell in his way as a perquisite. Williams stopped him from taking this, and the man threw off his work, and it is reported that ever since no man was placed in this important post.

A telegram despatched on Tuesday night stated:- The working men are still busily engaged in searching for the entombed men. Up until two o'clock today 23 more bodies had been discovered, and three hours later 18 more were added to that number. More bodies are expected to be brought up in the course of the day.

Wednesday, November 13th 1867

Wednesday was again a miserable scene of crowds of people drawn to the pit; some from direct interest in the recovery and identification of relatives or friends who had been the victims of the lamentable catastrophe, and others, amounting to hundreds, or perhaps to thousands, who were attracted by mere curiosity. The number of coffins about the mouth of the pit was in itself a melancholy sight, and more so that only three dead bodies were brought up. Two were sent up in the night of Tuesday, and a third body was sent up at 12 o'clock on Wednesday. The two bodies found during the night were indentified. The body brought up at mid-day was so frightfully charred and it was almost impossible to indentify it. This makes the total number of dead bodies brought up to 95.

Mr. Brough, the Government Inspector, again went down into the pit, but in a very large portion of it the foul air was so bad that nothing could be done in the way of removing the fall which had taken place, and consequently there was no possibility of reaching the bodies of between 60 and 70, who are believed to have been in the pit at the time of the explosion, and who must be added to the number already known to have lost their lives. Of 26 who were brought up on Saturday alive, but more or less injured, two died, and the remained 24 are in a fair way of recovery, isTthough suffering considerably from the shock to the system, as well as from the direct effects of the accident in bruises and burns. A few bodies were brought up on Tuesday who could not be identified; but on

Wednesday one of them was recognised by the remains of his clothes as a young man, 19 years of age, named Edward Williams.

During the whole of this week the bodies brought for internment at Aberdare had been conveyed either by special or mineral trains. Two bodies, those of Peter Morgan and John Morgan, were interred in the Aberdare cemetery between 9 and 10 o'clock on Wednesday night. As the mournful procession passed through the town funeral hymns were sung, which had a most melancholy effect

Mr. Davies, surgeon of the colliery, and his assistants, Mr. Roberts, Mr. Devonald, and two other gentlemen, have been most assiduous in their attention to the sufferers, and everything has been done by the proprietors of the colliery which can be done in such distressing circumstances to alleviate the suffering of the sorrowing relatives of the dead. But still there was a very large concourse of people drawn to the sad scene. The arrangements made by Colonel Lindsay (Chief Constable) have prevented any improper or undesirable interference by the mass of colliers who have been brought from long distances in some cases to the spot. A large number of men from the Llantwit Colliery went down into the pit to assist in the necessary work, and 120 men came from the Cwrw Colliery, but their services were not required, and they were supplied with refreshment in acknowledgement of their good will.

The Taff Vale Railway Co; so often reviled for high charge and stringency, have ever since the accident ran a special free trains four times a day from the Porth station to the colliery, in which a large number have been conveyed to the mournful scene, and enabled to show their sympathy, and in many cases to identify relations or friends. Too much praise cannot be given them for their consideration. Arrangements have now been made to ventilate the whole of the workings, so that it is anticipated it will be possible to get at the larger portion of the bodies left in the pit. Various opinions have been expressed as to the cause of the catastrophe, and much has been said of lanterns being found open. Assuming that the pit was a model of ventilated working, it seems seems strange that an explosion of such intensity could have occurred. The exact number of widows and orphans left behind it is impossible at present to say, but it must be large. There is no doubt that the proprietors will do their part, although their losses must and will be very heavy.

Under such circumstances as these, an appeal to the benevolent will meet with a generous response, and it may be remarked that it cannot be made too soon.

On Wednesday seven more of the bodies were brought to Merthyr, and passed through the town towards the Cefn Cemetery, attracting a great crowd. The procession was so large that it took a quarter of an hour to pass one street, and the scenes of grief were such as have rarely been surpassed.

Women hung over the carriages in depth of sorrow, and men cried like children. It was an awful scene. The shops through were partially closed, and the poor mourners had a full support of sympathy. A few gentlemen met together in the reading-room at Aberdare, on Tuesday night to consider what steps should be taken to relieve the wants of the surviving sufferers. Nothing definite was arrived at, but, after considerable conversation, the meeting was adjourned until Thursday evening. It is only proper to state that the immediate wants of the needy and suffering were promptly attended to by Mr. Davis himself, and there can be no doubt that he will do much towards future requirements.

A newspaper correspondent interviewing one of the rescuers reported: - Strange tales are told of the extraordinary position in which some of the dead were found - so strange, incredible indeed, that I think it best not to repeat them. In one or two instances, however, I was told of discoveries in which place a degree of credence. One of my informants drew forth a rough sketch, and showed me in graphic style where so-and-so had been touched, and at the touch tumbled to pieces - nothing but dust; here pointing out where such a number of bodies had been found all scorched "to nothing," and there describing where some poor soul had contrived to get himself into an attitude which no human being could ever expect to accomplish and live.

There were, however, sorrowful sights to be seen underground. I know of a man who sought to escape through running; he remembered his boy, stopped to take the lad in his arms, and then raced for life. With the goal almost in sight he slipped over a corpse, fell with the lad in his arms, and when he revived, for this man did live, the poor boy was dead. The man was rescued, and not much injured. The body of the boy was badly burnt.

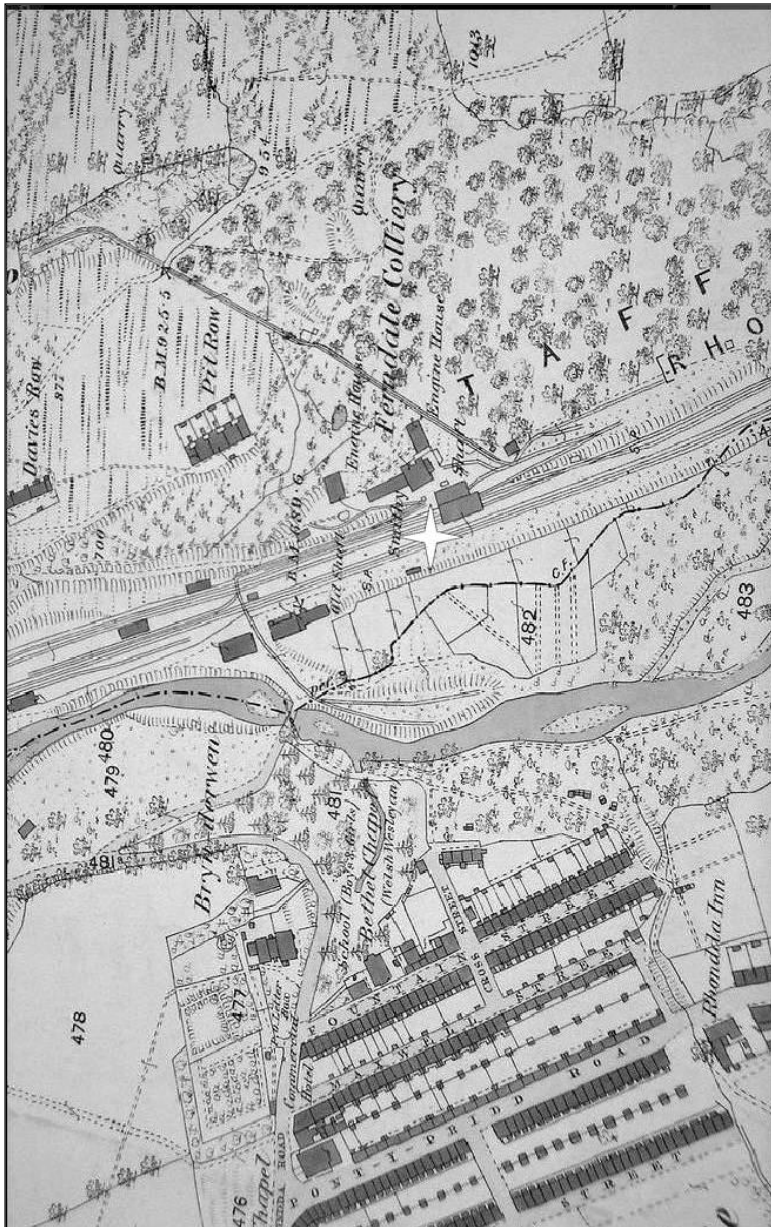
Several men were found with their faces to the ground, with hands outspread, as though vainly endeavouring to ward off their cruel death. Most of them were burnt, and these presented shocking spectacles, many being badly scorched and charred. Affecting instances are told of the joy of wives and mothers on their husbands' return safe from the pit; but the tails of husbands dead, homes broke up, destitution ahead, are, on the other hand, heard on every side. A woman, 65 years of age, saw her husband and four sons go off to work on Friday

morning; not one of them has returned – all are “missing.” The poor old woman is deprived of all her companions and dear ones at one swift blow is now alone and destitute. The grief is excessive but subdued. Young wives have lost young husbands, and are left, perhaps, with the newly-born babe alone in the world. Instance upon instance of individual cases of unhappiness might easily be given. A painful episode has just followed the painful tragedy. A father named Thomas Thomas, and four sons, were deposited in the burial ground adjoining Sardis Welsh Independent Chapel, Pontypridd, all victims of the late explosion. The poor wife and mother never recovered from the effects of this wholesale bereavement, and she died on Tuesday. It is generally believed that she died of a broken heart.

Thursday, November 14th 1867

The work of clearing the falls in the Ferndale Colliery proceeds but slowly, and since Wednesday only three bodies have been recovered up to this morning. Mr. Brough and Mr. Wales, the two Government inspectors, go down into the pit each day, and direct the “shifts” which are continually being made in consequence of the foul air preventing the men working for any lengthened period. Two of the 26 brought up on Saturday have since died, but the remainder are doing well, although several of them are suffering from the effects of the shock to the nervous system. It was fully expected that considerable progress would be made on Thursday in clearing the fall, and it is very probable that a great many bodies will be brought up to bank before night. With the exception of one fall in the Little district, all the remaining falls are in the Rhondda district, where the remainder of the bodies are supposed to be, with the exception of two or three in the Little district. It is probable that the whole of the bodies will not be recovered by the end of the week, but every effort is used to bring the work to a speedy termination. The following list may be taken to be correct as it is possible to obtain: - Dead, 99; Injured, 19; Living, 135; In the pit, 73; Total, 326. Up until Thursday night 121 bodies had been recovered. It is feared, when all that are now down are brought up, the number of fatalities will be nearer 200 than 170.

Note : - During the following weeks a few of more of the survivors succumbed to their injuries and more bodies continued to be found, including two recovered just before Christmas 1867, and one skeleton recovered in 1868, and this eventually led to the total of 178 deaths.



**Ferndale & the No.1 colliery (Marked with star)
os map 1875**

Chapter Four

By mid-November 1867, fundraising for those left destitute by the explosion at Ferndale was well underway. Collections were made throughout the country and the following reports from Merthyr and Aberdare, show the endeavours being made to raise the £10,000 to £25,000 it was estimated it was required to secure the future of those involved: -

Public Meeting at Merthyr

A public meeting was held at the Temperance Hall, Merthyr, on Wednesday, November 27th 1867, in obedience to an influential requisition to the High Constable W. Simons Esq; to consider the best means of raising a fund towards the alleviation of the distress caused by the explosion. The attendance was not large, though highly respectable. The chair was taken by the High Constable.

The Chairman in opening the meeting said: - "Gentlemen, we have met this evening for a very mournful purpose; it is impossible for any person to deal with the subject which we have to treat with tonight without feeling his heart bowed down with the weight of the dreadful calamity which has just visited the neighbourhood. The loss of nearly 200 people is very easily expressed – it passes glibly enough off the tongue, but who can measure the woe, the horror, and the anguish brought into the homes of those people by the terrible affliction which has visited them?

Two-hundred lives are as many as have been lost in many a contested battlefield. Two-hundred lives lost means woe, distress, and anguish in 200 houses or thereabouts. We all know from experience there is hardly a living man who has not had the misfortune of losing some dear friend; we all know from experience the bitter pain, the great woe and horror with which we are afflicted even when we have been anticipating the loss when it has been presented to our eyes in the future for a month – a week or for days; but who can understand the woe of a family afflicted at an instant with the death of its chief, and in too many instances unhappily of many others of its members?

Here there is no forewarning, no resignation at the lot of man by anticipation, but the terrible evil comes down with all its force, and we then feel how weak, how miserable we are, and how the mere simple plaything of the providence which overrules us. Now, in reading the newspapers with reference to this dire visitation, you must have seen that in some houses the affliction has been so

great as to carry away a father, two or three sons, and sometimes a brother or two of the wife, so that the spirit of desolation appears actually to have crushed out every living being connected with the household – every prop and every stay is gone, and the widow left to mourn, not alone, but with helpless, hapless children, weeping around her, for those kind hearts, those tender associations which are never more to return to them.

Are those circumstances not such as to thrill very passion, to evoke every spirit of charity and to make the springs of love gush out with no limit to assuage a tribulation and a distress so dire as this? We are here tonight to invoke your sympathy for those distressed people in the only way in which it can be shown – in a way which, in this free and happy country, we have had many examples by making a liberal provision out of our means in mitigation of the sorrows of those whose distress may be, as far as money goes, to a certain extent modified. However, be as liberal as you may be, you must bear in mind you cannot restore the dead, or bring happiness to those unfortunate homes. You will hear from the gentlemen who will address you this evening the particulars of this fearful accident, of which you must have read a full account in the newspapers tonight. I have only to ask you to give – which I am satisfied you will – a hearty response to the appeals that will be made to you on behalf of the suffering families. He thereby called upon the Rev. J. Griffiths, who during his appeal commented: -

He would like to know who it was who did not sympathise with the widow and orphan, with father and mother, and brother and sister in a calamity of so dreadful a nature as this had been; nor did he fear anything whatever as in what would be the result of public liberality. English liberality had only to know of the circumstances of the tragedy, and they might be sure that it would flow in this, as in other cases, in a very full and ample stream.

But leaving the question of sympathy for other speakers he would venture on making one or two observations with reference to the character and frequency of these explosions, and to ask how long they were to continue. Was there no cure for all of them? Mr. Vivian (M.P. for Glamorganshire), at Pontypridd, had told them that there was no cure for the evil; the High Constable of Merthyr, in a letter written in a local newspaper last week, said there was a cure; Mr. Fothergill, on the other hand, laid it down with great force and emphasis that accidents were a mystery, and it was impossible to say how they happened; but in answer to that Mr. Brough said there was no mystery at all about them – it was merely a question of ventilation, and that ventilation was merely a matter

of experience. Here were opinions as adverse as possible, and who should decide when the doctors disagreed?

The other day, when travelling in a train he fell in with a gentleman who owns large collieries and opened a conversation with him, and asked him whether these accidents could be stopped. He replied, "When you can stop shipwrecks, you can stop them." He was glad that was the answer, for if they were as amenable to human control as shipwrecks, they might be lessened to all events. Were not half the shipwrecks that took place due to the sluggardliness of ship owners who sent their vessels to sea improperly and insufficiently manned?

With respect to the present accident it would be rash, unwise, and altogether uncalled for to pronounce any opinion as to the cause while coroner and jury were sitting in investigations thereof. They had plenty of accidents to talk about without disturbing the present position of the last, yet he might say that having known the owners of the pit for the last twenty years he would say, honestly, that kinder and more humane men it was impossible to find anywhere, and none were more careful in attending to the wants of their workmen.

During the last twenty years they had no less than ten accidents in this district – six in the Aberdare valley, one at Cymmer, two at Merthyr, and one at Ferndale. Coroner's inquests had been held, upon some, therefore, they were free to comment publicly. Upon nearly all such occasions stories were afloat such as the accident might have been prevented by better ventilation, and that the workmen saw the agent and told him of the fire in the pit, but he disbelieved them, and told them to go about their business, and then went down the pit and was blown, with his men to destruction, and all because he would not listen to his men. Such stories were sterile and everybody knew they were. They had also known verdicts of manslaughter returned against the agents; such was the case at Letty Shenkin, Cymmer, and Gethin, but those men were acquitted, as people expected.

Then the public mind cooled down, and things resumed their old course until the recurrence of another fearful catastrophe, like the present re-awoke them. What they wanted was this – to draw public attention, now that it was exerted, to the fact that a vastly greater number of deaths, with the consequent destitution and distress, occurred through single accidents – falls – than by the greatest of these explosions, yet it was not noticed by the public unless it was brought about by one of these calamities. Mr. John Nixon told them that the number of people who lost their lives by accidents in the mines of this country in

1865 was 960, but in 1866 it was 1480 – an increase of 50 per cent in one year. He thought the time had come when they might ask whether something could not be done to put an end to these accidents.

Mr. Vivian thought they could not be stopped; Mr. Fothergill had expressed an opinion – very surprising he must say, coming from a man of his knowledge and practical experience – that they were a mystery, but really were they to suppose that they could not lessen them – though it was beyond their means to absolutely prevent them? Shipwrecks could be lessened, and so he believed could pit accidents.

The collier was represented as the most reckless of men and did not value his life as much as a pipe of tobacco. Frankly he would confess that he thought they made too much of the 'bacco box'; let them look at the other dark side of the picture, had they never heard at Coroner's inquests of the want of ventilation, the closeness of agents and the niggardliness of owners? Had they not heard of such things, and the verdicts of manslaughter against managers? Had they not heard of pits working night and day without any rest and of managers who were taken on because they had the knack of turning out the largest quantity of coal at the smallest cost? He did not say that the workmen were blameless – that was not his point, but when so many were to blame let it be properly borne by the right parties. He thought no pit should be worked that could not be worked with naked lights. In his opinion nothing would remedy the the present state of things but a Royal Commission – a commission so organised that no interested party should be upon it but thoroughly independent men, let the assistant boundary commissioners, barristers, and competent mining engineers be sent into every district to collect information and opinions from all sides on the spot, and compile the aggregate results of their inquiries in a great blue book from which the commissioner might draw up a report and recommend beneficial legislation. If that were done they would know how much blame was attributable to the masters, how much to the agent, and how much to the men.

Mr. W. Harris in seconding the resolution, said it spoke for himself, and did not require a long speech from him; but he would observe that though he agreed with a great deal that the rector had said, yet he would not fall in with all his views. He could quite endorse the statement that there were no kinder-hearted people to be met with than Messrs. Davis, for he had always found them ever since they were young men kind, considerate and liberal and they had seen it in the newspapers that nothing was denied to their agents in managing the collieries. One of the most important things was the proper inspection of mines

and, in his opinion none but men certified for their thorough practical knowledge and education should be appointed to the post of viewers upon whom so much depended, especially in steam-coal mines where there was a constant escape of gas; a great deal of skill was required not only in bringing in the air but in taking it out of the pit again when it has become foul. At the first Gethin accident what baffled everybody was not the getting of sufficient air into the pit, but the bringing it out again.

A meeting of mining engineers was lately held at Newcastle at which all the safety lamps known were tested; they were all plunged into a compound of explosive gas, and every one of them without exception exploded. As to blaming the masters he would just state this: - Having sat on the first Gethin inquest he felt anxious at the second to know anything would not be elicited to throw additional light upon the first accident. In the course of the examination of the viewer of the colliery this evidence was given: Having received information on Sunday morning that something was wrong in the ventilation the viewer went down and found it was necessary to turn the air into another direction. Although he saw Mr. Crawshay about turning the air he never told him that the mine was in such a dangerous state. That showed the necessity of viewers of fiery pits undergoing a test of competency. He concluded by stating that he would give £20 to the fund himself and £20 for the Energlyn Coal Co. The resolution was unanimously carried.

The same day, Mr. Hussey Vivian, M.P. for Swansea, Chairman of the meeting held at Pontypridd, for the purpose of raising a fund for the permanent relief of the sufferers of the late explosion at Ferndale, forwarded a telegram to Mr. D. Walter Davies, the secretary, informing him that he had a letter that morning from Sir. T. M. Biddulph, written by command of her majesty, enclosing a cheque for £200, and expressing deep sympathy with the widows and orphans of the sufferers of the explosion. Messrs Davis have subscribed £1,000, and the subscription list has many a handsome sum on it.

The wailing at Ferndale

The churches, as well, across the country, were making collections, and the following is a short part of a speech made by the Rev. C. White, at the High Street Baptist Church, Merthyr, on Sunday, November 24th to a densely crowded congregation: -

A terrible disaster which has caused widespread bereavement and woe in our own neighbourhood calls for our attention at this time. As I walked through the beautiful valley at Ferndale – beautiful for its natural scenery, its majestic hills, and lovely vales – but gloomy and melancholy now because of its wailing and woe, it occurred to me that the text I have chose for this evening’s discourse would be the most appropriate as of the houses I visited and passed through I thought it could be said there was scarcely one in which there was not one dead.

Some of you have seen the mournful processions which have passed through our own streets on their way to the cemetery, there to lay in a grave a husband, father, son, or brother, but at the pit’s mouth alone can be realized all the sadness of this calamity. I saw several bodies taken up, all dreadfully burnt. Near the pit were rows of empty coffins waiting for the dead; some of these coffins had on them the names of those for whom they were intended – proving that even hope had expired in the breasts of many of the bereaved.

One poor woman told me she had lost a husband and two sons, and was left quite alone in the world. I see by the newspapers that one married woman lost her husband and four sons and died herself shortly after of a broken heart; and a young girl also lost her father and three brothers and also a young man whom she was to have married a week ago. Poor girl! Great indeed has been her loss and may God bless and sustain her. I forebear to enter into further melancholy details; here I will let the veil drop out of regard for your feelings, though it would be very easy to unfold a tale whose lightest word would harrow up your souls. During the two days that I visited Ferndale the conduct, upon the whole, of the thousands of people about the place was praiseworthy in the extreme. Nearly every face was sad and serious; and I must say I think some of our newspaper reporters do a great injustice in representing the conduct of the people as for the most part careless, drunken and revolting. Several Christian gentlemen distributed religious tracts among the people; other prayed for and preached to the many visitors who were there. The motives of these Christian men were good, but there are two opinions as to whether their efforts might not be directed at such times and places.

Something now must be done to relieve the wants of the widows and fatherless connected with the Ferndale Colliery. This is the time to allow practical Christianity, to visit the widow and father in their affliction. It is useless to talk to people dogmas and doctrines and to endeavour to make converts to any sect when they want bread to eat and clothes to wear and a fire to warm them. Feed the hungry and cloth the naked; administer to their temporal before you talk to

them about their spiritual wants. Let all of us who can, at this time, show kindness and benevolence to the poor and starving, do so. It is gratifying to know that the owners of the colliery – the Messrs. Davis – have acted the part of liberal, large-hearted men on this sad occasion. In this, showing they are only consistent with their past lives, and acknowledged liberality and kindness, and presenting a noble example that all coal and mineral proprietors and ironmasters would do well to imitate.

But the public must also render assistance at this time as a larger number have been killed than at any former accident in Wales. The number killed at Risca – the highest before this in the principality – was 141, but at Ferndale there will be at least 170 deaths. It is I think too much to expect the proprietors to relieve all the sufferers without any aid from a generous public, as it seems to me that for some years it would require an outlay of almost £2,000 a year to meet the necessities of the case. I am glad to see that several gentlemen – the Marquis of Bute, Mr. Fothergill, and others – have already given liberal donations, and doubt not the people of Merthyr will do their part when called upon to do so.

But after all we can do but little to lessen the real sorrow of the poor mourners. Our gifts of charity – our silver and gold cannot bring back to them their dead friends. When we see them weeping, we feel that heaven alone can aid them; may Heaven help them now! Poor mourning orphans and widows, and bereaved ones, may God bless, comfort and sustain you all, and more than make up for your loss, and be to the fatherless a father and to the widow a husband. May this great and sore trial be blessed to you, in leading you to give your hearts to Jesus and to love God, and think more about the future world, which very soon may be a present one.

We have ourselves passed through the deepest waters of bereavement and tribulation and accord to those who are now doing so our warmest sympathy and most fervent prayers. I would not bid the bereaved ones cease weeping for that is a false method of consoling, but rather say weep on and let grief exhaust itself in tears, as clouds lose their blackness and heaviness in falling showers of rain. For a time mourners “tears must be their meat day and night.”

Let us think kindly of and pray for the miner and colliers who work underground amid dangers and at the perils of their lives, to keep us in happiness and comfort. When we sit down by the warm fire at this winter season, let us sometimes bear in mind that the men that get up coal for us from the bowels of the earth expose themselves to great dangers in doing so. The very men whom

some people foolishly affect and despise are the people with whom we could at least afford to dispense – the miner, collier, labourer, artisan – all such are amongst the most useful inhabitants of every country.

Since then we depend so much upon each other for everything, and as we are the same in all the great emotions - the joys and sorrows of life, and as God looks upon us all as so many members of one great family, let us not make misery for ourselves and others by needlessly erecting barriers of distinction and separation, where nature and commonsense have placed none. We should remember rather the great points in which we resemble each other, and strive together to promote each other's welfare and prosperity. We sometimes almost forget that the poor miners and colliers have tender feelings; and that the emotions and susceptibilities of the poor are as fine and tender as those of the rich. When the great and wealthy suffer bereavement, they have much sympathy, as their sorrows are known. When the Queen of this country lost her husband, the nation shed tears with her over her consort's grave. But though the poor have to weep alone, and endure their grief in secret, I need not tell you who witness the sights at the pit's mouth, and in the houses of the bereaved, that the mourning of those who have been made widows and orphans by the explosion is quite as sincere and touching as the sorrows of the illustrious ones of the earth.

At such a time as this we should show, by "weeping with those that weep," that there are some events that make us forget the petty distinctions of caste and class, and this or that part of society, or religious sect or denomination, and that make us believe we are simply sons and daughters of a common humanity, the children of a Common Father, and the redeemed of a common Saviour.

From the wailing at Ferndale, from the graves of those of these colliers – from the graves indeed of all men, comes there not a voice to tell us of our frailty, borne into our hearts by the dust upon which our footsteps tread? And shall they rise again, these poor bodies so dreadfully disfigured, burnt and charred? Will there be a trumpet blast so loud and shrill that not one of them will fail to hear it, and each soul, re-entering its shrine of clay, pass upwards to the judgement seat of God? Shall they with us submit to the final judgement and arbitrations of the last great assize? Yes, these shall all rise again. They will have part in the last resurrection in common with the mighty and illustrious dead, proud sons and daughters of earth."

Public Meeting at Aberdare – Ferndale proprietors called ‘blameless.’

Another meeting was held the same week, at Aberdare, and the speech of a collier owner is of particular interest. Highlights of the meeting published in the ‘*Aberdare Times*,’ of Saturday, November 30th 1867 read: -

On Thursday night, November 21st 1867, at the Temperance Hall, Aberdare, was the centre of one of the most influential and crowded public meeting ever held in the district. The object of this meeting was not alone to sympathise with the bereaved relatives of the Ferndale Colliers, but to establish a fund for their permanent relief. In addition to this good object, too, the promoters of this meeting had in view the desirability of establishing a permanent relief fund from which the poor widows and orphans of colliers killed in the many accidents of daily occurrence in our collieries might draw support. Mr. Richard Fothergill, whose presence in public invariably warmly welcomed, very kindly made a purposeful journey from London, with great inconvenience to himself, to occupy the chair and lend his influence to the good movement so ably sent on foot by some of the best of the local parishioners. The hall was crowded in every corner, and many who arrived late failed to obtain admission.

In opening the proceedings, the Chairman said: - Gentlemen and friends, I thank you very much for your cordial greeting. We have met together on a truly mournful occasion, but for a most charitable object; for we desire to express our deepest sympathy with the sufferers by the late calamity at Ferndale, and by a liberal coming together of our means to meet the material wants of the unhappy widows and children of the victims (Cheers).

It is the most dreadful visitation that has ever happened in the South Wales district, and being myself a very large colliery owner, employing, I am almost afraid to say how many colliers, I am deeply concerned to understand the causes to which this fearful calamity can be attributed, and, aided by one of my chief mineral agents, who was actually the manager of this identical colliery a couple of years back, and was actively useful, I am glad to say, after the accident, in rescuing the poor fellows who survived, I have collected all the information which I could obtain bearing upon the subject. (Cheers).

I am glad to be able to assert, before this great and important assemblage that the owners of the Ferndale Colliery are wholly blameless in this matter, and are themselves next to the actual sufferers and their families, the objects of our deepest sympathy, to use the expression of my mineral agent, to whom I have

referred, and whose cool courage and zeal after the accident attracted the admiration of all witnesses, there was not a better colliery in the district; it is laid out in the most liberal spirit by the late Mr. Davis, the father of the present owners. (Cheers).

No expense was originally spared. The pit is nearly 300 yards deep, and the ventilating shaft so spacious that double the quantity of air required can be passed up it. Indeed the quantity of air was so great that it was impracticable to walk therein with a naked light in the hand. (Cheers). This fact will readily understood by those conversant with colliers when I mention that the quantity of air passing amounted to 110,000 to 120,000 cubic feet per minute, which quantity could be doubled by adding another furnace at the bottom of the shaft (Cheers).

Then as to the supply of stores of every description necessary for the safety of the pit in all its details, there was really no limit or stint. (Hear, hear) – the manager only had to ask and to receive. (Cheers). Again as to the management of this valuable colliery, the care of the valuable lives therein, besides being under the superintendence of the Government Inspector, the services of a first class and long practiced mineral surveyor were engaged for the general supervision, and there was also a manager who was appointed at a liberal salary, who was always on the ground.

Under the later personage too, there, were some half-dozen firemen, whose duty consisted in watching and controlling the ventilation of the colliery, upon the good attention of which even their own lives depended. At a subsequent stage of the proceedings, the Chairman added that in addition to the supervision of those already named, the colliery had the advantage of being visited and inspected two or three times a week by Mr. D. Davis, the principal proprietor, a man of no mean skill and judgement. Now what could the owners do more? (Cheers). I am jealous of the good name of the Welsh collier, and I take this public opportunity of stating that the Welsh collier is not the stupid perverse-minded brute that some people like to paint him. (Hear, hear). He values his life just as much as you and I do, and understands much better than the people who sit at home at ease, warming themselves by the coals he has raised, the risk he runs of a sudden death through incaution. (Cheers).

Remember, gentlemen, that when a collier strikes alight or opens his lamp in direct opposition to the rules of the colliery, he is not such a fool as to do so in what he believes to be an atmosphere of gas. (Cheers). There is much

misapprehension on this subject. It is supposed by many that the colliers are required to work in an atmosphere of gas; but this is not the case. No colliers are expected to work in gas, though protected by a safety lamp. On the contrary, it is the duty of a collier finding his working place charged with gas, to leave that place, and report it to the fireman, whose duty it is to proceed there and clear it out. (Cheers).

It is therefore easy to understand that although blameable and punishable on the part of the collier to open his lamp, or to light it when it might have gone out, he usually does so in clear good air, without any idea of danger, and he is not the perverse idiot he is supposed to be by many who do not understand the subject, or the dreariness of his life underground, passed by the miserable light given out by a safety lamp. (Loud cheers).

The fact is, the extraction of coal from the depths of the earth is perilous alike to life and property, and for that peril, though it may be lessened by cure and science, a complete remedy has not yet been found. (Cheers). A blower of gas is struck by a collier, who is scarcely, if not at all aware of what has happened - for it is not tangible like a deluge of water, and yet it is a similar thing. A great reservoir of inflammable gas, the accumulation of ages, has been struck, and it pours upon the devoted workmen. The ventilation, in itself a gale, is at once overpowered, just as the ordinary water channels become filled and are inadequate to the floods of a bursting reservoir.

The poor collier, finding himself enveloped in gas, even if his lamp be of the best construction, and all in order, is apt to lose his presence of mind and become bewildered. To stay is probably fatal to himself and to rush away and leave the lamp burning is in all probability fatal to the whole mine, as the wire is apt to get red hot and ignite the gas. It is truly a perilous occupation, and a dreadful instance of its danger has just happened.

I cannot trust myself to dwell on the suffering and misery now presenting itself therefrom. We have met together to do what we can to alleviate the position of the sufferers. Our sympathy will, I am sure, tend to sooth the feelings of all who are old enough to understand, but let us not rest content by simply giving expressions to our sympathy, but rather let us dig our hands deep into our pockets and give freely to the widow and the orphan. (Cheers). Under these circumstances gentlemen, I appeal to this meeting with the greatest confidence. (Loud and continued cheering).

Dr. Devonald then moved the following resolution:- “That this meeting would also desire to convey to the prospective proprietors and the members of their family an expression of hearty sympathy and condolence.” He then spoke as follows: - “After the very eloquent and practical speech from the Chairman in opening the meeting, scientifically proving that no fault lay with the respected proprietors, and also the eloquent speech of sympathy by the respected Vicar, little is left for me to do in the way of speaking to the resolution, and the difficulty is rendered still less from the fact that, speak to whoever I would, go wherever I would, only one thing was to be heard, and that was, and expression of sympathy for the proprietors. (Cheers). And that they were not to be excelled in kindness for their employees; and that nothing was ever left undone towards rendering the lives of their workmen safe.

Also the public and private character of the Messrs. Davis was well known. Their public character is marked by uprightness and the strictest honesty; while privately their liberality and kindness could not be excelled; and in the head of the firm we had exemplified the strictest moral rectitude and Christian simplicity. And again, our peculiar national characteristic rendered my duty most onerous; for whatever might be our differences on minor points all were absorbed in the greater one.

Whatever are our ecclesiastical differences; whatever are our political differences – all are buried – and, tonight this platform is turned into common sympathy. (Loud cheers). It has been my lot to witness the sad scenes at Blaenllechau, being there within an hour of the occurrence, and remaining during the followings days and seeing all the ghastly scenes, and hearing all the heart rendering and agonizing cries of the bereaved; and, indeed, I could not but help feel thankful to an all kind providence that He had ordained time to wear out and sooth the bitterest feeling of agony and excitement, else I and others that witnessed those sad sights could not be where we were that night.

During those first days of intense agony, I had full opportunities of witnessing the kindness of the proprietors, ever careful of the injured, and anxious for the recovery of the dead. Amongst those at the pithead was a stranger, sickened by what he was witnessing his heart telling him to leave, yet so anxious to know the worst, he was rooted him to the spot. Neighbours and friends were there to render aid and assistance, but duty forbade them to pay attention to the cries of despair, enough to send human sobs and cries ascending up to the very heavens. But yet there stood at the mouth of that awful chasm a man who anxiously watched each carriage as it brought its burden of dead, dying, and living, and

each had its effect upon him. Of the living he eagerly enquired as to the probable fate of those below; and deeply did he bemoan the fate of the dead, until at last we see his refined and manly nature failing, and behold! He weeps like a child.

The proprietors' kindness of disposition is shown further by the timely and ample relief they gave to the bereaved, each widow, I am told, having 7 shilling per week, and each orphan 2 shillings; and house rent free. They have also, I am informed, decided to support all at their expense; but I hope they will not be allowed to do so, for it would be a great shame to this wild mineral district.

The injured lack for nothing in comfort, for it has only to be asked for and it is readily given. When visiting the injured a day or two after the explosion, I was asked to give a parish order, as the person told me he was a tramp and had only been there a short while. Yet he had a wife and three or four children, and although he would get 5 shillings per week out of the sick fund, that would not be enough for him. I had the matter laid before Mr. Davis, and his reply was to the effect, and his reply was to the effect that no parish orders were to be given, but to order on him. (Loud cheers). I therefore ask this large meeting to sympathise with the respective proprietors, who have so abundantly shown their sympathy with others. (Loud cheers).

The injured lack for nothing in comfort, for it has only to be asked and it is readily given. When visiting the injured a day or two after the explosion, I was asked to give a parish order, as the person told me he was a tramp and had only been hear a short time. Yet he had a wife and three or four children, and although he could get 5 shilling per week out of the sick fund, that would not be for him. I had the matter laid before Mr. Davis, and his reply was to the effect that no parish orders were to be given, but to order on him. (Loud cheers). The proposition was seconded and then put to the meeting and carried.

The inquest

At Pontypridd on Monday morning, November 25th 1867, an inquiry touching the death of the colliers belonging to the Ferndale Colliery was opened at the New Inn by Mr. George Overton, Coroner for the district. The inquest, for the formal purpose of viewing the bodies of the men killed at Ferndale Colliery began on the 9th of November and continued as the bodies were brought to the surface.

The jury consisted of Messrs. Jotham Chivers (foreman), Peter Holloway, David Evans, John Davies, Richard Bennett, Hopkin Smith Davies, Edward Edwards, David Davies, Aaron Cule, John Williams, Charles Roberts, Richard Rogers, Lewis Thomas, John Harris, George Griffiths, Thomas Richards, Moses Cule, John Evans, and John Jones.

Mr. Wales, the Government Inspector of Mines for the South Wales collieries, had communicated with him on the subject of the inquest, and in consequence of that communication, he thought the inquiry had better be adjourned to Monday, 9th of December next. He then read Mr. Wales letter, as follows:

To Mr. George Overton Esq; Coroner.

“Dear Mr. Overton – Mr. Brough and myself are of the opinion that we should not be able to complete our examination of the Ferndale Colliery before Monday, the 9th of December. We are therefore compelled to ask you to further adjourn the inquest to that day”.

Yours faithfully, Thomas E. Wales.

He would therefore not detain them, but the inquest would now stand adjourned until Monday, the 9th of December. Messrs William Pickard, Wigan, Lancashire, and Thomas Halliday, of Little Leven, near Bolton, a deputation from the National Miners’ Association were here introduced, and asked if any objections existed to their being allowed to sit at the inquest on behalf of the widows and orphans of the dead colliers. The Coroner said he should be very glad to see them there, and to facilitate their inquiries in every proper way. He would further give them a note to view the colliery. The deputation having thanked the Coroner, then withdrew.

The Ferndale Colliery Inquiry

Pontypridd, Monday, December 9th 1867

The ‘*Cardiff and Merthyr Guardian*,’ of Saturday, December 14th 1867 reported: - The adjourned inquiry into the cause of the recent calamity at the Ferndale Colliery was opened at the Assembly Room, New Inn, Pontypridd, on Monday, December 9th before Mr. George Overton Esq; Coroner, and a highly respectable jury, composing of tradesmen of Pontypridd. It was to last eleven days. Since the explosion at the Hartley Colliery in 1862, no event has created such a widespread sympathy for the sufferers, and the evidence to be brought out at the inquiry was waited for with considerable anxiety, as the destruction of life in

this place had been so complete that few were left who could give any account of the probable cause of the explosion.

Considerable interest was also felt in the immediate neighbourhood of the colliery, as it was believed by many that the inquest would bring to light a laxity of discipline in the management of these large works not generally believed. It was said that some of the men employed were the most unskilled in the district, that the late manager was a man of reckless disposition, and that though the colliery was provided with every means to make it one of the most secure from accidents of this nature, yet sufficient care was not taken to make all the necessary appliances available for the safety of life.

In some respects, also, the colliery differed from many others in the fact that a large proportion of the hands employed were transitory in their habits, and but little would be known of many who found employment there. At a time when opinion gained ground that an inquiry into the manner in which coalmines are usually managed, would lead to an amelioration of these disasters, the evidence, if any, that would support such a conclusion, was anticipated with interest. Whatever might have been the feeling of the people outside, the room in which the inquiry was held was by no means crowded, and those present, besides the witnesses and the parties directly interested in the inquiry, were evidently of a class whose occupation was not connected with mining operations. On the table were several plans of the mine, with not only the arrangements of the different workings, the airshafts, and the means employed to obtain ventilation, but also the probable seat of the explosion, and the different spots where the bodies of the unfortunate men were found.

The preliminaries were arranged, and the Coroner explained the course he intended to pursue with regards to the time of holding the inquiry, which would open each day at 12 o'clock, and close at 6 o'clock p.m. The first two days would be devoted to hear the evidence of the officers of the pit, and on the third he proposed to hear the evidence of any person whom the relatives of the deceased men might wish to have examined. Mr. C. H. James, of Merthyr, attended to watch the case on behalf of Messrs Davis & Sons. Mr. Wales, C. E; Government Inspector of Mines was also present, and several other engineers. Messrs Pickard and Halliday attended as a deputation for the National Miners' Association.

After calling over the names of the jury, the Coroner proceeded to address them. He said that they were assembled that day to proceed with the inquiry

commenced on the 9th of November last, and to ascertain, if possible, the cause of the lamentable catastrophe that occurred at the Ferndale Colliery in this valley on the 8th of November. He need not need, he felt, to convince them to devote their earnest attention to the subject, as the event has been so unprecedented in extent, and so appalling in its results, that it must command their most serious attention, and he would bear witness from his past experiences in such matters, that they were always ready to devote their most earnest attention and persevering zeal to the duties that might devolve upon them, however tedious and protracted they might be.

The present inquiry, he was sorry to say, was one of the most serious that had ever occurred in Wales, and had very rarely been equalled in the kingdom. It involved the death of no less than 175 persons, and there were circumstances connected with it that differed from the generality of such cases, as must have become apparent to all of them when they were discharging the most unpleasant portion of their labours, viewing the bodies.

In the present instance the great majority of deaths appeared unquestionably to have arisen from the direct effects of the explosion or burning, where as in, he believed, nearly all other similar cases, as a rule, about 90 percent of the deaths arose from suffocation, and only about 10 percent from burning. This peculiar feature was of itself sufficient to show that there must have been a large quantity of explosive matter, and he notes the necessity for a strict investigation; and he was sure they would not complain if it might appear tedious or protracted. They had, unfortunately, in these inquiries a host of difficulties to contend with, and great trouble to obtain substantial evidence. All those who could bear direct testimony to the important facts are now moved far away – *“to that borne from whence has no traveller returns.”* *“Their eyes are closed and their lips are sealed,”* and the jury were compelled to grope their way about in the dark recesses of the pit until they could find some clue or circumstantial evidence upon which they could place their reliance.

There was though, generally, a strange similarity with all these unfortunate circumstances, and they, as a rule, can be traced to the same causes; they differed only in degree, and he had no doubt, with their assistance, and valuable aid that would be derived from Mr. Wales, the Inspector of Mines for this district, and Mr. Brough, the Inspector of the South-western district, whom the Secretary of State had kindly sent to assist, they would be able to arrive at a satisfactory conclusion. But he could not, though, allow the opportunity to pass without making a few general observations upon the numerous incidents that

have lately arisen in the mining operations. Unfortunately South Wales has obtained great notoriety, and he regretted to say that it had lately figured as the worst in the kingdom. In the inspector's annual returns for the year 1865 it appears that the number of fatal accidents, as well as the number of lives lost in the South Wales district in that year, far exceeded every other in the kingdom, and when compared with the quantity of coal raised showed a fearful disparity.

He had not much time to scrutinise the reports for the last year, as they were only issued a few days ago; and he would here observe that it was a great misfortune that those reports should not be issued at an earlier date, before all interest in the matters contained in them had subsided. According to the present arrangements, he had never been able to obtain these reports until after about twelve months, and sometimes longer, after they were made, when they were of much less value. He believed, by the report only just issued for 1865, it appeared that although the number of lives sacrificed in Yorkshire and West-Lancashire, by the serious explosions at the 'Oaks' and the 'Talk o' the Hill' collieries, was greater, still the gross number of separate accidents were greater in South Wales than either the other districts during that year.

This fact alone is a serious reflection upon that district and the system of working adopted, and he assured them he felt it the more deeply, as a far more greater portion, indeed he might say nearly the whole, had occurred within the division for which he had the honour of presiding as Coroner for upwards of nineteen years; and he had consequently endeavoured, as far as he could, to ascertain the causes to which it may be ascribed, and the remedies that could be suggested for its improvement, and formed his own conclusions.

There can be no doubt that the demand for steam coal during the last few years had increased immensely, and as this district produced the best in the kingdom, the trade in that description of coal had increased enormously, and deep pits had been sunk in maiden districts which had previously been unexplored, but although the trade had been developed to an extraordinary degree, and large profits had been realised, and the operations become more complicated and difficult, there has not, he believed, been that accession of that scientific knowledge, and ability, that was necessary to effect and manage the extended operations, and cope with the increased difficulties, and they had been, he feared, carried on with, in insufficient and incompetent staff, and that the great sudden increase in demand for labour had led to the employment of inexperienced and unfit men as colliers, who ought not to be employed in such

hazardous work, when the lives of so many were dependent upon the recklessness of a few.

There could, he feared, be little doubt that all, or nearly all of the serious accidents he had to investigate, might be attributed to lax management or carelessness or both combined; and until some more effectual mode is adopted to secure a better educated and more enlightened class of managers and overmen, and a better system of discipline and supervision exercised over the men, he feared there was no hope of improvement.

He could not understand why the system that had been so successfully adopted with the mercantile marine, requiring that the master and the officers should undergo an examination to prove their competency; that every ship should be supplied with proper instruments – that a log-book or regular daily journal of the proceedings, and a register of the men on board should be kept, should not be adopted equally in coalmines as in the navy.

At present some of these precautions are adopted in well-regulated collieries. In fact, it appeared to him that the arguments in favour of its application to collieries was quite as strong, if not stronger, and the result had shown that while the loss of life by colliery accidents (at which time we are at a par with shipping) had latterly increased, the number of persons drowned has considerably decreased. He could perceive no difficulty whatever in adopting this system, and he felt persuaded it would be attempted with beneficial effects, although there was another important consideration. The law in reference to such occurrences was, he feared imperfect. It was very difficult to define when any offence was committed, who was the party to blame, and the consequence was that the responsibility was so shifted from one party to another, that all escaped.

The Mines Inspection Act, which was the last enacted on the subject, and was calculated to confer so much benefit, was unfortunately so loosely framed and ambiguously worded, that it was very difficult to obtain a conviction upon the principal points, and few had the courage to attempt it, and then, consequently, arose a continual miscarriage of justice, and when they had, and a laborious investigation detected a gross act of carelessness, and committed the delinquent for trial, an indictment was preferred at the assizes, the parties indicted, however serious a charge, invariably got acquitted, so that the only inference that can be drawn was, that there was little or no responsibility; and as to any civil remedy under Lord Campbell's Act, it would be perfectly illusory to

imagine a poor friendless widow or orphan, could successfully maintain an expensive action against a wealthy and formidable company, where there were so many difficulties to contend against.

It appeared to him very strange that a country like Great Britain, abounding in mineral wealth, dependent so much on the high position which she holds among nations upon the proper management and development of that wealth, should not possess some department of the State to record and control it in some way; that there should be so few, if any, good schools where useful practical instruction in mining might be obtained on moderate terms, and that there should be no useful authorised book whatever as yet published on so important a matter. These were certainly matters for grave reflection for all those persons interested in mines, and he would most earnestly recommend them for their consideration. Having thus digressed so far, he would return to the subject of the present inquiry. In inquiries of this kind he found there were generally three essential points to which they had to direct their attention, as the safety of all collieries mainly depends upon them – 1st, the management; 2nd, the discipline; and 3rd, the ventilation. Unless a pit was managed by a competent person, the persons employed kept under strict discipline, and the ventilation sufficiently and properly distributed, accidents must inevitably occur; and it is the absence or neglect of some or one of these important safeguards that he believed the origin of these unfortunate occurrences were generally to be attributed, or the destruction of life becomes more serious.

It would be their duty to ascertain in the present instance that all these requisites had been complied with, and another most material point was that the intake and return air courses were sufficiently separated. This valley for many years had scarcely a single instance of explosions to record until the year 1856, when they were all shocked by the fearful calamity that occurred at Cymmer, distant only a few miles from the present spot, when 114 lives were sacrificed, which was the most serious he had to investigate up to the present. At that time there was none or scarcely any coal worked in the district besides the upper series of Rhondda measures, which contained very little gas; but since that period a great change had taken place in the valley, and there had been several pits sunk to a great depth to the lower or Merthyr measures, which contained a great quantity of gas, and had unfortunately been, as they were too well aware, the cause of innumerable explosions. The consequence had been that they had lately had in this valley several minor explosions attended, more or less, with serious consequences; and it was only a short time ago they had to

lament the sudden loss of an most experienced and able mining engineer, Mr. Bedlington, from a similar cause, in this same neighbourhood.

In the present instance it would appear that the pit is sunk to the four-foot steam coal, or one of the veins he had alluded to. He was given to understand the colliery had been laid out in three different districts or sections, which were to a certain extent separate, and that the explosion extended to two of these sections. He therefore proposed taking one of the cases from each of those districts, and directing, or rather confining, their attention first of all to those two cases as an illustration of the others. There would also in the present instance be the usual inquiry as to the cause of death of each of the different parties, and the several places where they were supposed to be at work, and their bodies were found, for the purpose of ascertaining the extent and origin of the explosion. He would endeavour to reduce that part of the evidence as much as possible, so as to save them as much time as he could; and he would now proceed to business. But before doing so he must remark that the inquiry was an open one, and therefore he should be glad to hear any evidence that might be offered by the relatives of the deceased that would in any way throw light on the immediate cause of the explosion.

The first witness called was **Police-Sergeant Wise**, who said that he was stationed at Treherbert, and that the Ferndale Colliery was situated in his district. There was an explosion at this colliery on the 8th of November, where 178 lives were lost, and of those 175 bodies had been recovered. Dr. Roberts, an assistant-surgeon to Mr. Davis of Aberdare said he resided at Ferndale. He stated that there were 178 deaths from the explosion; 145 of these were burnt, and the remainder died from suffocation alone, with the exception of 5, who died of violence caused by the explosion.

Mr. David Davis, of Aberdare, one of the proprietors of the Ferndale Colliery, said that the working operations extended to the parishes of Ystradyfodwg and Llanwonno, and these were divided into three separate distinct districts, called the Rhondda, the Blaenllechau, and the Duffryn. The proprietors are my brothers and myself. The firm bears the name of "D. Davis and sons." The manager was Mr. John Williams, one of the deceased; he had been manager since August, 1866. William Walters was the overman. John Harris, one of the deceased, Thomas Price, and Thomas James, were the day firemen. John Richard Thomas was the night fireman. All of these are living except the first. Thomas Price was too seriously injured to attend in inquiry. They each had separate district or portions of the mine under their charge.

William Jones was the banksman. John Lewis, one of the killed, and John Lloyd and Reuben Edwards also assisted as banksmen. They were all employed at the bottom of the pit that day. The lampman was Thomas Powell, but he had two boys to assist him. There were also three lamp-station men down below, and all were also employed that day. Their duty was to light the colliers' lamps and lock them, and to re-light them if any one of the lamps went out. There were three separate stations, one for each of the divisions of the workings. They had to examine the lamps on every occasion when they are returned to them. Two of these men were killed at the explosion, the other escaped uninjured. The lampman in the Rhondda station was suffocated. Mr. Adams, civil engineer, of Cardiff, was employed as consulting engineer, and generally visited the colliery at certain periods to consult with the manager. The colliery had been worked about five years. No case of explosion had previously occurred at the pit. There had been during that time three or four accidents of a minor nature. The colliery has lately been working from 9,000 to 10,000 tons a month, or about 400 tons a day. This would be the average, but it varies considerably.

By Mr. Wales: - "I have not inspected the underground workings lately. Formerly I went very frequently, but since my father's death in May last, I have not visited the underground workings."

Mr. Thomas Pickard, a deputation from the Miners' National Association, attended on behalf of some of the relatives of the deceased, and requested the permission of the Coroner to ask Mr. Davis some questions. The Coroner, in reply, asked some questions of the deputation, and Mr. Pickard gave the signatures of some of the relatives of the deceased, for whom he appeared, and after some little consideration, the Coroner allowed the deputation to represent the deceased.

Mr. Pickard then asked Mr. Davis if he had had daily, weekly, or fortnightly reports on the state of the ventilation previous to the explosion. The Coroner: - "This is a very important question, and I should not have forgotten to ask it of Mr. Adams the engineer. He appears to me to be the proper person of whom to ask the question." Mr. Davis said that he had not had those reports. The Coroner: - "Do you know if Mr. Williams did? Did he keep a register of these things." Mr. Davis said that he did not think that Mr. Williams did.

Mr. Pickard: - "If those reports were given would you be the authorized person to receive them?" Mr. Davis: - "As managing partner, I should." A juryman: -

“Have you been told by any of your agents of any accumulation of foul gas in any part of the workings previous to the explosion?” Mr. Davis: - “Never.” Mr. Wales: - “Did you ever hear anyone else say anything about an accumulation of gas in some of the workings?” Mr. Davis: - “Never.”

Mr. W. Adams, civil engineer, Cardiff, said: - “I have been engaged at the Ferndale Colliery as the viewer since the 25th of March last. I acted as consulting viewer, not as resident viewer. I generally visited the colliery about once a month to consult and advise the resident manager. I visited all the collieries of the Rhondda and Aberdare valleys belonging to Messrs. Davis and Sons. When I visited the colliery I went down with Mr. Williams, the resident manager. The details of the ventilation were left in his hands, but on going down, and noting any deficiency in this respect, I would mention the matter to Mr. Williams, and would endeavour to get the deficiency removed. I had no control over the discipline of the pit. The plans produced are correct copies of the workings. They are copies of the colliery plan. The workings consist of two pits or shafts, a down-cast or up-cast. The depth of the winding pit, which is a down-cast also, is 278 yards, and is sunk to the four-foot seam.

The size of this is 17 feet by 12. The area is about 200 square feet. The pumps extend downwards about 200 yards. There is no necessity for anything beyond, as there is no water below it. The up-cast shaft was formerly sunk to the four-foot coal, where the ventilating furnace is placed, and was then nearly the same depth as the downcast. It was afterwards sunk to the six-foot, and nine-foot coals, a further depth of about 40 yards. This shaft is about 14 feet by 11, equal with an area of 154 square feet. The ventilation is carried on by the means of a furnace, 9 feet by 8, or 72 feet area. The quantity of coal brought up was correctly stated by Mr. Davis. The rules put in are the rules put in use at the colliery. There was no record kept of the quantity of air passing through the pit. Mr. Williams took the quantity of air himself occasionally.

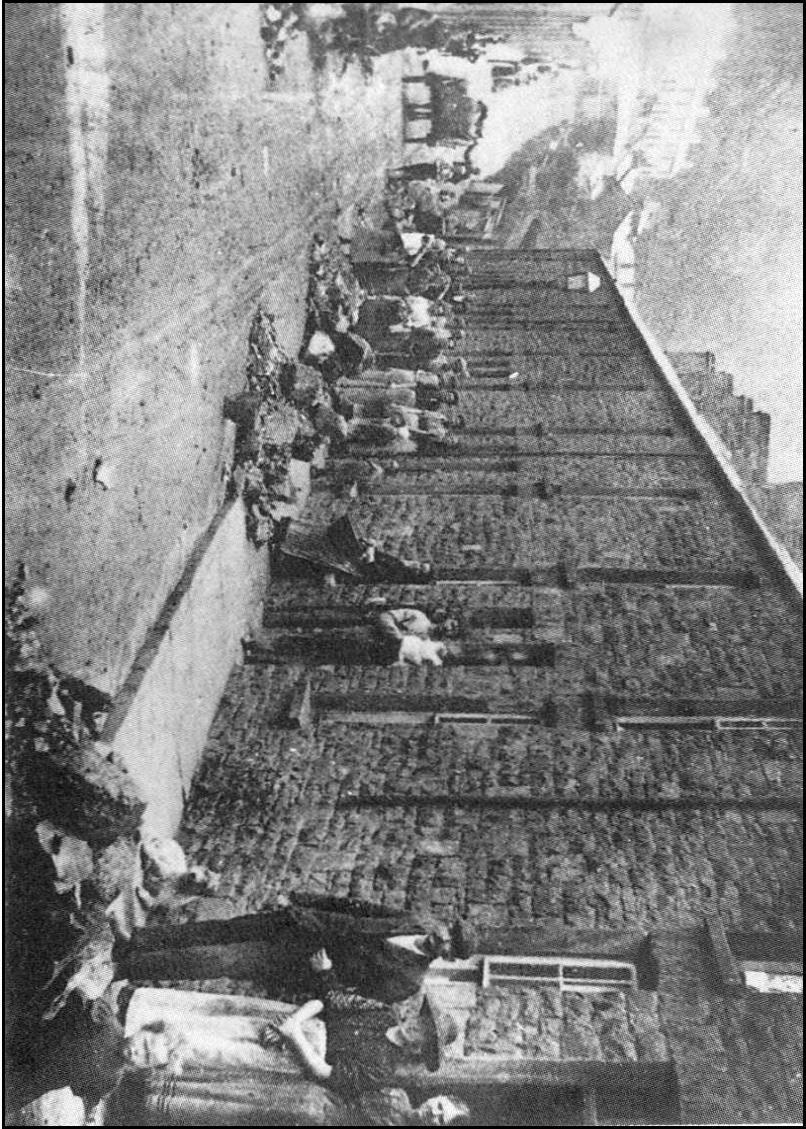
I have spoken to Mr. Williams about this several times, and it was proposed to keep a record in the office. A book was prepared for this purpose. Mr. Williams had promised to keep a record of it in the office, but he had not commenced doing so. I went down the pit several times and found a large quantity of air was passing through the pit. Mr. Williams kept a record in his pocket-book. I have seen two records in his book, but he did not keep a regular record. He told me that he had taken a monthly measurement of the quantity of air passing through the pit.

The three workings were called the Rhondda, Blaenllechau, and the Duffryn. The quantity of air passing into the Rhondda portion amounted to 35,540 cubic feet, Blaenllechau 25,380 cubic feet, and the Duffryn 29,350 cubic feet, making a total of 90,270 cubic feet. The area of the pit is about 90 acres. The quantity of ground worked amounted to about 80 acres. There were about 340 men and boys generally employed in the pit. There was no register of the persons employed kept. One collier would have about three, four, or six persons working for him, and the name of the contracting collier only would appear in the wages book.

The Coroner remarked that it was very singular that no record was kept of the men employed, but that accounted for their having three bodies who were unknown. Mr. Adams continued: - "Some of the colliers went down with the collier contracted for the work, and was called a 'Gaffer,' but no one else seemed to know anything about them. I believe most of the men's names were known to the overman. The colliers were at liberty to employ men and take them down the pits."

One of the jurymen asked the question whether the men employed so were skilled men, or whether they could infer that no inquiries were made respecting their knowledge of the mining operations. The Coroner considered the question irregular, and declined to allow it to be put. The witness then entered into a minute explanation of the system of ventilation adopted at the pits; explaining his remarks by reference to the plans of the colliery. There was no register of the ventilation kept, and the Coroner expressed an opinion that this showed great neglect, but the neglect was by one who was now dead. The system of ventilation was also called into question by one of the deputation from the Miners' Association.

Mr. Adams explained the positions of the men when they were working previous to the explosion. On the North side of the engine plane 45 men were working, and all escaped unhurt. A little further on, in a working known as John Davies' working, 32 men were working, and all were killed. The main return was stated to be 1,000 yards – the all of this being a regularly constructed roadway. On this point the most minute inquiries were made by the Coroner, and the witness explained the system of ventilation in existence at the time of the explosion in every working in which the bodies of men had been found. The examination of this witness lasted the whole of the afternoon, and the inquiry was adjourned at 6 p.m.



Long Row, Blaenllechau, home to many of those killed at the 1867 & 1869 explosions

Chapter Five

Tuesday, December 10th 1867

The inquiry was resumed this morning at 12 o'clock. The Coroner said that Mr. Adams had, on the previous day, entered into very minute details respecting the arrangement of the workings, much of which, though necessary to be taken down in evidence, was but little understood, and he should now request Mr. Adams to give the jury a short summary, which they would more readily understand. Mr. Adams then gave the divisions of the pit into workings, and stated that the Blaenllechau portion was situated on the East side of the colliery, and the Rhondda on the West, the Duffryn extending to the south.

The coal varied in thickness from 4 to 6 or 7 feet, and its stratum was undulating, the inclination not being more than 2½ inches in the yard. In some of the places the stratum was level, but the coal rose to the north and north-east. The coal in the Blaenllechau portion is worked by an engine plane, a steam-engine being placed on the surface, the plane extending about 400 yards from the pit.

The Rhondda portion is worked by a long straight heading rising 2¼ inches in the yard, and is about 1,000 yards to the extreme working. This was now being converted to a self-acting incline. The Duffryn portion is worked by horse power, and is about 700 yards long. The ventilation of each of the districts was separate; that of nearly the whole of the Duffryn was totally isolated from the rest, and taken up the up-cast. The ventilation of the two other portions is totally distinct until it arrives at the pit where the air meets to pass up the up-cast. There were twenty horses killed, and one of those was found in the Blaenllechau district, and in this district several bodies of men had been found, but the destruction was confined to one working.

In the lower stable near the Duffryn portion were five horses, and three of these were killed, but the two horses alive stood between the horses which had been killed. Several horses were killed in the Rhondda incline, those at the top being burnt severely. Wherever men were found killed the horses were found killed also. A worker at the mine said that one of the horses had been blown from the Blaenllechau to the bottom of the pit.

Mr. Adams in continuation said, that there were not appearances of the explosion having taken place in the Duffryn or the south part of the Blaenllechau. The most serious effects of the explosion were at the top of the

Rhondda incline. There were evident indications of the explosion extending through the south dip of the extreme western level, and four of the headings on the north side of the incline, and through a part of the Blaenllechau district. His own opinion was that the explosion originated in the Blaenllechau district, as the force of the explosion appeared to have gone off in that direction and blew up the return courses, a portion only going into the stables, and then taking the direction of the up-cast. This was the course, he thought, of the first explosion. One reason for supposing this was the course of the explosion arose from the fact that the banksman stated that he heard only one explosion, and the Blaenllechau district was nearer to the spot on which the banksman was standing.

Mr. Wales: - "What would have been the effect of the explosion you referred to had it been the second one?" Mr. Adams: - "It's a matter of opinion, and the results would probably have been the same. The first explosion caused a stoppage of the air going up the Rhondda, and I think that the gas came down the incline, and, as the furnace was still drawing the gas, was fired at the lower part."

Mr. Wales said his opinion was that the explosion originated in the upper part of the western headings, and the effect of that explosion caused the second explosion in the Blaenllechau. Mr. Adams admitted that the bodies found at the top of the western workings were more severely burnt. He would not say that the explosion did not occur there. From the circumstances that the doors and the stoppings were blown in the direction of the pit he thought that the explosion originated in the Blaenllechau. The second explosion in the Rhondda must have followed almost immediately on the first. The working on the top of the Rhondda district had not been sufficiently cleared up to enable him to form an opinion as to the direction of the explosion there. The doors were blow out, but he could not say in what direction. The bridges or stoppings formed of three-inch planks on brick pillars.

The Coroner: - "Is it not usual for these to be made of brick or stone? It seems to me that this must be very insecure." Mr. Adams did not consider that they would be insecure, or that such a circumstance was unusual. After some further questions, the examination of Mr. Adams was postponed for a time, to enable Mr. Wales to prepare a few questions which he wished to ask Mr. Adams.

William Jones was then examined. He said he was banksman at the Ferndale Colliery on the 9th of November. Had been working at the colliery for the last

five years, and had been banksman about fourteen months. On the day of the explosion he was standing at the top of the pit, waiting for the cage to come up, when he heard a loud report, like the report of a cannon, and directly after he saw a quantity of black smoke coming out of the pit.

The explosion was so strong as to nearly throw him off his legs. Something had fallen in the pit, and the engineer could not for a moment stop the engine, but he did so after a short time, reversing the engine and sent the cage down again. Did not hear a second report, and did not see any quantity of smoke coming up a second time.

Mr. Wales: - "Why did the engineer stop the cage?" Witness: - "Because of the report. As soon as he heard the report he ran to stop the engine."

Mr. Wales: - "Did the engineer feel the weight relieved?" Witness: - "Yes; he wound on until the rope slackened."

The Coroner: - "You did not hear a second explosion?" Witness: - "I did not."

The Coroner: - "Are you quite sure?" Witness: - "I am."

Police-constable Tamplin here interrupted the witness and said that he distinctly heard two explosions. He was sitting, getting his dinner, when he heard an explosion. He ran out of the house, but before he got out he heard a second report, and saw the black smoke coming up the mouth of the fuel pit. The banksman was not there, he had run away and his cap had blown on the railway. The second explosion occurred after the witness had left. The Coroner called to the witness and asked if this was true, and Jones admitted after a short time, that he had ran away "for a bit." He was also asked if he had had any experience as a collier, and the witness replied that he had no experience of working underground.

Mr. Wales: - "Are you the chief banksman, and have you the charge of the pit?" - Witness:- "Yes."

Mr. Wales: - "Suppose a stranger was to come to the pit and wanted to go down, what would you do?" - Witness: - "Stop him." Mr. Wales: - "Why?" - Witness: - "Because he was a stranger."

Mr. Wales; - "What would you require him to have before you let him go down?" - Witness: - "A note from the manager."

Coroner: - "But could a stranger go down with any of the men? - Witness: - "Yes."

Coroner:- "At any time?" - Witness: - "When the colliers were going down, and if anyone was with them, they could go down with them."

Mr. Wales: - "Supposing a collier brought three or four men with him, what would you do, would you allow them to go down with him?" – Witness: - Yes, if they were workmen."

Mr. Wales: - "What is the custom at the colliery?" – Witness: - "If they came in the morning they could go down with the colliers."

The Coroner: - "Supposing two workmen were going to work, but they bring with them another man, is the third man allowed to go down?" – Witness: - "I never allow a stranger to go down."

Coroner: - "How many men go down at a time?" – Witness: - "Eight."

Coroner:- "Supposing that the man who came was going to work with these men, would you allow him to go down?" – Witness: - "Yes sir, I would."

Coroner: - "Do the firemen go down with the men in the morning?" – "They go down first, and then come up again."

Coroner: - "Supposing Robbins or Roach were to bring a man to help, and that man was quite a stranger, would you ask him any questions?" Witness: - "I should want to know if he was going to work with them."

Coroner: "Well, and what then?" – Witness: - "If he says yes, I should let him go."

Coroner: - "Now, be very careful in your answers, and recollect that you have to speak the truth. Supposing that Robbins or Roach (Here Mr. James objected to the names as one was a contractor.)

The Coroner: - "I merely select any names. If Robbins is a contractor it is merely an accident of mine in selecting his name." Mr. James: - "Take (the names) of No. 10 or 11."

The Coroner to witness: - "Do you know Thomas Warne, a young man?" – Witness: - "No I do not."

Coroner: - "Benjamin Morris, do you know him?" – Witness: - "Yes."

Coroner: - "Well if he came, could he take any men down?" – "Yes sir." Coroner: - "Or Thomas Williams?" – Witness: - "I I do not know him by that name."

Coroner: - "Well, I will make it more general. If any who was working in the pit, and was known to you, wanted to take a man down, would you let him?" – Witness: - "Yes, sir, if the man was a contractor."

Coroner: - "Is Roach a contractor?" – Witness: - "No, sir."

Coroner; - "Could any of the old colliers take a man down with him?" – Witness: - "Yes, if they wanted him."

Coroner: - "Were you employed night and day?" – Witness: - "Only in the day."

Coroner: - "Were there any banksmen employed at night?" – Witness – "No sir."

Coroner: - "How long in the day do you work?" – Witness: - "From six o'clock in the morning until 7 or 7.30 at night."

Coroner: - "What time do the firemen go down the pit?" Witness: - "Between 3 or 4 o'clock in the morning."

Coroner: - "Who lets them down?" – Witness: - "The engineer."

Coroner: - "Does he let them down without a banksman?" – Witness: - "Yes, sir; they get into the cage and call to the engineer to let them down."

Coroner: - "Is there any hitcher employed at night?" – Witness – "No, sir."

Coroner: - "How many engineers are employed?" – Witness: - "Two; one at night and one during the day. I draw the firemen up. They generally come up about 7 o'clock."

Mr. Wales: - "Did you draw the firemen up on the morning of the explosion?" –

Witness: - "Yes, they came up about 7 o'clock, and went down again." Mr.

Wales: - "How many came up?" – Witness: - "Three."

A juryman: - "Did any strangers go down the pit on the morning of the explosion?" – Witness: - "Yes, sir."

Juryman: - "With whom did they go down?" - Witness: - "With the firemen."

Juryman: - "When?" – Witness: - "At 7 o'clock, when the firemen went down a second time."

Juryman:- "Do you know how many?" – Witness: - "I do not." Juryman: - "Were

there any men at work in the pit the night previous to the explosion?" –

Witness: - "Yes, sir." Juryman: - "How did they go down" – Witness: "I let them down before I went away on that night."

The Coroner: "Are there many men working at night?" – Witness: - "About fifty."

Coroner: - "And have they no fireman or hitcher?" – Witness: - "No; they stop down all night."

By the permission of the Coroner, one of the deputation, Mr. Pickard, asked the witness if he had known any workmen, within the last two months, leave their workings in consequence of the place having gas in it? - Witness: - "No; never."

Mr. Pickard: - "Do you remember a workman named Esau Hodges, come out of his working one morning in consequence of this?" – Witness: - "I never heard of it."

Mr. Pickard: - "Is it the custom for the men to take their tools down with them, or are they sent down before or after them?" – Witness: - "The tools are sent down in an empty tram or cage after them."

Mr. Pickard: - "Do you ever allow any men to take their tools with them?" –
Witness: - "No."

Mr. Pickard: - "Have any workmen, in the last two or three months, had to return to his work after he had been sent away by the firemen, on account of gas being in his place?" – Witness: - "Not that I am aware of." The Coroner: - "The witness would not know of himself. We had better ask the fireman."

Edward Tamplin, the Police-constable, was then sworn and repeated the statement on oath which he had formerly made. He said that only about two minutes elapsed between one explosion and the other. He ran to the engine house, and saw the engineer getting up on the stage. The engineer told witness to go on the top of the pit and open the fans directly or every man in the pit would be dead in a few minutes.

Thomas Howell, one of the lamp-men, was then examined. He had been working at the Ferndale Colliery for the last two years. The colliers were generally allowed two lamps each. One of these was a 'Clanny' and the other a 'Davy.' If two men were working in the same stall, then three lamps only were given to the two. He gave out the lamps at the top of the pit from half-past 4 o'clock in the morning till 6 o'clock in the evening.

The Davy lamps were always locked after they were lighted. The Clanny lamps belong to the men, who took the top home every evening, but the bottom is kept in the lamproom. Some men preferred the Clanny as it gives off a better light. More than 500 lamps are issued in half-an-hour, and there were about 540 lamps burning in the pit on the day of the explosion.

During the night about forty additional lamps would be used. A week before the explosion a number of new lamps were sent for by the manager. He unlocked the Davy lamps himself, the Clanny lamps were unlocked by the men with a key which was hung from a chain outside the lamproom. Of the total number of lamps issued on the morning of the explosion only about 300 have been returned.

He had heard that lamps had been opened in the pit, and he had complained to the manager respecting it. He had on one or two occasions found a piece of wire in the lamp lock as if it had been broken in the attempt to open it. He had also noticed marks about the key hole, as if a nail had been used for the same purpose. He had lately opened some of the Davy lamps by means of a nail and a

mandril. The boys who assisted him received the lamps, and he therefore never noticed if some of them were unlocked.

Mr. Wales: - "Did you tell the manager of this?" - Witness: - "I did, and he replied that they were a rough lot." One man was fined 10 shillings for opening his lamp.

In reply to Mr. Pickard, one of the deputation, witness said that he had never heard distinctly that there was gas in the pit. He had known, about five months since, men stop away for a day owing to the gas in the workings. Three men had left the pit from this cause. No one was allowed to work in the pit with a naked light. The hauliers and the hitchers had oil lamps called 'Comets.'

Thomas Morris, a collier working in the No. 4 heading in the Rhondda district, said he was in the pit at the time of the explosion with his son. He neither heard a report or saw any fire, but saw the dust whirling about the entrance to his stall, and knew that something had happened. He took his son by the hand, and they began their way out, but had not reached the incline before they fell insensible. He was rescued alive, and was revived after being insensible for fourteen hours, but his son never recovered.

He had always had plenty of air in his workings, and was never prevented from working in consequence of the gas. He had worked in the pit for four years, and the only time he had seen any gas in the works was about six months ago, when he saw a little blower in his heading. A little gas then accumulated in the roof of the stall, and when he fired a shot the burning fuse was blown into the gas, which flashed like a candle. The men were never allowed to fire shots themselves, it was done by the fireman, whose consent was previously obtained.

Shortly before the explosion he went to the lamp-station and saw the manager there, smoking. The men were all allowed to smoke at the lamp-station, but nowhere else, and they had to leave their pipes at the station, beyond which pipes, matches or naked lights were not allowed to be taken. There was signboard up, on which was written - "No pipes, or matches, or naked lights are to go beyond this board." He had heard a great deal of talk about gas being in the pit since the explosion had occurred, but not before. After some unimportant evidence had been taken, the inquiry was adjourned to Thursday.

Thursday, December 11th 1876

The inquiry was resumed this morning at 12 o'clock. Mr. Wales and Mr. L. Brough, Her Majesty's Inspector of Mines, and Mr. Forster, a mining Surveyor of the North of England, were present, and there was also a large attendance of colliers. The first witness called was **William Walters**, an overman at the Ferndale Colliery. He said he had been so for three years. His duties as overman were to carry out the directions of the manager. In the morning he would visit the top of the pit and remain there until a large portion of the colliers went to their work.

There were three firemen, and he went down the pit to meet them. He remained at the several firemen's stations until he met them, and they reported to him, generally in Welsh, the state of the works. There was a night fireman named John Richard Thomas. Witness saw him every night before he went down, and in the morning after he left the pit. This course was invariably carried out, unless witness was unwell and was unable to attend to his duties.

After visiting the lamp-stations he visited the stables and various parts of the pit, and then remained near the bottom of the pit until the manager came down. Mr. Williams very seldom missed coming down the pit every morning, and witness generally visited the works with him, and they consulted together on the method of working to be carried out. Mr. Williams, the manager, would remain down the pit all day, sometimes not leaving until after 6 o'clock at night. Witness was the only overman employed.

There were over 300 men employed in the day and from 30 to 40 men at night. He could not tell correctly the number of persons employed, but there were over 300. He could not tell the number within 10 or 20. There was a list of men kept who received wages – that was the day men. Mr. Williams kept a book of the colliers. Witness had not heard Mr. Williams say anything about keeping the book but witness had seen the book with him. It was not a regular register, but a kind of memorandum book. The Coroner expressed a strong desire to obtain the book; if such a book was kept it was very important that the jury should have it. Witness said he had no knowledge of where the book was.

On the day of the explosion he was lying ill in bed. He had been ill some days and during that time Mr. Williams and one of the firemen attended to his duties. No reports were made to him respecting the state of the colliery during his illness. The reports of the state of the colliery were given to him verbally by the

firemen, and his own reports were similarly given to the manager. Mr. Williams had a thermometer he believed, but he did not know where he kept it.

On being further questioned by the Coroner, the witness admitted that he did not know what a thermometer or a barometer was, but there was nothing in the pit to show the temperature. Mr. Williams had an anemometer and it was sometimes kept in the pit, and at other times in the house. The Coroner referred to the second rule of the colliery, and found that an anemometer should be fixed near the furnace, but the witness said there was nothing of the kind in the pit.

Mr. Brough did not consider the fixing of the anemometer was altogether necessary, it was a good indicator of the quantity of air passing in the pit, but he did not insist that the anemometer should be fixed in the pits under his supervision. The witness continued: - "Some of the poor boys accompanied the colliers and some did not. There were about 40 boys in the pit, and of these 20 accompanied the hauliers, and the others were fixed at certain stations."

Witness lived very close to the pit, and on the day of the explosion he heard a noise similar to distant thunder; he jumped out of bed and ran down, and directly after he heard another explosion, and saw the smoke coming up the flue pit. With the assistance of the engineer the cage was worked rapidly up and down to force air into the pit. He then ran about for help, and John Thomas, the night fireman, Hugh Smith, David James and John Williams, were the first to come up to him, and they went down the pit together.

He told John Thomas to go to the flue pit and shut the safety door. Witness did not go down. Several of the colliers who were below came up very quickly. The engine was worked as rapidly as possible, and all the men who were alive on the Blaenllechau and Duffryn side were soon brought up. On the day of the explosion there were some strangers working in the pit. He believed there were about 360 men and boys working in the pit that day.

On the Tuesday before he was taken ill a report was given him by Thomas Price, one of the firemen, who said the Duffryn side was all right, with the exception of a few falls. Several reports were given by the firemen of the Blaenllechau and Rhondda districts. Neither of them made any reports respecting the existence of any gas. On asking the fireman of the Rhondda district if there was any gas in the level of that district, the fireman replied: - "Yes, you know there is, there is not so much gas as there was yesterday; it has cleared away a good deal during

the night." He did not tell witness that there was gas in any other part of the works. No other man reported the existence of any gas, during the past month. Thomas James, another of the firemen, reported that he had seen fire in No. 8 heading of the Duffryn side. On being pressed by the Coroner, the witness admitted that about four months since one of the firemen, Thomas Morris, reported to him that there was gas in No. 4 heading of the Rhondda district.

He sent some men to work; a blower was put up, and the gas was soon removed. The explosion blew off the bridge, and since then the gas had been accumulating. On the Tuesday before the explosion he had noticed an accumulation of gas in some other part of the Rhondda district, arising from the brattice having been broken down, and the ventilation having been by that means affected. The witness then entered into some minute details about the plans adopted by the manager to remove the gas in various places when gas was found arising from falls or deficiencies, or imperfect brattices.

By Mr. Wales: - When the fireman told him of the presence of gas in the level of the Rhondda he went up and found a little gas along the top of the heading. He did not go close to the "face." The gas extended about forty yards from the face. By Mr. Brough: - "We found the gas yesterday a little farther out." Water had broken out in the level shortly before the eruption of gas. The men were put in places further back in the same level. At various times and various places in the colliery he had seen gas in small quantities, but always cleared it out with promptness. The fireman never complained of gas in John Davies's heading, Blaenllechau district, but he had advised the construction of a new windway there, which the witness had already suggested to the manager, but it was left undone until after the explosion. In that heading the men were all burnt.

Witness explained to the Coroner the steps he had taken to remove the gas, but he admitted it was done while the men were working. The Coroner considered this very hazardous even though there was very little gas in the stall. Mr. Brough: - "It is very risky at all events." Some questions were asked by Mr. Pickard, one of the deputation from the National Miners' Association, respecting the manner in which the colliery was conducted. The continuation of the evidence from the overman had occupied the whole day, the court rising at 6 o'clock.

The inquest drags on

The *'Cardiff and Merthyr Guardian'* of Saturday, December 21st 1867 commented: - The Coroner's inquest still drags its slow length along, and two or three days must elapse before we are in possession of the whole of the evidence, the summing up, and the verdict. So far, however, as the facts have transpired, we have no reason to alter our suspicion, that there has been a singular dereliction of duty on the part of the "overseers" of the Ferndale Colliery – which negligence and a reckless disregard of the sacredness of life were in full play there for some time before the calamity occurred. It remains to be seen "who" is actually to blame for this reprehensible conduct – to what fountainhead the deplorable result can be traced. Perchance the verdict will be precise and exact in its language; or, on the other hand, it may have the vagueness and incoherency of verdicts in general.

In this case it would be our duty to analyse the evidence in a spirit of impartiality and candour, and fearlessly to inform the public of our opinion on so momentous a question. Remembering the large number of people who are continually following the pursuits of the miner, and the dangers by which they are perpetually surrounded, we hold that it is one of the first duties of journalism to bring to light, if possible, such malpractices as they exist in any pit in the kingdom.

Mining is an exceptional and hazardous avocation. Capitalists involved in the enterprise should be not only men of money, but also men of foresight and human disposition. Well grounded in their business, they should place confidence only in the most trustworthy and reliable men to carry out their designs, and should conscientiously do all in their power to reduce the perils of the mine and increase the safety of the miners.

In all well-managed collieries – and there *are* some eminently distinguished as such – one of the most important rules in force is, that highly skilled and efficient colliers be employed; and whenever a novice in the business is engaged, he is at once placed in the charge of a miner who is adept at his work, and who had the aptitude besides to train up the tyro in the way he should go. By this means the young collier is taught his business in the best possible manner, and thoroughly initiated into the mysteries of his craft before he is left to himself. After so careful a training, and being thoroughly versed in the code of regulations which govern the subterranean dominion, his panoply is, as it were, quite complete. His employer has done *his* duty, and if he *acts* as a

rational being, and conforms to the instructions he has received, he will in all probability never be the cause of a serious mistake.

The practice of this most judicious and admirable system forms a basis for all the details of a well-managed pit. Every man on the books is known by a distinguishing number, which is also upon the safety-lamp that he uses. By this means it is always known what men are down in the mine. So simple and faultless a plan is worthy of universal adoption. As regards to the safety-lamp, everyone knows its definition to be – a lamp covered with a wire gauze to give light in mines without danger. Now frequently these lamps are not only devoid of any “safe” principals whatever, but are of an intensely dangerous kind. A real safety-lamp should be fastened in a way that it could not be undone by the collier; whereas nine-tenths of the safety lamps at present in use can be opened with fatal facility.

Moreover, the best lamp is only a “safety-lamp” so as long as it is in the hands of a collier who knows how to use it, otherwise it is like gunpowder in the hands of a child. All-important it is that the lamp should be cautiously and carefully tended, and that it should never on any account be opened in the mine, for it is “flame” which ignites gas and causes explosions. A red-hot poker even is innocuous in the absence of flame. Where gas abounds, the blue flame may be observed within the gauze of the safety-lamp, which may even become incandescent. Knowledge is power, and in this critical state of affairs the experienced miner knows how to act with decision. He puts the lamp down, to rush forward with it would inevitably cause an explosion.

Indiscriminate use of gunpowder in a mine is fraught with danger. Indeed it should never be used at all, except by men of large experience and the steadiest habits. All collieries are more or less subject to bags and blowers of gas, which may quickly vanish or linger for some time. That portion of a colliery in which gas accumulates should be carefully avoided until it is thoroughly gone.

The subject of ventilation, essential to the proper working of a mine, is generally misunderstood and neglected, if not entirely ignored. If a large number of cubic feet of air per minute goes down one shaft and ascends the other, it by no means follows that the ventilation is good. Perfect ventilation is secured not by the quantity of air sent into the colliery, but by so arranging the currents that they traverse every passage and gallery of the mine.

At a meeting of the South Wales Institute of Engineers at Aberdare, on Wednesday, the question of ventilation was discussed in a most intelligent manner, and one of the members seemed to express the sense of all present when he said good ventilation was of the first importance, and that it must be secured in every colliery regardless of cost. These are some of the conditions which tend to prevent such disasters as the one now being inquired into at Ferndale by a Coroner and jury.

Friday, December 12th 1867

The Coroner opened the inquiry this morning at 12 o'clock. Before examining the witnesses, he said that he proposed to examine those on the part of the relatives of the deceased that day. **David Griffiths**, a collier, residing at Blaenllechau, was first examined. He said he had been working in the colliery for some time, and was working there on the night before the explosion. He was working in the heading in John Davies's level, in the Blaenllechau district. There was a heading worked for 105 yards from the level, and there were two stalls at the top of the heading, and to the west there were three. Witness was employed in driving a heading opposite.

There were two of witness's sons working with him. Gas was in his stall, and had been for several months. The gas came from an old stall that had fallen behind witness, and was next to the heading where he worked. He was positive that the gas had been in his stall for the last two months. A fall took place in this heading a week before the explosion. The gas then approached very closely to him as the fall left a vacancy in the roof in which gas accumulated.

It was there when witness left the stall on the night before the explosion. He was filling up the place which had been opened by the fall with rubbish. He did not see the overman at all during the week before the explosion, but he saw the night fireman, John Richard Thomas, almost every night. He never told the fireman that there was gas in his stall, and he did not know whether the fireman had tried the gas in his stall. He did not know whether Thomas knew that there was gas in his stall.

He could not say any reason why he did not tell the night fireman that there was gas in his stall, but he had spoken to him about some other gas arising from the old road out of his heading that was full of gas and had nearly always been so for the past two months. He had spoken to Thomas Price respecting this gas several times. The road to which he referred was an old return airway, and was from 90 to 100 yards long. This road was close to his working, and he had "tried it" at

the top of the work and found that it “fired sharp like the firing of a percussion cap.”

He went through the canvass door in front of the heading and tried the gas with a lamp, and found that the lamp filled full with fire. He went out of the heading and into his own work, and sat down, and then Thomas Price came by and witness asked him if he had tried the gas in that place. Price said he had, and he had found it “very middling.” Witness said it was not “middling,” and he also asked Price why he did not make a windway either from his own stall or from another stall formerly worked by another collier, named John Owen, to a stall then worked by John Owen.

This airway was much wanted there, as there was not a quarter enough air in the heading in which he was working. Price said, “Don’t throw any fault upon me, indeed, David. The day before yesterday I was speaking to my master about making a roadway there, as I was afraid that there would be an explosion there, and Mr. Williams laughed at me and asked me if I was afraid.”

Mr. James objected to this question, and said it was hard that complaints should be made against one who was not present to answer for himself. The Coroner: - “But we want the truth. It is evident that gas was there in this heading, and we should know it.” The Coroner subsequently objected to the interference of Mr. James and told him he should conduct the investigation in his own way, but give Mr. James any opportunity to cross-examine the witness.

Witness continued: - “I then said to Price, ‘Then for God’s sake warn Bill Chadwick, because he is next to me, to take care of his lamp, and be sure not to fire any shots when we are working in our headings.’ Price replied there was not enough gas in his heading to burn them, but there was enough, if fired, to blow their brains out in a second. I spoke to him again to warn the men, and he said that he had done so and warned all the men from Bill Chadwick’s heading to the drift to be sure to take care of their lamps. The windway I wanted was never made. I had not spoken to the other firemen about this. After I had spoken to Price about the gas, I worked in the heading every day until the night before the explosion, although I was much afraid that something would occur.”

The Coroner: “Why did you work there if there was so much gas?” – “I continued top work there because times were so very hard, and I trusted they would make some hole through and improve the ventilation. I had no particular knowledge of other parts of the pit, but from where I was working to the drift there was gas in all those stalls. I left the pit about 6 o’clock on the morning of the explosion.”

The Coroner: "Are these places 'gobbed,' up or are they left open?" – "There are from fifty to sixty yards of this road left open. The bottom of the old road was blocked by a fall."

Cross-examined by Mr. James: - "At the time I spoke to Price I do not remember if there was one of the two boys working with me standing by. I tried the gas at the bottom of the return. The canvas door extended across the bottom of the heading. I did not know that I was breaking any rules in attempting to find gas in this way. The fireman had a fire mark in the heading, but I did not go so far as the mark. My sons were working with me, and we worked every day there up to the day of the explosion, and both of them were killed by it."

A juryman asked witness if the overman knew that there was gas in his stall. - "He ought to have known it." "Could the gas have been removed?" – "Yes, I know it could."

The Coroner: - "Did Mr. William, the manager, come to see you during the time you were working in the stall?" – "I have no recollection that he came once. I expected him in the day of the explosion to measure the work. I have only seen him once for some time. Mr. Walters, the overman, came only once during the month."

"Were there a great many men in the place when you were working?" - "There were 47 there generally, but there were five of us out that day."

"Out of the 47 how many were killed?" - "All but one boy, who had gone down to the station at the bottom." "Were they all badly burned?" – "Those outside Chadwick's stall were "roasted up," and all the rest were more or less burnt."

Mr. Wales: - "How long have you been working in this district?" – "About eighteen months."

"During that time have you ever been prevented from working there in consequence of gas being in your place?" – "No, I have not myself."

"Did you know that during the time that you were working there that there was gas in your place at the time?" – "Yes, I knew there was gas over my head, but I knew that arose from a fall."

"All the gas came out from the fall?" – "Yes."

"Was there any gas on the face of your stall?" – "No; I never saw any."

"Were the stalls that you have referred to with gas in them working stalls or old stalls?" – "There were two stalls in the first heading, and one of them was 'gobbed up.'"

“Was there gas in all the stalls in your heading and the incline or engine-plane?”
– “Yes.”

“Were the men between you and the incline working in gas?” – “Yes, half their time.”

“Was that part worked with safety lamps?” – “Yes.”

“Can you give any opinion as to how the explosion occurred?” – “I cannot.”

“Do they fire shots there?” – “Yes, everybody fires shots there.”

“Do the colliers fire shots?” – “Yes.”

“How do they light the powder?” – “Everybody lighted the powder as he liked.”

“How was it done, have you fired any shots there?” – “Yes, many a time.”

“How did you set fire to the powder?” – “I used a touch-paper.”

“Well, how did you light the paper?” – “With the lamp.”

“How, through the gauze?” – “I hold the gauze on one side and then light the paper.”

Mr. Pickard, one of the deputation, asked the witness some questions: - “Did you ever know Mr. Walters, the overman, offered to give money to anyone to go and get some rails out of some places in which there was gas?” – “There were some old rails left in the road, and there was gas in this place. This was owing to a sudden fall one night which closed up the place, and the rails were consequently left inside.”

“Did Mr. Walters offer you any money to go and get them?” – “Thomas Price told me that Walters would give me ten shillings if I could find a way to get out the rails.”

“Did you go and fetch them?” – “No; I told him I would not.”

“Did you ever hear any of the colliers working in the other two districts complain about gas being in their place, and having to come out in consequence?” – “Some have from the other two districts, but I can only speak of my knowledge of the district where I worked.”

“Did you know any colliers ever leave the Ferndale Colliery on account of it being dangerous?” – “I cannot say anything in particular of that; people say that David Richards, a fireman, left on account of that.”

Have you ever heard the men complain of the lamps and the badness of the oil?” – “The lamps were dirty very often.” “Whose duty is it to clean them?” – “Those who are in the lamproom. We should not clean them.” David Griffiths, junior, corroborated his father’s evidence.

William Chadwick worked in No. 9 stall, No. 1 heading, John Davies’s level. There was a great influx of gas and foul air from the stall above his, which had

been gobbled with rubbish, and the fireman had cautioned him against firing shots. The overman had also warned him about a blower there. On one side the air was good, but dreadful on the other in consequence of a fall between that stall and Griffiths's heading having interrupted the flow of air. To remedy it he made a windway through the rubbish, and that improved his stall. But above it were many old workings, and when a door at the end of the heading, or thereabout, was opened, the gas came down in great quantities.

By Mr. James: - The airway through the rubbish was made by direction of the fireman, and after that there was no gas there to hurt anybody. A fortnight after the explosion he was with another man, searching for the dead and for clothing, when he found a Clanny lamp in his own stall, which at the time of the explosion was worked by a partner who was killed, with the top screwed off, and there was an unlocked Davy lamp in the same stall; in another, Benjamin Morris's stall, in the same heading, they found a Davy lamp with the gauze off, and in the pocket of a jacket they found a lamp key.

Saturday, December 13th 1867

The inquiry was resumed on this day at the usual hour. As before, Mr. C. H. James appeared to watch the case for the proprietors. The deputation from the Miners' Association, Messrs. Pickard and Halliday, represented the relatives of the deceased, or rather some of them. The Government Inspectors, Messrs Wales and Brough, were also present. The Coroner opened the proceedings at 12 o'clock.

John Richard Thomas, the first witness called, was sworn. He said he lived at Ferndale, and was the night-overman – the only one in the pit. No other fireman, hitcher, or banksman, were employed at night. He could read and write a little bit. Couldn't read or write in English. Could do both in Welsh a little. He stated:-

“My duties are to look after the night-labourers, and see that they do their duty. I have to look after the flue, and see that it is properly attended. I look after the men to see that they do their work. Did not go in before the men commenced working to see if gas is formed in the workings. I have to see whether the place where the men work is safe. If there is fire I go there, I can stop the men at once, or also if the top is bad. Only go to the place where the men are in the night, not in the day.

I go down the same time as the men. The night before the explosion I was the last man to enter the pit. They went to the safety door, where they remain until I come to them. I then call their names, and they then go to work. The safety door is between the two separation doors. I keep a list of the names of the men. Don't examine the places that the day men work. There were men on the night before the explosion in John Davies's heading; they were – George Sage, George Thomas, D. Griffiths, Frederick Gay, John Benn, Nicholas Davies, Daniel Davies (haulier), and William Llewellyn (haulier).

In Charles Owen's stall there were working two men. Charles Owen was not there. He was working in John Davies's level heading; he was working day work. He was among the dead. I can't say where he was found. But somewhere in the stall of the heading. F. Gay and J. Benn were in W. Chadwick's stall. Nicholas Davies was unloading rubbish into the rubbish stall. This was the next stall heading but one. W. Llewellyn was removing rubbish from J. Sage's stall to W. Chadwick's. I was with the men twice. I found no gas in this part that night. If I had seen any I should have stopped the men working at once. I saw fire three weeks before the explosion in John Davies's heading by Robbins's stall. It was the last stall but one in the heading.

I stopped the men from working there, and no-one has worked there since. The top had not been ripped forward, and there was a small blower as well, I believe. After the top was ripped by one of Robbins's boys the gas disappeared. Saw none afterwards. I knew there was a little gas coming in Chadwick's stall on the right-hand side. I believe it arose from a blower from a fall in an old stall. It was sometimes quite free, but at other times a little gas would accumulate. I would visit the spot about once a fortnight, as the rubbish would be wanted there.

I have been night foreman five months, but not sure. The gas was not in the stall (Chadwick's) when I was first appointed. It occurred after a fall above it about two months before the explosion. The fire was on the right-hand side. The stall was worked when I came there as night-overman. The air used to come up to Chadwick's stall from David Griffiths's, and another portion through the waste when I first came there. David Griffiths never spoke to me about gas. I heard him say he did so yesterday. I used to see him working. Never heard him grumbling or complaining about the air. Chadwick was never working at night when I was there. Used to report to the 'gaffer' when a blower took place, and stopped the men from working. The 'gaffer' is the overman. I put a mark to stop any of the night men working (two crossed sticks). The fireman would see it in the morning.

Went one night with George Sage to the stall between Chadwick's and Griffiths's stall, to fetch a sledge belonging to Sage, as he used to hide his tools there to prevent anyone carrying them away. No gas was there then; that was the only time I went there. I went nearly to the top of the stall. Sage went to the top.

By Mr. Wales: - "It was customary to see the overman every night before I went down. Was working in the stall next but two on the south side on the night before the explosion. The men George Sage and George Thomas were ripping the top. Saw no gas that night, I am sure. Would have seen gas if any from Griffiths's stall. Examined the stall, and found none. The fall took place after it had been nearly cleared of rubbish. Never saw any gas there. Was many times in the stall next to Chadwick's, but only once in the stall next but one. Found no gas in the stalls next to Chadwick's. Sure that Griffiths never reported the existence of gas to him.

By the Coroner: - "Assisted in taking out the bodies, but not in John Davies's level. Mr. Jones, Blaengwawr, was the most active in getting out the bodies. They were clearing the road, and emptied the rubbish in the third stall, No. 8 heading, in the Rhondda district, the night previous to the explosion. There was no gas there. There was a window there. Plenty of space was kept for the air to go through while they were filling the stalls with rubbish. Knew two or three of the men who were working in the heading. Knew Nathaniel Roach. He was killed. I don't know if any came out alive from this heading, I don't know one who came up alive. Was there only once that night."

By Mr. Wales: - "I had been there many times before that night. I can't name any particular night before the night I visited this place." Evidence in chief resumed: - "There were two men unloading rubbish in No. 10 – Isaac Thomas and Richard Meredith. This was on the side of the heading. Was in there that night (before the explosion), about 1 o'clock in the night." Mr. Wales: - "Did you see any gas?" – "No."

By the Coroner: - "Did not go further than the airway. There was no one working at the top of the main intake or main return. The canvas doors between No. 10 and No. 11 heading were taken away before the explosion. Had not been at the intake more than two months. At the top of the Rhondda level there was a danger signal; it had been there more than a week, since the blower broke out about a week or ten days before.

The signal was two cross timbers placed across the road from one side of the level to the other. It was made of brattice timber, and an inscription was written in Welsh that 'fire' was in the workings. Not one of the men working there in No. 4 and 5 are alive. Did not see any gas there that night. Told David Evans, working in No. 4 that there was good air that night. He said, 'Yes, very well.' A fortnight before this there was gas arising probably from a blower in No. 3. I put brattice there immediately. The gas was removed in consequence. In No. 1 and No. 2 there was no gas. Visited these headings but not the stalls. Locked a few of the lamps, and the rest of the colliers came to him to test them." By Mr Wales: "The men working in the incline had naked lamps."

By the Coroner: - "The men working in the incline went nowhere else, and John Williams was looking after them. This extends from No. 8 heading to the safety door by the pit. The naked lights were the common oil lamps. There were from 10 to 19 men working in the incline."

Mr. Wales: - "Did the men work with naked lights from the lamp station?"
Witness: - "There has been no working with naked lights this long time."

By Mr. James: - "They could not go beyond the lamp station with naked lights. There were about forty-five men working in the pit that night. He delegated the conducting and supervision of each gang to the most experienced man. Never allowed any man to work in a dangerous part of the pit; if no work, he would be compelled to go home."

Mr. Pickard: - "Do you know whether gas ignited in the Blaenllechau district a week or a fortnight before the explosion in consequence of firing?" – Witness: - "Yes, three weeks before, John Robbins's son; he had no business to fire a shot there. It was in John Davies's level. I did not think of saying this before. Robbins's son did it before I came in. He was a day worker, and the shot was fired the last thing before he left the pit for the day." Mr. Pickard: - "Were the men allowed to fire their shots in that district?" – "Only George Sage was allowed to fire at night."

Daniel Davies saw gas in Morris's stall (the arch) before the explosion, and George Sage had seen gas in the last stall in the same heading, next to Chadwick's stall.

Thomas Carnew, viewer at the Plymouth collieries, Merthyr, and formerly manager of the Ferndale Colliery, said after the explosion he went down into the colliery, and going into John Davies's level, found the first and second air-ways

blocked up by trains of trams, one of which had got off the plates. He believed there were two separate and distinct explosions – one in the Blaenllechau district, in John Davies's level, and the other in the Rhondda district, and he believed the accumulation of gas arose through the temporary opening of the doorways by the trams, by which the ventilation was diverted into the returns too soon.

James Rees, who had a heading, and worked by contract, always found air good in his place in the Rhondda district, where he had worked for four years. The men working there were killed, but they appeared to have been shut in by falls, so suffocated, as there were no visible marks of burning when they were recovered, a week after the explosion. **Tom Davies**, working in the same district, in David Jones's heading, said the air was enough to starve them there; it was so cold.

Morris Rees, a collier, who assisted in recovering the bodies, said he came upon 14 lying altogether in the contractor's heading; and there was a fall before them, by which he believed they were prevented from coming out, and killed by the choke-damp. The entrance to James Rees' heading was also blocked up by a fall, and the men there suffocated. There was contrary evidence that the bodies from both these headings were burnt.

John Rees, collier, said he was employed to drive forward the main level intake air-course, otherwise called the Rhondda incline. On the 31st of October last year the water broke in, and he was obliged to abandon the work. Next day the level, for a space of forty yards from the face, was full of gas. A danger-signal was put up and the road made deeper, so as draw off the water, and the gas was watched every night. By Monday night, the 4th of November, the gas was diminished by two yards; on Tuesday night there were ten yards less, and on Wednesday night it had disappeared; but the danger-signal was not then removed.

Monday, December 15th 1867

The Inquest was resumed on Monday. Mr. C. H. James again appeared for the proprietors, who were present.

Robert Walter Roberts was the first witness called. He said that he lived at Ferndale, and was a collier, and was working at the Ferndale Colliery previous to the explosion. He was working in No. 4 heading, Rhondda side, in a stall on the

morning of the explosion. There was plenty of air there. Went to the other part of the pit. Never heard anything said about gas in the pit. Thomas Morris was working not twenty yards from him.

He heard the explosion, but saw no fire. Told his boy, and at once endeavoured to get out. The light was not out then. Went up the drift towards the incline; his boy was with him. Before he reached the incline he became overpowered and insensible. Did not become conscious for two or three hours afterwards. Was assisted by two friends to reach the pit, and came up to the surface. His son was not able to come out. He was dead.

Fifteen colliers and some others – the haulier, a labourer, and a doorboy – were working in No. 4 heading. Was told by the haulier that Mr. Williams had gone into the heading; John Harris, the fireman, was with him. They were measuring. Witness and four others escaped; all the others were suffocated, the bodies being found at the entrance to the heading. There was plenty of air in this heading. John Harris, had filled that office for three months. He was a competent man. Witness lamp was examined by the lampman. Three lamps were allowed between two men. Witness and his boy were allowed three lamps. This was the custom in the pit.

Mr. Wales: - “Where does the fireman put his mark?” – “Sometimes on the coal and sometimes on the ground.”

By Mr. James: - “I am not sure I saw Mr. Williams the last measuring day.”

By the Coroner: - “Sometimes Williams would come once, sometimes twice a month.”

By Mr. James: - “I often saw Walters, the overman.”

By the Coroner: - “There was no one that I know of in place of the overman when he was ill. Sometimes we would see the fireman two or three times a week; if nothing was the matter, only once. Generally four times a week the fireman would visit the pit. Every collier was to put up his own pitwood.”

Mr. Pickard: - “Have you heard of any complaint of gas in your district, or in any other place?” – Witness: - “I was told that there was fire and that some came out. The lamps were lighted in No. 1 Lamp-station. Did not know of any lamps lighted beyond the No. 2 station. Did not recollect any complaint made. A shot was fired in the district by the fireman (this was confirmatory of Thomas Morris’s evidence).”

By the Coroner: - “Have been working in coal and iron mines for 20 years, and as a collier, for 3½. Have been working in Llynerch works. Have seen a blower.”

David Richards, the fireman who left the Ferndale Colliery was the next witness called. I work at Cwm Park, Ystrad, as a fireman. Was not working at the pit at the time of the explosion, was there ten weeks previously. Had been there since the commencement of the pit to that time. Left because Mr. Williams took the canvas from the door between the No. 6 and No. 9 dips. The sides of the door were of canvas instead of walls (this is the canvas referred to). It was in the main line of the incline – the Rhondda incline. I told him it was wrong to take it away. It was taken away, and next morning I found gas in one or two of the stalls. Went back after finding the gas in the first stall. I put the canvas back again, closer than it was previously.

I cleared the gas before I went further on. That morning, returning from breakfast, Walters, the overman, asked me if I had taken the canvas off. I said it had been taken away, but I had put it back again. He told me I must take it away. I told him I would not; he could do it himself if he liked. I would not do it because I knew it was wrong to take it away; told Walters so. Walters saw Mr. Williams and told him I refused to take the canvas away. Mr. Williams had stopped me from working after breakfast. That evening I saw Williams in his house by order. I had remained at the bottom of the pit till I was perishing with cold.

Mr. Williams alluded to my refusal to take away the canvas at the request of the overman. I admitted, whereupon Williams said we had better part. Had differed on another occasion. He thought walls were preferable to canvas, as being safer. Walls were always used before Mr. Williams came here; he used canvas instead. Walling is better than canvas. Nothing can get through the former, while the latter is liable to leakage. There was nothing else causing a disagreement between them. There were blowers in some parts. In the No. 1, top of the incline, Rhondda, the heading had been down ten yards further since he had left. There was no blower when I was there.

By taking away the canvas in 8 and 9 there would not be sufficient air for working purposes. Did not go to any other part than his own district. Mr. Williams had been manager about 12 months. Had once told Mr. Williams there was not sufficient air. Williams said there was plenty there. He replied that it was wanted in the top of the incline. I thought the air escaped through a bridge made of loose stone with no mortar. Nothing was done to remedy this in my time. All the other bridges, with the exception of one made of bricks and mortar, were made of boards. I think it seriously affected the quantity of air

wanted at the top of the incline. I know of no other place. Had some idea of the result of the explosion. Went there the day after the explosion to assist. Went down the pit and down to the incline as far as I could.

After being examined at some length, he said he was unable to give any explanation as to the principal involved in ventilation, but he could tell at once the state of the flue by looking at the doors. Could not take any air from another district and turn it into his own. There was no necessity for more air in his district (Rhondda). Did not think anyone went down to examine the pit after the day men left. There were three firemen.”

By Mr. James: - “The top of the Rhondda was clear the morning he left. Lukey and Williams were stopped by him from working because he found a door open, and sent them away before regulating the air, as the gas had accumulated. It was in No. 2 heading, about five months ago. There were five or six men working there at the time, and it was all right on the following day. The men might have gone to work next morning. After returning from breakfast the place was clear. As a rule, I went around the places where the men were twice a day. When I could not do this, I complained that there was too much work for one man. I complained to Mr. Williams and the overman. I visited the places before the men went to work, and again when returning from breakfast, as I was not satisfied unless I saw all the men at work. Can’t say anything about the other firemen, how often they went around.”

By Mr. Pickard: - “About a week after I saw Mr. Davis, the proprietor, and told him I was stopped. Mr. Davis said he was very sorry, but the manager had control of the works. Did not report this to the Government Inspector. No lamp station at No. 8 heading, as I would not allow it. The new stables had not been completed before he left (one man was killed here). I think the door was stuck open by a stone, which kept it from shutting.” The witness was then questioned at great length to the mode of ventilation, after which the inquest was adjourned.

Tuesday, December 16th 1867

The inquest was resumed on Tuesday as usual, when the attendance of colliers was remarkably small. The first witness called was **Thomas Samuel**, who said he lived at Blaenllechau, and is a labourer. He was working in the pit the night before the explosion. Was at the flue in place of the flueman who was ill, and did his duties several nights before. His name was Henry John. Can’t say

whether there was any gas in the pit as he was at the flue. There was a great deal of foul air coming into the flue the night before the explosion. Although a labourer, was brought up as a collier. Had seen gas in Henry Williams's heading – the Rhondda side. The evidence of this man was corroboration of the fact already brought out – viz; that there was an accumulation of gas.

Thomas Davies, a night labourer, said he had met with gas within the last six months. He said he had worked in all the three districts and found gas in them all; a few months ago the night fireman put him to work, with another man, in a stall where their lamps filled with gas in a few moments, and remained full even when placed on the tram plates at the mouth of the stall. About a week before the explosion he saw gas in No. 9 heading, Rhondda district, and when they went down the Rhondda level his lamp had a cap of gas. When the night-fireman came and found gas there he said he would report the flue-man for not keeping the furnace fire up.

Thomas Davies here stated that but nothing that was required was ever refused by his employers, the Messrs. Davis. The Coroner here remarked that he might go farther, and say that they had always shown themselves ready to assist whenever any request was made upon them. By Mr. Pickard: - "The night-man did not go with the men to their workings, but visited them afterwards. Had stopped up goaves to confine gas, but had filled up old stalls to prevent accumulation. He stated that on December 2nd, before a new air-way had been made, there were 13,580 cubic feet per minute passing John Davies's level, and 34,550 in the Rhondda district.

Isaac Thomas, formerly a collier, now a labourer, having lost his leg, corroborated the evidence in the main of the previous witness as to the existence of gas. He said that on the Wednesday night before the explosion he was working in No. 1 stall, No. 10 heading, Rhondda district, gobbin (filling up) the stall with rubbish. He tried with his Davy lamp and found six yards of gas there. The night-fireman knew it and cautioned them to look after their lamps. In the same heading, about a week before the explosion, and after the water had broken in, he heard the blowers going "like a lot of banjos," and bubbling in great numbers through the water. Some months before that he had seen gas in Chadwick's stall, in the other district. For eight days previous to the explosion the Rhondda level had been stopped by a blower.

David Williams, a lad, said the air was good below, but not much above; a little fire was there. Saw the gas every morning when he took his lamp up. Was

home on the day of the explosion because rubbish was being taken to his stall. Had lost his light while working.

Richard Bedlington, mineral agent of the Rhymney Iron Company's collieries, Monmouthshire, who knew the Ferndale Colliery, went down the pit several times after the explosion, and made a careful examination of the two districts in which the gas exploded. He believed that in consequence of the two doorways leading into John Davies's level in the Blaenllechau district having been kept open by trains of trams, the current of fresh air was diverted into the return courses before it had swept through John Davies's level, producing stagnation there, a great accumulation of gas took place; and it was fired by a naked light somewhere about Chadwick's stall, where the box of a lamp was found, with the gauze off it.

The blast from this explosion flew along some returns, through the stables, and up the down-cast pit. The ventilation was then temporarily stopped and the result was an accumulation of gas in the Rhondda district, where, coming in contact with naked flame, it exploded, and sweeping along the main return shot up the up-cast. The first report heard was loud and the second dull, which would be accounted for by the fact that the Blaenllechau workings were nearer the down-cast by many hundred yards than the Rhondda. The indications were all in support of this theory. The court adjourned until Thursday.

Thursday, December 17th 1867

The inquiry was open on Thursday at 12 o'clock. The first witness called was a lad 17 years of age, named **William Jones**, a collier residing at Ferndale. He said that he was at work at the Ferndale Colliery between 12 and 1 o'clock on the morning of the explosion, and was working in a place called James Rees's heading. He left the works at that time, because there was fire in his stall, and the top was so bad it wanted repairs. The gas had been in his stall about four months. He had seen it there every day, and had often complained to John Harris, one of the firemen, who told them to take care of their lamps. They were afraid to rip the roof in consequence of gas in their stall, and he and his brother left because of the gas. He and his brother saw Mr. Williams, the manager, at the top of the incline, and asked him to send someone to rip the top of their stall. Mr. Williams commenced cursing and swearing, and told them to "Go to _____, and not trouble him." They left the pit just previous to the explosion. The rest of the colliers remained at work at the heading and were all killed. Richard Jones, brother of last witness, corroborated this statement.

By a juryman: - "There was no danger signal when we went to work that morning."

Cross-examined: - "On that morning I tried the gas on the face of the stall as soon as we got down, and finding too much gas in the stall, we called an old collier named Evan Matthew, who, after examining the gas there told us that it was too bad, and advised us to go out. We looked for the chalk-mark which indicated that the fireman had visited the stall, but found none."

By Mr. Pickard: - "Although I had seen the gas in the stall for four months I had never been obliged to leave in consequence of gas."

By Mr. Wales: - "I had seen the fireman, Mr. Walters, the overman, and the manager in our stall on the Tuesday before the explosion."

By Mr. Pickard: - "There were about 28 yards of waste in our heading, and that was full of gas, and this was about 4 feet high and 3 feet wide."

By a juryman: - "The day Mr. Williams was in the stall it was full of gas. The fireman knew there was gas in my stall, and frequently cautioned us about our lamps."

The Coroner mentioned that in the early stages of the inquiry plans of the colliery were produced that had been drawn up by Mr. Adams, and on those plans were lists of the persons killed giving the place where they were killed, those by fire, and those killed by suffocation. He had some reason to believe that many of the persons who were supposed to have been killed by suffocation were believed now to have been killed by fire, and he caused some of the bodies to be disinterred and they found that many of them had been badly burned. It was very material to know this, and Mr. Roberts, the surgeon, had examined them and found that all the bodies in the Contractor's heading were burned, and the same thing occurred with those in Caswell's heading. Mr. Wales said it was very important that they ascertain who were burnt and who were suffocated. Mr. Adams said he had made up the list from the best information he had received at the time. Police-constable Tamplin gave support in the statements of the Coroner respecting the second examination of the bodies. He also said that two bodies had been brought up that morning.

Moses Rees, a collier, was next examined. He went down the colliery on the second Sunday after the explosion, and assisted in getting the bodies up. He described the finding of 14 bodies in what was called the Contractor's heading, and from the position of the bodies, altogether, the men appeared to have been attempting to escape when a fall prevented them and they were all, in his

opinion, suffocated. One body of a man was found lying on his face, with the body of his little boy on his back. They were all apparently struck down by the fall. The falls, which were very heavy, must have been caused by the explosion. By the Coroner: - Had heard people say that his brother was going to be manager of the Ferndale Colliery, but he could not speak positively on that point. The inquiry was then adjourned to Friday.

Friday, December 18th 1867

Charles Henderson Harrison, formerly a North of England viewer, manager at Risca at the time of the explosion there, now manager of the Dinas Collieries, in the Rhondda valley, concurred with Mr. Bedlington and Mr. Adams in their theory of the explosion, namely that the first occurred in the Blaenllechau district, and sweeping to the downcast suspended the ventilation of the Rhondda district, where through the gas coming into contact with a naked light it exploded, causing the second explosion.

In the Blaenllechau district he found a lamp-key in the pocket of one man's clothes (already spoken about of by Chadwick), and a man working with him had a cap in which a key was found actually sewn into the lining. In the same heading an unlocked safety lamp was found. In this heading there were many indications of it being the centre of an explosion, the materials being blown from a given point in all directions.

By Mr. Wales: - "I should say, judging from what was said of the quantity of air going around the pit, that the air was quite sufficient for the workings."

By the Coroner: - "I have had thirty years' experience in collieries, and never knew two lamps allowed to one man before. This is a splendid pit for travelling. Shots should not be fired except by consent of the fireman, and then not by the colliers themselves, but by a man appointed for the purpose. I think the responsibility rests with the manager, who has the actual laying out of the ventilation of the pit, and not with the consulting viewer, less he interferes with the practical management of the pit."

By Mr. Pickard: - "I don't think the key in the cap was an officer's; I never saw a Davy lamp that could not be opened without a key."

Herbert Kirkhouse, manager of the Bwllfa Colliery, Aberdare, arrived and went down the pit after the explosion to assist in getting out the bodies. He concurred with Mr. Bedlington's theory (which was the same practically as those of Mr.

Adams) of the explosion, and added that he found an unlocked lamp in John Davies's level, Blaenllechau, and in the opposite stall a lamp-key in a coat pocket when they were searching for a watch. In the same level five more lamps were found unlocked. In No. 11 heading, Rhondda, an unlocked lamp (Davy) was found.

It was quite impossible that there could have been twenty-three yards of gas where Griffiths Jones had said he had seen it in the Rhondda, for there were only 10 yards of what was there, and the gob was filled tight to the top with waste. He concurred in the theory of two explosions, the first of which took place in Davies's heading, not far from Chadwick's tall, from which point things were blown in every direction. Never saw better coal to work in his whole life than in this heading.

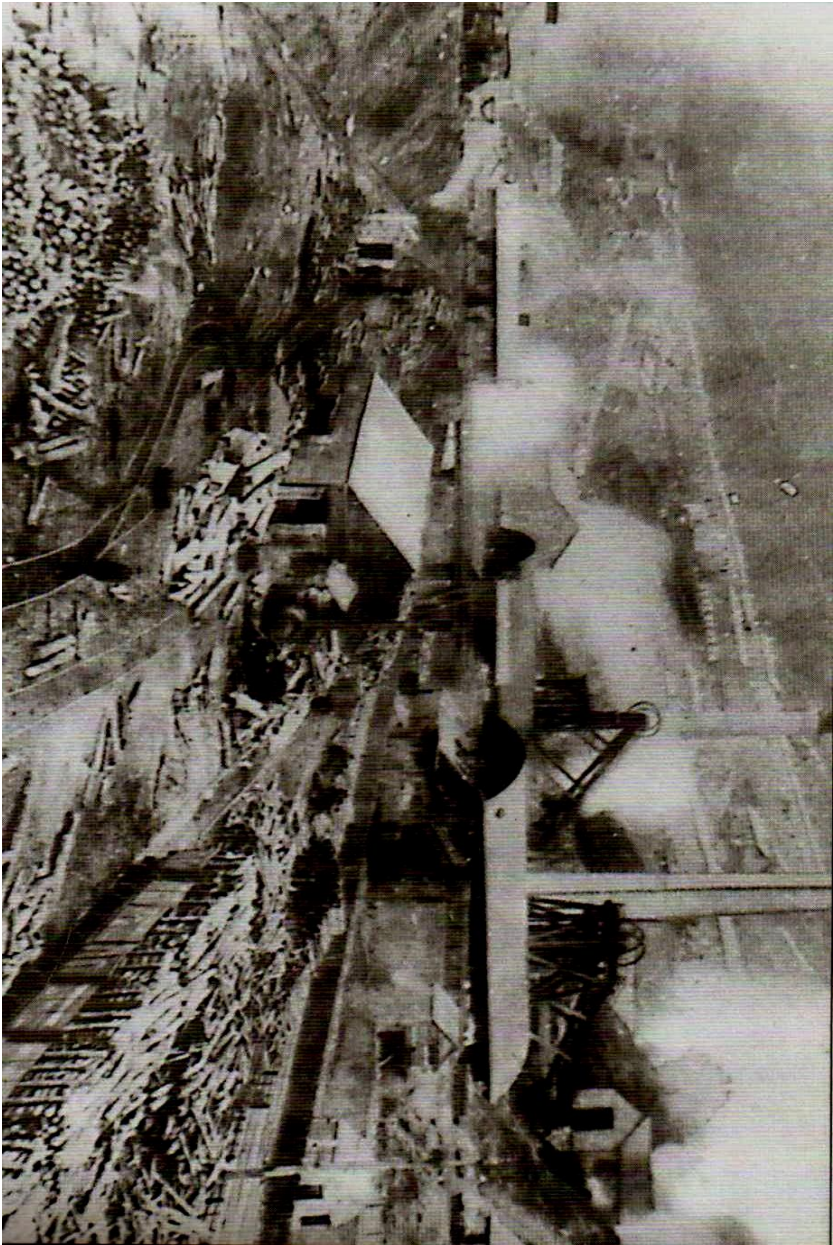
By Mr. Wales: - "The firing of shots in the district was quite proper."

By Mr. Pritchard: - "I would not allow it to be fired without consent. It ought to be done by a man for that purpose."

Monday, December 21st 1867

The Coroner observed that he thought the inquest had terminated on Saturday last, but the fireman Price had been summoned, and is now present. He had received a medical certificate, stating that Price was very unwell, so that he would make his examination as brief as possible. There was also a door-boy to be examined.

James Hill George, a doorboy working at Ferndale, said he used to work with David Griffiths senior. Was 'dooring' on the morning of the explosion. Said he left John Davies's level about mid-day to go to the lamp-station. He then left a train of trams standing on the double parting between two doors, the horse being then feeding, and the haulier lying down on the road. Twenty minutes afterwards he heard the explosion. This witness, gave his evidence with great clearness and intelligence, and entirely upset the theory of the two-horse joining opening the double doors.



Ferndale No.1 & No. 5 pits 1904

Chapter Six

The Coroner sums up

The Coroner, in summing up the evidence to the jury said: - "We have extended our inquiry to a great length, and sought all the evidence that could be obtained, and, I trust, obtained sufficient information to enable you to arrive at a satisfactory conclusion; and allow me to thank you for the patient and anxious attention you have devoted to the matter. It is, I assure you, a great satisfaction to me to think that your knowledge and experience in such affairs will make amends for any deficiency or omission on my part. I cannot but regret that in the present occurrence the friends of the deceased have not had professional aid, as it might have assisted materially in the investigation, and might have been the means of eliciting evidence which has escaped our notice; and I regret also that the proprietors did not give the facility they ought. The proprietors of the colliery and their officers have had the advantage of a skilful and able professional man, and a host of friends to support them, and it has consequently imposed upon me the necessity of cross-examining more strictly than I otherwise should feel disposed to do so. The facts, as they appear in the evidence, are these": -

On the 8th day of November last, about half-past one o'clock in the day, an explosion took place in the Ferndale Colliery in the Rhondda Valley; the property of Messrs. Davis & Sons. There were about 340 persons working at the pit at the time. The workings extended over about 80 acres in the four-feet coal, and the annual yield was 9,000 to 10,000 tons. The pits were about 278 yards deep, and the quantity of air about 90,000 cubic feet per minute. The colliery appears to have been divided into three sections or districts, called the Rhondda, Blaenllechau, and Duffryn, all of which are separate, and it would appear that when the air was measured by Mr. Adams, in July last, there was then circulating through the districts of – Rhondda portion amounted to 35,540 cubic feet; Blaenllechau 25,380 cubic feet, and the Duffryn 29,350 cubic feet, making a total of 90,270 cubic feet.

And as the ventilation has not yet been restored, we must presume that to be the normal state of the ventilation. Out of the 340 person engaged at the colliery at the time, 172 have been brought out dead, and 5 have died since, making a total of 177, and out of these 147 were more or less burnt, and 25 died from suffocation. All the men working in the Duffryn district, and those working on the South side of the engine plane and the lower level in the Blaenllechau

district escaped, and there is no vestige of the explosion having extended to these parts; but the remainder of the Blaenllechau district and the whole of the Rhondda having been subjected, more or less, to its devastating effects.

It is quite manifest, from the appearance of the bodies and other material facts, that the effects of the one explosion extended chiefly through the whole of the workings in John Davies's level, and from there through the engine plane by the flue onto the stable, near the pit, destroying every obstacle or thing it met in its way, where it would appear to have become exhausted. And there was also clear proof of a still more fearful and terrific explosion in the Rhondda district, at some distance from the former, and which extended more or less through, I believe, the whole of the Rhondda district, except No. 4 dip heading.

Nearly all the persons employed in that district at the time were killed, and the whole, or nearly so, more or less burnt, and some severely, as it appears by the evidence of the medical gentlemen and policeman, except those employed in the No. 4 heading. Mr. Adams, in the plan he puts in, describes the persons employed in the Contractor's and Caswell's headings as having died from suffocation, but there was no list of names attached, so I could then not identify them, but he afterwards supplied me with a list of names, and it is now, I think, pretty clear that the men in those districts, as well as in the upper part, were exposed to the fire, and that the explosion extended over that part of the pit as well.

I can speak to this fact more confidently, as I made, at the special request of one of the inspectors, a strict examination of the bodies found in that heading, accompanied by the doctor and policeman, when they were recovered about fortnight after the explosion, when they were very much decomposed. It would therefore appear that the only part that did not contain indications of fire is No. 4 dip heading, where the manager, Mr. Williams, as well as John Harris, the fireman, happened to be at the time measuring, and he, as well as all, with the exception of the five persons engaged in that heading, were all killed by suffocation or fall of roof.

I think therefore it is perfectly manifest that there must have been two separate distinct explosions immediately following each other, and the evidence of some of the witnesses fully confirms this view. Presuming, therefore, that there were two explosions, the next question is which was the first, or where did it originate, and how was it communicated? The strongest evidence points to John Davies's level as the spot where it ignited first, and if you have confidence in the

evidence of William Walters, overman; John Richard Thomas, the night-overman; David Griffiths, William Chadwick, George Sage, David Griffiths junior; Daniel Davies, and Isaac Thomas, it would appear that gas was frequently found in different parts of the level.

John Richard Thomas clearly proves that on two occasions previously gas was found in the heading near the last stall, and all of them, more or less, say that either gas existed or the air was foul in the different stalls and workings between the stall heading and the engine-plane, and that it approached an explosive condition. The evidence of Isaac Thomas and David Griffiths is particularly strong on this point, and they trace the course of it to a blower arising in some of the abandoned stalls near there; and there can be little doubt from their evidence that there were then some abandoned stalls which were stopped in consequence of falls, and which, they say, are partially stowed where gas would very likely accumulate.

The evidence of those witnesses is so important that, if you wish, I will read it over to you, and if you believe Chadwick's evidence that a lamp, which he identifies as David Evans', was found with the top off in his (Chadwick's) stall, and also in Morris's stall, the probability is that David Evans or Morris were working with a naked light just in the portion where the gas was likely to be found, and it therefore becomes very probable that the gas discharged out of these old workings came into contact with these naked lights and ignited, and caused the first explosion; or it might have been a defective lamp.

It has been suggested by some of the witnesses – Mr. Bedlington, Mr. Curnew, and some others - saying that there was a horse and tram passing through the doors out of John Davies's level at the time that might have caused a suspension of the current and accumulation of gas, but as neither of those gentlemen appears to have been aware of the state of the air in Chadwick's stall previously, or the existence of the abandoned stalls, they may have attributed it to a door being left open, which is a very common mode adopted of explaining any defect that may arise.

But I think the evidence that you have heard today tends to demolish that theory, if there really ever was any weight to be attached to it. On the other hand, Mr. Brough and other witness say that there is no occasion for such an hypothesis, that the accumulation of gas there was sufficient to account for it. It will be for you to give it all the attention you think it deserves. If you are

satisfied that the first explosion commenced in the Blaenllechau district there will then be very little difficulty, I apprehend, in accounting for the other.

Mr. Bedlington again adopts the theory that the concussion produced by the first explosion destroyed the doors, suspended the ventilation, and caused the gas to accumulate, and come into contact with some naked lights, or forced the flame of a safety-lamp through the gauze, until it came in to contact with some gas. But it appears from the evidence of all the witnesses, except John Rees – to whom I shall refer again – that at the very time of the explosion a large quantity of gas had accumulated at the Rhondda incline, which appears to have been allowed to remain there for some time.

Walters, the overman, proved that it proceeded from a blower that broke out eight days before, and was there on the Tuesday previous, when he was taken ill and obliged to leave work, and that John Harris, the fireman, who was one of the sufferers, was perfectly aware of it, and John Richard Thomas, the night overman, saw the danger signals the night before the explosion; so it would appear, from the testimony of all except John Rees, that it had been allowed to remain there up to the time of the explosion; and there are other witnesses who corroborate this statement.

And it would appear, from the evidence of Walters, that three weeks before gas had accumulated in No. 8 dip heading from an airway being stopped some months previously, some gas had fired in Thomas Morris's stall in No. 4 dip heading, from a blower in the roof, which continued for a month or two, and that he found gas there again on the Tuesday before, from the brattice having both broken. That he saw gas in No. 1 rise heading, from a current of air being stopped.

On the Tuesday before the explosion he found gas from a blower in No. 9 dip heading, arising from a fall; and the same day in the No. 8 heading, at the entrance to one of the stalls. And the witnesses, Thomas Samuel, Thomas Davies, and Isaac Thomas, all proved that they occasionally met with gas in Dai Pontfins's heading No. 9; in Grayworth's heading, No. 10; and in Philpot's heading, No. 11; and David Williams stated that he had been working in gas all the weeks up to the day before the explosion in a stall in No. 9 heading.

You cannot forget the evidence of those two boys who had been stopped from working in Caswell's district. So that there are strong grounds for presuming that there were accumulations of fire-damp there at the time of the explosion.

And presuming it was there from either cause, there is no doubt, I believe, that the shock of the first explosion might force it out against a naked light, or even some of the safety lamps, with such velocity as to produce an explosion, and this would account for the second explosion.

Having satisfied yourselves as to the facts, and how the explosion originated, the next point for your consideration will be whether it arose from an accident or gross negligence. Before I proceed to comment upon the evidence in this case, perhaps it would be well that I should endeavour to define to you what the law is on the subject, so that you may be able to ascertain whether there has been any infringement of it, and if so, who are the parties to blame?

The last Mines Inspection Act, 23 & 24 Vict; cap. 151, enacts that certain rules, which are described as "General Rules," shall be observed in every colliery or coalmine, by the owner and agent thereof, the most important of which as far as our present inquiry is concerned, appear to be the first and second. viz.: -

1. An adequate amount of ventilation shall be constantly produced in all coalmines or collieries, and ironstone mines, to dilute and render harmless noxious gases to such an extent that the working places of the pits, levels, and workings of every such colliery and mine, and the travelling roads to and from such working places, shall, under ordinary circumstances, be in a fit state for working and passing therein.
2. All entrances to any place not in the actual course of working and extension, and suspected to contain dangerous gas of any kind, shall be properly fenced off, so as to prevent access thereto.

And it requires that, in addition to these general rules, each colliery should establish certain rules to be observed in the colliery, which rules are called "special rules," and, when approved of, become of the same force as the general rules named in the act. You have a copy of the general and special rules before you, and you will be able to see how far they have been adhered to. I apprehend that the wilful neglect or disobedience of any of these general or special rules would constitute an illegal offence, and if death ensued, the consequence would be criminal. The ordinary rule of law applies to this as all other cases.

If the death of an individual arises from the wilful negligence or carelessness of anyone, then the person guilty of such negligence or carelessness is guilty of

manslaughter; but there are circumstances under which the law attaches a still greater responsibility – that is, when parties undertake to perform certain duties and negligently omit or carelessly perform the same. It will be for you to say whether or not the present is a case of that kind.

If the evidence adduced before you leads you to believe the present melancholy catastrophe did not arise from any negligence or carelessness, but was one of those unforeseen casualties that must necessarily attend all mining operations, however serious the consequence, it would only amount in law to accidental death, but if, on the other hand, you consider that the explosion did arise from carelessness or negligence of the viewer, managers, agents, overmen, or others who had duties to perform in reference to this pit, or the colliers and other men who were employed therein, then it will be your bounden duty to find a verdict of manslaughter against the delinquent, if he has survived, that the matter may undergo further investigation before another tribunal.

And if, gentlemen, you should be of the opinion that the death of the deceased was caused by the negligence of several, then you will be justified in bringing a verdict against one or all of them. The one question in all these inquiries for you to decide is whether the facts amount to accidental death or manslaughter. It is your province to decide what upon what does amount to such careless or negligence and what amounts to manslaughter. The Coroner quoted from “Archibald’s Criminal Law,” defining the word manslaughter, as applicable in cases of this description.

He then said that there had been repeated decisions confirming the authorities he had quoted, and added it is was clearly laid out that managers, agents, and all other persons who had duties to perform, in the due and careful performance of which depended the life of miners and colliers in these dangerous undertakings, were bound to bring to the exercise of their respective duties ordinary and reasonable precautions, as well as skill and ability. He further directed their attention to the rules for the guidance of all concerned in working the colliery; and having defined the law on the subject, he asked them to consider whether the law had been infringed; and if so by whom? The Coroner asked them the following questions: -

Do you think these workings were in a proper state? Do you think the first general rule, which requires that an adequate amount of ventilation should be produced to render harmless noxious gases, had been complied with? Do you think there was any neglect upon the part of the overman, fireman, viewer, or

manager, in allowing the works to remain in such a state for so long a period, and for allowing men to work so near after the repeated warnings they had received?

David Griffiths says he mentioned the circumstances to Thomas Price, the fireman, and suggested driving a heading into Roach's level. Walters admitted that he was aware of it, and the matter had been a subject of conversation between him and Mr. Williams, the manager, but nothing had been done, and the matter was allowed to remain in the state you have heard described. Then again, with respect to the second explosion, do you think there is anyone to blame?

That appears to have been the most terrific explosion there can be little doubt, although a different opinion has been expressed, but the fire must have traversed the whole of the Rhondda district (except the No. 4 dip heading, where, with the exception of five only who escaped, all were suffocated). The extent of the mine traversed and the damage done shows that the quantity of gas must have been very considerable. Do you think that it arose from the doors being forced open and the ventilation impeded as suggested by Mr. Bedlington, or from the deposit of gas which was allowed to remain for several days at the top of the No. 1 or the insufficiency of air for the proper ventilation of the pit as required by the first general rule, which might have caused the different accumulations of gas that we have heard of from time to time?

Was it right to allow the gas to remain there so long? Was proper diligence and care used to remove the different accumulations of gas from time to time? The Coroner quoted the rules at some considerable length, and then said he feared all these rules had been disregarded or very negligently enforced. He also reviewed the evidence generally, and that of the inspectors in particular, and concluded his remarks with these words: -

"These are all the circumstances you must take into your consideration, and if you think any of them amount to gross carelessness or wilful neglect, and the death of any of the parties arose directly from it, then the same rule of law will apply in this case as well. I will not detain you any longer. I have endeavoured to explain to you the law and the facts, and to assist you as far as I could in this most serious and important inquiry, and most anxiously tried to do my duty fully and impartially; and I am sure you will do the same, and return such a verdict as will be consistent with the evidence and the justice the case requires." The Coroner having summed up, the jury then retired to consider their

verdict. After deliberating for nearly two hours, during which period differences ran very high, a portion of the jury being for a verdict of manslaughter against the two managers, the overman and William James, which others stoutly resisted on the ground that such a verdict would be unwarrantable on the evidence, returned with the following verdict: -

“We have come to the conclusion that deceased met their deaths on 8th of November last by an explosion of gas at the Ferndale Colliery. We believe this explosion took place – first, in consequence of a great accumulation of gas in certain workings of the colliery, and this accumulation we attribute to the neglect of Mr. Williams, the manager, and his subordinate officers; and, secondly, this gas being fired by one or more of the colliers carelessly taking off the tops of their lamps and working with naked lights.

We must regret that the proprietor of the colliery did not allow the deputation of the Miners’ National Association to go into the pit, especially as the Coroner gave them a letter of recommendation with a view of their being allowed to go down. We are of the opinion that the inspection of collieries, as hitherto practiced, has entirely failed as a preventive to accidents of this kind, and we recommend that all collieries should be henceforth inspected by a competent person at least once in every three months. We further recommend that all collieries should be provided with scientific instruments for measuring the quantity and quality of the air passing through the colliery, and that a daily record of the same be kept; also a register of the daily reports of the firemen be kept in the office of each colliery, and that a register of the names of all persons who descended into the pit be kept.”

The Coroner expressed his concurrence with the terms of the verdict, which he thought entirely met the circumstances of the case. He asked whether the negligence should be considered ordinary or criminal. If the latter, it would amount to manslaughter. The jury thought that as the manager was dead they wished it to be considered ‘ordinary.’

Reaction to the verdict

The ‘Times’ editorial, December 26th 1867

The loss of 178 lives at the Ferndale Colliery has been made the subject of an inquiry that will, we trust, conduce in some degree to the more effectual protection of miners in their perilous trade. Complicated and technical as this inquest may appear, it is nevertheless reducible to plain statements and an

equally plain moral. The danger of coal-mining consists in the presence of inflammable air discharged from coal. This gas, or firedamp, will explode if brought into contact with flame, and yet, flame, in the shape of light, is indispensable to the business of the mine.

The first source of this danger cannot be removed. Coal will always discharge gas more or less. Some seams are far more fiery than others, and certain states of the atmosphere or other natural causes may lead to the unusual accumulation or escape of gas at particular times. In general, however, it must be assumed that in every coalmine there is a liability to this danger. The coal will give out the gas, the gas will be liable to explosion, and a catastrophe like that at Ferndale may at any time follow. This is the peril against which it is necessary to provide, and the provision if proper pains are taken, can be made with almost complete effect.

The first and most obvious precaution consists in carrying off the explosive air before it can accumulate in any dangerous quantities, and that is what is sought to be accomplished by the 'ventilation' of the mine. Strong currents of air artificially created are driven through the various passages and galleries so as to sweep and clean the noxious and inflammable gas, and if the ventilation of a mine could be rendered absolutely perfect, it would follow, of course, that the danger would entirely disappear.

But this perfection is, perhaps, impracticable, and, therefore, precautions are adopted also at the second stage of the case. Firedamp itself will not explode without fire, and consequently, if it could be contrived that naked flames should never, in any circumstances, be brought into contact with the atmosphere of the mine, it would signify comparatively little whether the ventilation of the mine were perfect or not. To this end the ingenious expedient of the safety-lamp has been devised, miners may, if they will, do their work by lamps impervious to flame. But this precaution they will not always observe. Familiarity with danger makes them reckless, and for the sake of obtaining a little more light they will often remove from their lamps that safeguard which stands between them and death. Here, therefore, are two distinct obligations – one incumbent upon the owners of the mines, the other upon the miners themselves.

It devolves upon the proprietors to adopt all practical means for the complete and constant ventilation of the mine, it devolves up to the men working in the mine to employ with care and watchfulness the instruments of protection placed in their hands. If we had had that the employers of labour are naturally bound by their position to exercise an efficient superintendence over the

discipline of the whole establishment, we shall have said enough to enable any reader to understand and appreciate the story which follows: -

The Ferndale Colliery is, at least in some parts, a dangerous mine, that is to say, the coal was of a fiery character, and the liability of accumulations of gas was considerable. The ventilation, however, was described by two independent witnesses as good, or good at any rate, if estimated by the ordinary requirements of the mine.

Then, as to safety-lamps, it seems that provision was made without stint, for each man had two lamps, or at least there were three to every two men. As regards superintendence, the officers of the establishment were a manager, an overman, three day-firemen, one night-fireman, and three lamp-men, whose business it was not only to give out the lamps, but to see that they were locked. So notorious is the carelessness of miners in exposing the flame of their lamps that the lamps themselves are locked by way of precaution, and it is assumed that the men could not uncover them even if they would.

The lamp-man deposed that on the morning of the explosion he gave out from 500 to 540 lamps, all properly secured. This being the state of things on the 8th of last month, the inquiry naturally branched off in two directions. It was necessary to discover whether anything was wrong with the ventilation of the pit, and whether any reckless exposure of flame could be held to have occurred. The conclusion was that on both these points there had been mischief at work.

It seems to have been concluded, with more circumstantiality than might have been expected in such a case, that there was an accumulation of gas in a particular heading, or recess, of the mine. One witness ascribed this to an accidental diversion of the current of air which should have swept that part clean; another doubted whether the ventilation had been thus immediately at fault, and thought that the electrical occurrence at the time, as was represented by the earthquake in the West Indies, might have something to do with the unusual quantity of fire-damp given out by the coal.

More than one of the men employed in the mine spoke of the accumulation of gas as having been observed for some time, and even reported to the manager; but as that officer himself lost his life in the explosion his defence was not forthcoming. As to the lamps, it was deposed that the men could, and did, unlock them with nails and other instruments, and among the lamps collected and examined after the explosion it was found that some had been seriously

tampered with. Upon the whole, therefore, there was evidence sufficient to justify the verdict of the jury, that gas, on the one hand, had been permitted to accumulate in dangerous quantities, and that naked lamps had been brought into contact with this explosive air. Half the fault, therefore, would rest with the manager and his assistants, and half with the miners themselves.

The moral of the story is that a certain precaution not specified in the foregoing remarks should be adopted in some more efficient form. Colliers should be subjected more effectually to independent inspections; and this should be combined with some measures for ascertaining freely the views and opinions of the miners employed. It is shown but too clearly in the very narrative before us that colliers are often reckless of danger; but, on the other hand, we have been repeatedly assured that some of them, at least, are more careful of their lives, and that they would often be willing to indicate the unsafe points in the workings of the pits if they were allowed proper opportunities of speaking their minds.

We concur with the regret expressed by the jury that a deputation from the Miners' National Association were not permitted to go down into the Ferndale pit, for it would have been, at least, satisfactory, and might possibly have been serviceable, to hear the opinions of such witnesses upon the catastrophe, and the general dangers which it represented. The fault of the present system appears to lie in a variety of slight defects at its several points.

In theory it is complete, at least, no addition is suggested to it; but in practice it fails. The men have their safety-lamps, but they find the means of neutralizing this safeguard; the owners ventilate the mine, but not always effectually, and there is no register of the air draught from day to day, as there might be; the firemen are on the lookout for fire-damp, but there is no record of their reports; and the outside, or independent inspections, which should keep all this machinery in order, is not sufficient for the purpose. The sources of danger are well known, and the requisite preventatives are all presumed to be in action, but there is no security for the constant efficiency of the whole organisation. So the result is seen in catastrophes like that at Ferndale, and the remedy, we think, will not be long withheld after so terrible a warning.

The report of Mr. Brough

As was usual after the conclusion of the inquiry, the Inspectors of Mines presented their own reports to the Secretary of State: - Mr. Brough, Inspector of

the South-western district of the kingdom, gave the following report that he had written: - "Mr. Wales having applied for assistance in the matter of the Ferndale explosion, I was directed by the Secretary of State to join him as soon as I could. I accordingly met him on Tuesday the 12th of November, and immediately went down the pit, and continued my service underground on several other occasions. Since then I have attended the inquest, and heard much of the evidence. I listened attentively to that given by Mr. Richard Bedlington, but in some points I differ from him altogether in opinion. There was no reason to suppose that the first explosion occurred in the Blaenllechau district, than in the Rhondda, one may be as probable as the other; but it is just and fair to state that two lamps were found in the Blaenllechau with the gauze removed, and up to this time not such tampered lamp has been found in the Rhondda; but for all that, there may have been naked flame there as well as in Blaenllechau.

We found in the Rhondda four lamps that were not locked, and Mr. Harris, Mr. Edward Daniel, and myself brought them out. However, there are many more than them already recorded. I entirely agree with Mr. Bedlington in the probability of the Blaenllechau gas having been ignited at one of the open lamps. Indeed I have no doubt about it; but this explosion, and some others, do not involve the actual necessity of the presence of flame. For many years I have had suspicions as both regards the Davy and the Clanny lamps, and recent experiments, at one of which I assisted, very clearly prove that those lamps would pass the flame even at comparatively low velocities; this is a very serious matter, but those details will be made public; indeed, I believe they are already in print, and I have only to add that the gentlemen who made the principal experiment, which, in fact, I had nothing whatever to do with, are men of the greatest skill and probity.

The point on which I materially and decidedly differ with Mr. Bedlington is not one of lamps at all; any difference of opinion between that gentleman and myself on that subject is very easily reconcilable. It is a matter of greater importance that we cannot by any means agree, namely, whether the doors were kept open for some time by two journeys of trams getting off the rails, and all ventilation consequently cut off from the workings into Davies's level in the Glo-bach. I fear was there was quite gas enough in that district to account for the explosion, without those doors, or any other doors at all, being left open.

I must support Mr. Bedlington in his view that there were two explosions; extraordinary as it might appear there really were two, each separate and distinct from each other; but whether first in the Glo-bach or in the Rhondda is

immaterial; in either case one was contingent on the other, and was a sword with two edges that cut both ways, as far as that goes. With regard to the timbers in the Rhondda intake having been blown and bent upwards from the one or two, I must say it would, on the first view, indicate the rush of a blast in that direction; but sometimes such indications must be received with a certain amount of reservation, for it has been known in other explosions that timbers that have escaped the blast, but have given away before the tremendous rush of air technically called the 'suck' of the pit. Firedamp once ignited, the combustible, light carburetted hydrogen and its supporter oxygen, combine with such rapidity that partial vacuum almost immediately ensues, and the air rushing into the pits, and from other parts of the colliery, to fill it up, often resembles a second explosion in the mischief it perpetrates and in the disturbance it brings about; indeed, it may, with some, lead to the opinion that another explosion has actually ensued, when such, in reality, has not been the case at all.

In such manner timber is occasionally prostrated in a manner to induce the opinion that it was lying in a direction contrary to the initial blast. However, I oweverH beg here to repeat that my firm conviction that there really did take place an explosion at two different points, one remote and far away from the other. At the Risca inquest an idea suggested itself that there had been two independent explosions, but proof to that effect was by no means elicited. It is not in general accordance with colliery experience that two such events should simultaneously occur from totally different causes. Both at Risca and Ferndale there can be no doubt that, if gas ignited in more than one place, the second event must have resulted from the central explosion, whenever that might have taken place. Evidence has been given that they were troubled by gas both in the Glo-bach and top of the Rhondda; therefore the undulating waves of air occasioned by the one explosion would shake gas out of any hidden receptacle that might exist in far-distant districts, and then an open or defective lamp would supplement and complete the catastrophe.

It matters not whether a minute or a quarter of a second intervened; in acoustics the one is quite as true a period as the other. By measurements made when in the pit with Mr. Wales we found at different times from 112,000 to 134,000 cubic feet of air per minute, but when the pit was in its normal condition, and all its currents sweeping round the coal faces, I should think there would generally about 100,000 feet per minute. That quantity, properly dealt with, I should really myself have considered quite sufficient; but if they wanted more, it would not be difficult to obtain it.

The up-cast is an admirable pit, as indeed is the down-cast, and a stack on the flue-shaft of twenty yards height, would greatly augment the quantity of wind. I have often stated there ought always be air in excess to guard against leakage and sudden emanations of gas, so that if the viewers find that 100,000 cubic feet or any other given quantity did not sufficiently provide for these contingencies, they could get what they required as above, or even by building a second furnace at the bottom of the up-cast shaft. The managers of the colliery would be the parties to know best its requirements.

I myself never saw the pit until after the explosion; 100,000 cubic of wind is a large quantity and Messrs. Davis have spared no expense to arrive at it, so that it is hard indeed for them to undergo so great an affliction as the one we are now investigating; but I fear the air got sometimes throttled at the faces. The owners, with a view to increased safety, had also adopted in some degree the panel system, and to this I attribute the saving of even 100 lives in the Duffryn district; this in itself unquestionably becomes a great consolation. When I speak of throttled air I mean that the passages from stall to stall may at times undergo neglect, and be allowed partially to choke up. An instance of this kind was remarked by some of us after the explosion, in two or three of the stalls in John Davies' level; we found the air choked, and on examination we have arrived at the conclusion that there flowed just then, about 1,500 feet per minute. Now all around that face of work, they really required more than ten times as much. This of course was after the explosion, and in that state when we could not fairly expect that everything should be in proper order. But it may be remarked that such a condition of circumstances might have existed before the pit met with its terrible misfortune; if so, I think that neglect would be chargeable to the viewership; at all events, it would not be fair to attribute it to the owner. Anyhow, that is the feeling that exists in my mind on the subject.

The Rhondda return wind-way looks ample, but then, as the drag is directly in proportion to length, and that the Rhondda air-course is long indeed, I think it would not be out of the way on my part to say it would be well to open it out larger, or duplicate it by another, if such could be performed. The Rhondda district requires all that can be done for it, by reason of its great length, and also because towards the far end, and there about, there is some soft coal with a great liability to blowers.

There should be a barometer in a cabin within a reasonable distance of the bottom of the down-cast, where a record should be kept in a book of the height of the column of mercury day after day, and in fact at all times. The

employment of scientific instruments may become an additional safeguard; indeed the mere use of them sets people thinking, and the more thought the greater the safety.

However, there are requirements of greater importance than instruments; viewers should not only be practical persons, but possessed also of considerable scientific attainments; the overmen, fireman, and master men should be selected from amongst the best informed and steadiest of the working class, and above all, the strictest discipline should prevail in the pit. Unless all those conditions are arrived at, I fear there will be but small immunity from explosion; the partition between life from death is so thin and frail underground, that relaxation from discipline should never take place – not even for one single moment.

I think there is considerable leakage through those gobs, so that if the principal roads were in coal, the wind would get better to the faces. I would also wish to remark that, it is not a desirable method that of letting the men buy their safety lamps at any shop they please; it is far better the company should get the lamps from an approved manufacturer; and finally, I may say that this being a locked lamp pit, I recommend the use of gunpowder be entirely abandoned.

The discharge of shots may, and no doubt does, have the effect of driving gas out of the gobs. There must be leakages under such circumstances, and the further the workings are pushed onwards from the pit the more formidable this danger becomes. Finally my concluding remark is that within a certain space of time before and after the Ferndale explosion, great electrical disturbances took place in Europe, America and Asia; heavy gales of wind in England, Vesuvius in action in Italy, hurricanes and earthquakes in the Virgin Islands, and cyclones in the East-Indies. It is almost immediately on our minds that, within the period I am now recording, four to six pit explosions have occurred, one of them, as far as we can read in the papers, sweeping off 100 persons in France. It is also to be remembered that at about the time of the Oaks and the Talk-'o-the-hill calamities meteorological occurrences of somewhat similar kind had been observed and recorded, though those singular cosmical phenomena were certainly not exerted in the alarming manner which we have read of in the present year.

I may therefore say that it is not at all unreasonable that I should fall back on an idea long entertained by myself, that our underground pursuits may possibly be influenced by such extra-ordinary visitations. I have only now to report that

whether in the Rhondda or Glo-bach, at whichever point the pit first fired, it is in evidence, solemnly sworn to, however reliable they may be, that they had been met with gas in both the far away districts, to account for the explosion; all that was needed to scatter death and destruction was a naked light, a defective lamp, or its unskilful handling. And then, if all the statements we have are true, an explosion would be the inevitable result.

The lamp management does not appear to have been perfect; that department is of the most serious and onerous kind. That, combined with good viewership and good discipline, would go a long way to lessen and mitigate the disasters that coal-mining is liable to. Out of 350,000 persons employed, something like 1,000 are swept away every year. Such a terrible percentage of death is a matter of the greatest consideration. We ought all of us to exercise our best exertions to lessen in some degree this great morality. Every collier that is struck down becomes a mournful affliction to his family, and a serious loss to the entire nation."

Mr. Wales' report

As Inspector of Mines for the south Wales District, it has devolved upon me to inspect the Ferndale Colliery, with a view of ascertaining the cause of the explosion of gas that occurred there on Friday, the 8th of November, resulting in the death of about 178 persons.

I first heard of the explosion the morning after it occurred, and I at once proceeded to the colliery. On ascertaining, from a personal inspection after my arrival, the extent of the calamity, I wrote to the Home Secretary asking for the assistance of my Colleague, Mr. Brough, and which at once was granted, so that you have the benefit of that gentlemen's report in addition to my own as inspector of the district, with reference to the cause of the explosion. In consequence of the different air crossings and bridges, doors and gaugings being destroyed by the force of the explosion, large accumulations of gas had become lodged in different parts of the Rhondda and Glo-bach districts, which greatly impeded the recovery of the unfortunate sufferers.

Almost immediately after the explosion the ventilating furnace was put out, with the view to prevent a further explosion by the gas reaching it. That, in my opinion, was a most judicious step. On reaching the colliery on the following Monday after the explosion, I found that the task of recovering the bodies had almost come to a standstill in consequence of the temperature of the up-cast

shaft having become much reduced, and although a waterfall had since the explosion been applied to the down-cast shaft, the quantity of air passing was very small, so much so, that instead of beating back or carrying off the gas it increased considerably, and pervaded almost the whole of the two districts already referred to.

On the state of things presenting itself, the safety and propriety of re-lighting the furnace was discussed by the engineers, and myself, and the conclusion arrived at, that by properly mixing or diluting the different return air currents before reaching the furnace, it could be done with safety. It was done, and in a very short time – only a few hours – the quantity of air was increased from 10,000 to upwards of 80,000 cubic feet per minute.

It would be tedious, and I think unnecessary for me to further describe the work of recovering the bodies, than to state that I believe everything that could be done was done compatible with safety to complete the dangerous and mournful task. I shall now give a general description of the colliery before the explosion, so far as I can do so, from the several inspections I have made, and the evidence I have heard given by the witnesses examined.

The coal worked is a steam coal, and known as the Upper 4 ft. vein, varying in thickness from 4½ to 7 ft; and lying at a depth of 278 yards from the surface. The coal is won by two shafts, the down-cast and up-cast; the former having an area of about 200 square feet, and used for drawing coal, men, &c. &c; the latter having an area of 150 square feet, and used for no other purpose than as an up-cast shaft.

The plan of working pursued in the long-wall principal, and the colliery was divided into three distinct districts, known as the Rhondda, Glo-bach, and Duffryn. The whole of the men employed in the latter district got out unhurt. Locked safety lamps were used, and shot-firing throughout the mine had been allowed, except in the top of the Rhondda, where it was prohibited. Lamp stations were fixed at different points in the intake air in each district, for the relighting of lamps which went out, and three men, one in each district, were placed at those stations to open and relock the same.

The ventilation of the colliery is effected by a furnace, with a 72 feet area of heating surface, at the bottom of the up-cast shaft; giving a water gauge of from 2 to 2½ inches, and producing from 112,000 to 134,000 cubic feet of air per minute. Mr. Brough and myself found those quantities passing. The air, arriving at the bottom of the down-cast shaft was split into three main currents, one

passing into each district; the Rhondda main current having to travel about 2½ miles, the Glo-bach 1¾ miles, and the Duffryn 1¼ miles; each of those currents, on arriving at a given point in the district, was sub-divided, that going to the Rhondda in three divisions, the Glo-bach two, and the Duffryn two; so that there were seven currents of air traversing the colliery at the time of the explosion.

There are two principal reasons for splitting or dividing air into different currents, viz. to reduce the friction of the air passing through the different ramifications of the colliery, and to reduce the number of doors necessary to direct the air where it is wanted to a minimum. Probably the quantity of air passing into the colliery at the time of the explosion would be about 100,000 cubic feet per minute, and such quantity would, properly distributed throughout the mine, be ample to ventilate properly the colliery in its normal condition; but whether the colliery was in its normal condition at the time of the explosion, are matters that we can only judge from the evidence that has been given, which unfortunately is of a most conflicting kind.

Several witness have spoken of having met with gas in each of these three districts, but the principal witnesses who spoke of having seen gas in the Rhondda and Glo-bach, which most affect the inquiry, were David Griffiths and William Chadwick, colliers, of Glo-bach, and Mr. Walters the overman. David Griffiths said. 'there was generally gas in the old stall next to the stall heading. The gas nearest me was where the old stall fell on Wednesday of the week before the explosion. The gas collected above the fall. It was there when I left the Thursday before the explosion.'

William Chadwick spoke of gas being in an old stall next to his stall, and said, 'Walters and Price told him there was a blower in that stall, but he had never seen it himself. About six or eight weeks ago the airway was made by direction of the fireman; after that he saw no gas to harm anyone. When the doors near the drift were open it was worse.' Walters the fireman said, 'on Tuesday previous to the explosion he found gas in the Rhondda level about half way up past the last cross hole, which would be about 40 yards from the face.' John Richard Thomas, the night overman, in speaking of the gas said, 'there was a danger signal – a fire-mark placed at the entrance.'

With respect to the locking of the safety lamps, and firing of shots, the custom it appears was for the whole or nearly the whole of the lamps to be locked by the lamp-man, or one of his assistants, at the lamp station at the top of the pit, or by the men at the different lamp-stations as the colliers passed these points in

going to their working places. So far as I am aware no evidence has been given to show that this rule was broken by any one of those to whom that important duty was entrusted. Would that I could say the same with all that used a safety lamp.

Lamp-keeper, Thomas Powell, said that he had for some time suspected that lamps had been tampered with, and that he not only accused those he suspected of such conduct to their faces, but he frequently acquainted the late Mr. Williams, the manager of the pit, about it, who replied that he 'did not know what to do, they were a rough lot.' That was certainly not a proper way to have treated so serious a matter.

In my opinion Mr. Williams should have put the law in force. Had that been done, it is possible the dangerous practice of opening the lamps might have been stopped, and the terrible calamity now under investigation prevented. Firing shots for the most part seemed to have been done by the 'fireman,' of each district, or other appointed person, but in the Glo-bach district the colliers were allowed to do so themselves.

The latter part of the 37 rule states that 'blasting by the workmen, except when expressly authorized by the under-viewer or overman, is prohibited.' From this it would appear that officials had liberty to allow the colliers to fire their own shots. I am of the opinion that there had been two explosions. One, the first, in 'Glo-bach' (translates as 'small coal'- nickname for the Blaenllechau district), and the other in the Rhondda. I believe the first explosion was caused by the gas passing through the old stall (spoken of by the witness Chadwick and others), and coming in contact with a naked light in Chadwick's stall, where Chadwick himself, singular to state, afterwards found his safety lamp (which he had that morning lent to his partner) with the top off.

The concussion from this explosion was, I think, the cause of the explosion in the Rhondda, but in what particular part in that district gas was ignited I have come to no definite conclusion. From the evidence, the pit is evidently subject to sudden outbursts of inflammable gas, or blowers, and doubtless, the gas spoken of by the witness David Griffiths, Chadwick, and Walters, was traceable to this source.

The discharge of gas from blowers is often intermittent, so that a place might be quite free and safe, and in a very short time rendered highly dangerous, and of course *vice versa*. On the long-wall principal of working, the only outlet for the gas to escape from the old gobs or goaves is up or down, as the case may be, into the face where the men are working. Such being the case, the greatest

possible quantity of air should be made to pass along the faces. Shot firing should not be allowed, and the strictest discipline, especially in regard to the safety lamps, enforced. At this point Mr. Wales quotes the verdict of the jury.

I made a thorough inspection of the colliery since the inquest concluded, the result of which greatly strengthen the opinion I then gave as to the cause; indeed I can come to no other conclusion than the fearful calamity was the result of a most flagrant breach of the 30th general rule (which is as follows: - *"30. The overman, deputy overman, hitchers, and other duly appointed persons only shall be allowed to carry a lamp-key, and no collier cutting coal shall be appointed; and under no circumstances is any person to take the top off his lamp on the 'in-bye' side of the lamp station referred to under the last head. When the workmen receive their lamps, they shall examine the same to see that they are locked and in a safe condition; and any workman found on the 'in-bye' side of the lamp station, with his lamp unlocked, shall be dealt with as if he had been found with the top of it off"* – by one of the deceased, David Evans, in removing the top from his safety lamp and exposing a naked light in William Chadwick's stall, into which gas was issuing from a blower in the old works, for had that not been done it was probable the gas might have passed into the return airway, without any explosion at all. The deceased had been cautioned to be careful with his lamp in that stall.

Several lamps were found unlocked, and safety lamp keys, and contrivances for opening the lamps, were also found in the pockets of several of the deceased, showing that the greatest want of discipline had prevailed throughout the colliery.

Much has of late been written with a view to prove and disapprove that colliery explosions are now not only more frequent but also more fatal in their results, than they were, say 50 years ago, or before the introduction of the safety-lamp. Previous to that period the other method adopted of keeping all the old works clear of gas was as follows: - The whole of the abandoned "boards" or "stalls," or other excavations, were constantly swept by a current of air being coursed through them, up one and down the other, so that no part of the mine was unventilated. Every old stall of heading acted as a windway, to support which it was necessary to leave pillars of coal, which, in all probability, formed from 50 to 70 per cent of the whole; and all this coal was sacrificed for the sake of this principle of coursing the air. It was well known, even then, that gas could not be prevented escaping from the goaves, or old works, and with only naked lights explosions would have been inevitable had the pillars been worked.

And, moreover, such a mode of working had the effect of greatly limiting the extent to which collieries could be worked, in consequence of the great distance the air had to travel, frequently from 10 to 20 miles, as well as the number of men that could be employed, which, probably, seldom exceeded 100 persons in one colliery. After the introduction of the safety lamp it was found practicable to work collieries by only having sufficient air-ways or roads maintained or supported as were necessary for the proper ventilation of the working and adjacent places, and the roads leading thereto, and thus the whole of the 50 or 70 per cent. of coal left under the old system was obtained.

In all fiery mines, the large excavations thus made by removing all the coal, technically called "old works" or "goaves," if not filled with rubbish, which is seldom the case in thick veins, are filled with inflammable gas. This system of working also greatly reduces the distance the air has to travel, as there are comparatively no old works to ventilate, and enables collieries to be worked much more extensively, probably four or five fold, and of course a much larger number of men are now employed, frequently from 400 to 500 in one colliery.

From experience, extending over 20 years, I am of the opinion, that all or nearly all large explosions are due to one of both of the following causes, viz; the exploding of a large quantity of gas given off suddenly, called a "blower," or of large accumulations of gas lodged in the different "goaves." Under the most efficient management, with the best discipline in force, it is possible the gas in either case may be exploded, for it may be given off under such vast pressure as to overpower almost any amount of ventilation, or forced out of the "goaves" by falls, at such a velocity as to pass through the gauze of the safety lamp; but where the reverse exists and open lights are exposed, there is no possible chance of escape from those fearful catastrophes.

I do not wish myself to be understood as speaking in any way against the introduction of the safety lamp, but, on the contrary, I believe it has tended more than, perhaps, any other invention to develop the vast and valuable mineral resources of our great country; for without it a much larger number of deep and expensive shafts must have been sunk, and from 50 to 70 per cent of our valuable coal left un-worked. Indeed, by its use, collieries that were considered exhausted have been re-opened; and by referring to it so prominently is to, shot-firing, and enforcing proper discipline, large quantities of coal have been safely worked. My reason for returning to it so prominently, is

to, in some measure, account for the great fatality of explosions now, as compared with former times, or before the introduction of the safety lamp.

At the quarter Sessions

At the Glamorganshire Quarters Sessions at the beginning of January 1868, the chairman, Mr. R. O. Jones, drew the attention to the Court to the recommendations of the jury at the Ferndale inquest. These recommendations were that there should be more frequent inspections of collieries, the present system in the opinion of the jury being entirely unfit to prevent accidents; that scientific instruments measuring the quantity and quality of the air be provided, and that a daily record of the fireman's reports should be kept, also the names of every person that descends the pit.

He, the chairman, did not offer any opinion as to the management at Ferndale, but it appeared that the jury imputed carelessness to the manager. The number of pits in the South Wales district was so great that the Government Inspector could not visit them all once every 12 months, and he brought the matter before the Court in order to elicit an expression of opinion from those who were competent to offer one. He concluded by moving a resolution to the effect that the Court having had the verdict of the Coroner's jury on the late Ferndale explosion brought under their notice, begged to transmit the evidence to the Secretary of state, in the hope that a more efficient inspection might be the result, and the number of inspectors increased.

Mr. G. T. Clarke, seconding the motion, expressed a hope that Mr. H. A. Bruce, M. P; who was present, could take the matter up. He supported the double-shift system, as advocated by Mr. Nixon, combined with the life insurance for the workmen. Mr. H. A. Bruce, M. P; said that he thought an increased number of inspectors was necessary, but it was dangerous to throw the responsibility on the Government and take it off the proprietors.

The Committee on Mines have made some important recommendations; one was that in future all colliers works should be divided into air-tight compartments, so that the effects of explosions should be limited; another, that in all colliery districts Stipendiary Magistrates should be appointed, who, from their legal training would be able to administer the law properly. By adopting these and other recommendations he believed that the number of accidents would materially diminish. The resolution of the chairman was then unanimously adopted.

Echoes of the Ferndale explosion

The *'Cardiff and Merthyr Guardian'* of January 4th 1868 also had its opinion and wrote this in its editorial: "The echoes of the Ferndale explosion have died away, and now all is silent as the grave. Never more will the 178 fellow creatures who met with sudden and horrible deaths be mentioned, except in the circles of the kith and kin whom they have left behind, and by benevolent persons in their appeals for contributions to the fund for the relief of the widows and orphans.

And is it not always the case? In the mode of dealing with these terrible catastrophes there is a striking sameness and routine. It would seem as if it were all done according to rule. Shameful and culpable carelessness in a coal pit. An explosion takes place, and scores of valuable lives are lost. The calamity is chronicled in all its great details, and a thrill of horror is sent through the kingdom. Great sorrow is felt for the sufferers, and profound sympathy their widows and orphans.

Heroic exertions are made to bring forth the dying and the dead. No less noble are the deeds of daring in exploring the fatal mine to see if any of the workers have been spared. The intense hopes and fears and of the gatherings at the pit's mouth are depicted by the scribes drawn to the spot, and the excitement is thus defused and sustained by the press.

A Coroner's jury are summoned, and after being formed and sworn, are dismissed until all the lifeless bodies have been recovered from the mine. The mournful and touching spectacles – the funeral processions, with all the trapping of woe, are duly chronicled by the reporters and read with eagerness by thousands of people. By and by the excitement cools down, and the 'latest particulars' become uninteresting and common-place.

Meetings are organised by philanthropic individuals, and eloquent appeals made to the public on behalf of the destitute women and children. The time has come for the Coroner's jury to reassemble. Once more empanelled, they are addressed by the judge of the court, and witnesses are examined to elucidate the cause of the fatal occurrence. A gentleman of professional eminence sent down by the Government assists the local authorities in arriving at the truth.

His evidence, besides that of the local 'Inspector' of mines, is accordingly given, and after several days' sittings, the protracted inquiry and the voluminous testimony are brought to a close. Then the coroner sums up the evidence and

lays down the law to the jury. These gentlemen, who have listened with commendable patience to facts and opinions involved in the course of the investigation, deliberate for an hour or two, and return their verdict, attributing the explosion to neglect, or carelessness, or recklessness, or ignorance, but generally inculcating no 'living' man.

A leader from every journal of high and low degrees follows as a matter of course. Supineness takes the place of indignation, and so 'the terrific explosion and awful sacrifice of life' become effaced, as it were, from the public mind – except, as we have already observed, for the purpose of charity. Ultimately responses in the shape of pounds, shillings and pence, make up the required sum, the 'account' is closed, and the silent wheels of time go on their annual round as smoothly as ever – until another mining calamity and wholesale destruction of life shocks us once more.

This is the *modus operandi* of these mine catastrophes. Everybody knows it. Yet no extra-ordinary effort is made by the nation – question of imperial importance as it is – to remedy such disastrous and widespread evils. The present system of coal-mine 'inspections' is delusive in the highest degree, or else why should irregularities of the general magnitude take root and flourish under its 'care?' So long as matters remain as they are, we are quite prepared to hear at any time of a repetition of the Rhondda valley explosion.

Our readers will remember that our opinion has been already explicitly given, that gross carelessness had characterised the workings of the Ferndale Colliery, and that the 'calamity' was but the natural result of such conduct. The evidence showed that a great accumulation of gas had taken place in the certain workings of the pit. This accumulation the jury attributed to the neglect of Mr. Williams, the manager, - who was killed – and his subordinate officers; and they found that the explosion was caused by this gas being fired, by one or more of the colliers taking the tops off their lamps and working with naked lights.

But this apparently insane and wicked conduct may have been the consequence of ignorance, for it must not be forgotten that any collier regularly employed in the pit might take down with him who he pleased! It has also come to light that the men were allowed to buy their lamps where they chose, and it is therefore not reasonable to doubt if they were good or 'safety' lamps at all. Moreover, neither barometer or thermometer was kept in the pit. An anemometer was used only about once a month by Mr. Williams. In this way death and destruction were courted. We know the rest.

The Coroner, in his summing up, noticed the singular fact that the widows and orphans had no professional aid at the inquest. And the jury regretted that the proprietors of the colliery did not permit the deputation from the Miners' National Association to go into the pit, especially as the Coroner had given them a letter of recommendation, with a view of their being allowed to go down. Both circumstances are to be deeply regretted, but surely they will not create a surprise in the minds of all who are acquainted with the 'management' of the Ferndale Colliery.

How soon a Royal Commission to inquire into the workings of coal mines may be appointed we are not prepared to say. It would be a characteristic of our Conservative Government if prompt action were taken in the matter. And when we are told on the best of authority that out of 350,000 persons employed in coal mines, something like 1,000 are killed off every year. No argument is needed to show unless something is done without delay, the annals of the new year will be as deplorable as those of the old.

It will be seen in our report of the Glamorgan Quarter Sessions that the chairman drew the attention of the court to the explosion at the Ferndale Colliery, and pronounced in favour of additional inspectors as likely to mitigate the dangers of coal mines. To this proposition Mr. G. T. Clarke demurred; and the Right Honourable H. A. Bruce was of the opinion that it should not be entertained without careful consideration.

The 'remedies' suggest by those gentlemen will be taken for what they are worth. Many persons will place them in the category of those suggested which for all practical purposes are valueless. It is merely tampering with some of the branches or twigs of the great deadly tree. Why not strike at the root and the trunk?

The relief fund

The Ferndale Relief Fund, by mid-January 1868, had reached an aggregate sum of something like £9,000. The sum of £5,000 had been raised from the Mansion House Fund, but there would still be a large sum required to enable the committee to make such arrangements as would secure the poor families in permanent income equal to that of which they have been deprived by the unfortunate disaster.

Opening a lamp in the Ferndale colliery

However, some people had not learned from the Ferndale disaster. The *'Cardiff Times,'* of Saturday, February 29th 1868 reported: - David Evans, a collier, was charged with opening his lamp at the Ferndale Colliery on February 17th. Thomas Lawrence, a door-boy, said that on the day in question, he went to the defendant's stall, who asked him to go and get his lamp for him at the flue. Witness went to the haulier, and said, "John, his lamp is open." The haulier examined it and found it open. Witness then went back to the defendant and told him of it. Defendant went to the haulier, and offered him money to say nothing about the lamp.

John Pritchard, a haulier, said that on the 17th inst. he took a train of trams to the heading where the defendant was working, and defendant came out of his stall to take in a tram, when the draft in the heading extinguished his lamp. He asked the last witness to go to the flue to get his lamp re-lighted. Defendant worked with a glass lamp, and he requested the last witness to lend him his gauze lamp while he got the glass one re-lighted for him. The boy came to witness, and showed him that the defendant's lamp was unlocked. Witness spoke to the defendant about it, and censured him for having it unlocked.

The defendant admitted to witness that the lamp was locked when he received it from the lampman in the morning, and he offered witness any sum of money so that he would not say anything about it. Witness said he would not accept anything, as he considered it his duty to inform upon him.

Mr. David Rees said that he was the manager of the Ferndale Colliery, and it was reported to him by the overman that the defendant had had his lamp open. He saw the defendant about it, who denied that he had had the lamp open. He said he was sure the lamp was locked when he received it in the morning; but he did not know how it became open.

Mr. Rees examined the lamp, and found that it was a sound one, and it could not have come open by itself. The defendant was of a good character. In defence, the the accused alleged that the haulier and door-boy entertained some vindictive feeling against him, and that the lamp must have been opened when he gave it to the boy to get it re-lighted. He never offered any money to keep the matter quiet. – The bench thought that the charge had clearly been made out, and it was their duty to go the whole length that the law would allow them,

and they felt bound to sentence him to three months imprisonment with hard labour.

In mid-February 1868, Mr. R. Bedlington, for many years mining engineer at the Rhymney Iron Works, tendered his resignation, having accepted the superintendence of Davis and Sons' collieries at Ferndale. Mr. Bedlington was unanimously elected President of the South Wales Institute of Engineers at their meeting lately held at Aberdare; and in his private capacity he has ever been forward to promote all that had a tendency to improve the social and moral condition of the workmen employed under him.

On March 23rd 1868, Junior Beecher, collier, age 35 was killed at the Ferndale Colliery by a fall of roof. An inquest was held at the Glynrhedynog Inn (Vale of ferns), Ferndale, on Saturday, April 25th 1868, on the body of a lad thirteen years of age, named George Henry Joseph, before Mr. G. Overton, Coroner. The deceased was a haulier, and was at working the Ferndale Colliery, when he unfortunately got between two trams and was crushed to death. The jury returned the usual verdict of 'accidental death.' On May 21st 1868 D. Davies, collier, was killed by a fall of roof

The Relief Fund

Toward the beginning of April 1868 the committee of the Ferndale Colliery relief fund arranged for the supporting of widows, orphans, and other dependants on those who were killed by the terrible explosion at the Ferndale Colliery, issued a statement showing the progress made in obtaining subscriptions: - The total cash received amounts to £11,885 -11s - 6d.; amounts promised but not paid £5,366 - 19s - 1d.; making the total of £17,452 - 10s - 7d. The relief dispensed for the 11 weeks ending February 28th was as follows: - Sixty-six widows, average age 33½ years, rate of relief 5s per week; 158 children, average age 4½ years, rate of relief 1s - 6d, if both parents dead, 2s - 6d; if blind, 1s extra; and twenty-two dependants, average 52 years; relief various - total amount distributed during the eleven weeks: - £341 - 2s - 6d. About £8,000 has been deposited with the West of England and Brecon Banking Company at 2½ per cent interest.

The conclusion

Nearly six months had now passed since the disaster. Surely with all the recommendations made by the Inspector of Mines and those by the jury in their

verdict, and the appointment of Mr. Richard Bedlington, the Ferndale Colliery was in a safer and better condition than prior to the explosion and there was little chance of anything similar happening?

THE FERNDALE COLLIERY EXPLOSION JUNE 10th 1869

Chapter One

We open this narrative of the second Ferndale catastrophe by observing that it was but 18 months since the public had been introduced to this very scene on an occasion exactly similar. All the names, places, and descriptions must be very familiar to the reader. The report of the accident in 1867 might be transferred almost word for word as the report of 1869. There are but two variations. The explosion took place in a different 'district,' or branch, of the workings, and the loss of life was not so great. On the former occasion 178 persons were killed; on this, it was not quite so many, 53 'only' losing their lives. Otherwise the tales are literally identical; the close and gloomy atmosphere in the preceding days, the sudden roar of the explosion, the columns of the volcanic dust rushing from the mouth of the pit, the frantic concourse of people rushing to the spot, the gradual recovery of the bodies, the calculation of loses, and the speculation of the cause of the occurrence – all these features of the first calamity are now repeated in the second. This is the story as told by the local newspapers: -

Frightful explosion of firedamp at Ferndale - Between sixty or seventy lives lost

The little dingle known as Ferndale that was made ever memorable by the most appalling calamity that ever befell the mining community of South Wales on the 9th of November 1867 is again the scene of a dreadful catastrophe and from the same fearful cause. Happily we have not now to chronicle a slaughter as overwhelming as that dire disaster; yet, ours is the mournful task of reporting an event by which some sixty or seventy human beings, hardy lads, lusty youths, and strong and vigorous men in their prime, have been struck down by a cruel blow, and hurled into eternity with the most awful suddenness that can be conceived of.

Ferndale, a picturesque spot in the Rhondda vale, has within the brief period of two years been made the scene of two of the most fatal catastrophes that have occurred in the mining districts of Wales during the present century. Ferndale is a pleasant name, suggestive of the graceful fern-covered dingles that abound in our Welsh mountains, and euphonious enough to head a delightful tale, or blend harmoniously with a poet's verse.

To be linked with the terrible calamity which will henceforth be ever associated with its name, is to wrest it from its due position. As for Gethin, one is not surprised at such a name being coupled with a frightful series of accidents. Gethin means something ugly, repulsive – a something that frowns; and balefully has it frowned over the humble hearth of the collier, and sadly is its memory twinned with the long rows of grassy mounds near rustic Capel or unpretending

Eglwys - mounds that are memoranda of past incidents, great enough to thrill a nation with horror, and raise – thank God that it did so – a sympathetic response peculiarly English in its character.

Until late years Ferndale was simply a romantic mountain glen, with its stunted brushwood, its murmuring stream and its calm solitude unfettered either by the labouring engine or the plying mandril; but soon its rich subterranean treasures were discovered, and beneath scenes where no harvest has gleamed with its luxuriant gold, grandeur, more priceless heaps than have ever piled its ground, was sent up the tall shaft and dispersed throughout the land. But at what price?

There has been the inevitable draining away of human life from falls, from carelessness, from recklessness; then came a great storm overwhelming nearly 200; and now another, which destroyed (we learn from unquestionable authority) no less than 70 lives. This is one of the most frightful accidents that have ever taken place in Wales. Risca, fearful enough in all conscience, destroyed 164 lives; Cymmer, 144; Duffryn 65; Gethin 1st 49; ditto, second, 35.

Well may we feel that coal, bright and gladdening as is its blaze, is dearly bought at so cruel a cost! But is this cost necessary? Few, but those practically conversant with coalmines thoroughly understand the horror of an explosion. The toiling of men and the devastation of these calamities are hidden from us by the golden gorse fern, green sward, and murmuring streams.

We see indications of them only in the prematurely decrepit forms, and blue-seamed faces of a humble plodding race; and in those occasional heaps of death that raise the general attention for a few days, and are then forgotten. Could we pull aside, as it were, the curtain of green pleasant earth, and see how the collier labours, and how materially he aids in adding to the comforts and wealth of the nation, our sympathy for him, and our regard, would be heightened.

But still greater would be the sympathy if we held these explosions in all the fullness of their horror. Half-a-mile from the surface, they should see a maze of lanes, and streets, and stalls, an underground city in fact, but the houses and shops represented by gloomy crevices, where a glimmering light from a candle or lamp is to be seen, and in the shadow labours a half-clothed man.

There is the noise of the fast falling mandril, the steady drip of water in the pool, the occasional passage of horse and train, sometimes the scream of a rat as it falls a victim to the collier's dog; and now and then the murmuring of voices

breaks the monotony. Imagine 300 men and boys so engaged, so far beneath the surface, that it is an exceptional case to hear the thunderous roll, or feel the vibrations of the earth from the passage overhead of the heavily-laden train.

Then, suddenly, a flash is seen, a collier has opened his lamp to light his much prized pipe, or to enable him to fill more quickly his tram of coal. In a moment there is a rush of air. Every collier throws down his mandril, and dashes towards the bottom of the shaft, for that warning is well known, but the flash is followed by a roar, a sea of fire surges through the lanes and alleys. The poor workers throw themselves on the floor as it comes, they hide their faces in their hands as it passes, for its glare is death. But ere they can thank God for their safety, ere they can arise and flee, the deadly gas is after them, and they stagger, fall and die.

In those narrow passages the struggle is brief, and never for one moment uncertain, and in a space of time incredibly brief, the mass of those stalwart men and boys are stricken down. The great hive of labour is a veritable shambles, and around in all directions, covered by falls of coal and earth, we expose in horrid and ghastly manner, charred or simply suffocated bodies of men whose life from boyhood has been a toil, who knew little of the happiness and enjoyment of the sunny world above, and be blessed with freedom from accident, had only a future before them of an unmentionable, miserable old age.

If we could witness such a scene in its entirety, how arduously would England labour to remedy it; but our sympathies have been expended on the men whom nature had dyed black, not on the men whom toil has stained with even a dingier hue. These black slaves or ours, who yield treasures equal to any given by the slaves of the lamp and the ring, endure a condition that in many respects exceeds in its wretchedness that of the cotton-growing labourer. Ignorance, passions, habits, are so many chains, that manacle him when young, and are only loosened by death whether that death be acquired slumbering away of old age, or by the sudden and awful explosion.

We cannot effect a full reformation in a moment. Education, example, and their own observation, will in time bring powerful remedies into the field. But we can prevent, to a great extent, these destructive coalmine explosions. To a great extent, it is a question either of a gross disregard of life on the part of the men, or a false economy on the part of the masters. Let us wait and see what Ferndale has to tell us; and we may be certain that this new sacrifice of 70 men will lead to direct and important legislation

The heartrending incidents of the first explosion at this ill-fated colliery are yet fresh in our recollections, and long will be the day ere fade from the memory of anyone who was an eyewitness. Vastly different was the scene on that dull dreary November morning, when nearly 200 persons went down to a horrible death. From the appearance of the valley on that day November came with its thick, motionless fog clothing the earth hanging like a mighty incubus upon the devoted men of the pit – objects could not then be discerned half-a-dozen yards off - and life above and below ground underwent a corresponding depression. “Brown Autumn” had shed its store of leaves, and the bare trees and naked rocks shorn of their summer garb, gave the scene an aspect of wild desolate grandeur in keeping with the awful event of the time. The valley rung with lamentation, and a leaden sky day after day enhanced the sombre gloom and heightened the great picture of desolation.

On Thursday morning, June 8th, there was a close atmosphere, it is true, and the barometer registered a gradually increasing density, but it had been preceded by bright glorious sunshine – real June weather, and the same morning the fog cleared away at an early hour and was succeeded by a summer glow of sunlight and heat.

The nakedness of the valley was clothed in the delightful verdure of the season and its ruggedness had been exchanged for a leafy beauty charming in its luxuriance. But the angel of Death has gone through the place and a scene upon which the eye could linger in wrapped admiration for hours has been transformed into a house of mourning. There are many points of interest which we would like to touch upon knowing that they would interest a reader who is familiar with the story of the first great explosion at Ferndale, but owing to the late hour at which we write we are obliged to confine ourselves to the facts which we have in our possession and which we gathered on our visit to the pit immediately after the explosion.

It will be necessary perhaps to state for the information of our readers that Ferndale Colliery is situated at the head of the Rhondda Fach, a valley branching out of the Rhondda proper at Cymmer, and extending over four miles in an almost parallel line to the north of the Rhondda valley proper, a rivulet from which it takes its name running along its whole course. The Taff Vale Railway (T.V.R.) has a branch railway, which runs up from Cymmer, to the colliery, but it is not used for passenger traffic, and, consequently, travellers of the *genus homo* find it a very out-of-the-way place, there being no means of getting there except

by a laborious walk from Porth or Aberdare, or a drive along a road rugged enough to smash a strong vehicle, if not very carefully driven.

There are two or three other collieries in the lower part near to where it debouches into the Rhondda Fawr, but Ferndale is the only colliery by which the splendid seams of coal at the end of the valley are tapped, and this is a comparatively a new pit, having been in work about six years only. It is the property of Messrs. Davis and Sons, the large and much respected coal owners, to whom belong the Blaengwawr collieries in the Aberdare valley, and embrace an area of about 1,200 acres of which at the time of the last explosion about 80 acres were in full work. It is sunk to the 9 ft. seam.

There are in fact four seams – the 2 ft 9; the 4 ft; the 6 ft; and the 9 ft; but at present only the 4 ft., which has made the south Wales coal so celebrated, is worked. This, so our readers are well aware, is throughout the district the most fiery seam, dangerous enough to work in places – where, through the operations of other pits all around, and contemporaneous workings of the other seams, a vast portion of its gases are drained off and carried out by the ventilations of other workings, but especially dangerous in a colliery where it constitutes the only outlet for the gas for all the others seams which may exude through the underlying strata.

The ventilation of the pit, however, is on the largest scale in the district – it will be remembered that at the time of the last explosion from 100,000 to 120,000 cubic feet per minute was sent through the workings. Since then, however, the pit has been largely extended in its ramifications and the output has increased to an average of 700 tons daily when in good work. At the time of the first explosion Mr. John Williams, previously of the Werfa, was the viewer; and fell with the rest in the dreadful holocaust; Mr. W. Adams, of Cardiff, was consulting engineer.

Mr. Williams was succeeded by Mr. David Rees, who had acquired large experience as a viewer at Deep Duffryn Colliery, Mountain Ash, and about the same time the proprietors engaged Mr. Richard Bedlington, of the Rhymney Iron Company's collieries, as general manager of all their collieries, Mr. Bedlington being not only a gentleman of great knowledge in the working of collieries, but a man of considerable attainments in the departments of science pertaining to his particular calling.

When the colliery had resumed working after the explosion of 1867, it continued to develop rapidly, and is now one of the largest, if not the largest colliery in the district, employing over 600 men when all the places are filled. It is divided into three districts, not exactly panels, but yet so distinct are they from each other, as to have to a great measure, distinct systems of ventilation – these districts are the Rhondda, Blaenllechau, and Duffryn.

In the first explosion the gas fired in the Blaenllechau district, and blowing with tremendous fury into the main airway towards the up-cast, arrested the ventilation of the Rhondda district and brought about a second explosion there, but the Duffryn division wholly escaped the disastrous blast. On this occasion, singularly enough, the Rhondda and Blaenllechau divisions have escaped, and the devastation has been confined to the Duffryn district, of which Thomas James, the old fireman, was still fireman; and Walters the overman then is still overman of the pit.

During the early part of the week the barometer in the pit indicated the change in the condition of the atmosphere – it was very high on Monday, but gradually on Tuesday and Wednesday, showing that the air was becoming more dense, and that greater care would need to be exercised in the ventilation of the workings. On Thursday morning the men went in at the usual hour, and it is estimated that over 500 were in the three districts at 7 o'clock, of whom 110 to 120 were in the Duffryn division.

Nothing unusual happened until 7.20, when the whole of the Duffryn district was shaken to its foundation by the too familiar report of an explosion of fire-damp and the airways and roads became choked with clouds of dust, which found its way to the up-cast, and got carried out by the force of the blast. In an instant every man and boy who had not been struck down by the dreadful outburst made the best of his way to the bottom of the shaft, and many succeeded after terrible exertion in getting there, but alas in this as in many other catastrophes the violence of the concussion had destroyed timbers and brattices, and threw immense falls into the pathway of the unfortunate and doomed colliers. Those who were in the immediate neighbourhood of the fire were destroyed almost in the twinkling of an eye, being burnt to a cinder, or hurled with fearful violence against the rocky roof and floor till they became knocked out of all semblance of humanity, everything falling before the tremendous blast of the fire demon.

Those who escaped the fire and attempted to reach the bottom of the shaft were arrested by the falls, and fell victims to the deadly carbonic acid which is oftentimes more fatal by far than the fire itself. But although there was great local violence in the explosion, the concussion was scarcely felt in either of the other districts, though the dust carried forward by the blast and the sudden shock had a momentary effect upon the ventilation of the Blaenllechau workings and many of the men coming out of that district experienced considerable difficulty in overcoming the insidious gas which was distributed through the workings.

Few of them however, actually heard the explosion and fewer still felt it; and in the Rhondda district some of the men knew nothing of it until they were told. On the surface a dull sound was heard and a slight vibration of the houses, but no distinct shock. The inhabitants, however, knew what that trembling meant, and rushed in droves from their houses towards the pit, where they saw only too plainly that there had been a disaster underground.

Mr. Rees, the resident viewer, was on the spot immediately, and, together with Walters, the overman, and others, descended into the workings whilst messengers were despatched to Blaengwawr to inform Mr. Bedlington of the accident, and the news spread with accustomed rapidity, becoming more exaggerated the further it went, in so much that by the time it reached Merthyr it was said that the flames of the explosion shot up the shaft and appeared above the surface. This we were only too glad to find was not the fact, and dire and calamitous as was the explosion it involved less than half of the destruction of life which attended the first disaster.

Mr. Bedlington and others hurried over the hill without a moments delay, and arrived at the colliery before 10 o'clock, being quickly followed by Mr. Davis, of Bryngolwg, the works surgeon; but long before many others Mr. Roberts, the local doctor, and Mr. Devonald, had been there to tend to the injured; Mr. Webster of Aberdare, Mr. E. Jones of Aberdare and Mr. Lewis David of Mountain Ash also went over the moment they heard the news to render what assistance lay in their power, but the most woeful part of the history is that in most cases hapless men were beyond the means of the kindest and most skilful human friends.

Mr. Bedlington descended the pit immediately on his arrival and took charge of operations for the recovery of the dead – a most difficult and melancholy task, and also attended with extreme danger in consequence of the falls, which besides obstructing the passages and preventing the free current of air, had in

many instances to be cleared away as they went; and, worse than that, the fall had liberated large quantities of gas which, if not cleared out, might produce a second explosion at any moment.

That was the greatest risk run in 1867, and so it was now, but by judicious conduct, up to the time we left the colliery, all the proceedings had been carried on in perfect safety. As on all occasions there was no lack of brave men willing to imperil their lives in an heroic effort to rescue their fellow creatures who might have a spark of life left in them in that awful dungeon, and to recover the scorched and mangled remains of those who were beyond this life to their friends for decent internment.

One of these volunteers named Rees Davies, nearly lost his life in his efforts in the inhuman work, and was brought out of the pit insensible, but rallied on coming to the open air. The poor man Thomas James, who had lost a son in the 1867 explosion, has also lost a son in this; he continued down with the exploring parties until the afternoon when he had become so exhausted that he had to be brought up and conducted home, supported by women.

There was no stint of air going down the down-cast, but, as might be expected, it was not distributed to the best advantage in parts where the explosion had wrought such havoc, and the accumulation of fire-damp and choke-damp in those places rendered the work necessarily slow and hazardous. The working in this district extend very far back, indeed we were told that some of them were nearly a mile from the pit's mouth, and to convey the air so far through damaged passages, and over falls, mining engineers would say was no easy matter.

Considering all the difficulties to be overcome, the recovering of the bodies proceeded with regularity, and by half-past-ten, between 20 and 30 had been brought out; after that the recoveries were slower, indicating that the workings were sadly knocked about. At 12 o'clock there were 40 brought to bank, and at 6 o'clock they had got only 41, and it was then calculated that there must be from a dozen to twenty still down the pit, of whose life there was not the slightest hope.

In one or two cases, the explorers were rewarded for their exertion by finding signs of life, and when that was so, the sufferer was got out with the greatest possible haste, and attended by the surgeons. One of the men who was so recovered, however, died afterwards of his wounds. The dead bodies presented

a most ghastly appearance in the cases where death had been caused by the flaming gas, or by the injuries produced by the violent dashing about the stall; there were abundant indications that one poor fellow, suffered dreadful though brief agony.

Some were contorted like gnarled coke – others again who had died by the agency of choke-damp, bore upon their faces perfect calm and placid expressions, the strongest of contrasts with their tortured comrades. However, the corpse, or what remained of it was wrapped in canvas so as to conceal the marks of horrid disfigurement from the gaze of the crowds through which it was carried. It is noteworthy that the proportion of those burnt to suffocation is much smaller now than at the last explosion – the majority now having died from the after-damp. They were easily recognised. Not so the others. Their poor faces were charred and mangled beyond all recognition by their friends and they were singled out only by their garments.

One poor fellow, a lodger, was taken to the house which he had left in the morning strong in life and health, but the good woman refused to take the corpse saying it was not the body of her lodger. The person who bore the body assured her that it was, but she stoutly denied it, it being impossible to identify the man from his features, which were absolutely gone.

A little girl then came up and said “Yes, he is your lodger – don’t you see the the big button you sewed on his trousers yesterday?” The woman saw the button and her incredulity vanished. It was by similar means that nearly all the poor fellows burnt were recognised. As far as we could learn one-half of the bodies recovered were married men, and they leave altogether 45 children fatherless. In the houses of the poor people made so desolate it was pitiful to behold the grief stricken relatives – the spectacle being more poignant still by the features of the little fatherless children playing at the door unknowing that their breadwinner was stricken in the arms of death.

An immense concourse of people gathered around the pit from all parts of the district. The little settlement at Ferndale is filled with people from the whole district, and from all quarters came men, women and children in quest of information about some relative working in the pit, and poor women toiling up the rugged slope of the mountain in the boiling sun with their faces streaming with perspiration which in some cases may truly be described as a “sweat of mental agony,” were objects of great sympathy. At the pit’s mouth, however, there was nothing like the intense excitement which prevailed in the explosion

of 1867, and as an illustration of this the public being diverted from the catastrophe to other matters we may record the following incident. Early in the afternoon a man was seen to run for his life as it were, followed by a policeman. "What has he done?" Asked hundreds of voices in a moment. "Stolen a watch," and instantly chase was given by hundreds who scampered helter-skelter over the railway and across the river after the fugitive, but the race was short, the man being captured and lodged in the office in custody of a policeman.

It was immediately circulated that the man had admitted a hideous crime that he had assisted carrying one of the dead to his house, and while there sacrilegiously stolen deceased's watch from the wall. Such vandalism evoked universal horror and the disgust of the perpetrator, that on inquiry we found the facts were that the man had stolen a watch and a suit of clothes at Penarth in January last, but decamped. On Thursday he was recognised and captured. The crowd on the whole were orderly and respectful in their conduct, and much credit is due to the force of police under Inspector Howlett and P. S. Heron, which Superintendent Thomas had sent over from the Merthyr district to help P. C. Tamplin maintain order.

The Coroner, Mr. George Overton Esq; and Mr. T. E. Wales, Esq; Government Inspector of mines, arrived at the colliery early in the afternoon. They had arranged to hold the Aberaman boiler inquest on that day, but on hearing of the explosion at Ferndale, the Coroner adjourned that inquest for a fortnight and made his way across the mountain to the scene of the explosion. Mr. Lewis Lewis, Mr. W. Thomas, and other mining engineers also hastened over and went down the pit.

A jury will be empanelled at Pontypridd, and the bodies are being viewed this (Friday) morning, so that certificates of burial may be given. The following is a list of the killed that have been recovered up to six o'clock, as correctly as we could then obtain it, but there may be inaccuracies which we claim the indulgence of our readers. A correct list with the ages of the men and families will be given in our next issue.

James Jones	Jacob Matthews	John Jones	Samuel Davies
John Matthews	Thomas Thomas	Morgan Jones	Daniel Williams
Daniel James	Thomas Jones	Thomas Alias	Thomas James
James Nash	Edward Waddleton	William Matthews	John Morgan
David Jones	John Thomas	Abraham Matthews	John Davies
Thomas Jones	James Wilkins	John Edwards	Abel Dore
Thomas Price	Richard Wallace	Bendigo Wicks	James Morgan

William Hughes	Thomas Evans	William Llewellyn	Daniel Samuel
Windsor Roderick	George Chamberlain	George Allen	Charles Taylor
George Thomas	Thomas Thomas	Samuel Stride	Evan Phillips

As to the cause of the explosion there are various and conflicting statements afloat – one being that it was caused by workmen going into old workings for a rail firing the gas, another that it was caused by it being swept out of a goaf (the worked out ground of a coal mine); and the third, and that we have some reason to believe the correct one – there had been a heavy fall in the roadway by which ventilation had been cut off from the interior so as to allow an accumulation of gas which becoming explosive in its mixture with atmospheric air by some means which will probably never be known got fired spreading death and ruin on all sides. It would be idle and useless ever to speculate on the cause of the lamentable affair in the absence of evidence which will be forthcoming only before the jury. At the time of the explosion, Mr. David Davis, the head of the firm of proprietors, was in North Wales. The '*Western Mail*,' of Friday, June 12th 1869 reported: -

Latest particulars

The excitement caused by this appalling accident has not in the least degree abated, and the scene of the catastrophe was visited yesterday by fully as many persons as congregated here on Thursday. Up to a late hour on Thursday evening numbers of people still hovered around this fated spot, so full of sad and painful memories. At this crisis in the history of Ferndale, the deepening twilight held for them a strange fascination. Those who remained until night closed in, formed a contemplative few. It was not difficult to detect that in the painful circumstances by which they had been brought together they found a charm which was lost by the vast multitude of spectators who had thronged Ferndale during the day.

In the hot glare of the sun, and in the turmoil and confusion by which they had been surrounded, the lingering few could find no befitting hour to form a realisation of the dreadful human wreck which had taken place in the pit around which they were standing, and which was sunk to a depth of 280 yards. It was only in the weird twilight that the profound sympathies of those lingerers could find a congenial hour in which to form their fancies.

By the first train Friday morning, the Coroner, Mr. George Overton, and a respectable jury, went to Ferndale to open the inquiry, and were attended by a

large concourse of inhabitants of the district, amongst whom we recognised the Rev. D. Davies, the Rector of Llanwonno, the parish in which the greater number of the deceased lived. The Rev. T. Phillips, Baptist minister of Ferndale, was also busily engaged during the day, ministering the consolations of religion to the bereaved.

The working party was making every possible effort to recover the nine bodies known to be in the pit, but owing to the fiery state in which it still continues, their efforts have not, as yet, been crowned with much success. From all we could learn, it appears that several falls had cut off the bodies from the reach of their would-be deliverers, and it is distinctly stated that the bratticing is now on fire. Judging by the state of the air that ascends, we should be disposed to think the statement is perfectly true.

At any rate, it is quite certain that large quantities of turf are being sent down for the purpose of damming up the fire. The wailings of the widows and the lamentations of the fatherless were truly harrowing, and as the crowd increased, as it did every hour, the scene became one of the most heartrending description, contrasting strangely with the beautiful appearance which the valley presented.

Nature seemed to have put on her best attire, for the sun poured down his golden hues and flooded the valley with the clearest light, and most delightful tinges given to the trees and ferns, while death, with all it attended horrors, filled the white cottages which range the hills. To the most hardened mature the scene was trying, while to those of a more sensitive nerve it was overwhelming.

Stout men, who are probably strangers to tears, had in this sad instance to yield, and many of them were seen crying over the remains of their departed friends and companions.

The pit on fire – Further particulars

The '*Merthyr Express*' of June 19th 1869 reported: - Our report last week put us down to Thursday afternoon only, the day on which the explosion occurred, and in that time the air was literally full of reports, all exaggerating the disaster. Some placed the number of dead as high as 80, but it is a matter of great consolation to know that the lowest estimate then made exceeded the actual number killed. On Thursday night 43 bodies had been recovered from the wreck of the workings, but afterwards, the process of recovery was painfully tedious

and slow, in consequence of the enormous falls that had been brought down everywhere, and only one man, Evan Richards, was recovered on Friday and another on Saturday night, making 45 brought out and the names of all missing are in the office, so that that it is known who are down the pit, and of course the number.

The number of deaths will not exceed 53 – too many though to be lost in so tragical a manner. The exploring parties were then hard at work under the direction of Mr. Bedlington, Mr. David Rees, Mr. Curnew, and others, who had come from the neighbourhood collieries to render assistance. Mr. Wales, the inspector, also went down the pit, and ascertained the condition of things. As far as could then be judged, the workings have not been knocked about so much on this occasion as on the last, but the delay which has been experienced in the recovery of bodies would indicate that though the explosion was less disastrous in extent, it was not less violent in its character.

Hundreds of tons of stones had been brought down from the roof and walls, breaking the air-ways and choking the passages with debris, which had to be removed before the bodies could be got at, and in consequence of the great derangement of the ventilation, it was difficult to carry the air forward, so that the exploration was carried on under great difficulties. To add to the horror of the scene, another element of danger was discovered.

The bed of coal undulates, from the bottom of the shaft there is a rise, and then a descent, followed by another rise, and again a descent or dip at the end of the workings. And in this dip heading where some half-a-dozen of the bodies were lying, it was found on Thursday evening that the timbers were on fire. For some time the air had become most oppressive in density and the smell of burning timber at length made it clear that the props which are erected to sustain the roof were on fire.

It was impossible also to say whether the coal as well was on fire, but the wood was beyond all doubt, and it was kept alive by the meagre ventilation which reached that part of the workings. It was clear that unless the fire could be extinguished it might extend in an alarming degree as the ventilation improved, and there being a continual escape of gas from the rents made by the concussion of the explosion, there was no knowing how soon there might be a second explosion. The engineers in charge of the working parties then deemed it necessary for the safety of all concerned to grapple with the difficulty at once. The bodies were close at hand, but the smoke and heat rendered it impossible

to pursue the work. A consultation was held, and Mr. Henry Jones, late viewer of the Blaengwawr collieries, advised that the fire should be walled up so as to cut off the air and he volunteered to see the thing done.

This was determined upon, and taking a party of masons and labourers with him, Mr. Jones proceeded to carry out the suggestion – the effect of which would be to smother the fire, if successfully carried out. It was a hazardous operation with the explosive gas floating all about the place, but by dint of continual work and great care the barrier was erected at 4 o'clock on Friday morning, and the ventilation cut off the fire. Mr. H. Jones, it will perhaps be remembered, was the gentleman who, after the last explosion, volunteered with Mr. Morgan Jones to perform the perilous task of relighting the furnaces.

Well do we remember the tense anxiety, the awful pause of expectation which intervened between the descent of those brave men and the courageous workmen who aided them into the pit and the appearance of the column of smoke at the top of the upcast shaft. What a sigh of relief broke from the assembled multitude at that sight. On Thursday, while successful in enclosing the fire, another fearful risk was run, though not unforeseen. The gas was escaping freely in the heading, and by cutting off the ventilation formed a reservoir in which the gas might collect to an unknown extent and explode as soon as it became liberated. This danger was recognised, but it was considered less likely to produce mischief than to allow the fire free contact with the air while the atmosphere all round might become explosive at any moment.

The fire and gas, therefore, are pent up together, and should the air be effectually cut off, undoubtedly the fire must die out. The great danger arises from the presence of so much gas, which on opening the workings, may extend through the district and cause a second explosion. It was a source of great unease to all the officers of the pit. Operations were continued in the other heading with great caution but the progress was small owing to the heavy falls, and only one body was recovered on Friday, and one on Saturday, making in all 45 got out.

An important fact, as throwing some light upon the cause of the explosion, has been brought to light by one of the exploring parties – as we regret to say that it shows that one of the workmen, probably one of the victims, committed a grave act of disobedience of one of the most important regulations – namely, the discovery of an open unlocked safety-lamp in the face of one of the workings, with the timbers showing indisputably they had been blown down by a blast from the face of the coal.

According to the rules of the pit, a collier commits a grave penal offence in working with an unlocked lamp. All the lamps are locked and examined before the men take them into the places where they work, and if any lamp is found at the lamp-station unlocked, the presumption is that the collier has evaded the rule by having in his possession a key, or other means of opening it. There are many lamps yet missing, and until they are all recovered, it will be impossible to say if any others than the one found on Friday morning were surreptitiously open at the moment of the accident. It will be remembered that the accident of 1867 in this pit was proved at the inquest to have been caused by a naked light used by a man who paid the price for his disobedience with his life.

David Davis, the head of the firm of proprietors, arrived at the colliery from North Wales on Thursday night, and early on Friday morning descended, in company with Mr. Bedlington, and Mr. W. T. Lewis, agent of the Marquis of Bute. Very great sympathy is felt for Mr. Davis who is as highly esteemed as he is well-known throughout the district for his liberality and kind heartedness, and it was evident for those who knew him that the occurrence of this second disaster so soon upon the heels of the last, had fallen upon him with overwhelming effect.

The firm enjoys an excellent reputation as employers, and it should be mentioned that the suggestion having been thrown out at the time of the last explosion, that the ventilation of the pit would be wonderfully improved and augmented by the sinking of another shaft, the proprietors several months ago commenced sinking new shafts – an up-cast and a down-cast – to the workings of the Rhondda district at the head of the valley about half-a-mile from the present shaft. The new pits are intended to work the Rhondda division alone, so that that part of the colliery would have an absolutely independent in-take and out-let, and the existing means of ventilation would be devoted entirely to the other two districts. This would amount in practice to very much more than the mere doubling of the capacity of in-take, inasmuch it would produce an immense economy of air by avoiding the drag of miles of air ways which constitutes the heaviest draw back to the furnace power of a colliery.

On Friday a jury empanelled at Pontypridd consisted of the following persons, some of them being colliers of large experience, and some possessing also the advantage of having served upon the jury which inquired into the explosion of 1867 – and who are therefore conversant with plans of the Ferndale Colliery: -

Thomas Richards, Chandler, foreman; Messrs Robert Smyth, chemist; Mr. Lewis Merchant, Trallwn; Moses Cule, builder; John Jones, victualler, Treforest; John Roberts, Rose and Crown; Thomas Williams, weaver; William Evans, grocer; James Coombes, confectioner; Jenkin Davies, collier; David Jones, collier; Richard Davies, builder; John Griffiths, collier, Tylacoch; Thomas Edmunds, Cross Keys; William Prosser, Collier, Thomas David Evans, Collier, and Rees James, collier.

The Coroner and jury proceeded to Ferndale by the first train arriving about 10 o'clock. Their names were then called over and answered. The Coroner collected the jury together in a shed near the pit, and said that they were met to investigate the cause of death of a large number of persons who had unfortunately lost their lives in the pit that was at hand, and it would be their duty to do so fully and thoroughly, which he felt sure they would do. In order to do so, it would be necessary to adjourn to some convenient date, which he would fix before they parted. He did not think it necessary to defer the inquiry too long, and they must not delay an inquiry of such importance.

He had written to the Secretary of State suggesting that a special investigator should be sent down and assist those gentlemen who were now making an inspection. He knew how painful such events were, and the feelings of all parties who were in any way interested, and he would therefore, ask the jury to make a careful and patient investigation into the whole of the facts.

Several of the jurors were on the former panel and will be able to understand the important matters submitted for their consideration more readily than entire strangers, having had a well-executed map of the pit brought before them so recently. If we are rightly informed the foreman of the present jury was on the former panel, and took verbatim of the evidence on that occasion. What the Coroner proposed to do that day was to view the bodies, so as to be able to grant certificates of burial, and to adjourn to any day that might be convenient to them. He had spoken to Mr. Bedlington and Mr. Wales, who thought they would not be ready before the twenty-ninth. A conversation ensued, in the course of which several jurymen, the doctor, and the policeman Tamplin said that day would not suit them, and it was ultimately decided to make the adjournment to Thursday, the first of July.

After viewing the bodies the Coroner granted certificates for burial, and the jury were then taken to the Rhondda Inn, where they were sworn and bound over to attend at the adjourned inquest on the first of July, at the New Inn, Pontypridd. Soon, a crowd of persons was seen wending their way up the hill toward the

'Long row' bearing the body of Evan Richards, who had just been brought up the pit. This poor fellow was in the Duffryn heading and was badly burned. His body was seen by the exploring party on the first day, but so intense was the heat that they had to retire, leaving the body in the heading. By dint of perseverance he was brought out this morning, and tied in canvas and conveyed to his house.

The work of inspection now commenced, and a sickening work it was. The first body presented a most fearful appearance. The face and head were so fearfully burnt that the corpse was a hideous heap of human remains. This was Evan Williams, a single man, aged 22. We need not detail the facts of each case; suffice to say the work of the jury in viewing the charred and mangled bodies was anything but a pleasant task. In one instance the wailing of a widow and children was so piercing that several of the jury shuddered as they entered the apartment, while a number of others kept a distance from the door in order to spare their feelings and the unwelcome shock. The following is a complete and correct list of those killed: -

- 1 Evan Williams, 25, single; badly burnt.
- 2 Thomas Evans, 24, single; burnt.
- 3 John Price, 50, burnt; leaves a wife and three children.
- 4 James Jones, 50, widower; suffocated.
- 5 John Mathews, 28, single, burnt.
- 6 John Jones, 21, single, suffocated.
- 7 Daniel Jones, 24, single, suffocated.
- 8 Evan Richards, 48, collier, married, one child; burnt and suffocated.
- 9 James Nash, 32, collier, married, one child, suffocated.
- 10 Morgan Jones, 13, doorboy, burnt.
- 11 Morgan Jones, father of the above, is still missing.
- 12 Thomas Elliott, 40, married, two children, suffocated.
- 13 William Matthews, was brought out alive, but was dreadfully crushed and subsequently died. He refused to take any stimulant, and was too feeble to give any account of the accident.
- 14 Abraham Matthews, 14, doorboy, burnt and bruised badly.
- 15 John Edwards, 32, married, four children, suffocated.
- 16 Bendigo Weeks, 24, single, slightly burnt and suffocated.
- 17 William Hughes, 20, married, one child. This man had been a hero just a month before. He was slightly burnt, and had sustained slight violence.
- 18 William Llewellyn, 17, very badly burnt.
- 19 Windsor Roderick, 23, single; burnt and had sustained violence.
- 20 George Allen, 23, single, suffocated.

- 21 George Benjamin Thomas, 31, married, two children, badly burnt.
- 22 Thomas Thomas, 34, single, burnt.
- 23 Evan Philips, 43, single, suffocated.
- 24 Thomas Thomas, 27, single, very badly burnt.
- 25 Jacob Matthews, 48, married, four children, suffocated.
26. Thomas Jones, 28, Married, one child, burnt.
- 27 Edward Waddleton, 30, married, one child, suffocated.
- 28 James Wilkins, 13, doorboy, death by violence.
- 29 John Thomas, 23, married, one child, suffocated.
- 30 Richard Llewellyn Morris, 23, single, suffocated.
- 31 Samuel Davies, 28, single, badly burnt.
- 32 David Williams, 21, single, badly burnt.
- 33 Thomas Jones, 14, doorboy, burnt.

All the above were on the Blaenllechau side of the valley, and having seen the bodies, the jury crossed to the Ystradfodwg side, where, in a long row of cottages, partly of wooden construction, the remainder of the bodies were seen. They were: -

- 34 John Morgan, 22, single, suffocated.
- 35 John Davies, 21, single, haulier, suffocated.
- 36 Abel Dore, 24, single, badly burnt.
- 37 James Morgan, 24, married, three children, burnt. This man was overman at the Plymouth works, and left there a short while ago because he had a presentiment that he should be killed. He was a local preacher, formerly of the Baptist persuasion, but had lately joined the church of England.
- 38 David Samuel, 59, labourer, married, five children, burnt.
- 39 George Chamberlain, 20, an idiot that worked as a labourer, single, very badly burnt.
- 40 Charles Taylor, 43, married, seven children, badly burnt, his clothes were burnt off him.
- 41 Thomas Thomas, 22, single, burnt.
- 42 Samuel Stride, 30, blocklayer, married, four children, very badly burnt. This man was the only blocklayer saved out of the lamentable accident of November the 8th 1867.
- 43 William Jones, 30, married, four small children, burnt.
- 44 David Jones, 24, single, burnt.

The following is a list of those known to be missing: -

- 45 Richard Jones.

- 46 Henry Exell
- 47 James Morris
- 48 Thomas Price.
- 49 Joseph Exell
- 50 Morgan Jones.
- 51. James Griffiths.
- 52 Daniel Davies.
- 53 Edmund Davies.

From the forgoing it will be seen that 44 bodies have already been recovered, and nine others are known to be in the pit, so that the total loss of human life, at the lowest estimate, is 53. What can be the real cause of these oft repeated accidents is yet a mystery; but it is to be hoped that scientific and other evidence which will be laid before the jury will elucidate the subject and render more secure the lives of those who contribute so much by their hard toil to our comfort and wealth.

It may transpire that recklessness on the part of some of the men themselves has had something to do with this terrible catastrophe, and if so, we should hope that a lesson so terribly taught will be not be lost upon them. From the general appearance and demeanour of the men we saw, we are not disposed to think them immaculate, but we cannot deem them worthy unmixed censure.

In following the Coroner on his mournful round, the streets, the houses, the people in their misery, were painfully familiar pictures, and there was scarcely a change to be noticed in the character and condition of the people and their homes. There was in the same aspect of impoverishment in too many of the homes where the dead lay which we witnessed before – the people were indifferently clad, and the meagre furniture made the nakedness of the houses apparent.

Certainly the places which the unfortunate dead were accustomed to call 'home' were unworthy of that endearing name, for there was nothing upon which the eye of a visitor could rest to entice the occupants within doors. Naturally enough we strove in our minds to account for all this poverty in a place where work was abundant, and wages good – but were we to enter in inquiry, we fear it would be found that the old, old evil of giving too much to the landlord and too little to the wife, would go a long way to account for the wretchedness which we saw.

Some of the houses, however, were decently furnished and bore strong evidence to the habits of the men who had been there, but these were few. We could not help being struck with the strange contrast between the people of the different houses where the dead bodies lay. In one house we should find the numbers of the family bathed in tears, and giving expression to a grief of which they alone knew the depth, for dear ones stretched helpless before them.

In the next house, the callousness of the people would astonish one – to be sure they were respectable in their quietude, but there was a general absence of signs of mourning or sorrow - and these were the places where the homeless, friendless lodgers lay stretched in the ghastly disfigurement of their death.

The house of William Hughes (No. 17 in list), was a picture of desolation. This poor fellow, though married, had not yet arrived at man's estate. He had lived at Ferndale only a month. The house contained just sufficient furniture to meet the necessities of living, and that was all. The corpse of the youthful husband was laid out in the little bedroom, into which the sun shone cheerfully, and in the big empty kitchen, where was no sunshine on the solitary stool there, all alone, sat the young wife, nursing a child at her breast.

The house was a picture of destitution, and the people remarked, "they are strangers, and very poor." At the house of Charles Taylor (No. 41 in the list), there was a very harrowing spectacle. The poor fellow had been burnt out of recognition, and when he was brought home, the agonising sight threw his widow into hysterics, from which she had not recovered when the jury visited the house – and seven children, some very young, pressed around her, as if to intensify her poignant anguish.

Poor James Moran will be remembered by many Merthyr people. He had worked a number of years at the Plymouth works (Merthyr), and for some time was a member of High Street Chapel Choir but latterly joined the Church of England. During the late election he spoke up at meetings on behalf of Mr. Fothergill. He was also a local preacher – a man of considerable natural intelligence, which he had improved by study. He had met with two accidents at Plymouth and having a presentiment that he would be killed there, he removed to Blaenllechau, and had not worked there a fortnight, when he was overtaken by that fearful fate he had dreaded at Plymouth. In some houses the blinds were down in anticipation of the arrival of the dead, and the hopeless sorrow of friends of the missing, was distressing to witness.

Another newspaper reported: - Some of the streets were made more desolate than others. Long Row, it seems, had been especially marked out for victims, for no fewer than fifteen bodies were conveyed to houses situated in the row. In five of the houses there were two corpses lying in each. The dead were all decently laid out, and the first glimpse that a stranger had through the open door was the sight of a white sheet showing the outlines of a human form lying on a bed or table, surrounded by mourning relatives who, in too many instances had found themselves suddenly bereft of their only source of maintenance. The houses, to say the least, are miserable inconvenient places indeed, some of them are simply huts made of wood, painted a deep red colour. The dwellings which are made of white stone are of solid and substantial appearance, but small indeed must be the facilities for the comfort they afford. The wooden huts are even less admirable places, and in wet and stormy weather they look by no means so safe a shelter as some of the mead cabins which the tourist meets with in Ireland.

One cannot help remarking when looking upon these dwellings provided for families numbering in many cases eight and ten persons, that while such things are allowed to be, there is little chance of improving and elevating the mental and moral status of the collier. Where there are so many men and women and grown children of both sexes cabined, cribbed, and confined in two rooms, how is it possible to create a high moral tone? Something of this kind we fancy, must have been the reflection of many of the gentlemen who witnessed the scene of yesterday. It is worthy of remark that the police rendered important service in preparing matters for the jury, and by regulating the pressure of the crowd, and Mr. Overton made special reference to the indefatigable efforts of P. C. Tamplin, who is stationed at Ferndale, as being of the greatest value to him, both on the present and the former occasion. If merit is to be rewarded, surely this officer ought not to be forgotten.

The news that this pit had again become the scene of another devastating explosion came upon Merthyr like a thunderclap. Crowds assembled in the streets and talked the matter over. Men left their businesses to glean the slightest particle of news about it. Before 10 o'clock the number of dead had been swelled by rumour to the large total of 400, and people would hardly believe it when they heard authentic information that the number did not reach 60.

A great gloom was cast over the town by this great calamity which will leave so many destitute. Large numbers of workmen at Ferndale belong to Merthyr, and, therefore, more than ordinary interest was felt by the working people. Many of them walked over the hill to Aberdare, to know whether a husband or son was numbered by the slain. The arrival of trains, both Taff Vale and Vale of Neath, were waited for with the greatest impatience. The station doors were besieged by hundreds of colliers and women – some lying down, some sitting, others lying about in the most uncomfortable positions, or ill-at-ease and sick-at-heart, with gloomy and painful foreboding of the worse.

Sorrow and sympathy were universally felt for the unfortunate widows and orphans by the whole community. Great relief was experienced when it was known for certain that the matter was not so great as was represented, and it is considered a most providential that the explosion did not take place at the scene of the last catastrophe instead of in the Duffryn heading. The total number of dead is now known to be about 53, of which 43 bodies have been brought up; nine are missing. It is said that Aberdare will suffer greatly from the accident, on account of the workmen all trading with the town, and, therefore, commercial loss is joined to the still greater sorrow for the occurrence of the explosion.

Remarkable escapes

Amongst the remarkable escapes must be mentioned that of a lad named Joseph Hill George, who was rescued alive from the Blaenllechau workings after the explosion of 1867, and again escaped the fiery blast in the Duffryn district. On Saturday the work of clearing the rubbish continued without stoppage, but there being some hundreds of tons to be removed, and work being necessarily slow, it may be imagined that not much progress was made. Only one body was recovered, and that is the last that has been brought up.

We were not at Ferndale on Saturday and Sunday, but a contemporary has given a quite revolting account of the conduct of the colliers on those days, the worst of them apparently being men who were rescued from death only two days previously. We hope for the sake of the Welsh collier's character that this account has been exaggerated, but we saw enough on the last occasion to shock our decency and outraged the wounded feelings of the surviving relatives of the dead. The report they were referring to was in the '*Western Mail*' of Monday, November 14th 1869 which reported: -

Incidents of the occasion

Ferndale is a romantic and picturesque spot as we have in Glamorganshire, not withstanding that it is made murky and dirty by the dust and smoke of a colliery. But the scene, yesterday, was in many respects a painful one. Under the circumstances it would perhaps be harsh to particularise some of the sights which occurred, yet there is no doubt that had there been a keener sense of what was due to the awful solemnity of the occasion, some one or two revolting incidents would, in all probability, not have happened. The demeanour of the crowd assembled around the pit mouth was decorous and subdued, but further away there was a levity of behaviour which must have shocked everyone who observed it. In our walk through the village, two public-houses came under notice, and these places were literally crammed with a noisy crowd, who had made what one might call a national calamity the excuse for a drinking holiday. There was much to be seen in these places which made it a jest to boast of our civilisation.

William Matthews, father of the two boys of that name who were killed by the explosion, was working at another part of the pit, and he is said to have had the sad duty of recovering the body of his eldest son. In regard to Williams Jones, of Cross Street, it may be mentioned that he had only a few days before left the Plough Pit, the scene of the late boiler explosion. He had a son working in the same district as himself, who happily escaped the untimely death that overtook his father. James Morgan, his nearest neighbour and fellow victim had only recently removed from Troedyrhiw. The young man Morris, Davies Street, was to have been married in three weeks, and the youth, Thomas James, living nearby, is the son of the fireman who formed one of the exploring parties, and who about 2 o'clock in the afternoon was brought up to the pit mouth in a state of exhaustion, occasioned by the density of the atmosphere in the place where he had been searching. Among the many incidents that might be recorded, is one which reflects the greatest honour to two gentlemen.

Mr. Curnew, of the Great Western Colliery, and Mr. Tirman, of the Dowlas works, arrived at the mouth of the pit as soon as possible after the news had been communicated to them. With all possible speed they proposed to descend the shaft, but just as they were ready, it was found that no lamps could be supplied them, all having been served out. Without ceremony the brave fellows jumped into the skip and shouted, "Let us go; we shall find lamps below," and without a light they were lowered to that region of death and despair.

Chapter Two

Sunday at Ferndale

A motley multitude gathered at Ferndale on Sunday – from sympathy some, but more from idle curiosity, and many for the morbid taste that yearns after the marvellous and the sensational. There had been a fearful explosion at the colliery there, as all the local world knew, and all the local world was there in consequence, as well as the local world's wife. Colliery explosions, unhappily, are anything but novelties in South Wales, but an explosion that blew some three score of souls into eternity was not quite an everyday occurrence, and thousands went to see the wreck, where, had the slaughter of human life been less, expectant visitors might have been told by units. As it was, they must have been calculated in thousands, and the multitude that assembled was a strange one to be sure.

It became known in the surrounding district that yesterday (Sunday) was to be mournfully distinguished by the internment of a number of the poor fellows who had lost their lives in the pit, the day previous nine of them had been consigned to their last resting place, and yesterday eight more were buried. The train on the Taff Vale Railway that leaves Cardiff at twenty minutes past nine in the morning, took its freight in the usual way yesterday, but amongst the passenger there were many that would not have gone but for the explosion.

At the Pontypridd Junction hundreds were waiting to embark, and trains from Aberdare and Merthyr came up at the moment and disgorged hundreds more, so that by the time the little station of Porth in the Rhondda Valley was reached, a long line of carriages was filled to overflowing and passengers were being packed to somewhat suffocation. At Porth a change of trains was necessary, and here the convenience of visitors had been studied, for a special train had been put on the single line of rails leading up to the Ferndale pit, and a mammoth cargo was thus carried to the scene of the dreadful disaster that might not have reached there by any other means.

At the pit's mouth

As the train dashed up to the Ferndale station with a shriek, hundreds of persons had already assembled on the banks and acclivities, and the greetings of friends who had made the sad occasion an excuse for an outing became general. The weather was delightful too, and the picturesque scenery of the dale was just what, under ordinary circumstances, everybody would have enjoyed.

But death was there; and though the majority of persons appeared to forget the fact, even if they ever remembered it, there were not a few who bore the recognition of the dreadful truth on their faces. Clad in mourning habiliments many might have been seen alighting from the train and after a slight scrutiny of the crowd on the bank, to recognise someone on the lookout for them. Then there was a grasping of hands, a sympathetic look of mutual bereavement, and, arm in arm, the friends just met would walk towards and enter the house of mourning together.

Around the pit's mouth an eager little crowd had gathered together. Deep down in the yawning hole the searchers were busy at their ghastly work of exhumation, with the manager, Mr. David Rees, at their head. As tram-load after tram-load of the fatal rubbish was brought up from below, necks were stretched forth to catch the first glimpse of the charred remains that were looked for at every turn.

That old woman there, has been sitting in that position for hours, ever since the present relay of searchers have been at work. There are around eight dead bodies in the pit, three-hundred yards from the surface, and one of those dead bodies is all that is left of the old woman's son. She is sitting, crouched up, at the pit's brink, with her elbows on her knees, and her face on her hands, watching – oh, how earnestly and agonizingly – for the up-cast of every load. By-and-by, if ever they should find the body, his mother's eyes, tearful and intent will be the first to greet him as he rises to the surface, blackened, bruised, mangled and maybe unrecognisable by all but a mother's love. And the work goes on in silence, broken only by the measured signals from below to the man at the bank.

The last body brought up reached the pit's mouth yesterday morning. It was that of Daniel Davies, 36 years of age. Davies was a widower, with two children, who are now fatherless as well as motherless. He came to Ferndale from Colwinstone, near Cowbridge, of which place he is a native, and had only been engaged at the Ferndale pit six weeks, he was living at 19 Long Row. His remains will be interred at Colwinstone today, to which purpose he will be removed by rail for the melancholy purpose. The poor fellow's body was not burnt, but his head was cut and injured frightfully. His death must have been instantaneous. A hope was expressed yesterday evening that the body of another of the victims would be reached before night.

It is the body of Thomas Price, 32 years of age. Near the remains of Price too, it was thought, by the searchers that the body of James Harris would be found. Beyond these two, there is little hope that any of the other remains can possibly be reached for at least a week, as the bodies are lying in the 'dip,' and will only be accessible after much labour in the removal of the heaps of stone and timber by which they are covered.

Up to last night there were eight bodies lying in the pit unrecovered. These are Thomas Price, James Harris, Joseph Excell, Henry Excell, Mervin Jones, James Griffiths, Richard Jones, and Edward Davies (better known by the *sobriquet* of 'Ned croen ci').

Twice saved

"And what did you do?" said I, addressing Daniel Davies, who was introduced to my notice by one of the colliers that escaped from the pit unscathed after the explosion. "What did you do when you heard the thunder below?" - "Well," he replied, "I got out of the way as soon as I could." "And you were not hurt at all?" I asked looking him up and down with a feeling akin to wonder that, under the circumstances, the man should be standing alive and untouched before me. "Not a bit," he replied. "They pulled me from my work the day before," he added, "and sent me to drive and saved my life." - "Who is your butty?" I inquired." "Thomas Price" said he; "and they served me the same the last explosion - sent me to drive the day before and saved my life." On subsequent inquiries it was found to be the fact. Davies (better known as "Bill Benjamin," from his pugilistic tendencies, and his likeness of that great prize ring notable), is a collier. On the day before to the previous explosion at the same colliery, 18 months ago, he was removed to another part of the works, and the man with whom he had previously been working was killed. This was the same on Thursday. Davies came to the surface unscathed; poor Price his "butty," lies dead at the bottom of the pit.

Anxious inquiries

I was was talking to the banksman standing at the pit's brink, when an elderly respectably attired man came up, and, with deep anxiety depicted on his countenance, he addressed my dusky companion. "Is there a young man on the works named George Pitcher?" He asked. "There was!" Replied the banksman with startling emphasis and cool curtness; "But" he added, "he's not here now." The old man looked a little puzzled. "He's my son," said he, "and I knew he

worked here some time ago, and I was afraid that he was down there." Nodding significantly at the yawning chasm at his feet. "Ah, he's not there!" said the banksman, and the appearance of a tram-load of rubbish cut short the conversation.

A middling strong puff

"Yes," my friend the banksman said between the up-throw of the tram-loads of material from below. "Yes, I was standing here when the explosion took place. Our manager, Mr. David Rees, was just going to give the signal to come up, when a puff came up from the north side of the pit, and he would have been on his back if I hadn't caught him." He added, "And it was a pretty middling strong puff too!" I thought it must have been to knock a man down standing at the top of a shaft 300 yards deep.

"And then," said my informant, "the manager wanted to go down at once and did go down, and has worked heart and soul ever since." I expressed my admiration of the manager's promptitude and activity. "Yes," said the banksman, "he's down there now, and he's been down there all day."

Subsequently a swathed manager emerged from the pit, black as ebony from coal dust and grime, and with his safety lamp in his hand, looking careworn and fatigued. He had evidently been working hard, and seemed anxious. I did not speak to him, and he passed on to the lamp-room, followed by those who came out of the dark caverns with him. The little crowd congregating at the pit's mouth fell back as the explorers moved along, and another relay of men went down into the pit to continue the sickening search.

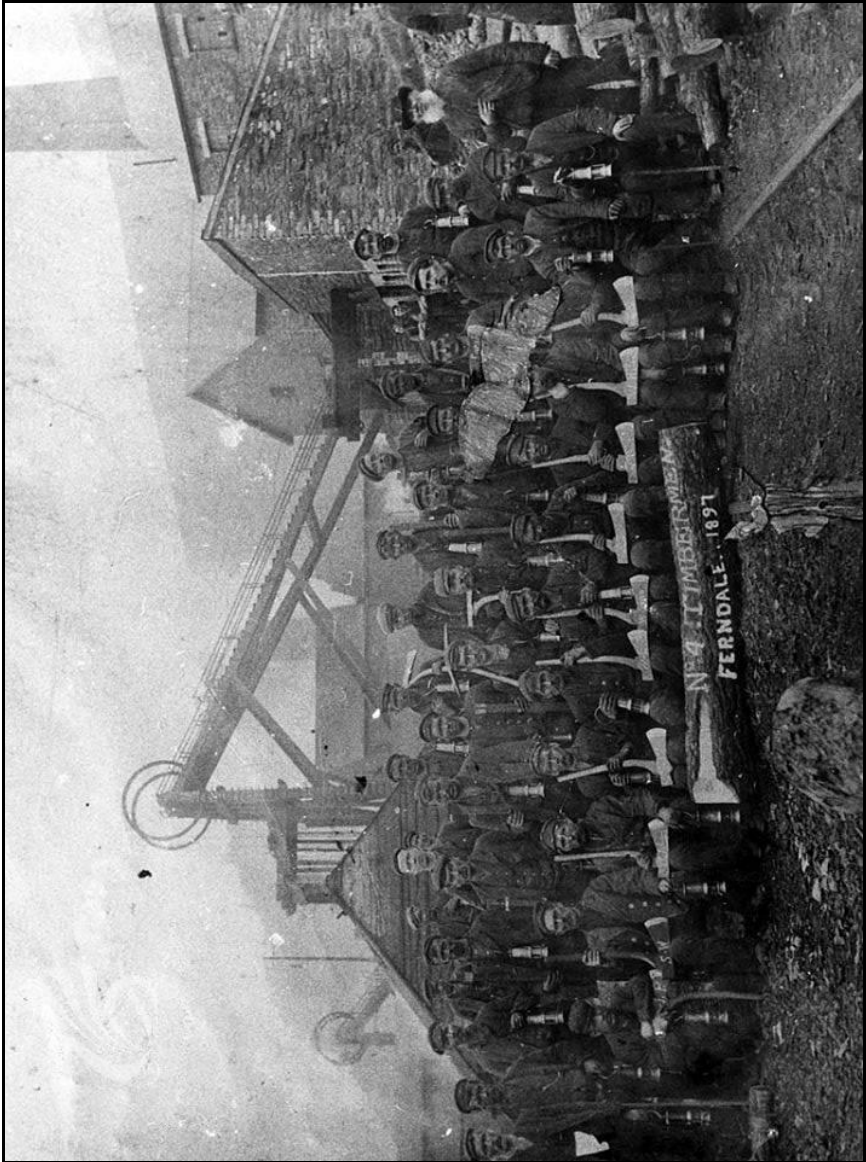
To the tomb

While the search for the missing men was thus having been prosecuted far down in the dark, eight coffins, containing the charred remains of those who fell victims of the terrible hot-blast of the pit, were being borne from their cottage homes up the steep hillside, beneath a blazing sun, and surrounded by the singing of birds and the wailing of bereaved friends away to the little graveyard of Llanwonno church.

It was a sight mournful and picturesque, and one which men will live a long life and never see. By arrangement the whole of the funeral parties coming from

different points of the district, met at the brow of a hill, where, forming in processional order, they moved in one long and continuous line up the steep acclivity. Slowly the mournful cavalcade glided along, nearing the summit of the mountains at each zig-zag turn, like a thin, black, serpentine thing, creeping up the hillside, and, seen from below, seeming scarcely to move.

Some of the coffins were covered with palls, some were not, and the sun shone upon all resplendently. Nearer and nearer the thin black line approaches to the



This fabulous picture of the timbermen of No.4 Ferndale pit shows what a hard and dirty job working in the mines was.

summit of the lofty mountain, until at length it reaches the top, and glides, as it were, slowly down the other side out of sight.

The procession could not have been less than half-a-mile in length, and the grief of the mourners was in striking contrast to the singing of the birds, and their mourning garments to the sun that shone so glorious above all. The names of those who were buried yesterday were Charles Taylor, Jacob Matthews, William Matthews, and Abraham Matthews (uncle and two nephews), Richard Llewellyn, and George Benjamin.

The funerals were all respectable and well appointed – a feature, which considering the circumstances, reflects to the credit of all concerned. The distance which the bodies had to be carried would be upwards of three miles, and this up steep acclivities, and over bad roads. But it was the last sad office for the dead, and was cheerfully if mournfully rendered.

A contrast

It was “draw” on Saturday, and the colliers at Ferndale drew pay on account. On the the authority of the police-officers stationed at the place, never was known so much drunkenness, fighting, and more debauchery, than disgraced Ferndale on Saturday! There had been thirteen of the dead buried on that day, and so incapable were fellow workmen of rendering assistance that the coffins were borne to the graves by strangers.

A collier named Thomas Jones, who escaped with his life from the pit on Thursday, manifested his gratitude to Providence for his deliverance by drinking himself into a state of madness and engaging in a fight on Saturday. He had been brought to the surface, just after the explosion, in a state of insensibility by two comrades, and was thought to be dead. He recovered to celebrate his recovery in the disgraceful way described. Let it be hoped that there are not many so hard of heart as “Tom Northman,” and that he yet may be brought to discern the hand of Providence in his his miraculous escape from a dreadful death.

The last explosion

The terrible effects of the last explosion that took place at Ferndale are referred to with interest. Two months after the event the skin of a human hand was found on a tip ‘as complete as a glove’, to use the expression of the narrator.

The hand had been roasted by the hot blast, and the skin had slipped off entirely on being laid hold of. Arms were blown out of their sockets, legs were blown off, boots were found with feet in them, and heaps of human remains, dead horses, and rubbish, ten feet in depth, were discovered huddled together and tightly wedged and embedded by the fearful blast of the explosive gas, so terrible it is in its effects.

The injured

Of those who were in anyway injured by the explosion on Thursday, the only one who is now affected is a door-boy, named Thomas Benjamin Thomas, whose father, George Benjamin Thomas, was killed. The lad lies dangerously ill and doubts are entertained of his recovery. The deceased (his father) was fearfully burnt. William Davies, the timber-man, was one whom miraculously escaped with his life, and was unhurt. Up to the present time there have been 45 bodies recovered, eight more remaining in the pit, making the total loss of life 53.

Meeting of the colliers

The '*Western Mail*,' of Thursday, June 17th 1869 reported: - A meeting of the colliers working at the Ferndale Colliery was held on Monday night in the open air, near the pit, to express their disapproval of Mr. Bedlington, the mineral surveyor of Messrs. Davis and Sons, and their determination not to work until he is removed. They also express their wish to have Mr. David Rees, the sub-manager, entrusted with the sole management. There were upwards of 200 men present, and the most unanimity prevailed.

It has not transpired to what the objection to Mr. Bedlington is or whether it relates to the recent explosion or not. Mr. Bedlington is well known to be one of the ablest mineral surveyors in South Wales, and he was selected by the Messrs. Davis and Sons on this ground at a high salary, and entrusted with the entire management of their collieries. Professional knowledge and skill are not the only qualifications requisite for the successful working of a colliery. The collier is not like a soldier and drilled to order, but requires tact and temper to make him do his work with heartiness and efficiency.

A manager must not only have thorough knowledge, of both the theory and practice of his profession, but he must be liked by the colliers before he can be successful. It is more than probable that the objection to Mr. Bedlington was purely personal and that it had no relation whatsoever to the unfortunate

explosion of Thursday morning last. Another newspaper reported that the colliers thought Mr. Bedlington had economised unwisely in the distribution of stores, and seriously curtailed the workmen's wages. A resolution was passed by the men that they would continue working in the searching parties, but when the bodies were recovered they would decline to continue to work under Mr. Bedlington; and it was also resolved that a deputation should be sent to the owners of the colliery to make a statement of that effect.

The Ferndale catastrophe relief fund

The '*Colliery Guardian*' is responsible for the following announcement: - "There was on the occasion of the accident of 1867 a large fund raise for the relief of the families of the sufferers, and our readers will hear with satisfaction that the sum of about £5,000 is still in the hands of Mr. Fothergill and Mr. Austin Bruce, the regional trustees of the fund, and will, of course, be applicable to the present case."

It also stated on good authority that the Pontypridd Local Relief Committee have a sum amounting to between £1,000 and £2,000 standing to their credit in the bank, which was raised for the relief of the 1867 sufferers, but which, for some case or other, was not then applied to the purpose for which it was contributed. The public will doubtless be anxious to know what disposition is now proposed to make of these very large sums.

The cause of the explosion

Of course there are very many rumours afloat which will probably be found to be without foundation. We are not all disposed to credit all we hear, but we may give them for what they are worth. It was stated by a collier that for the last three weeks complaints had been made by the workmen that there was an insufficiency of pitwood in the pit, and that an explosion had been predicted; but against this report we may mention the fact that a large quantity of pitwood, probably about 50 tons, was lying within 100 yards of the pit's mouth. Another report says that an open lamp was found this morning, which was taken out of the Duffryn heading. If this be true, it may be one of the causes of the fearful accident, but we prefer rather to leave it to the jury to decide, than to give any opinion of our own.

Intense anxiety

'The Times' newspaper of Thursday, June 17th 1869 reported: - There has been nothing in particular to report in connection with this accident since Saturday. Operations for the recovery of the bodies are continued regularly by relays of workmen, but progress made is slow and wearisome. One body only has been recovered since Saturday night, making now the 46th, and there seven more known to be missing, so that the total number of lives lost may be set down at 53.

Owing to the heavy falls, and the galleries being thoroughly choked, it will be many days yet before all are got out. Great anxiety is felt as to what may follow the removal of the partition by which the fire and gas were enclosed on Friday last. It is not yet open, but a consultations of the agents will be held this evening to determine on the mode of proceeding in the perilous undertaking.

It is generally understood that the attempt will be made tomorrow (Friday), and naturally there is a great deal of uneasiness on all sides as to the result. In the event of the fire being successfully extinguished, the gas may, or probably will, be swept out without any casualty, but, on the other hand, should there by any mischance by any live embers in the place there may by a second explosion within a few moments after the admission of air. The breaking down of this partition is awaited with intense anxiety through the district. The *'Western Mail'* of Tuesday, June 22nd 1869 reported: -

Merthyr, Saturday evening, June 19th 1869

Since our last report, the working at the Ferndale Colliery, which were found to be on fire, have been flooded. The fire occurred in the 'dip' or the far end of the workings, where the coal descends at a sharp gradient. It was discovered on the night after the explosion, but owing to intense heat, the volumes of smoke, and the pressure of considerable quantities of explosive gas, it was impossible to ascertain whether anything besides the timber props was burning. It will be remembered that a thick wall of turf was built across the entrance to the heading, in the hope, by cutting off the air, to smother the fire and render the gas there non-explosive; but it would seem that there are numerous interstices which could not be closed up, and through which the air passed in sufficient quantities to sustain the combustion within.

At all events the fire was not smothered, but continued to burn, and immense quantities of smoke found means of escape into the open workings. Under these circumstances it was deemed inadvisable to open the turf wall and,

indeed, it was impractical, in consequence of the heat and smoke, and the presence also of fire-damp. The proprietors of the colliery held a consultation with the engineers on Monday, and it was contemplated to flood the workings. On Tuesday Mr. Wales went down the pit, and seemed to have come to the conclusion that it would hardly be safe to open the burning place.

At once nearly 1,000 yards of iron pipes were procured from Birmingham, and immediately on their arrival on Wednesday night they were put together and, having been connected with large storage reservoirs, were conducted down the shaft and along the undulating floor of the workings to the part where the fire raged. It was then found to be impossible to penetrate the turf wall, as the place was too hot for human endurance, and for many yards outside the turf the place was full of smoke, and the coal so hot that it could scarcely be touched.

The pipes were thereupon taken to a place where the natural partition of the strata was thin, and a hole being bored through this, the pipe was inserted, and a stream of water was steadily discharged into the workings. That was late on Thursday night, and it was calculated that it would require 60 hours to fill the entire place. As the place began to fill with water, the light fire-damp moved about and flowed into the open workings, and gradually into the return air-way, along which it was taken to the upcast and so out. For many hours this process was attended with great peril, but by the exercise of every possible precaution and care it was effected without any mishap, and now it may be said that the danger to be apprehended from this source has passed away. The bodies of six of the men are in close proximity to the workings which fired - indeed, the explorers were upon them two or three times, and even touched them, but could not remain long enough to remove them, in consequence of the intense heat, which drove back the strongest among them. They cannot now be got out until the water which has done its work is withdrawn, which will not be for another week at least.

In abstracting the water, no doubt a considerable efflux of gas will occur, as there are nooks and crannies through which the water cannot be carried, but which will fill up with the gas, and only be freed with the current created by the outflow of the water. With proper care, however, this may be done without mishap. We are informed that Mr. Lionel Brough, inspector for the south - western district, has been instructed by the Home Secretary to render his assistance in elucidating the cause of this unfortunate accident.

Another circumstance has come to light that may assist us in forming a correct opinion as to the origin of the accident. It is already known that an unlocked safety-lamp was found at the face in one of the working places, and at the colliery yesterday we learnt, on most trustworthy authority, that one of the unfortunate victims of the explosion was found to have been the very act of drilling a hole for the purpose of blasting. The hole was partly drilled, and the tools were found close by. If this can be substantiated at the inquest, it will be proved that the discipline of the pit was not so well kept as it ought to have been. At the last inquest the jury coupled with their verdict the recommendation that the firing of shots, or, in other words, blasting the coal with powder, should be discontinued in this colliery, and from that time blasting has been prohibited.

But there is another circumstance that may possibly account for this breach of regulation against blasting. It had been the practice for some time past to offer premiums – first, second, and third prizes – to the men who put out the greatest quantity of coal in the month. The consequence of such a scheme of prizes is too palpable to need pointing out; it amounts in practice to an inducement to the collier to avail himself of every every possible means, openly or surreptitiously, to cut the largest quantity of mineral and thereby carry off the prize. Blasting is the most perilous mode of liberating the coal from its rocky fastness, but it is the most expeditious and workmen know the difference of blasting and hewing so well that they do continually run the risk of accidents thereby in order to “fill more trains.” No doubt all these circumstances will be well investigated at the inquest. Writing on the above subject to a London paper, a “Welsh Collier” says: - “Having read your able article on the 12th inst. on the lamentable catastrophe at Ferndale, I regret to find that you share the too general opinion as to its cause. The finding of a pipe on a body, and a portion of an unlocked lamp near, the mutilated remains of a collier in invariably brought forward as sufficient evidence of how an explosion happened.

Allow me to state that colliers are permitted to smoke in which is termed the “lodge,” at the pit’s bottom, and they often avail themselves of a few moments of rest to smoke a pipe of tobacco. This accounts for the pipes that are often found amongst the victims of the colliery explosion. Again, I have seen many sorts of lamps, and I sure that it is no unusual thing to see many of them unlocked through a fall, and other simple causes. Is it, then, any wonder that a lamp is unlocked by being dashed against a rock by a force far exceeding that of a cannon? I am sorry to say that these excuses are too often purposely got up for the purpose of filling the eyes of the public with dust, to prevent an

investigation which would bring to light “culpable neglect” on the part of those officials who care more for the “increase of output” than the poor colliers’ lives.

The Ferndale Relief Fund 1867 and the recent explosion

The ‘*Merthyr Express*’ of Saturday, June 26th 1869 reported: - A question of supporting the widows and orphans thrown upon the world by the late explosion at Ferndale has been discussed in a quiet way for the past fortnight and an opinion seems to have gained ground with some people that the sufferers would come upon the fund provided after the first explosion. We need hardly say that this cannot be. The amount subscribed was not large in proportion to the work demanded of it, and it has enough to do without having any additional burden thrown upon it. But the ‘*Colliery Guardian*’ on Saturday published a paragraph containing a statement which has helped to confirm this erroneous opinion.

It stated that in addition to a sum of nearly £2,000 lying idle in the hands of the Pontypridd committee a further sum of £5,000 balance of the contributions to the fund had remained in the hands of Mr. Bruce and Mr. Fothergill as trustees, and that might be available for the present sufferers. This statement has no foundation in truth. Mr. Bruce and Mr. Fothergill are simply trustees, and the only money paid directly through them was a contribution of £5,000 for the surplus of the Mansion House Relief Fund, which was paid by cheque to Mr. Fothergill who lost no time in transferring it to the fund at Aberdare. The secretary of the fund has written to the papers to contradict the statement. On Monday night a meeting of the committee was held at the Old Town Hall, Aberdare, at which the statements of the ‘*Colliery Guardian*’ were distinctly denied. There was no such reserve or surplus, every farthing contributed for the benefit of those who had lost their relatives in the explosion of 1867, and the calculations of the committee for the administration of relief were based on the total amount subscribed inclusive of the sum which for some reason or other, the Pontypridd committee had declined to pay over to the fund.

It was stated that a large number of children had been born after the explosion, which had interfered to some extent with the calculations of the committee. It should, therefore, be distinctly understood that the only claimants upon the fund are those who suffered by the 1867 explosion, and as they absorbed the entire resources of the fund, there is no prospect of relief being extended from there to the sufferers of the recent explosion. Two of the committee present were working colliers. At their request, after the formal business of the

committee was over, the gentlemen present consented to assist them in taking steps to provide the means of assisting the sufferers from the late explosion, or if practical to form a general fund. For this purpose it was resolved, as a preliminary step, to convene a meeting of a number of men from each colliery, and of managers, to deliberate upon the most advisable method to pursue. The 'Western Mail,' of Tuesday, July 1st, 1869 reported: -

Important meeting at Ferndale

The following circular was sent to the managers of all the collieries in the Aberdare valley, to the leading men and colliers, and to the principal inhabitants of the town: -

Aberdare June 25th 1869

Dear Sir - *A meeting will be held in the long-room, Temperance Hall, on Tuesday evening June 29th, at 8 o'clock to consider any and what steps should be taken for the relief of the widows and orphans rendered destitute by the recent explosion at Ferndale, and also to consider the best means of establishing a permanent general fund. Your attendance is earnestly requested. I am your. D. M. Jenkins*

Mr. Thomas Thomas, Cwmdare Colliery, the person who presided over the open-air meeting at Llanwonno, last week, and is one of the most intelligent colliers in South Wales, was elected President of the meeting and introduced the business of the meeting in Welsh, though he can express himself clearly and sensibly in English. There was a fair attendance of representative colliers present; but the only gentlemen connected with the management of the collieries that attended were Mr. George Brown, of the Navigation Colliery, Mountain Ash, and Mr. William Davis and Mr. William Thomas, of the of Gadlys works. The tradesmen of Aberdare were well represented.

It the course of his speech he said that the colliers as a body were determined to have nothing to do with any special appeal on behalf of the sufferers by the Ferndale explosion. Accidents continually happened in collieries, and many a wife is made a widow and children fatherless, and no one gives them a helping hand. The colliers object to relieve one class liberally and leave those that suffer by solitary accidents to the mercy of the union workhouse. They (the colliers) are anxious to establish a permanent fund by which all that suffer by explosions and accidents in the mines should be relieved alike. Many colliers subscribed to the Ferndale funds of 1867, under the impression that the money would be

applied on this principal. He had made a quick calculation, that if acted upon, would be sufficient for all calamities without entailing sacrifice on anybody. If 10,000 colliers, for instance, subscribed one farthing per week each, it would produce £43 – 6s – 2d per month. Supposed the masters and managers did the same, and the landowners, who received their royalties without labour or risk, as well at the trade and the public, there would be a fund raised sufficient to relieve all sufferers from accidents in mines. Mr. Gilbert Price then translated the chairman's speech into English.

Mr. David Richard Davies, another collier, wanted to know, before proceeding any further, what had been done with the money subscribed two years ago. The Rev. D. M. Jenkins, President to the Ferndale Relief Fund, stated that they had received subscriptions amounting in all to £16,000 since the explosion, besides the £2,000 due from the Pontypridd agency, which had not yet been handed over. All their calculations were based on the total amount of subscriptions. They paid 5/- per week to each widow, 1/6d each child per week, except in the case of orphans, who received 2/6d. All the old people – fathers, mothers, and &Co. – received 2/6d; others 3/6d; and some 5s. per week. The total amount paid by the committee for the year ending March last, was £2,000.

A very great drawback to the committee was the extraordinary large number of posthumous children; more than fifteen had been born since the explosion. These children the committee were bound to keep until they reached the age of 12 for boys, and 13 for girls. The death rate had been very small. Only 5 children had died out of 170, and only one widow out of 70. They could not therefore calculate on the deaths of the recipients. There were 31 aged people – fathers, mothers, &co; 39 widows; and 159 children. Mr. D. R. Lewis went on to say that the number of persons who suffered from single accidents exceeds in amount those who suffer from large explosions; and until there was a general and permanent fund established these would continue to suffer in silence without any sympathy or help. Colliers as a class suffered more than any other, and the South Wales district was more fatal to the collier than any other in the kingdom.

Mr. Evan Thomas did not wish that it should go out to the public that the feeling of the tradesmen was against a permanent fund, for they were decidedly in favour of its being established, but they wished also that an appeal should be made to the public for the support of the widows and orphans rendered destitute by the latest Ferndale explosion. The Chairman wished to call to the recollection of the meeting an incident that occurred at the Bwlfa Colliery soon

after the Ferndale explosion in 1867, where five or six men were smothered. These men were married, some lived in Cardiganshire, Pembrokeshire and Carmarthenshire. They had to be taken to their homes by train, and great expense was incurred; and yet no one cared for them. Their families did not get a penny, and yet the Ferndale widows and orphans would be well off. All the colliers wanted was that all should have the same case. If they had a permanent fund they would be all on the same footing.

Mr. M. Johns proposed that an appeal should be made to the country as well as to the masters, and owners &co; in the district, on behalf of the sufferers of the present explosion, and also that a permanent fund should be established. He thought that the two objects of the meeting should not be separated, but taken together. He proposed also that there should be a meeting convened, and all the masters and agents be invited to attend. After a long discussion this motion was then put to the meeting and carried.

And now the public attention turned towards the inquest. Was any particular collier to blame for the explosion, or were the management guilty of neglecting to fulfil their duties as regards the safety of the men? These were the questions that once again needed to be answered.

Chapter Three

Thursday July 1st 1869

The Ferndale Colliery explosion inquest

On Thursday, Morning, July 1st 1869, Mr. George Overton, County Coroner, resumed the adjourned inquest on the bodies of the men who were killed by the terrible explosion which took place at the Ferndale Colliery, in the Rhondda valley, on Thursday morning, June 10th last. The inquest was formerly opened on the day succeeding the explosion, and after the bodies were viewed by the jury the inquest was adjourned to the 1st instant to admit of the fullest investigation being made.

Mr. Overton arrived at the Pontypridd station by the 11.40 train from Merthyr. He was met at the station by several gentlemen, who accompanied him to the New Inn, where the inquest was held. Amongst the gentlemen present were Mr. Brough and Mr. Wales, Government Inspectors of Mines; Mr. Lewis Davis and Mr. David Davis, the owners of the Ferndale Colliery; Mr. C. James, solicitor of Merthyr, who watched the proceedings on behalf of Messrs. Davis; and Mr.

Bedlington, the general manager of the colliery. No one was representing the relatives of the deceased.

The Coroner, in opening the proceedings, addressed the jury as follows: - Again you have been summoned away from your homes and domestic duties to discharge a most serious and important duty. Another serious and appalling calamity has occurred in this district, and caused grief and dismay to many a household, and it becomes your duty to investigate the circumstances and ascertain as far as possible the origin of the unfortunate occurrence. When we met together of the 11th of last month to commence our inquiry and to perform the sad and solemn duty of visiting the dead, we were led to believe that if we adjourned until today the whole of the unfortunate sufferers would have been discovered and the colliery restored to its usual state. I am sorry to say our prognostications have not been fulfilled, and that there is a portion of the colliery, viz; No. 7 cross heading south in No. 1 west heading that has not yet been explored, in which there are supposed to be five bodies now remaining.

We cannot therefore, I fear, conclude our inquiries satisfactorily until that portion of the pit has been restored, and I am apprehensive it will be necessary to adjourn again, but I think that as we are met here today, and the matter is of such grave importance, and there has been so much interest felt upon the subject, the most judicious course to adopt will be to ascertain the present position, and proceed with the inquest as far as we can without adjournment. If we find it necessary, then we shall adjourn.

I need not impress upon you the importance of the inquiry, as I feel convinced you are all deeply conscious of it, but I would most anxiously beseech and entreat your earnest attention to the evidence, and to give every assistance you can afford to unravel the mystery in which these cases are universally involved. I assure you I feel most acutely the difficulty that accompanies the prosecution of all inquiries of this kind unaided by any professional assistance to arrange the evidence, and the responsibility and labour, physical and mental, that accompany them, and shall be most happy to receive any assistance from any quarter.

It would appear from the information we have already obtained, that there was an explosion in the Ferndale Colliery on the 10th of June, and that there were forty-three persons brought out dead the same day, one on the following day, and four different times subsequently, making altogether forty-eight, and there are still supposed to be five left behind in the pit, which would make the total fifty-three. This is, indeed, a most important and melancholy catastrophe, but I

cannot conceal from you the fact that it is barely eighteen months since a still more serious explosion took place in the same pit, by which one-hundred and seventy-eight lives were lost.

On that occasion I was fortunate enough to have a most painstaking and intelligent jury, who, after a protracted and most anxious inquiry, came to what, I believe, was a very just and proper verdict, and one which I was pleased to find was afterwards endorsed and approved by the able Chairman of our Quarter Sessions, and several others of the most talented and experienced gentlemen in the country. To their verdict on that occasion the jury appended the following valuable observations and suggestions: -

“We are of the opinion that the inspection of collieries, hitherto practiced, has entirely failed as a preventative to accidents of this kind. And we recommend that all collieries should, henceforth, be inspected by a competent person at least once in every three months. We further recommend that all collieries should be provided with scientific instruments for measuring the quantity of air passing through the colliery, and that a daily record be kept of the same. Also a register of the daily reports of the firemen be kept in the office of each colliery, and that a register of the name of every person who descends into the pit be also kept.”

I submitted a copy of the verdict to the Home Office, and also to the proprietors of the colliery, and I trust we shall find that they have met with that attention which their importance deserves. The colliery, which you will find by the evidence, is divided into three districts, called the Rhondda, Blaenllechau, and Duffryn. As far as I have been able to make out, it would appear that in the present instance the effects of the explosion were confined entirely to one district, the Duffryn – and to a portion of that described as No. 5, 6, and 7 cross-headings south and 6 and 7 cross-headings north, a number of the bodies were found in that district within a comparatively short distance of each other. It appears also that out of the fifty-three sufferers thirty-six were burnt or severely bruised, leaving about 17, who are supposed to have died from suffocation; the position of the several bodies when they were found will be proved, and you will then be able to form an opinion as to the locality and extent of the explosion, and that will be the first point to which I shall direct your attention.

Having ascertained the locality, you will then have to endeavour to discover the origin of the misfortune. On this point I fear we shall have some difficulty, as I find that immediately after the explosion it was discovered that a portion of the

pit, No. 7 heading north, which I before alluded to, was found to be on fire, and measures were obliged to be taken, which will be explained to you, to extinguish the fire that will probably tend to destroy those vestiges that might have otherwise existed.

I trust though we shall be able by some means or other to ascertain whether it arose from accident, or from carelessness, and this will be the most serious and difficult question for you to decide. There can be no doubt that cases may and do arise where explosions of this kind may arise from some casualty which ordinary prudence and oversight could not anticipate or prevent; but on the other hand it is equally clear that they may and do arise too often from mismanagement or want of discipline or negligence.

It will be your province to decide that question. I shall have an opportunity after the evidence has been taken of explaining to you the law on the subject, and for the present I will content myself with taking suggestions which might perhaps help you in pursuing your inquiries, and some general observations. You will have copies of the rules of this colliery laid before you, and you will then discover what duties are required to be performed by whom, and you will be able to discover whether there had been a breach or unobservance of these rules.

If you find that the present explosion has occurred from the breach of these rules, in any material respect, or that there has been, on any other point (irrespective of the rules) an instance of gross carelessness, or wilful neglect, which has caused or contributed to it, you will be bound to represent it as such, and send the case for inquiry before another tribunal.

The continual occurrence of these fearful calamities must naturally make a deep impression upon all thinking minds, and I have always felt, and expressed my anxious desire, that some proceedings should be taken to remedy the evil. I firmly believe that they might, to a considerable extent, be prevented, if more stringent measures were taken. I have from time to time made suggestions, and urged the authorities that some legislative measures ought to be taken, but I regret my endeavours have not been attended with success; and it is, I fear, too manifest that there is such opposition displayed against every change or restriction that has been suggested, that there is very little chance of carrying any important measures through the House of Commons.

It is melancholy to reflect that, where human lives are concerned, commercial consideration and interest should predominate. That the present state of the law is insufficient and unsatisfactory is admitted, but whenever any change is proposed, it meets with the most determined opposition. There is one point upon which I feel it is my duty to caution you, and that is that you will confine your judgement entirely to the evidence adduced before you in this court, and not place the slightest reliance upon any vague rumour that may have been circulated.

I have been induced to make this observation because I have on this and several other similar occasions, had my attention drawn to certain paragraphs that appear in some of the public papers representing circumstances without, I believe, the slightest truth or foundation, calculated not only to attribute blame to certain individuals, but which naturally have the effect whether intended or not, I do not pretend to say, to deceive the public and lead them astray from the real merits of the case.

In inquiries of this kind, I find there are generally three essential points to which you have to direct your attention, as safety of all collieries mainly depends upon them. 1st. The management; 2nd. The discipline; 3rd. The ventilation. Unless a pit is managed by a competent person, the persons employed kept under strict discipline, and the ventilation sufficiently and properly distributed, accidents must invariably occur, and it is the absence or neglect of some or one of these important safeguards, that I believe the origin of these unfortunate occurrences are generally to be attributed, and the destruction of life becomes more serious.

It will be your duty to ascertain in the present instance whether all those requisites have been complied with, and another most material point is that the intake and return air-courses are sufficiently separated. My experience has led me to believe that nearly all of the serious accidents – at all events, those that I have had to investigate – might be attributed to mismanagement or carelessness, or the both combined, and until some more effectual mode is adopted to secure a better educated and more enlightened class of managers and overmen, and a better system of discipline and supervision exercised over the men, I fear there is no hope of improvement.

I cannot understand why the system that has been so successfully adopted in the Mercantile Marine, requiring that the masters and officers should undergo an examination to prove their competency; that every ship should be supplied with proper instruments; that a log-book or regular daily journal of the

proceedings, and a register of the men on board should be kept, should not be adopted equally in coal mines as in the navy.

At present some of these precautions are adopted in well-regulated collieries, in fact, it appears to me that the arguments in favour of its application to collieries are quite as strong if not stronger. I can perceive no difficulty whatever in adopting that system, and I feel persuaded it would be attended with beneficial effects. And, gentlemen, there is another important consideration. The law in reference to such occurrences is, I fear, imperfect. It is very difficult to define if any offence is committed, who is the party to blame, and the consequence is that the responsibility is so shifted from one party to another, that all escape.

The Mines Inspection Act which was the last enacted on the subject and was calculated to confer so much benefit, is unfortunately so loosely framed and ambiguously worked, that it is very difficult to obtain a conviction under it, and few have the courage to attempt it, and then consequently arises a continual miscarriage of justice, so the only inference you can draw is that there is, in fact, little or no legal responsibility, and as to any civil remedy under Lord Cambell's Act, it would be perfectly illusory to imagine that a poor friendless widow or orphan could successfully maintain an expensive action against a wealthy and formidable company, where there are so many difficulties to contend against.

It appears also very strange that in a country like Great Britain, abounding in mineral wealth – dependent so much for the high position she holds among nations, upon the proper management and development of that wealth – should not possess some department of the state to record and control the same in some way; that there should be so few, if any, good schools where useful practical instruction in mining might be obtained on moderate terms, and that there should be no useful authorised book whatever published on so important a subject. These are certainly matters for great reflection for all those persons interested in mines, and I would most earnestly recommend them for their consideration.

The first witness examined, was **Mr. David Davis**, one of the proprietors of the Ferndale Colliery. He stated that Mr. Richard Bedlington was the general manager, and had the supervision of all their collieries since 1868. The resident manager at Ferndale was Mr. David Rees, who had held that office since 1867. Mr. Williams Walters was the overman, and had held that position for many years. The colliery had been in work for about seven years. P. C. Edward Tamplin produced a list of the persons either killed or injured by the explosion.

There were 53 lives lost, and up to the present time there had been 48 bodies recovered. The explosion took place about half-past seven.

Dr. Roberts, who resided at Ferndale, stated that he was assistant to Mr. David Davis, of Aberdare, who was surgeon to the colliery. He described the appearance of the bodies presented and the cause of death. Two had received very severe external injuries, and 27 were more or less burnt – some very severely and a few slightly. There were 17 that had died through suffocation.

William Thomas, surveyor for Messrs. Davis, produced plans of the Ferndale Colliery at the time of the explosion. He also produced copies of the rules which were in operation at the time of the explosion. The colliery had been at work about seven years. It consisted of two pits, one up-cast and the other down-cast, the latter being used a winding-up shaft also. The down-cast was about was about 278 yards deep, and sunk to the four-foot seam.

Its dimensions were 17 feet by 12 feet, or about 200 feet area. The pumps were about 100 yards deeper, but there was scarcely any water below it. The up-cast shaft was sunk not only to the four-foot, which was about the same depth as the down-cast, but was also sunk to the six-foot and nine-foot seams, a further depth of about forty yards. It was 14 feet by 11 feet, or 150 feet area.

About six months ago the company sank the up-cast to the lower four-foot, which was 20 yards below the nine -foot, and it was only recently – about two months since – that the works was completed. A heading had been driven through the seam several yards, with a view of driving a drift across the measures into the four-foot across the roll.

The landing stage and apparatus used for sinking were still at the top of the shaft. Walters the overman furnished him with the information which enabled him (witness) to indicate upon the planes the places in which the bodies were found. The air necessary for ventilation in the lower four-foot was taken down through pipes from the upper four-foot, and came back through the pit. The colliery was divided into three sections, called respectively the Rhondda, the Blaenllecha, and the Duffryn districts. There were three distinct currents of ventilation. They were of the following measurement. The Rhonda north current was 2½ miles long; Rhondda south current, 1¼ miles long; the Blaenllechau district was 1½ miles, and the south current just over 1 mile long. The Duffryn north current was ¾ of a mile long, and the south current 1¾ miles long.

William Walters said: - "I live at Ferndale and am overman at the Ferndale Colliery. I have filled that position for upwards of four years. I supplied the surveyor with the information for preparing the plans. The positions of where the men were found at the pit are correctly represented on the plan. I was in the pit about the time of the explosion. My duties extend over the whole of the pit. I cannot say exactly what time the explosion happened. I was in the Rhondda district about the time near the separation doors by the furnace. I was coming from the furnace. I had been there for about half-a-hour. There had been a fall outside of the pit in the return air course. They had pulled the timbers out the night before, and the fall took place about 12 o'clock that night.

There were four men employed in removing the material away. William Williams, the fireman, had charge of the work. I heard of the fall between 6 and 7 o'clock in the morning, as I was going to work. I met David Harding, fireman, who told me of it, and I went to see if the road was clear. The fall took place a few yards from the flue, but did not stop up the air-way. It was all cleared away before I got there.

There had been a fall of about 35 trams from the roof and the side. I was returning from this place in the Rhondda level, by way of the separation doors, when the explosion took place. I did not see any fire. I heard a slight "puff." One of the roadmen was standing by me at the time it occurred, and he inquired of me what was the matter. I said I did not know. I did not think there had been an explosion; my impression was that there had been a heavy fall.

I went to the down-cast pit, and one of the hitchers came up and informed me that there had been an explosion in the Duffryn district. Mr. David Rees was on the top of the pit at the time, and I sent one of the hitchers up for him, requesting him to come down immediately. Mr. Rees came down, and went to the Duffryn side. There were no men rushing about, and all came out of the works quietly. I went with a man to the Rhondda district to see that the doors were properly attended to, and then returned to the Duffryn side to join Mr. Rees.

Finding that he had sufficient assistance with him I went around by the stable through the Blaenllechau district. I did not ask Mr. Rees whether he wanted any assistance; there was no time to talk. Mr. Rees at this time was in the No. 1 west heading, opposite to No. 6 dip cross heading. There were several men with

him. I got further assistance and went along No. 1 south heading. The men working there were all right.

I proceeded up No. 3 west heading, and continued as far as No. 5 south dip heading. Here the men were uninjured. I met them coming out, and they told me all in that heading were safe. There was no one injured up to No. 5. I came back out of this heading to No. 3 west again, and endeavoured to proceed on the level higher up the heading, but found we could not get along on account of the after-damp.

I came back towards the pit when I found I could go no further. I obtained further assistance, however, and went up the No. 3 west heading again. I went a second time to No. 5 south dip and got into No. 6 dip. The coal between the two headings is worked on the long-wall, and there is an opening between the two. In the first stall I found the body of Samuel Stride, the roadman. He had been at work some 30 yards off. He was much burned and bruised.

We removed his body into the west heading, and delivered his body over to the men there. I went up to the heading where I had previously failed, and succeeded this time. I met Mr. Bedlington and Mr. Rees there. They had come in from a different heading. We all went into No. 6 dip, where we found the bodies of three colliers who worked in the same 'face,' between numbers 5 and 6 dip. They were found about forty yards from the place where they had been at work, and, they appeared to have been making their way up.

Before we arrived there had been five more bodies found a little higher up in the same dip. They were all burnt. There were no other men working in the dip; and all who had been working there were killed. There had been no one working there the night before. We then went into No. 1 west heading, and proceeded to No. 6 north. We found that some of the exploring parties had been there before us, and brought out 13 bodies, 8 of whom were burnt, and 5 suffocated.

They were all found in the heading; not one was found in his working place. They were picked up within a radius of about 50 yards. The heading had been on fire, but it was put out before I reached there. There had not been anyone working in the heading for many weeks. We had been waiting to drive an air-way into it, which we had nearly succeeded in doing. The men had been working at this air-way up to the day before.

That morning the fireman found some gas in the air-way and stopped the working. Thomas Price was the man who had been at work there. The fireman had put up a danger signal, and a brattice had been put up in both the heading and the air-way. Price had been cautioned by the fireman not to work there. The body of Price was found in the heading and the tools were lying by his side. Two men named John Williams and Daniel Davies had been working there with Price up to the day of the explosion, but that morning they had been sent to drive. We next proceeded to No. 7 north heading. There were eight men working in that heading, and we succeeded in getting five out that day, but were prevented by serious falls from getting the rest out until some days afterwards. Four of them were burnt and four were suffocated. Three of the men were found under the falls. The roof in some of the stalls in this heading were very bad. We went from No. 1 west heading to No. 2 west, through the air-way to the first stall, which is a double stall, in No. 7 dip.

We endeavoured to proceed into the heading, but perceiving a sulphurous smell, as something were on fire in the dip, we considered it prudent not to go any further without consulting the manager. We returned to the pit, and communicated to Mr. Bedlington what we had met with in No. 7 dip. Mr. Bedlington, accompanied by myself and several of the men, went to the dip shortly afterwards, to investigate the cause of the smell.

We could not get beyond the point to which it was discovered as the heading was on fire, and after a consultation it was determined to stop it up. For this purpose turf and rubbish were used. Mr. Bedlington here stated that they stopped up the heading on the evening of the explosion, and it continued so until the following Monday. He then had a consultation with Mr. Davis, and it was determined to flood the mine. Pipes were ordered for the purpose, and these arrived on Wednesday.

On Thursday the water was run into the pit. The pit still remains flooded. A consultation was held on Wednesday, and with approval of the Government Inspectors, it was resolved to allow the water to remain in some time longer. An examination was made on Wednesday, and the body of Joseph Excel was found floating in the water."

The witness continued: - "At the top of the No. 3 west six bodies were found. Apparently none of the men here had got to work. The bridge near the lamp-room was not affected by the explosion. The air-bridge at No. 5 cross-heading was blown up. The bridge was made of 3 inch planks. The two sets of double

doors at No. 6 dip-heading were blown in. No marks of fire were found in there. I endeavoured to ascertain the state of the doors at No. 7, but owing to there having been a great fall in the level, which covered the doors, I could draw no conclusion as to the way they were blown. The timbers in the heading were blown out towards the pit. The timbers in No. 2 west heading were blown down.

The door and timbers in the different stalls of No. 6 north heading were all blown down. One of the outer trams was blown into an inner tram. There was a horse found near this heading; it was much burnt. Altogether there were three horses killed. After the witness had been further examined in reference to the state of the doors and timbers in the heading, the inquest was adjourned until Friday at 12 o'clock.

Friday, July 2nd 1869
The inquest – another body recovered

The inquiry into the circumstances attending the explosion at the Ferndale Colliery was resumed on Friday, July 2nd 1869 at the New Inn, Pontypridd, before Mr. George Overton, County Coroner. It was announced by the Coroner that on Thursday afternoon, about half-past-three, the body of Henry Excel was recovered. There were now four bodies remaining in the pit.

The jurymen having all answered to their names, the examination of the witness **William Walters**, overman, was resumed. He said: - "There were a good many falls discovered after the explosion. The most serious was at the mouth of No. 7 heading. There were no falls except the one I mentioned yesterday before the explosion. The fall on the west level in the centre of No. 7 dip, and back from there towards the pit, extended for something like 30 yards. There were several small falls, from two feet to three feet in thickness. I did not notice any marks of fire in No. 6 heading."

The coroner: - "But there must have been fire there, because some of the men found there were burnt."

Witness: - "I took no particular notice if there had been fire."

Mr. Davies: - "There appeared to have been two classes of men burnt – one class burnt badly. Those who were in the headings the time of the explosion, and the others those who had gone into their stalls where they were burnt, but walked out into the headings and then died of choke-damp."

Mr. Bedlington remark that hot air would burn, and they might have been burnt by the air heated to a degree greater than flame.

The Coroner said that the doors would shed some light on the cause of the explosion. Mr. Wales said that they would if they could be got, but in all explosions of this kind the men applied the doors blown down to all imaginable purposes, without noticing the positions in which they were found after the blast.

The witness resumed: - "The explosion I think, commenced in the No. 7 dip of No. 1 west heading, which is now closed." The witness was questioned by the Coroner whether he could speak positively on this point, but he could not. He continued: - "I am overman over the whole of the pit, and am assisted by a man named William Rees."

The Coroner: - "How many men are employed at the pit?" Witness: - "The average is about 431."

The Coroner: - "I don't want the average. Have you no register? It was a distinct request made by the jury of the inquest in the former explosion that a proper register of all the men employed in the pit should be kept. It is a very important matter. It is of equal importance to the employers as well as the men that a correct register should be kept."

Mr. Bedlington: - "We understood the request of the jury to be a register of the number of lamps issued every morning." The Coroner: - "Every child knows – at least every one acquainted with works knows, what a register of workmen means."

Mr. Bedlington: - "The number of lamps issued to the men every morning with the number attached are entered into the lamp-man's book."

A juryman: - "Some of the men had two lamps." The Coroner: - "What we want is a register of the number of men employed in the pit – not merely a list of the number of lamps issued."

Mr. Bedlington: - "The number of men changes from day to day." The Coroner: - "We want the whole of the men in the employ. The jury have the right to know the number of men, and who they were, to see whether they are experienced and respectable men. This is a very important question, and if there is not a list kept of the official men employed at the pit, I think it is very blameable." Mr. Bedlington: - "The lamp book shows what men took out lamps."

The Coroner: - "Then we will have that book produced."

Witness: - "On the day of the explosion there were 369 men employed."

Coroner: - "We want the total number of men employed at the pit, not the number on any particular day."

Mr. Rees, the manager: - "The number of men employed is 432 night and day."

The Coroner: - "Then we will say there are 432 employed night and day. That is in effect the number of men you have the control of."

Witness (William Walters): - "Yes. The men are engaged by Mr. Rees and myself. On the morning of the explosion there were 369 men employed. There were 36 men employed on the night proceeding the explosion. On the Duffryn side 117 men were employed, and the Rhondda side 155, and on the Blaenllechau side the lamp-man keeps a list of every man that goes down. There is no register kept except that by the lamp-man.

A barometer, thermometer, and water gauge are kept in the cabin. The reports as to the state of the pit I receive every morning from the fireman of each district. I meet them generally soon after I am down at the flue. It is the duty of a fireman to examine the lamps and lock them, and to see that everything is correct and proper before he comes to the flue. The firemen give the men permission to go on.

I did not meet the fireman at the flue on the morning of the explosion. They had not reached the flue before the explosion happened. When I meet the firemen they accompany me to the cabin and make their reports. The reports are made verbally and I then enter them into the log. The book produced is the log-book. I received the last report on Wednesday the 9th.

The fireman in charge of the Duffryn district made his report for the morning of the 10th after the explosion happened. I entered it into the log. This is the report for the morning of the 10th: - *"Barometer, 3.20; thermometer, 59; the water gauge was not taken. Duffryn side: - Small bit of gas found in face No. 6, back of No. 1 north Duffryn. The fireman put a danger mark there. Fresh blower found on the 8th at No .5 north heading. It was 'capping' on the lamp of No. 5 dip, south Duffryn. The remainder of the district all right, and the ventilation in proper order. Fresh blower found in the roof of No. 2 heading of little coal. There was no accumulation of gas."*

The Coroner then examined the log-book, and remarked that there seemed to be very little variation in the reports of the barometer for some time. It did

appear to have varied one degree for a week. Mr. Davies: - "Perhaps it would be as well if the witness would explain what 'capping' is."

Witness: - "It is an accumulation of gas around the top of the lamp, and is the first indication of gas."

Mr. Brough: - "There can be no 'capping' without gas."

The Coroner: - "Was your attention particularly called the day before to an appearance of gas in any part of the pit?" – Witness: - "I don't remember."

The Coroner, referring to the log: - "I see that the 4th of June is the first day upon which gas appeared in the Duffryn. As far as I can make it out, you had only two reports of gas in these workings for over a month; one small blower in No. 6, and the other in No. 5."

Witness: - "I write the reports that are made in the log every day. The register of air is taken by Mr. Rees, the manager. The men are allowed to take the lamp cases home to clean. The lamps are kept in the lamp-room near the top of the pit, in the charge of Thomas Powell and an assistant. There is only one lamp given to each man." The Coroner: - "No more than one?" Witness: - "No; I am quite sure." Coroner: "Your practice was to give two, wasn't it at the last explosion?" Witness: - "Yes, but we only give them one now. We use the Davy and the Clanny lamps. I cannot say how many lamps of each sort we have. The company supply Davy lamp to all that like to have it. If the men preferred the Clanny lamp they would have to buy it for themselves."

Mr. Brough: - "Are the men allowed to buy these lamps in any shops in Aberdare and Merthyr?"

Witness: - "Oh yes; they are allowed to buy them elsewhere, subject to the approval of the company. There is no shot firing allowed in the coal in any part of the colliery. The men, however, are allowed to fire shots in the Blaenllechau district in all their headings after the day-men are gone out. They are not allowed to fire at all in the Duffryn district." Mr. Davies explained that the reason it was allowed in the Blaenllechau district was the coal was very thin, and they were obliged to rip a very hard top for headway. In the other districts the coal was very much thicker.

By the jury: - "The last time I was in the Duffryn district was on Tuesday, the 8th of June. I was not there on the Wednesday. As far as I know there was no official in the Duffryn district on the Wednesday except the fireman. I generally go down the pit at 7 in the morning and come up between 4 and 6 o'clock. My assistant does not come up the pit until all the day men are out. I left my work

on the night before the explosion between 4 and 6 o'clock. I went down the pit again that night at 7 o'clock, and remained until 11. My reason for going down a second time was that there was some difficulty in the No. 3 north Rhondda. There was no other defect in any other part of the working that night so far as I know. The air had not been altered that day. The fall by the flue was owing to the timbers having been taken out to enable the men to put up a stone arch."

A juryman: - "Do you know if a man asked for timber to prop up there, and that he was refused, and that the fall took place for the want of sufficient props?"

Witness: - "I don't remember. The average out-put of coal was about 300 tons per day. The average of day and night labours is 34."

A juryman: - "Has there been a general complaint by the men that the labourers were reduced?"

Witness: - "Oh, yes; after the explosion, of course." The Coroner: - "Not before the explosion?"

Witness: - "No; there was no need to complain. The men never made any complaint in reference to cross-walls. It is the duty of the colliers themselves to build up the cross-walls in their stalls as far as the rubbish they get will extend. If more is required to fill up the 'gob,' we supply it. We supply them with cogs whenever they are required. We could not always supply the cogs immediately, because they were not always ready. I have refused cogs when I did not think they were required. It is the rule to refuse them if we think they are not required."

The Coroner: - "I believe it has been the cause of great disaffection amongst the men that these cogs should have been refused?" Witness: - "I think not. We issue as much cog as any colliery round. It is the fireman's duty to examine the airways and working place every day. I made an examination of those places myself twice a week."

Thomas James, fireman, was next examined. His evidence was given in Welsh and interpreted by one of the jurymen. He was fireman at the Duffryn district, and had filled that situation for three years. He was the fireman when the first explosion took place. At the time the explosion occurred on the morning of 10th of June last he was crossing the main level No. 4, within a few yards of the lamp station. At first there was a slight 'puff,' followed almost immediately by a second puff, which blew him a distance of several yards when he fell.

He was accompanied by two boys, who were blown on to the top of him. His duties were to examine the works every morning before the men went in. The

witness described at some length the examination he made of the workings on the morning of the 10th. In the return back heading of No. 6 he found some gas – very little. There was none there the day before. The cause of this appearance of gas here was that a lump of coal had fallen the previous day, and closed the door. He placed a danger signal there. In No. 8 he found that some timber had fallen.

There was some gas there, and he put up a danger mark. Thomas Price was the last man found. He was found in No. 6 heading. His tools were at the top of the heading. Witness had warned him not to go to the top of the face heading. The flueman asked witness whether the fall at the flue affected his (witness's) work. He replied that it could not affect him as there was plenty of air. There was one stall on the east side in the west heading which was only examined once a week. On the Saturday before the explosion there was no appearance of gas in the stall when he examined it. There was a small 'blower' there in the roof on the previous Saturday, and put up some canvas to throw air at it. He said had never seen gas in the stall before. At this stage (six o'clock), the inquiry was further adjourned until Monday morning at 12 o'clock.

Monday, July 5th 1869

The further hearing of this inquiry resumed on the above date before Mr. George Overton, County Coroner. Those present were the same as at the previous sittings viz; Mr. Wales and Mr. Brough, Inspectors of Mines; Mr. D. Davies; Mr. James, solicitor, and Mr. Bedlington, the manager of the colliery.

David Rees said: - I am underviewer of the Ferndale Colliery, and have held the appointment since June 1868. Mr. Bedlington joined the colliery then. Previous to that I had the whole charge of the colliery. Since Mr. Bedlington was appointed General Manager, I consider it to be my duty to carry out his instructions. I have done nothing of any consequence on my own responsibility, but only what I have been ordered to do. I do not consider myself responsible to do the duties described in the first rule, but Mr. Bedlington.

My duty is to consult Mr. Bedlington about everything, and carry out his instructions, which I have always done to my utmost. I look after the ventilation, but I do not make any changes without Mr. Bedlington's sanction. The area of the pit and the depth of the two shafts deposed by Mr. Thomas, the surveyor, were correct. It has been my practice when I first went to the pit to take the measurement of the airways once a month.

In this duty I am accompanied by my son. I measure the air with an anemometer. My son works the instrument and takes down the figures. My son is 19 years of age. I register the quantity of air in the log-book in the cabin, and also in a book of my own. I take the measurement in 7 or 8 places. The ventilation of the colliery is divided into three separate columns, one to the Rhondda district, a second to the Blaenllechau district, and a third to the Duffryn district. The ventilation of each district is kept totally separate.

The air ascends the pit by the downcast, where it is split into three separate columns. The witness here minutely described the course taken by the air through the different workings. On the 2nd of June the air returns in the north Duffryn district contained 13,720 feet. That was measured in the return air-way where the two currents meet. We did not measure the north Duffryn by itself. We took it in the return near the dumb drift. That included the north Duffryn and some from the south Rhondda. We went to the south Rhondda and measured the air leaving there. Deducting from the total of 22,260, the quantity coming from the south Rhondda, was then 13,720 running into the Duffryn split.

The next split, that of the south Duffryn workings, only contained 26,140 feet. The first split was for the stable, and that contained 2,960. The air there varied, and was not the same every day. The total quantity we get in the dumb-drift is 54,787. We could not get the instrument always to work the same.

Out of that quantity the south Rhondda and the stable split must be deducted, and then you have 39, 860 feet going into the workings proper. The total quantity passing into the Rhondda is 34,865 feet, including the dumb-drift. It is divided into three currents, and balance themselves. The Blaenllechau district takes 32,400 feet, divided into two currents. The witness then gave a description of some of the workings after the explosion. The timbers and doors in No. 6 dip were all blown to the south. In No. 5 there were ten men working, and they were perfectly uninjured.

The Coroner: - "If we were to call any of those men could they tell us anything of the explosion?" Witness: - "I have questioned them to whether they saw any fire coming down the air-way, and they say they could not tell. My opinion is that the explosion must have taken place somewhere between No. 7 dip parting and No. 6 north. There was a very heavy fall at No. 6 and 7 north, and again a little higher up the same heading, about the bottom of No. 6 north, on the parting of No. 2 stall, under which the body of Thomas Price was found. I

measured from the point of the parting to the place where his body was found. The distance was 14 feet. He was lying with his feet in towards the stall, his clothes were disarranged, and there were three 'collars' lying across him. I cannot tell what he wanted there. It was an old stall, and no-one had been working there for some time. His lamp was found by his body all right."

The Coroner: - "Judging from the heavy falls and the disarranged appearance of the doors and timbers, your opinion is that the explosion took place somewhere between No. 7 dip parting and No. 6 north?" Witness: - "That is all. There is nothing else to lead me to form that opinion except the direction in which the doors and timbers were blown. There was very little, if any, marks of fire there. It seems to me that the most extensive marks of fire were to be seen about the two extreme ends.

I have made an examination of all the doors and timbers there; they are blown in one direction from the centre. The extent of the falls was from 5 to 10 yards. One of the falls was very nearly 10 feet above the surface of the road. At the time of the explosion I was at the top of the pit and heard a 'puff.' There was a report, but not much, it was a puff and then a rush of air. I told the banksman to knock me down." A juryman: - (with great surprise). To knock you down, Mr. Rees!" Witness: - "Not to knock me down the pit, of course, but knock the carriage to drop me down." The juryman: - "Oh, I thought you meant to knock you down." (Laughter).

Witness continued: - "In the meantime when the carriage was working down I kept my eye on the up-cast, and in an instant I saw a cloud of dust coming up. I did not notice any fire. When I got to the bottom, I heard great screams, and saw the men rushing about. I asked if any of them could tell me where it had fired. They told me they thought it had fired on the Duffryn side, as they felt the rush of wind that side. I proceeded along the heading to No. 1 west. The double doors near the lamp-station were blown down; the brattice was blown all to pieces." The witness then described in detail his journey as far as No. 6 heading, and his return through the stalls, and the means he took to carry the air on after the explosion.

He returned to No. 1 heading, and heard the men say that the 'help' was very bad. "I sent up for more assistance. The number of men working in the pit night and day was 432. The men who were in the pit the night before the explosion were working at the rubbish, and doing some repairs. I not am not certain whether any were employed in getting coal, but I believe not. We generally

employ 31 labourers and 'shifts,' and six 'wastes.' There was an alteration in the number employed a few months ago."

The Coroner: - "Have you not reduced the number of labourers very considerably recently?" – Witness: - "Not lately; last year I had 50 labourers and 8 wastes employed. That was in July. We were obliged to keep that number because we were working at the falls of the late explosion. I have never represented that I had not sufficient to do the work properly."

The Coroner: - "Have you made no representation that you had not sufficient men?"- Witness: - "The order for the last reduction came from my manager, and what use was it for me to make such representation to him?"

The Coroner: - "Was the reduction made with your advice?" – Witness: - "No. There was a consultation between Bedlington, myself, and the overman, and Bedlington expressed an opinion that the number was too high. I said that if the men were reduced we must leave a portion of the work behind."

A juryman: - "Was that contrary to your own opinion to leave the work behind?"

– Witness: - "Well----- ." The juryman: - "We want the truth, the whole truth, and nothing but the truth." – Witness: - "You shall have the truth." The juryman: - "Was there any reduction in the number of men contrary to your judgement?" – Witness: - "I will answer that question like this -----.

The Coroner (interrupting): - "Did you approve or disapprove of any reduction that was made?" – Witness: - "I said that if it was the case that any reduction was made, I should have to leave certain work behind such as the cleaning of roads and those sort of things. The custom of the colliery before I went there was to allow a labourer any quantity of timber. When the labourers were reduced we settled to raise the price of timbermen and let him find his own partner instead of the company finding him."

The Coroner (interrupting): - "Did you approve or disapprove of any reduction that was made?" – Witness: - "I said that if it was the case that any reduction was made, I should have to leave certain work behind such as the cleaning of roads and those sort of things. The custom of the colliery before I went there was to allow a labourer any quantity of timber. When the labourers were reduced we settled to raise the price of timbermen and let him find his own partner instead of the company finding him."

The coroner: - "You allow then, the timber man to employ any one he likes. He can employ any ignorant fool if he likes, whether he understands colliery work or not, and take him into the pit." – Witness: - "No, he cannot take a man down without having a copy of the rules from us."

The Coroner: - "A copy of the rules will not make a man a collier." – Witness: - "No; but it shows that a man does not go down without our sanction."

The Coroner: - "God forbid? No wonder we have accidents when men are allowed to take anyone down into the pit they like to work." – Witness: - "As for taking any one they like into the pit it comes to this. The timber man can bring any one from outside – a collier or a labourer – I say, 'will you allow this man to

come to work with me ‘ - The Coroner (interrupting): - “I am not surprised at any explosion happening. The only wonder to me is that it doesn’t happen oftener.”

The examination continued: - “There are some cases where the timber men take in men to assist them. The timber men work by contract. If they require assistance they must get it themselves, and to arrange as to the rate to pay. If anything requires to be done to the stalls, the fireman has instructions to take as many as six colliers if he should require them. If a collier was qualified to repair his own stall he was allowed to do it, and paid for it. The men had the privilege of taking pitwood they thought would suit them. If they wanted ‘cogs,’ however, they were obliged to apply to the fireman.”

The Coroner: - “You have heard the evidence of the old man Wilkins, in reference to cogs and pitwood. He was not wrong, I suppose, in what he stated?” - Witness: - “He stated what he believed to be true, no doubt; but he went rather too far to say that he sometimes had to wait a fortnight before he could get the cogs, after he had asked for them. That is nonsense.”

The Coroner: - “But don’t you know that some had been refused altogether?” - Witness: - “No. They generally ordered cogs off the fireman the day before they want them, and they are supplied the day after.”

By the jury: - “I was in No. 6 and No. 7 the day before the explosion. I saw a slight blower in the back heading of the return of No. 6. It just ‘capped’ in my lamp, but did not fire. It was about half-past-nine in the morning when I was there. There were two men at work there, and I called their attention to the blower. They did not leave off, but worked on. I told them I thought there was a blower in the heading that would break out.

I ordered them to leave off working in the ‘face,’ and to drive a ‘cross-hole,’ into the next. I went through the stall where Wilkins had been at work, but did not observe any gas or hear any complaints from the men. The colliers have to lay their own rails into their stalls, and they have to go for them to the places where they are kept. They are paid extra for laying the rails, for doing the timber work, which is called ‘dead work.’

As it was now six o’clock, the Coroner said that the further examination of this witness would not be proceeded with. The Coroner remarked that the inquiry would stand adjourned until Friday the 16th inst. Meanwhile the water would be pumped out of the pit, and then Government Inspectors would make their

official survey of the workings, and lay their report before the court at the resumption of the inquiry.

Friday, July 16th 1869

Of Friday morning, July 16th the County Coroner resumed the inquiry into the circumstances of the late explosion at the Ferndale Colliery after a break of three days to allow an opportunity of clearing the water out of the pit, so that the Government Inspectors might make their official survey. An examination has been made of the heading where the coal took fire, and has necessitated the flooding of the mine, and it is the opinion of the colliery management that it would be advisable to leave the water in for some time longer, as doubts are entertained that the fire was quite out.

Mr. Wales and Mr. Brough, Government Inspectors, were again present as also were Mr. Davis of Maesyfynnon, and Mr. Bedlington, the engineer of the colliery. The jurymen all answered to their names with the exception of two, who sent in medical certificates as proof of their inability to attend. They would no doubt be able to recommence their duties in a day or two.

Mr. David Rees, the resident manager, produced a statement showing the quantity of coal that had been worked in the colliery from the 1st of January up until the 10th of June. The total quantity was 61,426 tons, which gave an average per day of 463 tons. They never worked as much as 700 or 800 tons per day. The colliery was worked very irregularly. Some days they had worked up to about 600 or 650 tons. The quantity had been reduced lately. They had raised in one day as much as 800 trams, but he could not say how many tons that was.

The Coroner: - "I have seen in one of the books produced some allusion to 700."

- Mr. Bedlington: - "That means 700 trams."

The Coroner- "Do you know what the workings were when the first explosion took place?" - Witness: - "I was not at the colliery then." - The Coroner (referring to a book): - "The workings at that time were from 400 to 500 tons a day."

By the jury: - "I am not aware of any sort of gas being found in the colliery since the explosion. After the explosion had taken place, some of the colliers made an inspection of the colliery, and reported to me there was some gas found in one of the headings called 'Caswell's heading,' in the rock. I went to the same place the day after the men had been there. There was some gas there. There were 30 or 40 yards that were foul. The gas was 'capping,' but it would not catch in

my lamp. I never knew the gas to catch in my lamp there. No-one had been working in that place during my time."

Question: - "Have you done nothing lately to throw more air into the place?" – Answer: - "There have been two pipes put there." Q: - "Then you thought more air was required?" – A. "Of course it was quite plain it required more air. The pipes were put there with the intention of sending men there to fill it."

The Coroner: - "Why was not the face filled before?" – Witness: - "I cannot tell." Q: - "Do you think it was proper management to let a lot of the old roads not be filled?" – A: - "I can't say. I don't think so." Q: - "Is it not more dangerous to leave them unfilled?" - A: - "It is quite possible that they are more dangerous. But we were filling them then." A juryman: - "Filling them with gas!"

Examination resumed by the jury: - "I should not like to undertake to keep the colliery in good condition, with only six waste-men. I think it would be desirable to have a master waste-man to look after the air-ways. Master waste-men are employed in some collieries, and not in others." Q: - "If that was your opinion was it not your duty to have a master waste-man? A: - "No; I do not think it was my duty exactly. If I had the whole management of the pit of course I should consider it was my duty."

Q: - "Have you not the power to make those arrangements?" – A: - "I have no power to establish officers without the sanction of the master of the colliery. I don't think our colliery stands in the same position in this respect as many other collieries, for we have not the quantity of workings there. There are collieries which are near abandoned up to the pit, and those are the places that require waste-men more than a new colliery like ours."

Q: - "Have you ever stated to anyone that you could not get what materials were required for the colliery?" – A: - "Oh, yes, certainly. I wrote to Mr. Davis requesting to be supplied with rails and sleepers and 9 ft pitwood. I had applied for material, and could not have it at once, so Mr. Bedlington told me." Q: - "It that recently?" – A: - "No; about the month of September last year. Some of the old stalls are only partially filled up; we fill them in turns, according to the means that we have got."

Q: - "Has it ever been reported to you that a collier had opened his lamp beyond the lamp-station, and had not been prosecuted?" – A: - "There has been no case reported to me where the law has not been carried out to its fullest extent. We have had one case of a man detected opening his lamp. He was prosecuted and

sentenced to three months imprisonment. I believe there have been one or two cases of smoking; there has been one case reported to me since the explosion, of a man having his lamp unscrewed before the occurrence of the explosion.”

The Coroner: - “Do you really think, honestly, that the men are in the habit of opening their lamps?” – A: - “I have every confidence in the men, and believe these to be perfectly upright. When I went to the colliery I called the men together, and asked them for their assistance and co-operation in upholding the rules for the government of the colliery. They promised their support. They have reported cases when there have been breaches of the rules. I dare not say they would not be guilty of opening their lamps without reporting it.”

Mr. Brough: - “Generally speaking, do you think you were supported by the men?” – Witness: - “I do; largely supported, but the officers especially. There were of course some men in pit I did not know much about.”

Examination resumed: - “After the explosion, I saw in several places the marks that had been made in reference by the fireman. I have made inquiries in reference to the time the fireman went down the pit on the morning of the explosion, and I have no reason to doubt that he did not go down at his usual time, or that he did not discharge his duty that morning. No. 7 heading still remains full of water.”

Mr. Bedlington stated that the question of taking the water out of the heading had been very carefully considered by himself and other officials, and they had come to the determination that it would be best to let the water remain in until the close of the present week. Mr. Davis and himself had been very anxious to re-open the pit. Mr. Wales remarked that he never had the faintest idea that the heading would not be open for seven or eight weeks. The witness said that a fortnight ago an attempt was made to get into the heading, but did not succeed, because the fire was not out.

Mr. Brough said that his impression was that there was no fire in the heading now. The water should have been put in earlier than it was. Mr. Bedlington: - “The day before the explosion did you inform me that the place was blocked up with pitwood?”

Witness (Mr. David Rees): - “Yes. I may have told you to stop the supply. There was no doubt a month’s stack of pitwood at the colliery. I considered that there was sufficient air through all the workings. I did not know of any accumulation

of gas in any part of the colliery before the explosion. I never informed Mr. Bedlington of any part of the colliery being in a dangerous state, but I told him that the old stalls and headings in Caswell's working ought to be filled. All the rubbish was stored in the pit. I consider that it was the duty of the officers, and the men too, to see that cogs were put where required. There has been a fire in the upcast shaft in the 'two-foot-nine' since the explosion. It was discovered about a fortnight after the explosion. We are now engaged in drifting the level to detach that part. We never had a fire before, and I never saw the least sign of fire."

Thomas Powell, the lamp-man, was the next witness examined: - He had been at the Ferndale Colliery for three years. He produced the lamp-book, and stated that there was no other register of the men at work in the colliery. Now, only one lamp was now allowed to each man. At the time of the first explosion the practice was to give two lamps to each man. There were 506 Davy lamps and 23 Clanny lamps belonging to the pit. The number of every lamp issued is entered in the book. There were no two numbers alike.

It was by the number on the lamp that they were able to ascertain the name of the man to whom it was issued. The lamp-station was about fifty yards from the top of the pit. The lamps are issued to the men between 6 and 7 o'clock, and not one is given out after 7. It was his duty to examine all the lamps. The bottoms (of the lamps) were always left with witness, and the men themselves took the gauze tops home. The men trim and light their own lamps since the first explosion. It had not been his practice to screw on the tops. The custom is for the men to screw on the tops.

There were 369 lamps issued at the colliery about the time of the explosion, besides 63 lamps, but most of the latter were out before the time of the explosion occurred. The number of lamps issued on the Duffryn side on the morning of the explosion was 117. Of the 53 men killed, 34 of their lamps had been returned to him. There were 19 missing. One or two of these had no doubt been taken home. He did not believe there were more than eight lamps in the pit now, six of which were perhaps in the dip which had not been yet explored. The whole of the lamps that were returned to him were in sound condition, with the exception of two – one Davy lamp, and a Clanny lamp. The pillar of these were broken, but the gauge was all right. Two of the lamps found were not locked.

By Mr. Brough: - "If a man bring a new lamp to the pit I examine it, and if its condition does not in every particular comply with our rules I do not pass it. If the glass is chipped at the side, or the gauze damaged in any way, I do not pass it. There were other lamps used in other pits, which we do not allow to be used at Ferndale."

Frederick George Murray, the roadman employed at the Ferndale Colliery, was next examined. He had been at work in the pit the night before the explosion took place, making some repairs. He had just come out of the pit, and was on his way home when the explosion occurred. He described the indications at the pit when the explosion happened, and gave it as his opinion that it fired somewhere below Nos. 6 and 7 south-dip, on the main in-take.

He was led to this conclusion by the appearance of the doors and timbers in the neighbourhood. During the whole of the 13 months he had been at work in the pit he had never met with an accumulation of gas, except in one instance, some months ago. He had sometimes complained that they could get no cogs, and the reason assigned to them was that Mr. Bedlington did not think they were necessary. Witness knew that in many instances they were absolutely necessary, and that the men would have put up the cogs themselves for nothing. He would not of course say that the men made applications for cogs sometimes when they were not required. The men were paid 1/6d for putting up cogs.

By a juryman: - "Have you heard that there was complaint made by the men of an accumulation of gas in the pit?" Witness: - "I have heard that there were such reports in circulation amongst the men. I have heard individual complaints made. Sometimes complaints were made, and were never attended to. The chief complaint by the men was that they had not timber enough to keep up the top and thought they were breaking down. There was danger of the tops falling into the wind-way and checking the air.

There was no fear of gas from the coal; all the gas that I had seen in the pit came from the tops. The one instance of accumulation of gas to which I have referred was in a small heading. It was about March last, and I had to go into a heading for some rails. The place was full of gas and fired my lamp. I reported it to the men who were working outside on the heading, and told them if they saw Mr. Price, the fireman, to report it to him. The answer I got was that Mr. Price had been there and knew about it. There was no danger mark put up. I afterwards saw Price, and the next morning men were sent to the place, and the gas was cleared away."

After some evidence that was not of a material character had been given by Thomas Morris, a collier, who was examined by means of an interpreter, the inquiry was adjourned until 9 o'clock Saturday morning.

Saturday, July 17th 1869

This inquiry was again resumed on Saturday morning at the New Inn, Pontypridd before Mr. George Overton, County Coroner. The first witness called was **Thomas Benjamin Thomas**, a labourer. He said that he had been working at Ferndale Colliery for about 10 months. His brother worked in No. 7, north side of No. 1 west. His brother was killed. Some months ago he (witness) had to work in No. 5 stall, No. 6 heading, when there was gas there. No danger signal had been put up.

There was very little gas, and he did not take any notice, as he did not think there was any danger. He worked there all day. There was often a scarcity of rails and sleepers, and when he wanted any he was obliged to go the rubbish stalls, or wherever else there was a chance of getting any. There was plenty of timber in the yard, but he could not always get the sort he wanted. He had not been obliged to leave his stall on any occasion because there was too much gas. He had been sent to store rubbish in No. 29 stall, No. 1 heading, in the Blaenllechau district, when the stall was full of gas. There were two blowers there which came to within 18 inches of the ground. No danger mark had been put up. The night-foreman, John Williams, cautions me to be careful as there was gas there." Witness and another man were put to work. They 'gobbed' up a portion of the blower, and so walled it out. While working there witness was obliged to keep his lamp within a foot or half-a-yard from the ground.

The Coroner: - "Have you not been working as a collier at Ferndale?" – Witness: - "I am a collier, but working now as a labourer. I was working as a collier in No. 6 stall, north, but gave up cutting coal and went to labour. Q: - "Why did you go to labour?" – A: - "Because I thought I could get better pay." Q: - "I thought colliers get better paid than labourers?" – A: - "Some do, no doubt. I have got more as a collier than as a labourer." Q: - "Then why did you give up cutting coal?" – A: - "It was a poor stall, and I could not get enough to live. The labourers are paid by the day. I was paid 3/2d a day as a labourer." Q: - Are you sure you did not leave the stall because it was too hot for you?" A: - "Yes sir." Q: - "Just consider now. Have you not said to some parties that the place was so hot that you were obliged to leave it?" – A: - "No; I am sure I haven't. I have

already given you the reason why I left.” Q: - “Did you ever object to, or find fault in any way with with stall to which you have referred?” – A: - “I called the attention of the fireman to the gas there, but I did not object to go there.”

Q: - “Did the fireman say anything to you about sending you to Cardiff and committing you if you did not work there?” – A: - “No; he passed the place as safe, and cautioned me and the other man to be careful.” – Q: - “Are you sure he did not say that you would be punished if you did not go to work?” – “Yes, indeed.” Q: - “Have you not said he did?” – A: - “No; I am quite sure of it. Q: - “How long is it since this happened?” – A: - “About two months or more.” Q: - “Are you sure that no threats were made to the man working with you?” – A: - “There was not, as far as I know.”

Q: - “Did he ever refuse to work in any particular stall?” – A: - “About a month previous to the explosion the fireman, Williams, gave us instructions to fill up a gob between two stalls in No. 7 dip, which is now filled with water. James Griffiths, a collier, who lodged at the same house as myself, working in the first stall of the heading, had previously told me to be careful of the place in case I was sent there to work, as the ‘top was all at work.’ When we got to the place we found it unfit to work in on account of the gas. We waited until the fireman came, and told him of the state of the place was. We told him we would not work there. He told us to ‘go on,’ as he did not see that there was any danger there. We refused to go, and ultimately decided that the place was not safe. He sent us to work elsewhere.”

Q: - “Were you sent to that stall again?” – A : - “No.” The top fell in that night. The young man Griffiths was killed by the explosion which took place.” – Q : - “In what state was the stall the night before the explosion?” – A : - “I don’t know.” Q: - “Had you any conversation with Griffiths after he cautioned to be careful should you be sent to work there?” – A: - “I had no more conversation with him about it. I don’t know whether Griffiths was doing anything else than clearing away the rubbish in his stall from the time it took place up to the night before the explosion. I can’t say whether he was cutting coal. The fall came down across the face, between Nos. 1 and 2 stalls.”

Mr. Wales: - “Did you notice if any air was travelling when you were there?” – Witness: - “There was air passing through the stall. I did not notice what sort of wind there was. It was three weeks or a month before the accident, and that was the last time I was in the heading.” A juryman: - “Did you usually put rubbish into stall where there was an accumulation of gas?” – Witness: - “I am

not aware of any other instance except the one I have spoken of. I have not heard others complain in this respect.”

By Mr. James: - “The fireman did not tell me to go to any particular rubbish stall for rails or sleepers when I wanted rails or sleepers. Generally I went to the stalls which were in the course of being filled up. The position of the blowers in No. 20 stall was this – one was in the face, and other three yards back in the roadway.”

Mr. James said that, according to the rules which were in force at the colliery, it was clearly the duty of Thomas to clear the stall.” He quoted a portion of the 16th rule to show that Thomas and the other man were legitimately sent to work at No. 29 stall for the purpose of clearing it out.

Richard Griffiths, who had been employed as a collier for ten months at Ferndale, was called to speak in reference to the pit after the explosion. After the occurrence of the explosion he was one of a committee appointed by the men to make an examination of the colliery. The portion assigned to him for inspection was the north Rhondda district. He spoke of the finding of accumulations of gas in one or two places, and too many of the stalls not being filled. He stated that there were many falls about, and that he had considerable difficulty in climbing over them. There were complaints among the men, more especially since the explosion happened, that there were not enough of men and horses to do the ‘dead work.’ He never had any conversation with Walters, the overman, in reference to the state of the pit before the explosion.

The Coroner: - “Did Walters ever tell you that he thought an explosion would take place?” – Witness: - “If he had told me, I should have been out of the way, of course. (Laughter). The Coroner: - “But did he tell you that he thought an explosion would take place?” – Witness: - “Oh, no.” Mr. James: - “He never fixed the day I suppose?” Witness: - “Not at all, else I should have been out of that.” (Laughter). He went on to speak of the custom of giving timber to the men. In this respect his evidence was much the same as that given by other witnesses.

The Coroner asked the witness what opinion the colliers entertained of the explosion. Witness: - “I have heard many rumours, but I believe the opinion entertained by most of the colliers is that the explosion took place somewhere in the level between No. 6 and No. 7 headings.” By Mr. James: - “Two of the officers of the pit had accompanied us in our examination of the pit after the explosion. In Caswell’s we found foul air in the beginning, but as we went on found fire.”

Mr. James: - "Considering that all the labourers had been out for twelve days when you made the examination, were you not surprised to find an accumulation or so of gas?" - Witness: - "To tell the truth, I found an accumulation in a place so near the flue, I could not help thinking there was blame to be attached to someone." Mr. James: - "When the men required rails, do you think they would go into old workings searching for them?" Witness: - "The men would search every place that they thought there was a chance of getting them, because rails were scarce." Mr. James: - "But they did not go into places considered dangerous?" - Witness: - "Some of the men would, I have no doubt." Mr. James: - "Then he must be a very wicked man or a great fool!"

The Coroner: - "Really Mr. James, I must confine you to asking questions only. I can't allow you to respond to answers given by the witness in that way." Mr. James: - "Well, I can't help expressing myself." The Coroner: - "But I can't allow you to do so in that way."

William Thomas, another of the committee appointed by the colliers to examine the workings after the explosion was also examined. His evidence was much the same as that given by Griffiths. At 3 o'clock the inquiry was adjourned until Monday morning.

Monday, July 19th 1869

The inquiry was again resumed on Monday morning July 19th at the New Inn, Pontypridd. **William Thomas**, who was under the examination at the rising of the court on Saturday afternoon, was recalled and continued his evidence. He made an examination of the pit a few days after the explosion and had come to the conclusion that the explosion had taken place in No. 6 north, in the west heading. His opinion for forming that opinion was that the timber and brattice in this part were burnt.

The Coroner: - "Did you turn your attention for the purpose of finding out where the explosion really began?" Witness: - "For what I saw it must have begun about the middle of the heading. It might have started somewhere else, but there is no doubt it did take place in that heading, for the fire there was very strong. The timbers were very much burnt and marked, and were blown about in different directions." Q: - "Have you had any conversation with the other men as to where the explosion occurred?" - A: - "No; I was not acquainted with the

district before the explosion. The man who accompanied me in the inspection used to work there. His name is Daniel Philips.”

Mr. Wales: - “Was Phillips at work in the district the day before the explosion?”

A: - “I don’t know.”

Phillips, who was in the room, here made the remark that he was not at work there. By the jury: - “On the night of the explosion I was working in the south Rhondda.” Q: - “Did you ever notice that the air was much stronger some days than others? – A: - “I saw no difference we always had plenty of air.” Q: - “Was it the custom of the men to go round the pit with the fireman, and to report to the office once a month on the state of the workings?” A: - “I am not aware that that was the custom. I know that two men went round once after the old explosion. I don’t know if they went round after that.”

Daniel Phillips, the man alluded to be the last witness was next called. He stated that he had heard the evidence of Thomas as to the state of the pit after the explosion, and concurred with all that he had said. He had been at work in the Duffryn district since the last explosion. Since the occurrence of this explosion he had been appointed fireman. For five months previous to the explosion he was working in No. 5 south heading, No. 3 west level, and prior to that he had been working in No. 6, the next heading.

On the morning of the explosion witness and nine other colliers went to work in No. 5 heading. It was about 7 o’clock when they were passing the Rhondda lamp-station, and all entered the heading about the same time. Witness went to his own stall, No. 14. Everything then was as right as it should be. There was plenty of air travelling – in fact there was a strong current of air. Before proceeding to work, they all sat down together in the heading and had a ‘spell of chat.’

They had not been sitting there ten minutes to quarter of an hour when they heard a report of an explosion. The doors began to flap, those of No. 12 and 13 being blown down. His (witnesses) stall was affected by it. He and his companions were all blown into a heap, but none of them were burnt or injured in any way. All the lamps were blown out with the exception of four. As soon as they had recovered themselves he and his companions began to make their way out.

They tried to go to No. 6, but were prevented by the after-damp, which was too strong for them. They got into No. 13 stall, and followed the return course up to

the south level. They kept the lamps lit all the way. The air was good. On getting into the level they heard someone calling out for help higher up the level. They passed through the separation doors, on the crossing where they found Morgan Jones, the door-boy, and William Roderick, a labourer, lying dead.

Close to these they also found William Matthews, the haulier, and by him was lying a horse. Matthews was able to speak, but he did not say anything about the explosion. He was taken out, and died the same night. They were all much burnt and bruised. He had never heard the men complain about any of the workings in the Duffryn district. As for himself he felt as safe in his own stall as if he were in his own house.

Mr. Wales: - "Did you notice which way the doors of No. 7 were blown?" – Witness: - "I did not." William Thomas was recalled. In answer to questions he said he saw the gauging closed up, but did not notice anything there to indicate whether the explosion came from there. Philips might have noticed it, but I did not." Phillips: - "I think the timber was blown from the headings up towards the level."

The Coroner: - "Did you notice it more particularly when you went round after the explosion or when you went round to examine?" – Witness: - "Oh, not at first, but when I went round on my examination. I am sure all the doors of No. 6 were blown in. I don't think the explosion was in No. 6."

The witness was then examined by the jury in reference to the supply of material for the working of the colliery. He stated that generally there was plenty of rails, and sometimes they would see heaps of them lying idle. He had never had to go into an old working for rails. He had occasionally to go into the rubbish stall for them. There was a scarcity of cogs sometimes, but he always got them before danger came. Thomas James, the fireman, did not tell him that he must not go into work on the morning of the explosion. There had been a danger mark put up in the heading where he was working. He had never since the explosion told any person that he would not work at Ferndale again.

Q: - "Did you go to Tylacoch after the explosion to look for work?" – A: - "No."

Q: - "Now be careful, did you not go to Tylacoch looking for a job and tell someone there that the place was so dangerous that you would not work at Ferndale again?" A: - "I went to Tylacoch, because after the explosion there was not much work. I asked for work, but I did not say that I would not work at Ferndale again."

Q: - "When did you go to work again at Ferndale?" – A: - "I

commenced six days after the explosion." A juryman: - "And then they made you a fireman."

Q: - "Did you ever say the colliery was in a dangerous state, and that you were afraid to go and work there?" A: - "No." Q: - "Since you were appointed fireman do you go the usual rounds made by Thomas James?" A: - "Yes." Q: - "And not find it too much?" - A: - "The district is now divided between two of us." Q: - "And Thomas James had to do it all himself before the explosion?" A: - "Well, he was the only fireman there I suppose."

Hugh Hughes, another of the inspectors appointed by the colliers to examine the pit after the explosion, was next called. His evidence disclosed nothing of importance.

Laban Macey, a collier, stated that he was working in the pit on the night before the explosion with five other men. There had been a large fall in the return air course near the flue. They were engaged in repairing the fall, and they were about to leave off work when the explosion took place. The report was very slight – just sufficient to call attention that something had happened. There was no fire, and the effect of the explosion was not felt so very much where they were stationed. It did not blow out the lamps.

He had never had occasion to complain of an insufficiency of pitwood, but there was always a scarcity of cogs. He had applied for cogs to keep up the roof, and a week had elapsed before he could get them. There was a general complaint throughout the works that there was a scarcity of rails. He had never heard any of the agents tell the men that they must keep up the tops without cogs, but he had heard some of the men say that they had been refused.

A collier, named Joseph Lloyd, was one of the men he had heard make that complaint, but he had left the district, and had not been seen since the explosion. His opinion was that there had been within the last few months an insufficiency of labourers. He believed the explosion took place in No. 7 dip. His opinion was founded on the direction in which the doors were blown. So far as he was able to judge the doors were very nearly all blown in, but it was very difficult to come to a conclusion where the explosion took place in a pit like Ferndale.

So far as he had been able to ascertain from conversations with the men, they did not anticipate and explosion, but were rather astonished that it happened.

The fall, near the flue, was about 50 tons. It did not impede the current of air, and the flues were not prevented working. When the court rose about 6 o'clock, the Coroner announced that the inquest would be further adjourned to Friday week.

Mr. Bedlington examined

On Friday July 30th 1869, Mr. George Overton resumed the inquiry in the circumstances of the Ferndale Colliery explosion. Since the last day on which the court was held, the body of Morgan Jones has been found. It was not much burnt, his clothes being found all right. No doubt the man had been suffocated by the after-damp.

The first witness called was Mr. **Richard Bedlington**, the manager, who said: - "On the day of the last meeting here we were engaged all that night in opening the gauge of the cross-stall in No. 7 dip, where the fire took place. We found that there were serious falls in the cross airway. Having cleared on Tuesday last we reached a body which was about forty yards to the East of the stall in the cross airway. It was the body of Morgan Jones, who was working in the No. 7 dip heading. There was a large fall at the top of the heading. The men tried to get over that fall, but they failed to do so, in consequence of the height of the fall and the great heat which prevailed.

Since then we have had a consultation, and we are now clearing towards that fall. From the great heat given out, we came to the conclusion that the fire is still there, and we did not think it prudent to draw off the water. Mr. Wilkinson, Mr. Wales, and the others are consulted on the matter, and we have come to the conclusion that it was desirable to continue working down towards that fall. I cannot form an opinion as to when this portion of the pit will be cleared."

By a juror: - "We must not draw off the water, as the fire is still there. Mr. Wales explained that if the water was withdrawn the face would be filled with inflammable gas, and then more explosions would follow." In answer to question by the jury, Mr. Bedlington gave sundry explanations as to the effect of the works undertaken to put out the fire.

David Jenkins, collier, Ferndale, said: - "I have worked 10 months on the Duffryn side of the colliery, in No. 5 dip. I was there on the morning of the explosion, and at the time the explosion occurred I was sitting a little way from my stall. I went in at the same time as Daniel Phillips and the other men working in that

heading, and who all escaped. I was working in the 13th road, but I had not commenced work when the explosion occurred. I had sat down to have a chat, and I heard something that I cannot describe, but I was knocked down by the force of the concussion. I rose up, and I and my mate tried to go up the dip, but I told him we would turn back and go to a heading which I knew of, as we might find fresh air there. We went in as far as we could, and heard a man groaning. We tried to reach the man, but did not succeed.

We turned back from there, and met others on the parting. After a consultation we came to the conclusion that there was no way of escape but through the old works. On our way we came to a door which had been blown down, and I found a man and a boy there, near a tram. One of the bodies was burnt, I perceived. I had been working in the pit all that week and saw gas in the heading on the Monday morning when I was coming out. As I was opening the door of the heading I saw two men standing with some bratticing. I asked them what it was they had there, and they said they had orders to put up the brattice this morning. I asked them if there was fire there, and the old man said 'Yes.' The old man was David Samuel, I believe. George Chamberlain was with him. David Samuel asked me to lend him my lamp, and he caught hold of it. I said, 'Hold on, if you take my lamp in, you must slack the flame.' I followed him, and saw the gas flaming. Then I took the lamp from him.

I called then to Daniel Phillips, and tried it myself, and found it 4 yards more back than where the old man had gone. This was at the parting next to the lowest door in the dip. There had been a heavy fall from the roof near where I saw the gas, and very likely there was gas in the roof where the fall had taken place. I did not look again before the explosion to see if gas was still there, but the brattice was there, and I suppose it was put to work the fire from the place where I had seen it on the Monday before the explosion.

I saw the brattice on the morning of the explosion. Daniel Phillips and I talked about the fire as we passed the place in going to our work. Phillips did not try whether the gas was there, but we noticed the brattice, and Daniel Phillips said the gas would be there until some of us would be removed with it. I did not see Daniel Phillips try the gas that morning. I got timber when I wanted it by going to the yard for it, but I could not get cogs when I wanted them. I don't know the reason. I had to wait many times for them, and came out for the want of them. That was a general complaint among the colliers. If we don't get cogs the top comes down. The top of that colliery is irregular – some parts are good and others are loose. The court then adjourned for a short time."

On reassembling **John Price** was called. He said: - "I am a collier, and live at Blaenllechau. I have worked at the Ferndale Colliery these 20 months in the Blaenllechau district of the colliery. During the time I have been there we have had plenty of timber, but cogs were short. I took the liberty one night of taking two cogs without permission, because I thought they were necessary. The fireman was round in the morning, and knocked one of the cogs out. He tried to knock the other out, but he saw there was too much danger. Next morning the fireman (Thomas Price) told me he had knocked one of the cogs out, and he said they were not allowed to be used without his consent. I went to my work, and saw the place was not fit for me to work in, and I went home. The second day I went to my work as usual, and after I had given my lamp to be locked, the man said my stall had fallen in. I then returned home, as I could not go to work. He wanted me to clear it, and I refused. I was idle three days. After that I went to work, the stall having been cleared. The men generally complained that they could not get cogs when they wanted them. I have had 25 years experience, and I considered the cogs were necessary for my safety." By a jurymen: - "I did not hear any of the men say they expected an explosion before it occurred."

William Thomas, a collier said: - "I live at the Hafod, in the same parish as Ferndale Colliery. I worked at Ferndale for 12 months, up to the day of the explosion. On the day that the explosion occurred I was at work in the Rhondda side, and was not affected by the explosion. I knew the Rhondda side very well. I worked in a stall 7 or 8 months to join the work in the Contractor's heading, and during the time I worked there we were very much troubled by blowers. The gas was often so bad that I was quite giddy while I was at my work. I frequently drew the attention of John Hughes, the fireman, and William Walters, the overman, to the state of matters in that part of the pit. Walters would say there were no blowers in the place, but once he put his lamp up where I said the blowers were, his light was put out." Mr. Wales said that was one of the best tests – that the gas put the light out.

Witness was further examined, and he said this had taken place several times, and Walters had on some occasions stopped the men from working for a day. When I was sent home in that way I lost my day's wages. I believe I lost eight or nine days in the seven or eight months from the presence of gas in my stall. If Walters did not send me home he would tell me to go on cautiously. When I required rails for my work I used to ask the fireman and he directed me where to fetch some from. I used to fetch them from the old works. That was the general

custom in that part of the work.” By Mr. Wales: - “I never found gas in those old stalls. I used to take a lamp in.”

By a juror: - “The air was very regular when I was at work, in general; but on the day of the explosion one of my mates said the air was not as good as usual. After the explosion occurred, I heard that there had been a fall in the wind-way.”
By the Coroner: - “I have had three prizes for cutting coal. The prizes were for those who had filled the most coal on the trams. If I put 11 tons on 10 trams and another man only put on 10 tons on 10 trams, I should get the prize. Many had more coal than I, but I had more coal on a given number of trams.

By a juror: - “Other men could get more trams than I filled. The trams were not regulated alike through the works. On the Duffryn side they were better regulated than in some other parts. In that heading other men did not get more trams than I did.” By the Coroner: - “I believe I got the prize because I took more pains in loading the trains, and by that means I got more coal in a month than other men. Where I worked I had the best chance of piling up the coal on the trams, as the headway was much larger in my stall than the headway of the other stalls in that district. Two prizes were given – the first 20/- and the second 10/-.”

Abraham Crook said: - “I live at Dinas now. I used to work at Ferndale. I was there eight or nine weeks, up to the day of the explosion. I worked on the Rhondda side, in No. 4 heading. While I was working there I found some gas, and I asked the fireman where it came from. He said it was from a blower on top of the gob. A canvas brattice was put up, but the gas was not cleared away. I stopped work, and told Mr. Rees about it. He told me to come on Monday, and he would do something to it. I went to work on the Tuesday morning, but there was no danger signal there. James Roach, a fireman, was there that morning, and he put some brattice up, and it cleared the gas away. Then I went to work, and worked all day. This was the Tuesday before the explosion. I did not work on the Wednesday, and on the morning of the explosion I was in the pit, and I had not commenced work when the explosion occurred. I did not feel anything of the explosion. We did not use powder in that part of the pit. I am a smoker, but I did not smoke in the pit.” By the jury: - “I did not notice anything unusual on the morning of the explosion. I heard no complaints by any of the men that they dreaded the gas that was in different parts.”

William Davies, a collier, living at Blaenllechau, said: - “I worked at Ferndale about five years. On the day of the explosion I was working on the Duffryn side,

near the dumb drift. I had worked there about three weeks, clearing the return. Three men and a donkey were employed in the return for that period. There had been a fall in the return between Duffryn and Blaenllechau, and I was engaged with the others in clearing it away. It was a large fall, but it did not interfere with the air current.”

This man gave his evidence in a very strange manner, and the jury were of the opinion he ought not to be asked anymore questions. He was in the dumb drift at the time of the explosion, it appears, and was taken out of the pit in an insensible state.

Edward John, living at Blaenllechau, said: - “I have been working at Ferndale twelve months. It was my duty to travel through the air-ways of the south Rhondda. I did not see any gas in the airways at any time to any great extent, and not any a little time previous to the explosion. I did not see any gas in Thomas Griffiths’s stall, but some months before the explosion he told me that one day there was some gas in his stall, and that caused him to leave work before his time.”

Thomas Griffiths, a collier, said: - “I have worked in the south Rhondda portion of the Ferndale colliery. About four months ago I was driving a heading, and Henry Williams, who was working in the foremost stall, came to me and said there was gas in the stall, and I went to the stall with him. I could see that there was some gas in the place, and I told him to take care, for fear there should be too much. Williams came to me again in a short time, and he said the fire was rather strong in his stall. I went to the stall, and we tried it. The gas was in the top, and we found that it extended every step from the face to the parting on the heading. We settled then, one with the other, to work no more that day. That was between 3 and 4 o’clock in the afternoon. I met Walters at the lamp station, he asked me why I was going out so soon? I told him it was getting a little warm there. Walters asked if it was different that to any other day, and I told him it was, and that there was a little gas in Henry Williams’s stall, and I did not like to stay there, as I could not see that it was fit for us to be there.

The stall was cleared of gas when we went in the next morning, and the foreman told me the heading should be stopped, because it was going a little before the air. It was stopped that day. I was in the pit at the time of the explosion, and had been in during the night, but I did not observe any difference in the air that night. I was in a part of the pit away from the explosion, and I knew nothing about it until I got to the bottom of the shaft.”

A conversation then arose as to the further prosecution of the inquiry, and Mr. Wilkinson gave his opinion that the colliery would not be thoroughly explored in less than two months, as the obstacles to be overcome were so serious. The inquiry was then adjourned until Monday, the 27th of September, at 12 o'clock.

The last bodies

The '*Merthyr Express*' of Saturday, Sept. 4th 1869 reported: - It will be remembered that the inquest on the bodies killed by the explosion at the Ferndale Colliery, was adjourned it was stated that some weeks must elapse before it could be thoroughly explored. Several bodies were then in the workings, and it was only as the men were able to clear the falls and restore the ventilation that they hoped to recover the bodies of those remaining in the pit. The last three bodies left in the colliery have been discovered and brought to the surface. On Sunday, August 29th the body of James Griffiths was recovered, and on Tuesday, August 31st those of Richard Jones (21) and Edward Davies (25). The bodies were recognised by their friends and speedily interred. Immediately on the recovery of the last bodies the colliers turned out, in consequence of some feeling they entertained against the manager, Mr. Bedlington, since the explosion.

Monday, September 27th 1869

The tenth sitting of the Ferndale Colliery explosion inquiry was re-opened on the above date at the New Inn, Pontypridd, by Mr. George Overton, County Coroner. The inquiry had been adjourned from the 30th of July for the purpose of giving time for the water to be got out of the pit, and a report to be made on the state of the No. 7 dip; which was the portion of the mine then flooded. It will be remembered that it was this particular dip, which fired on the night of the explosion, and several of the witnesses who were examined in the earlier stages of the inquiry concurred in assigning this as the place where the explosion occurred. The time occupied in getting out the water was 22 days. It was expected that the inquiry would be brought to a close today.

David Rees, under viewer, was recalled. He said: - "After the adjournment of the inquiry on the 30th of July steps were immediately taken to explore No. 7 dip, No. 1 west left level, which was then on fire and full of water. The steps taken to explore the mine were these: - We passed along the windway leading from No. 2 stall into No. 1 stall, and cleared away the surplus of the water. After reaching the top of the heading, and securing the places where the falls had taken place

with timber, we turned back to No. 1 stall, and when about halfway down the heading, just between No. 1 and No. 2 stall, we came upon the effects of the fire.”

Mr. D. Davies: - “What was the heat there?” Witness: - “It was something very great.” Mr. Bedlington: - “It was 135 degrees.” Witness: - “The timber was all charred, and and the coal was coked. We did not see any live fire at all. We proceeded into the No. 2 stall, and on going down the windway into No. 3 stall, we discovered the last signs of the fire. The fire had extending about 7 or 8 yards from No. 2 stall and no further.” Mr. Brough: - “Why did you not put out the fire at once?” Witness: - “It was too much of a job that night. Several men gave their opinion, and all concurred that it was too much of a job to get hold of.”

Witness continued: - “After clearing out No. 1 and No. 2 stalls and getting the ventilation right, we commenced to get the water out. We began to get the water



John Davies 1897 - 1963
After his first day down the Ferndale No. 1 coal mine aged 12
(Photo courtesy of Mr. Tudor Williams)

out on the 25th of August, and we were engaged for 22 days in pumping it out. Siphon pumps and hand-pumps were used. On the 29th of August, we found the body of James Griffiths, a collier who worked in the No. 1 stall. The body was lying about four yards from the parting leading to No. 1 stall. The body did not appear to have been burnt at all; at all events, there were no signs of fire on the man's clothes.

The body, of course, was very much decomposed. Soon after we found near the same place the bodies of Edward Davies and Richard Jones, colliers, one of whom worked in No. 5, and the other in No. 6 stall. There was a serious fall at that part, and the bodies were found under the rubbish. They were not burnt at all. The Two lamps of these and the lamps of all the men who worked in that part were found in proper order. They were all locked but one, which belonged, I believe, to Edward Davies, but I should not like to say positively.

The lamp belong to Griffiths was found near the face of No. 3 stall, where one of the other men worked. Judging by the way in which the way in which the bodies were found Davies appeared to have been just entering his stall." By Mr. Davies: - "Four of the bodies were stripped as if ready for work, and two were not."

Witness continued: - "The clothes of the men were found in No. 3 stall. There was no trace of fire upon them. There were traces of fire on the frame of the door." Mr. Brough: - "It was not gas fire, I suppose but part of the standing fire?" Witness: - "That was it." The Coroner: - "This was a separate and distinct fire?" Witness: - "It was just a little bit." Mr. Brough: - "Was it 6 or 7 yards lower down than what you have mentioned?" Witness: - "That is all with the exception of that there were no signs of fire in any of the other stalls. There were seven stalls altogether in the heading. I am satisfied that the fire was confined to the small space I have already described. I do not think the explosion commenced there. I am quite sure that in clearing away the falls at the entrance to No. 7 we found the doors of the parting leading from No. 1 to No. 7 dip. They had been blown in from No. 1 level."

The Coroner: - "You are sure of that, because we have it in evidence those doors were all blown to pieces?" Witness: - "Yes; they were all blown to pieces, but we found the pieces and the irons under the rubbish. From what I have just said, I imply that the explosion must have been outside these doors. Indeed all the men I have spoken to concur in that." Coroner: - "Then that does away with the theory that the explosion took place in No. 7."

Witness continued: - "When I last examined it I held the opinion that the explosion must have taken place in No. 1 level and now I am inclined to think it took place between the parting of No. 7 dip and No. 6 dip, because the doors and everything else were blown from this point. I believe the gas was ignited by a man whose body was found there. I was informed that immediately after the explosion a body was found there, and carried down to the parting. From the description given to me of the body, I believe it to be that of a haulier named John Davies, whose horse was found dead in No. 1 stall, No. 6 dip, who was wrongly described as having been found in that heading."

The Coroner then referred to the evidence of James Murray, given at an early state of the inquiry. Murray stated that he was one of the first down in the pit after the explosion, and he formed the opinion that the explosion took place between No. 6 rise and No. 7 dip. Murray also stated that there was a second and third explosion. Witness: - "I don't believe there was a second and third explosion." Some conversations took place as to whether the haulier had any business to leave his horse and go to that part of the district where his body was found. Neither Mr. Rees nor Mr. Walters, the overman, could give any definite answer on this point.

Mr. Brough remarked that from the place where the horse was left to where the body was found would be about 110 yards. Police-constable Tamplin was called, and in answer to a question said that there were no signs of fire on the body of Davies. Mr. Walters, in reply to a question said: - "Since I last gave evidence I have ascertained that the doors of No. 7 parting were blown in, and that induced me to change my mind as to the position of the explosion. I am now satisfied that the explosion took place outside, in No. 1 west heading. I do not think there was more than one explosion."

The evidence of Mr. Rees was then continued. In reply to the Coroner, he said: - "I don't know that Davies, the haulier, had any business to go up to any part of the heading from where his horse was found. I believe, as I have already stated, that the gas was ignited by the man whose body was found where I have mentioned. I can give you no other reason for the explosion, but I am quite persuaded that it must have taken place between No. 6 and No. 7." The witness then produced his books showing the air measurements in the pit.

The total quantity of air at the time the explosion took place in June was about 113,512 feet per minute. In south Rhondda it 26,120 feet, and in north Rhondda, 13,720 feet. In the Duffryn district the total quantity was 39,860 feet.

On the 18th of February, the total quantity per minute was 124,547 feet. The total quantity at that time running into the Duffryn district was 44,625.”

The Coroner: - “I find that in January, February, and March – indeed, on every occasion up to June – you had more air than at the time of the explosion.” -

Witness: - “More or less.” Coroner: - “I don’t find that it was any less at all. It was more in March than it was in February; so coming nearer to June, we find the discrepancy greater.” Witness: - “On the 15th of April, the total was 199,225, being considerably less than it was in March.”

Coroner: - “Take any month you like, January up to June, you will find there was hardly one day where the quality of air was not 6,000 feet more than in June. Is that not the case?” Witness: - “Yes.” Coroner: - “I don’t see an account of the measurement taken in May. Was there one taken?” Witness: - “The anemometer was sent away to be repaired. There is one thing to notice. In June the water gauge was at 230, while in April it was only 110.” Mr. Brough: - “That is easily accounted for.” Coroner: - “I believe that while the quantity of air fell off, the quantity of coal increased. Can you explain that?”

Witness: - “No, sir; there was a decrease of coal in the last month.” Coroner: - “I believe the average quantity of coal got per week was 500 tons.” Witness: - “I gave it at 460; but I took the average of six months.” Coroner: - “How many days did you take in the week?” Witness: - Working days – six; and the average quantity was 460.” Coroner: - “Do the colliers work more than four days a week?” Witness: - “Well, taking the whole of them, they don’t.”

Mr. Hill (a juryman); “Oh, six days, six days. They work except Sundays.” (Laughter). Coroner: - “Then if we take the average we consider that the men, or at least some of them, don’t always work six days, it would give about 700 tons a day?” Mr. James: - “Because all the colliers don’t work six days that does not increase the average at all.”

Witness: - “They were not tons but trams.” Coroner: - “They are about equal I believe.” - Mr. Griffiths (a juryman): - “What is the average of the tram?” - Mr. Bedlington: - “We generally count five to weigh for four tons.” Coroner: - “That is a long weight I suppose?” Mr. Bedlington: - “That is the colliers’ weight.”

Mr. Hill (juryman) here got up, supporting himself by resting his two hands on the table, said: - “The object of this inquiry is the causes of death.” Coroner: - “Well?” Mr. Hill: - “I think we are going round about a vast deal to come to that point.” (Laughter). Coroner: - “I am sorry for that.” Mr. Hill: - “I don’t know that,

you are not God almighty, I expect that you think you know all things; but why ask certain questions that are irrelevant?" Coroner: - "Sit down." Mr. Hill: - "Very well. Now, look here - -. Coroner (interrupting): - "Sit down sir. You will oblige me more than anything else by sitting down." Mr. Hill: - "Excuse me, with that difference I believe you are the best Coroner in the whole kingdom, and I should like to give you a little bit of something. (Laughter). Coroner: - "Stop, stop; or I will be obliged to adjourn." Mr. Hill: - "Well, adjourn. You are asking foolish questions." Coroner: - "Do sit down, sir." Mr. Hill quietly sat down, and the examination proceeded.

Mr. Bedlington remarked it was in work every day, and not four days a week only. The witness Rees continued: - "I don't know that in my previous examination I said anything about the men being "so few that we could not get the work of clearing done." Coroner: - "A few days previous to the explosion, I think, there were a great many falls in the pit?" - Witness: - "Yes, that week there were; on the Monday and Tuesday." Coroner: - "So, then, a few days before the explosion you had an unusual number of falls?" Witness: - "Yes, Sir."

Coroner (reading from the report book): -"We had a great deal of trouble through every part of the workings." Mr. James: - "The falls spoken of were cleared away every day, I suppose?" Witness: - "They were, all." By the jury: - "We had six wastemen, but I don't think that was quite enough to keep all the airways clear at all times. I don't know what precise number would be required to do the work, because we may require six today, twelve tomorrow, and perhaps the day after." Question: - "How do you account for the quantity of air decreasing?" Witness: - "I can't attribute it to anything more than the weather. In the winter, the wind is sharp and keen; we always find more ventilation in collieries in winter than in ,summer time. That is my experience, and I can account for the difference in the quantities of air in no other way."

Mr. Hill here again rose, and addressing the Coroner said: - "Am I allowed to speak?" Several jurymen; "No, order, sit down." Mr. Hill: - "Well, I am a jurymen." Coroner: - "What is it Mr. Hill?" Mr. Hill: - "I have two little boys working under Mr. Davies, and I want to know _____. Coroner (Interrupting): - "Don't make a speech, please." Mr. Hill: - "I am am not going to make a speech. But the question is this: - Are my boys to be subjected to something like this, in consequence of dire neglect, and I can point out to you that it is dire neglect _____." Coroner (interrupting): - "Sit down, please." Mr. Hill: - "I say dire neglect _____. Jurymen (interrupting): - "Order, order."

Coroner: - "Please sit down, and don't interrupt with any more speeches." Mr. Hill: - "I'll lecture you, then." (Laughter). This is dire neglect, carelessness, everything _____." He could get no further, and amid loud calls of "order," Mr. Hill sat down. However, he was quite irrepressible, and until the end of the sitting continued his interruptions either by such exclamations as "order," "silence," or some laughable grimace of gesture. Once or twice he endeavoured to get on his legs again evidently with the object of making a speech or taking some objection to a question, but he was kept on his seat by the jurymen who were sitting immediately to his right and left.

Mr. Brough threw out a suggestion with regard to the wastemen employed in the pit. He thought it would simplify the operations in the colliery, and also tend to its better working if a master wasteman and a master shifter were appointed at the head of organised gangs. The Coroner shaped the suggestion into the following question to the witness Rees: - "Don't you think it would be better to have a master wasteman with an organised gang for the returns, and a master shifter with an organised gang of shifters to keep the pit in order?" Witness: "I approve of the first. With regard to the second, I don't know, we always give a certain amount of labourers to every fireman in his district."

Joseph Lloyd, a collier working at Ferndale, was next examined upon the supply of cogs. He said: - "For about four or five weeks after the first explosion there were plenty of cogs, rails, and timber. After Mr. Bedlington began his management we were short of cogs and rails. I asked him one day for rails, and he told me there were plenty lying idle in the next dip to where I was working. I had to get the rails out of that dip. We would be a fortnight or three weeks without cogs. I asked Mr. Bedlington for cogs one day, and he asked me if I could not keep up the top and work without cogs. I said I could not, and he said I must. He said he had worked on worse ground himself without standing cogs. I tried twice to work, and the top fell. Each time about 5 or 6 yards came down."

Frank George Murray was recalled. He said he was still of the opinion there were two or three explosions. He was the first man who went up No. 1 west heading after the explosion. He found a body of a man there. The body was carried down to the double parting below No. 6. The man was burnt about the head - from the forehead to the back part, but not on the sides. He subsequently ascertained that this was the body of John Davies, the haulier.

His lamp was afterwards found a few yards below the fall at No. 7 dip by a man named John Thomas. He (witness), thought it probable Davies was going up the

level, and got into some gas. Finding his lamp foul of gas, he might, in the surprise of the moment, and not knowing what to do, had dashed it down, and thus caused the explosion.

Richard Bedlington, the General Manager of Messrs. Davis Collieries, was recalled. He said: - "We have had an under-viewer, an overman, and an assistant overman, at Ferndale. At the time of the explosion we had four day-firemen and two night-firemen. I never had any complaint from the under-viewer that the firemen had more work than they could do. There was one exception. The under-viewer told me that Thomas James, one of the firemen, had asked for assistance, and that he had appointed John Williams to take part of his district.

There was a register and report-book kept by the firemen, in which were entered the readings of the barometer, and the thermometer, and the water gauge, and the quantities of air. Entries were also made if any gas was found, and whether it was clear or diluted. I presume it is understood that however many blowers there may be in the colliery, we cannot help it. We have no control over the blowers, we can only dilute them. We have no more control over them than a farmer has over a shower of rain. I was not informed of any danger arising from an accumulation of gas previous to the explosion. There were several blowers, but they were kept diluted. Sometimes they would appear in one place, then disappear, and turn up in another." Mr. Brough: - "It appears to me that the normal condition of the colliery is blowers."

Mr. Bedlington continued: - "I believe there was an ample amount of ventilation. One-hundred-thousand cubic feet per minute would be ample enough, and that is what very few collieries have. The ventilation at Ferndale varies from 130,000 to 120,000 feet per minute. On the day of the explosion I went over the pit assisting in finding the bodies and organising the ventilation. In the evening I was informed that smoke was issuing from No. 7 dip.

Several others and myself examined the place, and we were all of the opinion in that it would be impossible to penetrate the smoke, it was so thick. We were also unanimous of opinion that it would be better to close up the three entrances to No. 7, and it was accordingly done that night. We allowed a few days to pass by, and it was then thought advisable to let water in. No time whatever was lost, and we have since then day and night, and many Sundays, to get the pit clear, in order to facilitate this inquiry.

I deny the statement of Joseph Lloyd that I ever said that he should not have cogs. I did not interfere with the cogs, but left that to the proper officers, who could attend to such matters in detail, for I had no time. I was in the habit of going through the colliery once or twice a week. I was through it on the 4th of June, and again on the 9th."

By Mr. Wales: - "I did not interfere in any way with cogs. I did not stipulate the quantity that should be supplied, either to the pit as a whole, or to each district." A Juryman: - "Are cogs required at the pit, or are they not?" Witness: - "They are required in many places." At this stage the inquiry was adjourned until 9 o'clock on Tuesday morning, September 28th.

Conclusion of the inquest

Important evidence of Government Inspectors

This inquiry, which has been extended over a period of about three months, was brought to a close on Tuesday, September 28th at the New Inn, Pontypridd. The court resumed at half-past-nine, and concluded at 5 o'clock. There were present: - Messrs. Wales and Brough, Government inspectors of Mines, Mr. D. Davies, Mr. C. H. James, and Mr. Richard Bedlington.

The examination of **Mr. Richard Bedlington** was continued. He said, in answer to Mr. James: - "I have performed my duty as manager under the first special rule. I appointed competent agents, and instructed the several officers as to their duties. With regard to rails, I never consider them a question of safety at all. I have not had a complaint of a single man losing a day for want of rails.

As the roads were finished the rails were taken up and put elsewhere, and that is the customary rule in all collieries. I am not aware of the exact mode in which the rails were distributed. That was a matter I left to the officers on the spot. I did not see any deficiency in the supply of pitwood. The day before the explosion I was asked by David Rees, the under-viewer, to stop the supply, as the place was choked up with it; and, on inquiry, I found there was then about a month's supply on hand.

We keep all the rubbish in the pit, and the roads are filled up as we go on. The roads that were not filled were kept free from gas. It is plain that if a colliery works 500 tons a day there must be a large vacuum somewhere, and in many collieries where the veins are thick the roads are not all filled up. In most of the

collieries in England and Wales the roads are not all filled up; it would be an impossibility where hundreds of thousands of tons of coal are taken out.

I consider that everything was done to fill up the roads as far as materials went. The ventilation of the colliery is organised as to comply with the first general rule. I will explain the difference in the ventilation on the 2nd of June, and the 15th of April. I account for it on the ground that the flue was not driven so well, in consequence of the water gauge being less on that day than when the ventilation was taken in April. I made a note to that effect at the time in the register. The ventilation of all collieries ventilated by flue will vary according to the seasons.

In the winter there would always be a greater amount of ventilation than in the summer. The quantity of ventilation at Ferndale was more than ample, and beyond the necessities of the colliery at the lowest point. With regard to the labour performed at the colliery, I have made out an account giving the numbers of "turns" or days worked in the months of January, February, March, April, and May. In January there were 1,043 turns; In February 1105½; in March 1,090; in April 1,231; in May 1,133.

In April there was more than the average number of men, and it was explained to me that there was extra work to be done in repairing some headings. That shows, too, that when extra work was to be done, extra men were put on. During the previous year there was a good deal of clearing up consequent upon the former explosion, and we had a great number of extra men. When the clearing-up was done, their number was of course reduced. We got into our normal state somewhere about the beginning of the present year.

The overman is practicably the master wasteman. I was never asked to appoint an independent master wasteman by the existing staff. The quantity of coal worked in the months of January, February, March, April and May, were as follows: - In January 11,594 tons; February 11,537; March 10,882; April 10,892; May 10,656. From the 2nd of May until the 10th of June (the day on which the explosion took place) the quantity worked was 5,863 tons, to give a total of 61,426.

With regard to the evidence given by Griffiths, that gas was found in Caswell's heading, I have just one remark to make. I heard gas had been found in the heading, and I went there – I cannot say whether it was the following day, but it was somewhere about that time – and found the place was properly fenced off. I had great difficulty in pushing into the stall, and I found a little gas about the

middle. At the far end of the stall there was no gas at all. There were no workings in the district.

I can only account for the statement made by Griffiths upon the supposition that he did not go into the stall, but retired as soon as he came upon the gas in the middle. This, too, was in the Rhondda district, and the explosion did not take place there. We have since begun to fill that heading, but we have not finished. I am paid by salary only." By Mr. Wales: - "My salary is quite independent of the quantities of coal got or the price paid." By the jury: - "With regard to the system of allowing timbermen to employ strangers to assist them, no man is allowed to go into the colliery unless provided with a copy of the rules. The timber-man's assistants are examined by the overman as to fitness, and he exercises a discretion in their being rejected or employed." The foreman: - "Do you think that system is a safe one?" - Witness "Yes." Mr. Brough: - "What you want to know is Mr. Richards, I suppose, that ploughmen and Irish reapers cannot go into the pit and blow it up?" - The foreman: - "That is my meaning." Witness: - "Those men are under the supervision of the overman and the officers of the pit, just like a collier. The colliers are paid by the ton, the masons by measurement, and the timbermen by contract. As I have said before, Caswell's heading is being filled up gradually. I did not tell David Rees at any point in time that it could not be filled up. It is not now filled up, but in the course of being filled up. It will take twelve months to fill it up. I desired David Rees to see that it was filled up, and gave orders to have the place kept clear of gas.

Coroner: - "You say you desired it to be filled up. Do you think that was your duty as the responsible manager?" - Witness: - "Yes, I consider that it was the extent of my duty to issue orders." Coroner: - "You did not go to see whether it was done?" - Witness: - "I have no recollection of going there to examine it, but it is going on. I may have gone to see it, but do not recollect. I have so many places to go so that I can't recollect every place. It was in the Rhondda, out of the district of the explosion altogether."

Coroner: - "You have said that before, Mr. Bedlington, but let me say that whether it is in the Rhondda district or not does not matter. You must remember that all these things reflect upon the management of the colliery."

A juryman: - "Do you consider that the ventilation was ample on the morning of the explosion?" - Witness: - "I believe so. The report books and the reports from the different firemen say so. I was there the day before the explosion, and

no complaint was made to me by anyone. The waste-men were reduced by my orders.” Coroner: - “It would appear from your journal that there were more falls and disasters of that kind lately than at the commencement of the year, about which time you said you gave orders to reduce your waste-men.” Witness: - “These things vary in a colliery. I go through different parts of the colliery once a month and more frequently if necessary. I say cannot say when I was last in the Duffryn district prior to the explosion.”

Coroner: - “Do you not keep a minute book?” – Witness: - “No, I do not. But I believe I was there the month before. I go over different parts of the pit once a month, and on these occasions I examine the headings, stalls, and so on. Judging from the position of the doors and other circumstances, I believe the explosion took place either about the top of No. 7 dip, on the main west level, or from there on to the bottom of No. 6 north heading.”

By Mr. Wales: - “No shot firing is permitted in working coal in any part at any time.” Witness mentioned one or two instances in the Rhondda district where shot firing was allowed at night in the “top” and not in the stalls. After two witnesses were called by Mr. James and giving some general evidence, the statements of the Government Inspectors were taken.

The statement of Mr. Lionel Brough

Mr Lionel Brough said: - “I am the Government inspector of the coal and ironstone mines of the south-western division of the kingdom, and I have assisted Mr. T. E. Wales by the order of the Right Hon Secretary of State from the Home Department. I have been twice in the Ferndale Colliery since the explosion. The first inspection took place on Wednesday, the 16th of June, and second underground visit was on Thursday, the 15th day of July. I have listened to most of the evidence given in this court since it was opened, and that which I did not hear has been supplied to me by my colleague. Ferndale is aired by furnace power, but Mr. Wales’s description of it is more complete than mine, in as much he is more intimately acquainted with the colliery that I can possibly make myself by the mere inspection of a couple of days.

Suffice to say, then, that on the 15th of July we made out that the various currents of air amounted to 102,047 cubic feet, but then it must be borne in mind on that day the water was nearly roofed on the top of the No. 7 dip heading, so that the normal quantity of wind was not then actually passing. Five days after the explosion, Mr. Wales informed me that he found a larger quantity

than that which I have just recorded. My own opinion is that when all was going well the average amount of fresh air passing down the winding-pit would not be less than 110,000 cubic feet per minute. I do not see but that that would be sufficient to meet the contingency of the Act of Parliament as far as “ordinary circumstances” are concerned.

But as at times the Ferndale Colliery, and indeed most others, is liable to extraordinary abnormal conditions, then I would very much like to be more on the side of safety, and for that reason it would be desirable to advocate the words “under ordinary circumstances” should be in any future legislative enactment be struck out of the first general rule. However, it is the existing statute that guides us in the present inquiry, and I must repeat that I am not here to state that 110,000 cubic feet of air was too little ventilation of the Ferndale Colliery. Nevertheless, if more wind could have saved all those lives on the 10th of June, then the value of the expunging of those three words would be made manifest.

I am conscientiously of the opinion that the rule would have been better, clearer, if those three words had never been inserted at all, and their expurgation will be the initial step towards the reduction of the number of deaths that take place by explosion of fire-damp underground. If the present quantity of air should be found insufficient to keep this colliery safe, then the owners will be bound to supply the required increase, and certainly the application of more power is not difficult. Nor will it be found to be very expensive. There is room enough for another furnace, and the ventilation may be rendered complete by raising a stack on the upcast, but it should be of full size and shape of the pit. One advantage, at all events, would arise from this latter improvement, even if it did not increase the volume of air – it would certainly prevent the battering to which it is liable in consequence of the peculiar configuration of hill and valleys in the immediate neighbourhood, and also by reason of the mountain storms that often prevail there.

With regard to the cause of the disaster, which brings us together today, I have formed an opinion I think is reasonably founded, but in order to give the opinion greater weight, I must premise that in all the evidence that has been tendered the allegation of the accumulation of fire-damp in the workings is but faintly supported; indeed it becomes a question of whether standing gas was really met with for some time previous to the explosion. This I hope to be true, for we cannot hide from ourselves that the deliberately allowing of the gas to gather together in working faces and travelling roads and letting it remain there, would not only be a violation of the law, but also an outrage to humanity.

Blowers are deposed to by various witnesses, and their frequent appearance is beyond all doubt, but that the gas remained for any length of time in the working places is without confirmation. Upon the whole, these sudden interruptions of gas seem to be promptly dealt with, and so accumulations of fire-damp were not permitted. On this subject nothing could be more clear than the ruling of the Justices of the Court of Queen's Bench in the Tredegar case. The Lord Chief Justice said that "the provision of the statute is to the effect that the whole mine must be kept ventilated, to prevent the working places becoming dangerous by reason of gas accumulating in them. You must ventilate so much of it as that it will be safe for the working people." And Mr. Justice Blackburn said he "concurred in that interpretation of the rule, as laid down by my Lord. The ruling is that you shall ventilate the mine to such an extent that there will be no danger to the working places."

In all that I have said and quoted with regard to accumulations of gas and of sudden blowers, I refer of course to the circumstances in existence previous to the explosion; what happened afterwards is nothing to do with the present inquiry. I have not been able in my own district to do away with the use of gunpowder. In this respect Ferndale is better off than any colliery I habitually inspect, because, through the intervention of Mr. Wales, the owners consented to the total abandonment of shot firing in the coal. But, for all this advantage, and not withstanding such a supply of fresh air as is seldom met with in the principality, the pit has fired a second time.

It is true that the Rhondda Fach is a virgin magazine of fire-damp, which has never been tapped, as far as I know, anywhere except at the Ferndale Colliery. This circumstance assists us in some degree in understanding the nature of those heavy falls of roof and frequently recorded occurrences of blowers, and so to a certain extent becomes a clue in seeking for the cause of the explosion. I am then strongly inclined to believe that the leaving of the upper vein (the two-feet-nine) untouched has much to do with the disturbance of strata that appears so often in the journal or logbook.

In reference to that record, many entries will be found of "blowers and heavy falls today," and occasionally will be seen, "no blowers or falls today," which would almost admit the fact of blowers and falls being really the normal condition of the colliery. The "upper-four" being worked on the out-stroke, the measures above it get loosened perhaps even up to the "two-feet-nine," itself, and I entirely believe with my colleague that the concentrated gas in it, and in its

concomitant beds, acts most energetically on the roof of the larger seam, and expands itself with such force as not only to bring down the ponderous falls of top in the working faces and roadways of the “upper-four,” but also to fill them suddenly with floods of discharged fire-damp, and then a bad lamp brings about an explosion.

That indeed might take place with perfect lamps, for the physical action of a heavy fall is the displacement of air that rushes in all directions where space can be found, carrying with it the eliminated hydro-carbon at such speed that it must be a remarkable lamp that will not pass the flame. In other words, the sudden expansion of the compressed gas, and the heavy falls, are but cause and effect; do away with the action of one and the other will cease to appear. Mr. Wales and myself believe that the cessation of those phenomena, or a great mitigation thereof, will be arrived at by working the “two-feet-nine” simultaneously with “upper-four,” and a little in advance of it; and that this process will greatly modify the difficulty of working and airing the colliery.

In all extraction of coal, if it is found that one system is unsuitable then by all manner of means alter that method of working. If the mode just described will not do, endeavour to arrive at some other. There are many ways of getting coal. Anyhow, it would be far better to attempt some improved plan than to undergo another explosion at Ferndale. In my own opinion, in which I believe I am joined by Mr. Wales, the disaster we are now investigating was entirely brought about by one of those falls of roof.

This site might have been near No. 5, No. 6, or No. 7 – all north headings. In my map I have marked with the letter ‘F’ a heavy fall in each of those places. The ignition of the gas brought down would be by a lamp, perfect or imperfect, as already described. I cannot take upon myself to say which of these falls caused the explosion, but I’m strongly inclined to think it was the one between No. 7 south and No. 5 north, but either of the three would be sufficient to account for the terrible results that followed.

Moreover, the direction of the doors and disturbed timbers is consistent with an explosion at any one of those three points, and unless indeed the evidence given by Richard Griffiths shakes that view. I think he said the two doors at No. 7 were blown northwards, but that is extremely doubtful. Such then is my opinion of the cause of the Ferndale fatality, namely, a heavy fall of top.

I may add that I did not myself find any gas in my explorations, which, to a certain extent, is confirmatory of this view. I may here observe, as did in the inquest of 1867, that as an explosion is followed by a partial vacuum, it sometimes happens that timber which withstood the blast may fall in the contrary direction by the 'suck of the pit,' as it is called, therefore we should not always and invariably rely on the direction in which they might find materials prostrated.

On the occasion of my first inspection, on the 16th of June, I rather inclined to the theory that in some portion of No. 7 dip workings was to be found the source of destruction; but subsequent examination and closer reasoning convinced me that the cause of the explosion was a great fall somewhere between No. 5 and No. 7 north, as already mentioned. Now, where such a colliery as Ferndale is concerned, a strict sense of duty compels me to speak of safety lamps, so called.

The present requirement then is one that will not pass the flame through the gauze under a speed of 30 or 40 feet per second, and that class of lamps I think did not prevail in Ferndale prior to the explosion. Now, this desideratum is said to be found in the inventions of Mr. Hann, or Mr. Lindsay Wood, and that of Mr. Morrison; also, our county member (Mr. Vivian) the other day spoke to me about another lamp at the Morfa, of a very promising kind indeed, but which as yet I have not seen.

After ventilation I need not say that the most important consideration is the lighting of coal mines. In experiments lately made by practical men in the north of England, it was found that at the speed of eight feet per second, and in some instances even still lower, the gauze actually passed the flame. If this be so it is incumbent on colliery owners to use only those lamps, which are reputed to be the safest.

Men's lives must not be endangered for the sake of sixpence or a shilling in the price of a lamp. In coming near the conclusion of this evidence, I may remark that in working the 'two-feet-nine' and so preventing any falls, the prevalence of blowers will disappear to a very considerable extent. But in this way of carrying on the colliery, it will be absolutely necessary to find stuff to fill up the hollows with; and moreover, in the working faces the top must be received on a strong gob.

It will be remembered in evidence that Mr. David Rees informed Mr. Bedlington of the necessity of filling up the places. Another witness, R. Griffiths, had also

spoken of the danger of leaving places unfilled. I also beg permission to add my testimony to the same effect. Stowing or filling up all hollows will add to the security of the top and greatly assist in preventing the leakage of air. If there were no stuff in the pit it might be sought for elsewhere. But, however, if the 'two-feet-nine' and the 'upper-four' are both worked at the same time there will then perhaps be plenty of stone and stuff for 'gobbing' and filling up.

I do not know if it is any part of my duty to meddle with the alleged difficulty of procuring timber for the construction of cogs, but I must make one remark about the mode of supporting the top in the working places, and it is that nothing in the world can hold it up so well, but with the present mode of working the 'upper-four-feet' vein, the roof will come down somewhere.

And who knows but that these strong and staunch cogs have something to do with the fall of these tremendously heavy superincumbent masses in the roadways and elsewhere. I grant that a cog will securely support the top in its own immediate neighbourhood, but as the colliery is now carried on, I repeat the vast and thick roof is sure to come down in some part or other on the roads or workings. Another point in the evidence I cannot refrain from remarking on is the strange plan to which workmen were obliged to resort in order to obtain rails and other materials – that is to say, by going into the abandoned places to procure that, which is essential to the getting of their bread. If the evidence about this extraordinary method of supply is to be relied on, I cannot help expressing a doubt in my own mind to which party it is most disadvantageous – the workmen or the owners. Perhaps the men are worse off, because to their share falls the element of a danger.

During my second inspection I found a portion of the return air course – perhaps a couple of hundred yards or so – of magnificent sectional area, but I was told that such improvements had been stopped. This I regret, because if all the returns had been of that size the very objectionable water gauge of 2.10 inches might have been reduced by at least half-an-inch. There is no truth-teller underground like the water gauge. Finally, I beg permission to bring under your notice a circumstance connected with this event that had obtained consideration years and years before either Ferndale explosion; I speak of panels in underground workings.

The colliery we are now giving and hearing evidence about is so laid out – whether by design or by chance I know not – has in some respects to come in under the category of 'panelling.' The explosion of 1867 was unattended with

death in the Duffryn side, and now the second explosion of June last, though frightful in fatality in the Duffryn has not killed a single person in the the Rhondda and Glo-bach. These two districts remained entirely undisturbed.

There are many amongst us who believe panelling is of little use, but the two explosions in Ferndale tell altogether a different story, and what is remarkable is, that the separation of one district from another is but imperfectly arrived at, and yet on the occasion of both explosions that faint and uncertain isolation appears to have been the means of saving life. This is worth remembering by those who in future might have to lay out collieries in fiery neighbourhoods. The disasters that have occurred this year both at home and abroad have been so desolating as to urge us on to neglect no improvement, to overlook no practical steps within our means, to ward off and put a stop to these terrible explosions of fire-damp."

The statement of Mr. T. E. Wales

Mr. Thomas Errington Wales, the Inspector of Mines for the south Wales district, said: - "The Ferndale Colliery is sunk in a district where large tracts of the celebrated Aberdare steam coals abound, and are comparatively untouched, so that it is not only the natural but the only outlet for the large quantity of gas liberated - occasionally under great pressure - in working those coals. The coal worked at this colliery is known as the Aberdare upper-four-feet steam coal. It is a fiery coal, and is therefore worked entirely with locked safety lamps. In accordance with suggestions made by myself for the safer working of this colliery; shot firing is strictly prohibited during working hours. Longwall is, for the most part, the principal of working, but double-stall is to some extent introduced. I believe the quantity of air travelling at the time of the explosion on the 10th of June would probably be about 110,000 feet per minute." After noticing the evidence of the several witnesses who had been called, Mr. Wales went on to give an account of his own examination of the Duffryn district immediately after the explosion.

He said: - "I had business in the Aberdare district on the morning of the explosion, and I was able to search the colliery six or seven hours after the explosion occurred. On reaching the pit I immediately descended, and proceeded up the north and west level, where the explorers were engaged in recovering the bodies. I found the air-crossing had been blown away, and had again been partially repaired, as well as the different doors. I also found that

several falls had occurred, and between No. 6 and No. 7 headings, north, there was a very large fall.

The roof was then in a very unsettled state there. This would go to show that at that point the roof had been subjected to some great disturbing cause, and that of recent origin. I have also, from time to time since then been in the colliery and made very careful examinations into such matters and things as I though calculated to enable me to form an opinion as to the cause of the explosion, where it occurred, and the probable condition of the workings immediately before it occurred.

On Thursday, the 15th of July, Mr. Brough and myself examined the whole of the Duffryn district, excepting, of course, the No. 7 dip, which was then filled with water, and, although the quantity of air passing was considerably reduced, we failed to find any accumulation of gas, even of the smallest extent. The quantity of air passing into the district at the time of the explosion would probably be about 30,000 feet per minute; so that it would require a discharge of from 2,500 to 3,000 feet of gas per minute to have rendered such a current explosive, and if such a discharge continued for only five minutes, there would be from 120,000 to 150,000 cubic feet of highly explosive gas, quite sufficient, in my opinion, to have caused the terrible results which we all so much deplore.

Experiments made by some of our ablest mining men of the day have proved beyond a doubt that the safety lamps now in general use, I mean the Davy, Stevenson, and the Clanny, are unsafe, and will pass the flame when exposed to an explosive current having a velocity of 8 or 9 feet per second, which is only from five to six miles an hour, and at almost any point on the No. 1 west 'intake' level the air would be travelling at a much higher velocity than 8 or 9 feet per second, so that if that current of air was rendered explosive, it is not necessary that it should have to come in contact either with a naked light, a defective lamp to have caused the explosion.

Since these startling facts have been made known much attention has been given to the subject, and several lamps, Lindsay Wood's, Hann's, Morrison's, and others, have been discovered, which, I am told, are safe up to a velocity of 30 or 40 feet per second; but it is found that such lamps are easily put out by being moved, which is a great drawback to their general adoption, but I hope this defect will ultimately be overcome.

From the absence of evidence to show that there was any accumulation of gas in any part of the district on the morning of the explosion; from the frequent occurrence of the blowers; from the large quantity of air, about 30,000 feet per minute passing into the district; and from my own personal observations made during several capable inspections of the district – one having been made on Saturday last – I am of the opinion that the calamity is to be attributed to a large and sudden outburst of gas somewhere on the No. 1 west intake level, which may have come from the two-feet-nine vein, which lies only ten or twelve yards above the four-foot coal, and that, owing to the high velocity at which the air was travelling, it was exploded by one of the lamps, and from the position of the doors, and &c; I think the explosion probably began somewhere near the beginning or top of the No. 7 dip on the same No. 1 west level.

If the two-feet-nine coal was worked in advance of, or simultaneously with, the four-foot coal, it might, to some extent, relieve the working of the latter from those sudden outbursts of gas; and I would also suggest that the principal of working by double-stall be discontinued, and the workings of the colliery generally, should be more concentrated. The adoption of such would, I think, greatly reduce the distance the air has to travel, as well as the number of doors necessary to direct it through the workings; but in my opinion, the greatest safeguard against these outbursts of gas will have to be found in the discovery of a more perfect safety lamp – one that will be either be quite safe in explosive currents travelling at high velocity, or one that would be immediately extinguished in coming in contact with explosive gas. The Coroner then directed the jury upon the evidence.

The Coroner sums up

He said: - “Gentlemen, we have now prosecuted our inquiry as far as we are able, and extracted all the evidence that could be brought to bare on the subject, but I am sorry to say that the result is not so satisfactory and conclusive as I could wish, but I trust it will be sufficient to enable you to perform a correct judgement into the cause of the unfortunate occurrence, in which we have been engaged so long in investigating. Before I begin to comment on the case it may be desirable to give a general outline of the facts as presented to us by the evidence, as from the time that has necessarily elapsed they may have escaped your recollection. The facts I apprehend are these: -

An explosion took place at the Ferndale Colliery, the property of Messrs. Davis and Sons, on Thursday, the 10th of June, about half-past-seven in the morning, in

the portion of the colliery called the Duffryn district. There were about 369 persons altogether employed at the time in the colliery, but the colliery being divided into three districts each of which is as far as the ventilation is concerned, carried on separately and is distinct from the others, the effects of the explosion were confined entirely to the Duffryn district, all the other men employed in the two other districts escaped uninjured and in safety.

The number of men employed in the Duffryn district at the time of the explosion appears to have been about 117. Those working in the Lower level and up to No. 3 heading in the No. 4 west level escaped uninjured, but all the men working in the rest of the Duffryn district, amounting to 53 in number, fell as sacrifice. Now I think there can be no doubt the evidence we have heard under the circumstances, that the explosion must have extended through the whole of No. 1 west level, and the 6 and 7 heading on the north side, and the No. 6 and 7 headings on the south side of that level and then continued through the face of No. 3 west level, where it would appear to have become exhausted.

There can be no doubt that the explosion must have extended over the whole of that space, as finding in each of those places instances of persons found seriously burnt as well as suffocated at or near their working places. Several of the bodies appeared to be collected in one place and the presumption is that they had not commenced working that morning. There are other indications showing the extent and direction of this explosion, which are important. Three horses were killed and burnt.

The brattice at the face or end of No. 6 north heading was found on fire after the explosion. Some brattice on the 6th south heading was also found burnt, and the No. 7 dip on the same heading was found after the explosion, you are well aware, to be on fire and was obliged to be closed and flooded and remained shut up and unexplored at the time of our former sitting. The air-bridge across the main intake was battered to pieces. There are also some very serious falls in the pit which I have had directed to you – a very considerable one in No. 1 west level near the parting to No. 7 dip and opposite the parting to No. 6 north – several in the different stalls of those headings and in other parts of the works near where the bodies were found.

All these circumstances indicate the direction and violence of the explosion, but they do not point out conclusively where it originated, and I am sorry to say the evidence does not agree upon that point, but the preponderance of testimony would lead to the inference that it originated near the parting leading into No. 7 or No. 6 north heading in No. 1 west level where the greatest number of falls

were found. I think the evidence and the facts tend to show the explosion must have originated in No. 1 west level somewhere near the fall at the parting leading to No. 7 dip and radiating from there in every direction. If the theory which we have heard this sitting is correct, I think it is probable that the mode in which it got ignited is explained, and it must be passing through the part of the pit I have already described, met with other packets or accumulations which increased its violence as it passed along its deadly course until at last it met the fresh air coming up from the lower level and became exhausted.

There was an opinion expressed you will remember, by several of the witnesses that it commenced in No. 7 dip, and the fact of that being found on fire, and remained for so long a period afterwards, gave weight to that opinion; but I think the evidence that we have since had completely upsets that theory. It would appear from the evidence of the fireman and officers of the pit that there was gas found in more than three places of the pit – in the end or face of No. 7 north heading near where the brattice was found on fire, and in No. 8 stall in the same heading where the witness John Wilkins was in the habit of working, and in an old stall (No. 10) used for storing rubbish in No. 5 of south dip of No. 3 west level.

As none of the men who were at work at the time of the explosion in the portion over which it exploded survived we cannot ascertain from them the state of that portion of the pit at that time, and I am not able to discover anyone except the witness Wilkins who was aware of it previously. You have heard his evidence as to the state of the place where he had been working up to that morning, when he was stopped, and also as to the other part of the pit where he had been working before, and although his evidence did not afford much assistance at ascertaining the origin of the calamity it affords us the information as to the general state and management of the pit, on which I shall have to comment hereafter. The fireman Thomas James reports that he went round the pit as usual that morning, and with the exception of the place I have named, there was no gas in the pit.

The depths of the both shafts appeared to be about 278 yards, and the ventilation was carried on by a furnace of ample dimensions. The total quantity of air passing down the pit is stated to be about 111,000 out of which 39,000 was appropriated for the Duffryn district, and this was again divided into two splits, the north and the south which when they were later taken on the 2nd of June showed – north split 13,720; south split 26,130 or 39,850 together.

The length of the north current was about threequarters of a mile, and of the south current one mile and threequarters. There was another current of air from the south, which joins the north into No. 5 heading, very near the place where the effects of the explosion are presumed to be ceased or become exhausted, but it did not contribute any benefit whatever to the portion where I have concluded the effects of the explosion.

The air measurement appears to have been taken about the return near the Dumb drift, and therefore does not show exactly the quantity that passed on the face of the works. It would appear strange that the air measurements were not taken about the face. The quantity of coal worked from the colliery from the commencement of the year up to the explosion amounted to about 3,000 tons a week, which, if worked equally and regularly would amount to about 500 tons a day, but as the colliers seldom work the beginning of the week, the quantity would be irregular and probably vary from 500 to 700 tons per day.

The quantity of coal worked about the time of the previous explosion, 18 months before, was given as about 400 tons per day. Afterwards it would appear the quantity had increased considerably. The total quantity of air then passing into the pit was 90,270; it was now about 113,500; the quantity of air passing through the Duffryn district when it was last taken on June 2nd, as I have already stated, was 39,869.

In the month of February it had been 44,625, March 48,759 and in April 48,865. It does not appear to have been taken in May; so that the quantity had decreased very considerably from February to June; and the same observation applies to the total quantity. The total quantity in June was 113,512, and in March 125,000. This I believe is a plain statement of all the important facts relating to this inquiry which have been elicited from which you will have to form your verdict. In my opening remarks I directed your attention to two points on which I thought you would have been deficient – how and by what means and the place in which it arose; second, whether it arose from accident or criminal neglect. The evidence on the first point as I intimated is by no means consistent or conclusive.

You have heard the opinions expressed as to its origin, some considering that it originated in the No. 7 dip and others in No. 1 west heading, and some I believe suggesting that it was in No. 6 rise heading. Although there appeared some differences between them, if not I apprehend very material. Although the testimony may not point out particular to any one specific act that led to this

unfortunate catastrophe, there is evidence to show, I fear, that the system of management was not in the opinion of several witnesses what it should be.

They state that the supply of rails was insufficient, and that the colliers had to frequently have to go into the old workings for them and that they sometimes actually took up some of the rails before the stall had been properly finished and gobbled up, and thereby left a goff or hollow in which the gas might accumulate; that the number of men employed to do the dead work had been considerably reduced, and that consequently there was not sufficient to do the work and clear all the roadways; that they were not allowed sufficient cogs to keep up the roof as soon as they wanted them, and sometimes had to wait for days for them, and in consequence of this they were delayed in their work, and the top fell.

Now these are certainly serious charges, and might no doubt more or less contribute to produce this calamity if they are true. You have heard the evidence and the mode in which it is given, and it is for you to take into your serious consideration, and it is very difficult in inquiries of this kind to obtain satisfactory evidence, as those persons who knew most of the locality are quite beyond the reach of any earthly tribunal, and I often find a disinclination on the part of the various parties to give evidence, but I am glad to state on the present occasion I have received from all the men employed, the County Constabulary and other sources, every information I could wish, and I have to thank them for it, and more particularly for the very able report of the state of the colliery, given by the committee of workmen selected by the colliers after the explosion, as it affords valuable assistance in forming an opinion as to the normal state of the colliery as it existed previously, and the general management.

In parlance of the recommendation of the last inquest, the owners of the colliery caused a daily record of the state of the pit to be kept in which all important matters are inserted. These documents afford important information, from which we can glean that the colliery was very liable to blowers and falls, and it appears that in the last few days before the explosion the falls had been more than usually frequent.

These facts might possibly throw some additional light upon the subject. There has not been a regular register kept of the different men who go down the pit each day, which was one of the recommendations of the last inquest. You have also heard the evidence of the Government Inspector, and had an opportunity of

eliciting fully their opinion on the subject, and I trust you will be able to come to a just conclusion on the first point as to how and by what means the explosion occurred.

Having satisfied yourselves on the first point, you will then have the more important question as to decide, whether it arose from accident or from culpable neglect. If the evidence leads you to believe that the catastrophe did not arise from any negligence or carelessness, but was one of those unfortunate casualties that ordinary foresight and caution could not foresee or prevent, that must necessarily attend all mining operations, then, however serious it may be, and much to be regretted, it would only amount to an accidental death.

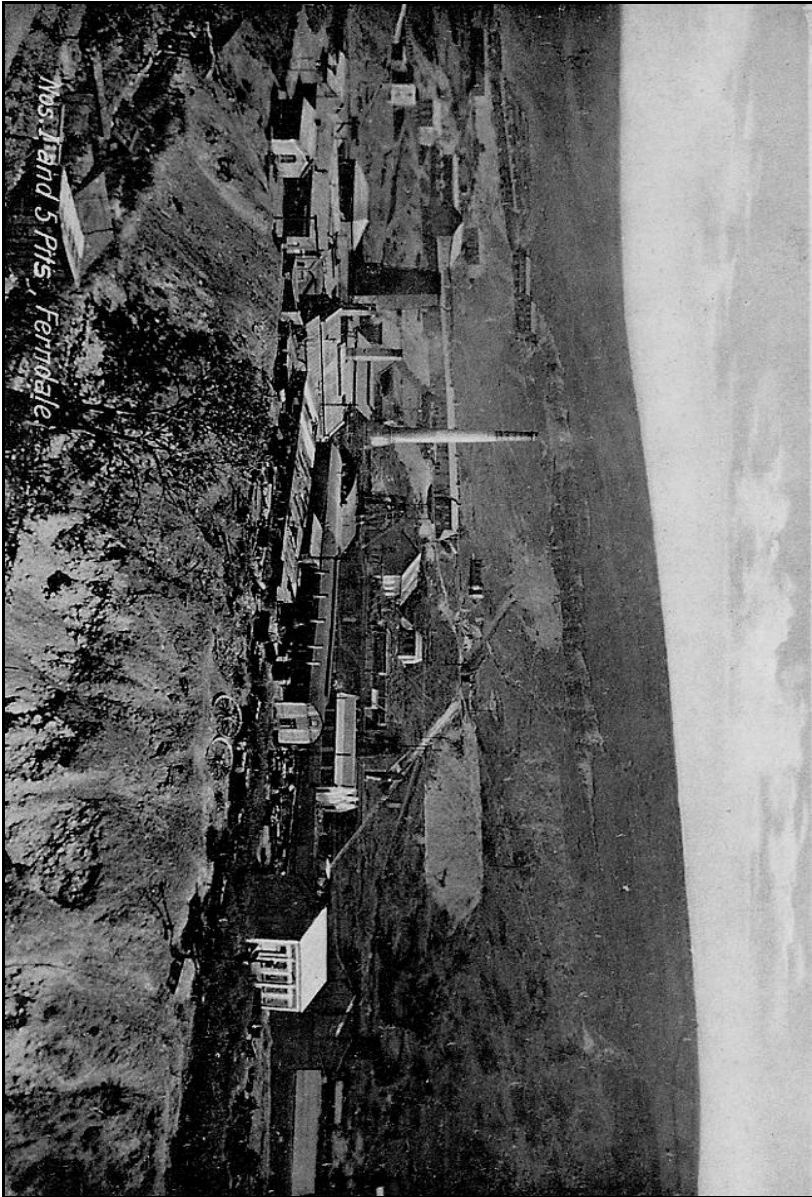
But on the other hand if you consider that it arose from such gross carelessness or negligence on the part of any of the viewer, agent, overman, or others who had duties to perform in reference to the pit, or the men who were employed therein as would amount to culpable neglect, it would then be your duty to find a verdict of manslaughter against the delinquent. Before I proceed to comment on the evidence, it may be perhaps of some assistance if I endeavour to explain the law on this point.

It is rather difficult to define precisely what amounts to culpable neglect – every charge of criminal neglect depending upon its own surrounding circumstances. The general rule is that when death arises from want of due caution on the part of a person in doing an act, or secondly from his neglect to perform a duty which is cast upon him by law, such person is guilty of manslaughter.

All I can do is to assist you with my authorities and decisions that have taken place. I find in 'Archibald's Criminal Law' page 220 thus laid down: - *"If a man takes upon himself an office or duty requiring skill and care; if by his ignorance, carelessness or neglect he causes the death of another he will be guilty of manslaughter."*

He cites a case when it was the duty of a Ground Bailiff of a mine to regulate the ventilation and direct where air headings should be placed, and in consequence of his neglecting to do so there was an explosion of fire-damp in the mine and 19 of workmen were killed. Justice Maule said: - *"I hold this as manslaughter."* In another case Chief Baroc Pollock said: - *"Generally it may be laid down that where one by negligence has contributed to the death of another he is guilty of manslaughter."* At the assizes in this county in Regina v Hopkins, Justice

Crompton stated that: - *“He was glad the investigation had taken place, by that all colliers and others persons may know that if the death of a fellow creature resulted from their own negligence they would be amenable to the charge of manslaughter.”*



Ferndale No. 1 & No. 5 pits 1911

But in another case Lord Campbell said: - *"I am clearly of the opinion that a man may by neglect of duty render himself liable to be convicted of manslaughter or*

even of murder.” And more recently in this county, in an indictment against an overman at Dowlias, for not supplying timber according to the rules to a collier who was killed by a fall of roof, the judge left the question to the jury to answer : First, whether the prisoner knew the rules; second, whether there was such negligence in the prisoner, not supplying timber has led to the death of the deceased; and third whether such negligence in the prisoner in allowing the deceased to go on working has led to the death of the deceased. The jury having answered all these questions in the affirmation, the judge told them they ought to return a verdict of guilty, and it was done accordingly.

There are several other cases I might site, but it is sufficiently laid down to show that managers, agents, and others who have duties to perform in the due and careful performance of which depends the lives of miners and others engaged in these dangerous undertakings, are bound to bring to the exercise of their respective duties ordinary and reasonable precautions as well as skill and ability.

In consideration of these points you will be greatly assisted by the established rules of the colliery. If you should be of the opinion that this unfortunate occurrence arose from the neglect of anyone or the omission of any particular precaution that ought to have been taken, then you will be able to ascertain from the rules whether it was required by the rules to be performed, and whose duty it was to perform it. By these means you will thus be able to discover who is the delinquent, and it will be for you to say whether it is of that serious character which amounts to criminality or not.

He then read the first general rule, the first special rule, the 16th, 20th and 22nd special rules which related to the duties of providing an adequate ventilation to dilute all noxious gases, and render every working place safe, the providing of materials, the examination of airways and old workings; the removal of accumulations of fire-damp &co.; and proceeded to say – “I have now given you an outline of the facts and explained to you the law on the subject, I will proceed to make such comments that appear to me to be applicable to the case.

I shall be happy to read over to you the whole or any part of the evidence if you wish it, but as you have all paid so much attention to the case, and it is of such a discursive character, I will not trouble you with it at length. I think though I am fully justified in saying that the effect of it is to show that there is no one particular cause to which this explosion can be attributed. There certainly does not appear

to be any of those gross acts of breach of rules or recklessness on the part of the colliers to which these sad disasters are sometimes attributable.

There is no evidence whatever to show that there has been any carelessness on their part, and I think therefore that we may presume that there was no defect in the discipline of the pit, and it remains for us to inquire whether there were any deficiencies in the ventilation or management.

On the subject of ventilation you have heard the opinion of the Government Inspectors and had an opportunity of examining them as you cannot get any better authority. It would be superfluous my attempting to comment on that point, but on the other, on that of management, I think I am called upon to make a few observations, as there certainly has been some very important evidence given on that hand, and it deserves your most serious attention.

I refer to the evidence given by the several witnesses to which I have alluded of deficiency of rails and the mode adopted to procure them; the difficulty of obtaining cogs when required and the delay and mischief that arose in consequence; the insufficiency of men to do the 'dead' work and insufficiency of rubbish to fill the stalls.

These allegations have all been made and you have heard the explanations that have been given, and it will be your duty to take them into your most serious consideration with the view of ascertaining whether such allegations were true, and if so whether they were the immediate cause of the explosion, or if in fact, there has been any gross neglect in the management.

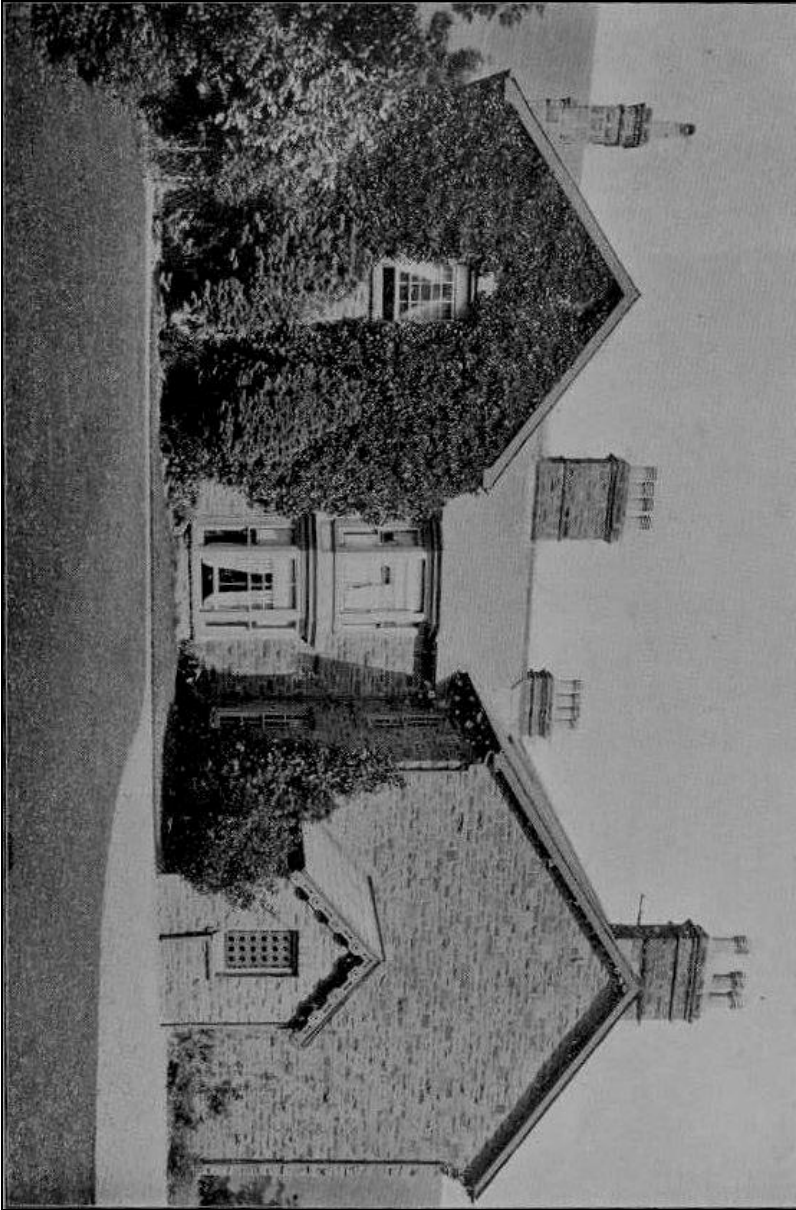
There can be no doubt that this colliery has been subjected continually to sudden discharges of gas or blowers, and that the top in some parts was very bad, and it would appear that this was the the case more particularly in the portion of the pit over which the explosion extended, and that there was a serious defect in the stratification or what is termed a 'swamp' ran right across the workings of the colliery just about that part that was calculated to discharge more gas than the other parts of the mine; and it may possibly have happened that a sudden outburst could have directly or indirectly led to the present occurrence.

You have to take all these circumstances into consideration in forming your judgement, and give them their due weight, and decide whether all reasonable precautions have been taken, and that it arose from accidental circumstances which could not be well anticipated, or from the gross negligence and wilful

neglect of anyone. There is one particular point to I wish to speak before I conclude, as I fear it has been the cause of increasing the fatality of this as well as many other explosions which I have to investigate – and that is the construction of the bridges made for carrying the air over the intake air courses.

These bridges are constructed so insufficiently that whenever an explosion takes place, they are generally if not invariably destroyed, and the air returns back without proceeding into the workings. In the present instance the air was destroyed near the pit, and no air passed on beyond the bridge, and the consequence was that all those working beyond who had not become a sacrifice to the devouring flames, were suffocated, and had no chance of escape although, perhaps, comparatively uninjured. Surely these bridges ought to be made of such material as would resist the effects of an explosion or carried through one of the strata above. I am not aware that I have omitted any point that I ought to have commented upon, or that I can add anything to what I have said, but if I feel persuaded that the deep interest and zeal you have devoted all through this protracted inquiry will supplement my deficiency and I have only to thank you for the attention you have paid to it.

I have I assure you felt a most intense interest and great anxiety in endeavouring to unravel this mysterious disaster, and endeavouring to the best of my ability to do my duty, and I am sure you will do yours by returning such a verdict as the facts will justify, and the justice of the case will require. The jury then retired to consider their verdict.



Brynderwen, the home of Lewis Davies at Ferndale

Chapter Five

The inquest verdict

After deliberation for an hour and a quarter during which period differences ran very high, a portion of the jury being for a verdict of manslaughter against the two managers, the overman, and William James, while others stoutly resisted on the ground that such a verdict would be unwarrantable on the evidence – they brought in the following verdict: -

“We find that the deceased came to their death from an explosion of fire-damp in the Ferndale Colliery on the 10th of June last; but we have not sufficient evidence to satisfy us to where it arose. We are of the opinion that the air was not properly distributed throughout the whole of the pit, and that the wind-ways were not of sufficient size.

We regret that we should have to investigate another explosion in this colliery so soon after the terrible catastrophe of 1867. We regret also that the suggestions of the jury on that occasion have not all been carried out by the manager or officials of the pit. The evidence shows a lamentable lack of care on the part of the officers of the pit. We beg to offer the following suggestions: - First, that a Government Inspector should visit every pit once in three months and that a sufficient number of sub-inspectors should be appointed with the proper authority; second, we think that all officers having the charge of collieries should undergo an examination, and obtain a certificate of their qualifications before they are allowed to undertake their duties; third, we recommend that all old workings should be filled up immediately after they are abandoned; fourth, we recommend that the resident manager should have the sole control and management of the workings of the mine.”

The unsatisfactory verdict

The verdict of the jury, however, was not greeted with with much enthusiasm. The *'Cardiff Times'* of Saturday, October 2nd 1869 commented in its editorial: - It is nearly two months since the inquiry into the cause of the Ferndale catastrophe was suspended until that part of the pit which was flooded, in order to extinguish the fire, could be examined. This having been since done, the inquiry was resumed last Tuesday, and the jury gave their verdict on the following day. The verdict, while attributing to the officers of the colliery “a lamentable want of care,” and expressing the opinion that “its air was not

properly distributed over the whole of the pit, and that the wind-ways were not of sufficient size," does not, we think, touch the heart of the question, and is unsatisfactory to the existing principals of working collieries, and which we feel convinced the testimony adduced in the inquiry, should lead thinking men to question their soundness and efficiency.

It may be that down the Ferndale winding shaft there was drawing a current of air which, under "ordinary circumstances," was sufficient to render innocuous the deadly gas whose resources are daily tapped by the colliers, and whose pent up forces were ever tempted to break forth – and that the Davy lamps were supposed equal to any emergency – but what if "ordinary circumstances" become invaded so frequently by extraordinary ones as to become misnamed, and the condition of a mine be one of such constant though unforeseen contingencies as to have its report book filled "many times" with entries of "blowers and heavy falls today," and only occasionally with records of their absence; and what if the Davy lamp should not prove equal to any emergency, and being only liable to repress an explosive mixture travelling at the rate of 8 feet per second, should be suddenly met with a current travelling at 18 feet or up to 40 feet per second?

The verdict of the jury does not touch upon these points, it only speaks of multiplying precautions, increasing vigilance, guaranteeing the scientific and practical knowledge of officers having charge of collieries, and increasing the number of Government inspectors at the country's expense. That is to say, no improvement need or can be made upon the present system; all that can be done is to guard more religiously against its irremediable perils. But this is not what the government inspectors testified. Mr. Brough condemned the words which in the existing Act limit the amount of ventilation to what is required "under ordinary circumstances," and said that "their expurgation will be the initial step towards the reduction of the number of deaths that take place by explosions of fire-damp underground;" and he further drew attention to what we pointed out in our notice of the "Mines Inspection Bill," that the system of division adopted at Ferndale, and which is equivalent to an adoption, though an imperfect one, of the "panelling system" proposed in that measure, was yet sufficient to limit the effects of the two explosions that that pit has sustained, to the isolated areas in which they occurred.

Both inspectors spoke of the insufficiency of the Davy lamp, and alluded to some recent improvements upon it which were said to be proof against currents of air five times as rapid; but there was the great drawback to their general adoption –

they are easily put out by being moved. These remarks point to reform in the present system, rather than to increased precautions under it. It was Mr. Brough's opinion the explosion resulted from one of those heavy falls of the roof, to which the pit was so liable, liberating an amount of gas, and driving it in all directions with such force as to penetrate any of the lamps used in the colliery, perfect or imperfect.

It was in evidence from one of the colliers – evidence, however, denied by the party indicated – that cogs were not, in general instance, granted when wanted, and that two falls of the roof were induced by attempting to work without them. But it is not in the workings places only that falls are to be apprehended. Mr. Brough and Mr. Wales concur the opinion that the reservoir of gas contained in the superincumbent strata up to and including the “two-feet-nine seam,” is shaken and tempted to burst forth by the working of the “upper-four-feet;” and when the strong cogs resist a fall, it is driven to find a vent in bringing down tremendous masses in the roads and windways.

They, therefore, recommend the working of the two-feet-nine seam, in advance of or concurrently with the upper-four-feet, which, they suppose, will remove much of the danger, and supply more material for gobbing up waste places. But what does all this amount to as to the bearing upon the present system of coal getting? It is not that we are fighting the conditions of the industry with adequate weapons. That we are considering how to encounter perils instead of how to banish them; how to strengthen the shield, instead of how to wield the sword? That our science has gone on the track of protecting capital rather than labour, and that in the coal proprietor's dread of seeing the items of his cost sheet augmented, he fails to take into serious consideration the frightful possibility that human lives may next stand in the columns meant for money. Now, what is it that lies at the bottom of all difficulties of working collieries with comparative immunity from danger? Are the contingencies so impossible to be provided against that we can only reasonably hope to construct a pit for safety under “ordinary circumstances,” as we do ships, not attempting or expecting to guarantee them against any tempest that may blow, and any peril of the coast?

Are the dangers that attend mining of this insurmountable nature? Or may they be reduced to such an average improbability and abatement of severity as to practically banish the perilous character of the enterprise? We should like scientific men to address themselves to these questions, instead of recommending new safety lamps, which appear to serve little better than as decoys, leading men to death, and bidding them dismiss prudence; and as if the

atmosphere in which a safety lamp must be used, is it a fit element for a collier to breath? Now, we have partly an answer to our question in the evidence of Mr. Brough. He said, "If the present quantity of air should be found insufficient to keep this colliery safe, then the owners will be bound to supply the required increase, and certainly the application of more power is not difficult, nor will it be found to be very expensive."

Here we come to the bottom of the question. The enemy to be grappled with is not imperfect safety lamps, not the ignorance and carelessness of workmen, not the negligence of rules, but the paucity of inspectors. These are all the painful defences that parsimony has demanded, but which may all, or almost all, be spared, if parsimony were abandoned. The enemy is deficient ventilation, want of air. Air, which Mr. Brough says, owners can be made to supply, and which it is "not difficult" nor "very expensive" to supply in the case before us.

The more we get rid of scientific and technical detail, and look at it in its broad, simple, and common-sense aspects, then the truer will be our view concerning it. There is a stratum of air 14 miles high, bathing our globe, and under the surface where we pick for coal we are met by runlets of gas, inflammable and poisonous, but rendered harmless and wholesome if sufficiently diluted by air. The problem is, have we sufficient air in the world to dilute these runlets, which only need twelve or more times their volume to be neutralised; and if we have the air, can we make it go where we want it? We are bound to assert that science will speedily dispose of that problem, and that the real difficulty is only with pounds, shillings and pence.

It is incomprehensible how men can testify that a colliery has been sufficiently ventilated, when it has sustained two fearful explosions within a twelve month of each other. Can a machine be stronger than its weakest part? In this unlucky Ferndale pit, blowers and falls were troubling the officers almost daily. It is admitted that they were met with promptitude, but in this constant direction of the air to different places was there not constant danger of other places coming short? It was the same amount of air that had to be differently distributed – not new levies, but the same air moved about from point to point – and it had twice proved unequal to work. Are we to rest contented, and deem that nothing more can be done?

Why, if tomorrow we may suppose some enormous pressure to be exerted upon the beds of the Aberdare and kindred valleys, so that like wet paper squeezed in an hydraulic press, the fire-damp should be expelled from the miles of

underground coal, and made to blow through the mighty mouths of all the pits in Glamorgan – should we fear that the fires of Gyfarthfa and Dowlais, and the torches of the coke ovens, would explode the mixture, and send Merthyr cracking into Cardiff, and Cardiff into mid-channel, while survivors would search in vain for Caerphilly and Pontypridd? Or should we put faith in the amplitude of the breezes that blow over the hills of Glamorgan, to waft all danger to the sea, and dissipate in one day the dread of colliers through generations yet to come?

Another view on the verdict

The '*Western Mail*' also was unhappy with the verdict of the Jury and its issue of Thursday, September 30th 1869, carried the following editorial: - "The jury empanelled on 11th of last June to inquire into the cause of the terrible catastrophe which occurred on the previous day at the Ferndale Colliery have now, after an interval of three months and something like a dozen adjournments, arrived at a verdict. It cannot, therefore, be said that the conclusion they have come to is by all means a hasty one; and, as the result of the deliberations of a body of men chosen from a class likely to be familiar with the mode of working the colliery, is entitled to respect.

And yet, for all that, it is a verdict which is unsatisfactory in the highest degree. The inquiry has apparently been a searching one, and the finding of the jury is doubtless to a great extent justified by the nature of the evidence adduced. So far, we have, but little fault to find with it; but we say but little, for we think there are some omissions in the recommendations of the jury with regard to the future working of the colliery.

What we regret is that the result of the inquiry tends to the conclusion that, under present circumstances, the working of such a colliery, granting even that every precaution which prudence and skill can suggest is taken, is dangerous to the lives of the men employed in it. The inquiry just terminated has indeed brought to light the fact that in the present instance many such precautions were neglected, and the jury very properly embodied the fact in the verdict returned.

"The evidence," we are told, "shows a lamentable want of care on the part of the officers of the pit." This is a very grave charge indeed; but the verdict contains one of even greater gravity. Referring to the suggestions made by the jury which inquired into the even more fatal catastrophe of 1867, the verdict declared it to be a matter of regret that those suggestions have not all been

carried out by the manager and officials of the pit. What those suggestions were does not appear. They must, however, be well known to those in charge of the pit, and the public has a right to the fullest and clearest explanations on this point.

That the jury did not go a step further, and find a verdict of manslaughter, is doubtless due to the fact that, although the want of care on the part of the officers of the pit was indeed lamentable, and might fairly have been productive of the most serious results, the evidence before them failed to supply the link that is wanted to connect this highly reprehensible want of care with the cause of the catastrophe into which it was the special and immediate business of the jury to inquire.

The finding is doubtless technically right. In the light of the evidence given it is impossible to fix the blame definitely and conclusively upon any person or persons. The officers in charge of the pit, although not legally responsible for the death of the unfortunate victims of the explosion, have still a sufficient quantity of blame laid upon their shoulders by the findings of the jury to justify us in telling them a few home and doubtless unpleasant truths; and in doing so it is hardly possible in the present case to acquit the owners of the pit of all share of the responsibility.

It very often happens that the owners of a colliery in which an untoward accident occurs are only indirectly responsible. If the management of the pit is entrusted to a skilled and competent person, the owner is generally held to have done all that is required of him, for it is not at all necessary that a capitalist who invests his money in a large undertaking should be intimately acquainted with all its details. If it does happen that such a man is possessed of a high degree of special knowledge of the subject, and if his opportunities of supervision are many, he cannot be held free from blame if he allows a state of things to exist which he must know to be dangerous to the lives of those in his employ.

Now it cannot be denied that some, at least, of the owners of the Ferndale Colliery have a special and high degree of acquaintance with the practical working of collieries. And it can hardly be doubted that their attention has been specially directed to the working of the pit in which the accident took place.

We have said that we concur in the recommendations which the jury attached to the verdict, and we trust that if the owners of the pit intend to carry it on; those recommendations will not be treated with the same degree of contempt

as that which was accorded to the suggestions of the jury of 1867. In the face of what was said by Mr. Wales in regard to the fiery nature of the pit, and the insecurity, or rather, inefficiency, of the safety lamp at present used in it, it is quite evident that to continue working it without any improvement in this respect would be an act of recklessness almost amounting to a crime.

And it is in this respect that we think the jury have been guilty of a grave omission. *“Experiments,”* says Mr. Wales, *“made by some of our ablest mining men of the day have proved beyond a doubt that the safety lamps now in general use - I mean the Davy, Stevenson, and Clanny, are unsafe, and will pass the flame when exposed to an explosive current having a velocity of 8 or 9 feet per second, which is only from five to six miles an hour, and at almost any point on the No. 1 west ‘intake’ level the air would be travelling at a much higher velocity than 8 or 9 feet per second, so that if that current of air was rendered explosive, it would not be necessary that it should have come in contact either with a naked light, or a defective lamp to have caused the explosion.”*

If we compare this portion of the evidence given by Mr. Wales with what was said by Mr. Brough on the same subject, it will be quite clear that the only wonder is, not that the explosion should have taken place, but that it had been so long delayed, for Mr. Brough tells us that *“Where such a colliery as Ferndale is concerned, a strict sense of duty compelled him to speak of safety lamps – so called. The present requirement then is one that will not pass the flame through the gauze under a speed of 30 or 40 feet per second, and that class of lamps I think did not prevail in Ferndale prior to the explosion.”* *“Several lamps,”* he says *“Lindsay Wood’s, Hann’s, Morrison’s, and others, have been discovered, which, I am told, are safe up to a velocity of 30 or 40 feet per second; but it is found that such lamps are easily put out by being moved, which is a great drawback to their general adoption.”*

Mr. Wales hopes that this defect will be ultimately overcome; and we hope so, too – a hope which is, doubtless, shared by the proprietors of the Ferndale Colliery, for until it is overcome they must submit to the inconvenience caused by it, even though the inconvenience may have the effect of subjecting them to a large pecuniary loss.

The question of profits must never be allowed to interfere with that of the safety of men’s lives. It may be that the absence of any allusion to this subject in the finding of the jury is due to the fact to which, however, no reference is made

in the evidence, that the proprietors of the colliery have already remedied the defect. If it be so, so much the better.

It is a subject, however, to which the attention of all colliery proprietors cannot be too strongly directed; and if what we have read on the subject is not necessary as far as Ferndale is concerned, it may have a tendency towards leading others to profit by the sad warning which the catastrophe on the 10th of June supplies with regard to the fatal results likely to happen from the use of a defective lamp in a fiery pit.

It does not appear that there is any reason to suppose that the explosion at Ferndale was in any way attributable, as is often the case, to the recklessness of any of the men at work in the pit, but in dealing with the subject of colliery accidents in general, it is difficult to avoid referring to this, perhaps the most fruitful source of them. No class of men need more protection against the results of their own imprudence than our mining population.

The adoption of even the most perfect lamps will be of little avail in securing the safety of a pit, if the men who use it open it in defiance of danger. The rule which prevails, we are glad to say, not only in Ferndale, but in most other pits, with regard to the non-firing of shots when the pit is in full work, is a most salutary one. Salutary though it be, and essential to the safety of the lives of their fellow-workmen, it is one which is often transgressed, and of its transgression we have a very recent instance at Bryndu. It is often very difficult to convict offenders of this class, but in the case we refer to a conviction was fortunately obtained, and we trust that the example of the men who are now undergoing the sentence very properly passed upon them by the Bench of Magistrates at Bridgend, will serve as a warning to others.

It is clearly the duty of all colliery proprietors to take every precaution that human science and skill can suggest for the protection of their workmen's lives, and it is equally their duty to endeavour to enforce the law which has for its object the prevention and punishment of any act on the part of those in their employ calculated to endanger the lives of others.

If, however, the law is put in force against ignorant workmen such as those now expiating their offence in the Swansea House of Correction, we can hardly see why the officers in charge of a pit, who are guilty of a lamentable want of care, should be allowed to escape scot-free. Happily for them, their offence, although

the greater of the two, is one that the law apparently cannot reach. We are sorry it cannot.

So the story of the second Ferndale Explosion had come to a conclusion and presumably lessons had been learnt. But apparently not. The '*Cardiff Times*,' Saturday, November 6th 1869, reported that John Starkum, Ferndale, was summoned for being found in the Ferndale pit with an open lamp. The defendant did not appear, and it was suggested that a warrant should be issued. Two weeks later the same newspaper November 20th 1869 reported other possible repercussions of the explosion: -

The colliers in the Ferndale pit

In recent issues of our daily contemporaries two paragraphs, evidently emanating from the same source, gave publicity to the following statements: - "All the working staff, with the exception of Mr. Bedlington, employed in the Ferndale Colliery – some nine in number – have given notice to leave the employ of Messrs. D. Davis & Sons. Some fifty men, old workmen, have resolved to take the same step. It appears that all the men who figured as a witness in the recent Ferndale Inquest have received notice to leave, and the men declined working under the new staff, as they believe they are unqualified to take any supervisory part over a pit so intricate in its workings and so dangerous from its formation."

Messrs. D. Davis & Sons have since sent a communication to the two journals, in which after drawing "attention to the injury attempted to be done to their property by the insertion of paragraphs by persons who are maliciously inclined," they say: - "It is true that some of the officers are about to leave, and will be replaced by others, in the section of which, it is obvious, that great care will be exercised, so that efficient persons only will be engaged for the performance of the various duties. Some persons have been discharged for improper conduct as is usual at all collieries, but not for having given evidence, as the proprietors were anxious that a thorough investigation should take place. It is reasonable that persons should not be beyond the control of the authorities, simply because they have been a witness. Only one collier it appears, has given notice to leave; and no fears have been expressed by the workmen as to the safety of the colliery, which is examined by men appointed by the colliers

monthly; and, as before stated, the new officers will be experienced and competent men.”

The conclusion

The disasters, in 1867 when 178 miners were killed and 1869 when the death toll was 53 gave Ferndale a reputation as a 'bad place' where 'the shadow of death seemed to rest over the valley'. In fact more miners died at Ferndale No. 1 pit than in any other coalmine in the Rhondda. As a consequence many of the miners started to drift away from Ferndale to find work elsewhere and Lewis Davis, the then owner, found it expedient to move to Ferndale, where he built Brynderwen House, to personally supervise the operations there. However the everyday dangers of the mining industry can be shown by a list of fatal accidents at Ferndale Colliery from 1896. In this one year alone thirteen men died underground in separate accidents, a toll that would be echoed throughout the mines of the Rhondda at that time. Thankfully no other major disasters occurred at Ferndale, but the memory of the disasters of 1867 and 1869 left a scar that took many years to heal in this part of the Rhondda Fach.

Lewis Davis decided to improve the ventilation further by opening in 1870 a new shaft a mile higher up the valley, which was called the Ferndale Pit No. 2. This new venture proved so successful that in the flourishing 1870's the mineral takings were extended and several new shafts were opened. On May 3rd 1890, the Ferndale Collieries became a limited company, which immediately purchased the Bodringallt Colliery in the Rhondda Fawr, and was subsequently called the Ferndale Pit No. 3.

By 1914, the Ferndale mineral property embraced all the seams lying under a surface area of between six and seven square miles, covering one continuous coal undertaking extending from the Rhondda Fach to the Rhondda Fawr, worked by nine winding shafts. In the same year, 5,654 men were employed, producing an output of 1,750,000 tons. From the small beginnings of 1862 had grown one of the major colliery enterprises in the South Wales coalfield.

Ferndale No. 1 was developed on the land of the farm at Blaenllechau, within the borough of Ferndale. The following four pits were also within the village borough of Ferndale, while the last four were within the boundaries of neighbouring village of Tylorstown. These later pits were also referred to as Tylorstown No. 6 through No. 9. However, later consolidation within the areas mining and pit complex eventually connected all nine of the mines. Hence the

whole development was called Ferndale Colliery, from the completion of No. 9 in 1907 by Davies's Ocean_Colliery Company onwards. This allowed the complex to work the coal and ironstone of the: Two Feet Nine; Four Feet; Five Feet; Bute; Gellideg; Red; and Yard seams. By the 1930s, when most of the complex was within the ownership of Powell Duffryn, the accessible coal reserves had been exhausted from the shorter shafts. Resultantly, their pit head workings were closed on economic grounds, although the workable underground coal faces were consolidated into the remaining shafts.

By the time of World War II and the Bevin Boys, only three of the original pits were still worked. These continued operation successfully under nationalisation from 1947, until the entire complex was finally closed by the National Coal Board in on 29 August 1959. The headgear remained up for quite a few years after closure and was taken down around 1968.

ADDENDUM

So we have heard the story of the explosions that rocked the Ferndale Colliery, but there was very little criticism of the colliery owners, David Davis & Sons. Was this due to people reluctant to speak out in fear of putting their jobs in jeopardy, or were the 'masters' kind and caring for their employees? The following paragraphs from an 1899 book, '*A noble life - Incidents on the career of Lewis Davis,*' by the Rev. David Young of Ferndale, paints a picture of well respected and loved owners.

A noble life

by the Rev. David Young (1899)

His relation to his employees

Masters are in danger of manifesting an overbearing, inconsiderate, and imperious attitude towards those whom they employ, and servants are often careless about their master's interests, indolent in the discharge of their duties, and sometimes dishonest in dealing with their goods. Some masters treat their men like inferior beings, whose feelings, comforts, and circumstances they will absolutely ignore. All they want is to get as much labour out of their employees as they can, for as little consideration as possible; and there their interest in them ends. The working men in such instances are worse than slaves, because

they do not possess the capital value of the latter. That such a class of men should ever become masters is one of the greatest misfortunes of commerce.

There are masters who grind down their own men, out of whom they make large fortunes, and then they appear before the public as generous givers. True generosity is not the product of selfishness. Sadly such employers are mostly prompted by pride. They give, that they may be seen of men. These sums are the price paid for popularity. One of the greatest privileges possible to such men would be to listen *in camera* to denunciations of them by their own employees.

The two brothers, David and Lewis Davis, were generous givers, but they began at home, and they gave according to an established principal; but their first consideration was to do that which was right to their own men. Cowper referred to foreign slaves when he said, "They cannot breathe in England; the moment they breathe our air they are free, or touch our country their shackles fall." England and Wales especially held in the bondage of poverty and oppression the masses of working people for many years. They worked from 12 to 15 hours a day, began to go underground before they were 8 years of age, lived in small cottages, lived hard, without education, books, comforts, or hope of anything but the cry of work, work, in their ears this side of the workhouse or the grave. Those were the days when iron kings were amassing their millions, and when the Chartist theories were being fostered among the working men of South Wales. The masses were mere chattels, divested of human character, and, as Pope so truly says, "Half man's worth is taken away." under such conditions.

This was the state of things all over the iron districts, with very few exceptions, when David Davis, Blaengwawr, D. Williams, Ynyscynon, and D. Thomas, Ysguborwen, introduced a new era, and a feeling of hopelessness began to breathe afresh in the lives of the workmen of South Wales.

It was a fundamental article in the creed of the brothers David and Lewis Davis that, in engaging men as their colliers, they were responsible for them to the extent of doing all in their power to better their circumstances, by giving them every facility for the education of their children as well as for the culture of their own minds and character.

They advocated the building of better houses for the working people; and they advised their workmen to build or purchase for themselves the houses in which they lived. Many of their men at Blaengwawr were able to do so, and also at

Mountain Ash and Ferndale. The brothers also provided a school for their workmen's children at a very early period in the history of the firm. They were interested in the children of their employees, and if they found a clever lad they used to take him in hand, and when parents failed to provide for him they would find out a method by which it could be done. (The Ferndale colliery school in 1867 had an average day attendance of 84 and evening average of 35).

During the explosions, when so many lives were lost, their sympathy and financial help brightened the hours of sorrow, and their gifts and graces were crowned with their own presence. They wept with those that wept, and their prayers and words of cheer in the homes of the people gave to them a true meaning and a stamp of sincerity.

During the great strike of 1871, which lasted for three months, the more protracted struggle of 1875, and the years of 1876-77, when the suffering of the colliers and their families were most acute, when scores of thousands were on the verge of starvation, when the industries of South Wales were paralysed, large firms collapsed, and the West of England Bank failed, they were incessant in their efforts in striving to feed the starving ones and bring about a settlement of the dispute. The writer, then living at Aberdare, was on the Relief Committee when Mr. David Davis was the chairman of it, and who gave so generously of his time and money day after day for months in feeding the starving women and children. They were most assiduous in their endeavours to bring about an amicable settlement of the dispute.

They were chiefly instrumental in the formation of the Sliding Scale committee, Mr. David Davis being the first chairman. The object of the committee was the fixing of a scale of prices which should regulate the rise and fall in the wages of the men. This committee included an equal number of representatives of the men and the masters, and this was the first time when employees of South Wales were given a voice in the regulation of wages. Some time after, in consequence of the action taken by the ironmasters in the working of the Sliding Scale Committee, Messrs. David and Lewis Davis, feeling that their own men would suffer thereby, seceded from the Association, as did Mr. David Davis, of the Ocean Collieries.

Without the slightest intimation on the part of the employers, the colliers at Ferndale, Bodringallt, also seceded from the association, having more confidence in their own masters than any body of masters, believing that from David and Lewis Davis they were sure to receive justice. At the suggestion of

one of the masters, the workmen elected about a dozen men, who would represent their interests, to meet the masters (the company), when they could discuss freely the position, and together endeavour to do that which they considered jointly equitable and just. And to the general satisfaction of masters and their employees, this arrangement continued in operation until the engagement was broken by death.

The successful merchants in Wales, with rare exception, once they were in a position to do so, built themselves mansions, or purchased estates in some healthy, quiet, picturesque place, to reside in, far away from the turmoil and the din of their own works, and they had then withdrawn any special interest in their employees or families. In such matters no hard-and-fast rule can be laid down; there are questions of health and education, as well as political and religious considerations that deserve mature thought. But we have no hesitation in saying that the employer of men who withdraws his interest from his own employees, beyond that of taking away a considerable income, is losing an opportunity of doing good service to his fellow-men, to his country, and the cause of God. Working men are keen observers of what is going on, and the master who will foster a kindly feeling towards them will reap a harvest of loyalty and affection which cannot be bought with a price.

Mr. David Davis died within sight of his works, and many of the old workmen would stand erect with a loyal pride and say, "I began to work with him when he started at Blaengwawr. I have worked under him ever since, I followed him to his grave – ay – and never a better master stood in a shoe." Mr. David Davis, junior, adopted a similar course. He spent some time at Tynycoed, near Dolgellau, but his home and work were at Maesyffynon. This is true of Mr. Lewis Davis. After settling down at Ferndale he sought rest and a change of scenery, but he always graduated back to Bryndderwen, where he felt confident that he was on the path of duty and making best use of his position.

When the Welsh Wesleyan Methodist Chapel at Ferndale was about to be erected, Mr. Lewis Davis, who had promised £1,000 towards the building fund and more if required, was asked to lay the foundation stone; he promptly said "No, the man who has first claim in my judgement is John Arthur. He has been the leader since the beginning and has done more for this society than the value of any money that I, or anyone else, can give." John Arthur was an old workman, a collier, but a man of considerable ability, unblemished character, well versed in scripture and most powerful in prayer. On the appointed day, there was the working man performing a public function, supported by his own

employer; and the great mass of people present felt than in such an incident Christ was honoured. The general comment current at the time was, "That is just like Mr. Lewis Davis." It was not a solitary instance in the life of a great man, but another illustration of that loyalty to right and nobleness which was natural to him.

In the Rhondda Fach alone he gave towards religious causes no less than about £500 a year. Towards the building of a chapel at Ferndale – no matter of what denomination it was – he contributed £100; and the same may be said of the church of England. He gave towards erecting the building, and contributed afterwards annually towards the stipend of the clergyman, as he gave towards the salaries of non-conformist ministers. If anything, he preferred to attend a service in Welsh, a tongue to which, like all other Welshmen he was devotedly attached. He was very assiduous in his attendance at the Ferndale Welsh Wesleyan Methodist Chapel of which the Rev. David Young was the minister.

A most touching incident occurred only a short time before his death, testifying with silent eloquence the deep loving confidence that existed between master and employees. Mr. Davis was almost in sight of the end. For sometime he had been staying at Langland Castle, that the disease was gradually but surely extending left no room for doubt. The time had come for reconsidering the terms of the sliding scale for another period. Mr. Davis had expressed a wish to see his own men. A deputation went down to Langland, where they saw their friend, their leader, and their master for the last time on earth. The delegates conveyed to him the sympathy of the employees and the very earnest prayer of all the churches at Ferndale, that his valuable life may be restored. They saw a great change had taken place, and that he was in the strong grip of death. He knew well enough that he was dying, but he was calm, peaceful, happy, the same noble soul they had known and loved for years. They discussed the points that needed attention in the same spirit as they had done before, and made satisfactory arrangements with regard to the working of the collieries for some years after.

They wept as they came away from him, and said one to the other, "we shall not see him again on earth, nor see his like anymore." Their conversation on the way back to the Rhondda was full of interest and affectionate tenderness. The special qualities of the brothers, Messrs Lewis and David Davis were discussed, and then the father and the mother. All agreed that they were a noble family.

Mr. Lewis Davis won the confidence of his employees, more particularly, by his never-failing solicitude on their behalf, and sympathy with them in troubles, bereavements, and their aspirations to make the best of themselves and to give their families a chance of doing so. It was a joy to him to hear his employees purchasing their own cottages, and laying aside for a rainy day. When he heard of a group of young men interested in instrumental music, he helped them purchase the best set of instruments, and contributed towards their funds. Finding some of his men interested in gardening, he sent to tell them how pleased he was, and that he would be glad to contribute towards establishing a fruit and flower show in the locality.

Hearing of an old workman who was failing in health, he sent to the manager, and asked him for something easier on the surface for such a man to do. Meeting one of his old workmen, on his way to work, struggling for breath, he says, "Edward, I am sorry to find you in that state; you go home, and stay there until you are better, you must not work in that state, and tell your wife to go to the office for wages every week, as if you were at work." These are not isolated incidents.

It would be impossible to find out or tabulate in this world the large sums of money that were given by Messrs. Lewis and David Davis to their employees, their families and friends, in times of need. The record of accounts kept in the office and paid out week after week, and, in many cases, for years, by the officers of the company, would startle many who are supposed to be very generous and considerate themselves; but these represent only a portion of their gifts prompted by true sympathy. They never lost their fellow-feeling or hid themselves behind the screen of periodical stewardship; they melted in sympathy, and many a human heart found shelter from the storms of life under the shadow of these noble-minded men.

It was the writer's privilege to receive from the recipients themselves many testimonials of instances of thoughtful kindness to widows, orphans, large families and unfortunate families that we are not free to mention. Let one instance be sufficient. 'AB' was a collier, first at Blaengwawr, and afterwards at Ferndale; a steady man, but never a strong, robust workman; often laid aside for weeks, and consequently was never able to provide for a rainy day. I visited him, and found him very weak, suffering from a bronchial affliction, and the medical attendant said he was failing, and could not live long. He spoke invariably to me about Mr. Lewis Davis with tender affection, and said how good and kind he was to his men. I was in his room when the end came; he was dying, and too weak to speak; but when he heard my voice he rallied for a while

and, as if with super-human strength, he sat up in bed. I shall never forget the scene, it was a clean bed, well lighted, everything in it was neatly kept. It was not elaborately furnished, but it contained of furniture and decoration everything that was essential for comfort and decency. The Doctor had just left, and had told the dying man that he had nothing more he could do for him.

“The Doctor cannot do more for me, but there is a door opening there by which Jesus stands.” Then he was exhausted, struggled with death for a few moments, and then he said, “Will you please carry to my master my thanks. Tell him he has kept my home for my family for ten years, and, next to God, we owe him all. He has given us 15 shillings every week. We have prayed for him and his family every day – and someday I hope to thank him in heaven.” This blessing of the dying man I conveyed to him sometime after. Mr. Lewis Davis was much affected, and with great humility and earnestness he said, “I would rather have AB’s dying blessing than a coronet.”

These two brothers were governed by deeply rooted principals, which they held with an intelligent conviction, and which they carried out in their dealings with their employees, would be manifest by those who have studied their characters. The perusal of the instances given will suffice to show that they did not deal out a theoretical or cold abstractive justice; it was a personal, living, brotherly, warm-hearted acknowledgement of the rights and claims of others, and of their own obligation to God and man. They put their souls into their gifts, their deeper convictions into their decisions, their hearty sincerity in their expressions of sympathy, and their noble manhood into their efforts in support of righteousness.

Another opinion

Elizabeth Phillips, in her book *‘Pioneers of the Welsh coalfields’* (Western Mail Ltd 1925) was also kind in her memories of the Davis family and wrote: -

David Davis, of Blaengwawr, was a tradesman who began his career as a draper’s apprentice in a Merthyr shop. He afterwards opened his own shop in Hirwaun, and in the early years began to prosper. It was the regular custom for him to ride to Pontypridd, with his wife pillion-wise behind him to fetch groceries for his little shop. He and his sons had a reputation of being the straightest men in the coalfield, and were universally admired and respected. He soon had to enlarge his shop and to open up a large trade in chandlery and grocery, as well as drapery. He next opened a shop at Aberdare and was already a prosperous man when he began his ventures in coal-mining. He first acquired

a small coal under-taking from Lord Bute at Rhigos, and there worked successfully a small level in the anthracite measures. He next sunk a shallow pit at Blaengwawr and won the four-foot seam, which brought him a very good return for his money. By this time his sons, David and Lewis, who were at first installed in shops in the neighbourhood, were grown up and joined him in his colliery speculations. They now became more ambitious and began to sink at Ferndale – a place hitherto untried. They won the bituminous seam, but it did not turn out well, and they decided to sink lower for the steam coal. In this they were treading on uncertain ground, as no steam coal had been found outside the Aberdare and Merthyr valleys.

Ferndale was the victim of two serious explosions, which almost daunted even the intrepid and industrious family who had risked so much to bring the place into existence. But they did their best to overcome the difficulties and the obstacles that beset their paths, and matters improved gradually as men began to grapple more successfully with the problems of gas and ventilation. Soon after this, the father and founder died, but this had little effect upon the great enterprises which bore his name. His sons David and Lewis were well fitted to carry on in his stead. Lewis Davis held the direction of the collieries at Ferndale and was an ardent sportsman, energetic and vital, and popular with his workmen and friends, as indeed was his brother.

Lewis Davis first married Miss Rachel Morgan, third daughter of Mr. Thomas Morgan of the Graig, Merthyr. Her married life lasted for two years only. She had one little son, who died of typhoid fever a fortnight before she also fell prey to the same fatal disease. He subsequently married Miss Cross, of Risca, a sister of Messrs. Cross Bros of Cardiff, a lady who won for herself the esteem and kindly regards of every person with whom she came in contact. In fact Mrs. Davis has in every respect proved herself to be a worthy helpmate to her well-known husband. The result of this union was a family of six children, one son and five daughters. In 1887, however, he had a stroke, from which he never fully recovered and died in 1888

The '*Western Mail*' of Tuesday, January 3rd 1888 reported: - The death of Mr. Lewis Davis, of Llangland, having occurred on Sunday morning, no news of the sad event reached the Rhondda until Monday morning, although it appears that the event became known among some at Ferndale late on Sunday night. Universal regret is expressed at the loss of one so highly respected. Notwithstanding the weakness which he suffered from ever since he was attacked with paralysis, about eight years ago, the news of his dangerous illness

came with suddenness upon the district with the brief announcement made in the *Western Mail*, and the sad intelligence of his demise elicited on all sides sympathetic condolences with Mrs. Davis and her son and daughters in their bereavement.

A deputation from the men made their annual visit to Mr. Davis to discuss and settle the business details relating to the working of the sliding scale, but on the last occasion, the men saw their universally beloved and respected master reduced to an attenuated state, shrunken in form by disease, and with the brightness of his once clear eyes dimmed, they were so affected that some of them gave way to tears. The meeting was a painful incident to both employer and employed. Mr. Lewis Davis had in his employ some 3,500 workmen, and nearly 18,000 persons were dependent on his enterprise for their daily sustenance, and it may truly be said that seldom have such relations existed between master and men as obtained between him and his employees. He was their friend and adviser in difficulty or trouble. Their consolation in sorrow, and their support in sickness or infirmity.

During the lifetime of his brother, Mr. David Davis, this character was borne alike by both gentlemen. No affliction or bereavement, or loss of any nature, overtook men, but they took direction and comfort from their employers, who sympathised with their sufferings, and never failed to alleviate distress when it became known to them.

This excellent quality was more especially manifested during the great colliery disaster at Ferndale some 18 years ago, when so many bread-winners were swept away. In a collier's cottage one or other of the brothers would seat himself by the side of the family at the home in which a husband, brother or father were lying dead, and shed with the relatives tears of sympathetic sorrow for their irreparable loss caused by that fearful calamity. To alleviate the misery that would have otherwise been the sad corollary of the disaster they gave abundantly from their riches.

It was this philanthropic pity and unstinting benevolence which made the colliers and their wives and children respect and revere them, and which gave them such unstinted control that their wishes have invariably been fulfilled almost before they were made known.

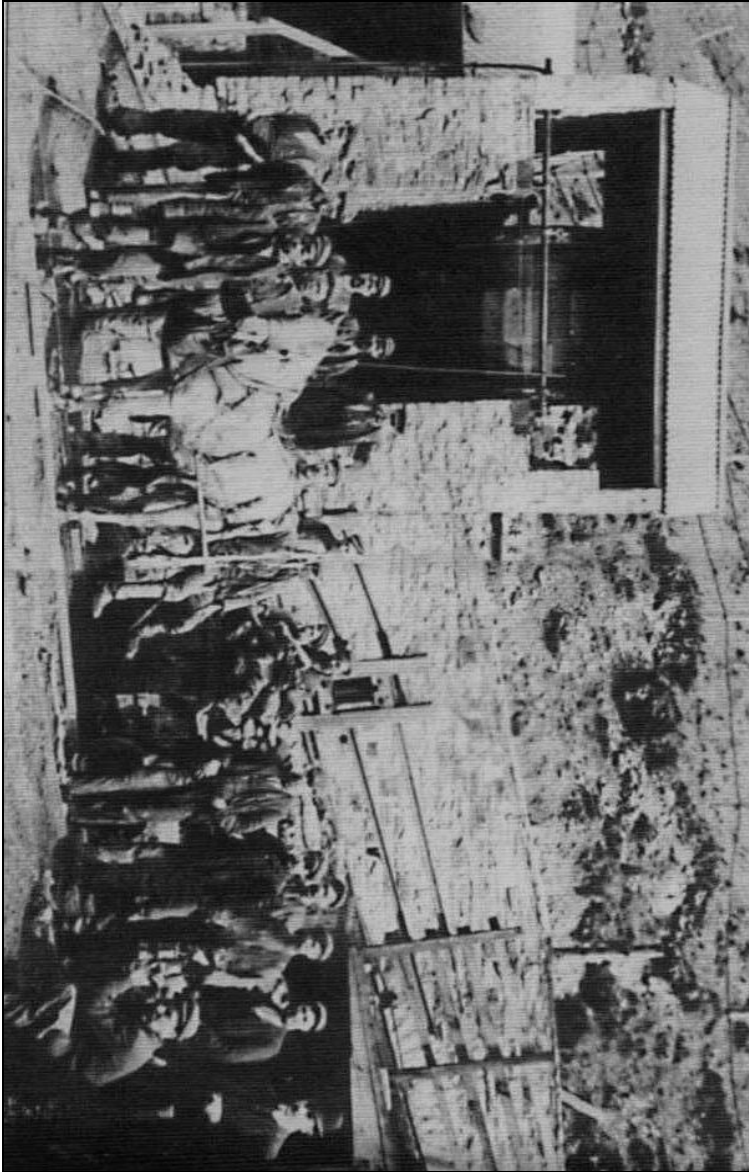
Mr. Lewis Davis had the most sincere and stringent ideas of the duties of employers of labour, and, relating to the Ferndale explosion, it was typical of the

man that immediately afterwards he left a pleasant abode at Sully and took his residence at Brynderwen, because he deemed it the duty of the employer to take the utmost care of his men, and this could not be efficiently done unless he lived in the midst. So much did that calamitous occurrence affect him that those who knew him often remarked that the disaster aged him ten years.

This fact is the key to the whole story of his life – he gave up a charming residence on the sea coast to be near his men, simply because he believed that by watching carefully the management of the pits he may prevent the possibility of the re-occurrence of another explosion. **Lewis Davis – Born June 21st 182,** died at Langland Bay, January 1st 1888, aged 58 years.



Lamp check from the Ferndale No.1 Colliery



Blaenllechau Level 1910 – Part of the David Davis & Sons concern.

Glossary of Mining Terms

Air-bridge – Also called ‘air-crossing.’ Where intake and return airways cross, they are kept separate by taking one, usually the intake, over the other.

Afterdamp – The deadly mixture of gases following an explosion in a colliery. Mainly composed of carbon monoxide. It often killed more miners than the explosion itself.

Agent – See management of mines.

Auger - Tool used for drilling hole into arms or collars to place explosives.

Balance pit – An early method of powering the cages in a shaft. Each cage (or bucket) was fitted with a tank which could be filled with water when it was at the pit top. A rope or chain from the top of one cage was taken over a large pulley (or sheave) and then similarly connected to the other cage, the rope being of such a length that when one cage was at the top of the pit the other was at the bottom, and visa versa. The pulley was usually fitted with a brake. When it was necessary to raise a tram of coal to the surface it was placed in the cage / bucket at the bottom and the tank of the topmost cage was filled until it was heavy enough to counter-balance the weight of the loaded tram at the pit bottom, and raise it to the pit top. The water in the descending cage was let out at the pit bottom and had to be pumped back to the surface unless it could drain from the pit by gravity.

Bank - The surface of a shaft, and at a level from which the pit cages are loaded or unloaded.

Banksman - The man in charge of the ‘Bank’ area at pit-top and of the cage upon raising, or lowering, at pit-top. He operates the signals to the winding engine-man and to pit-bottom, from the surface.

Bashing - A sealed off portion of the mine that had been worked out, but not stowed properly leaving a gap behind a wall and which was therefore a very dangerous and illegal practice that could allow an accumulation of gas and hence an explosion.

Bastard Rock - A strong mudstone, but not sandy enough to be called rock.

Blocklayer - All the underground rail systems especially forming junctions and double partings was done by the blocklayer and his mate.

Blower - An outburst of gas, usually methane, which issues from a crack in the floor, sides or roof, likely near a fault plane.

Brattice cloth – A kind of plastic sheet for covering ventilation doors; also for directing air-flow into places of working. Formerly made of tarred hessian.

Cage - The pit carriage for descending or ascending of a shaft.

Cap (or gas cap) – The blue flame found above the lowered wick of an oil-lamp. The height of this blue flame indicates the percentage of fire-damp in the area.

Check-weigher - A man appointed to check weight of coal in a tram, and to record the tonnage for the collier who cuts that coal. He would also assess the weight of small coal, and possibly crop the collier; i.e. Deduct a sum from his wages.

Chock - Also known as a **cog**. - A roof support constructed of interlaced horizontal wooden pieces, laid from floor to roof.

Collar - A wooden roof support consisting of two arms, joined at the top by another piece of wood, know as a the collar.

Comet - A naked light used to illuminate main roadways below ground.

Cog – See chock.

Cross-cut – A link-up roadway connecting two other paralleled drivages, usually for ventilation or supply purposes.

Cross-walls - They were packs put on between buttress packs i. e. parallel to the face, creating a break line plus help maintain ventilation at the face. Think of a dry stonewall backfilled with muck(debris) which is built up to the roof and adds additional support where the coal has been removed. When the coal is removed you usually have a space around 8 yards long either side of roadway. If the roadway is 5 feet 7 inches high and the coal is 2 feet 6 high then you have 3 feet 1 of rock(muck, debris) to clear before you have required road height of 5 feet 7. The coal is taken 8 yards both sides. You fire(explode) the rock down and then use that rock to build your pack (dry stonewall).

The pack would then be constructed in the 2 feet 6 void where the coal once was. Not easy work if you are doing it properly but often as not muck was just shoveled down into the void and only cursory walls built.

Davy - Safety lamp invented by Sir Humphrey Davy in 1815.

Dead work – Work that is non productive, e. g. repairing weak roof, cutting bottom ‘squeeze’, laying of tramways etc. A collier would receive extra payment for such work.

Dip - Working a seam to the 'Dip' means working down-hill, as opposed to working the 'rise', uphill.

District - The area in a colliery that is legally under the supervision of a mine deputy.

Double-parting - A roadway containing one tramway entering a section of wider roadway containing two set of tramways. It is a transfer area where a full 'journey' of coal is deposited and another 'journey' of empty trams is ready to be taken to the coal face.

Drivage - An advancing heading (tunnel) in a mine. It could be exploratory or for development.

Downcast - A ventilation shaft, where fresh air is drawn (or forced) into the workings.

Dumb drift - A dumb drift was a short length of airway that by-passed the ventilating furnace near the bottom of the shaft allowing the return air to be drawn up the shaft without contacting the furnace - explosive! An alternative was to place the furnace itself in the drift drawing in intake air and expelling it into the shaft thus drawing the return air up from shaft bottom - again, isolating the furnace from direct contact with gas laden air.

Engine plane - Usually a sloping roadway with an engine towards the top hauling up trams.

Face - The part of the mine where coal is actually mined from.

Fire-clay - A band of clay normally found adjacent to a coal seam and sometimes worked in addition to the coal, It becomes the main constituent of brick making, also used for the 'stemming' of shot-holes in mines.

Fire-damp - Chemically known as carburetted hydrogen or methane, has a specific gravity compared with air of .559 and is therefore found near the roof. When fire-damp explodes, after-damp is formed, and consequently, nearly every death caused by colliery explosion may be attributed to gas poisoning.

Fireman - Local name for a deputy. Sometimes the man who looked after the ventilation was also known as a fireman.

Flueman - The man appointed to maintain a fire in the flue.

Furnace ventilation - A method of ventilation in which a fire is kept burning near the bottom of the upcast shaft, to draw air into the mine workings. Also called 'flue.'

Gas - A term normally used for firedamp, but could be any gas found in a mine

Gas drift - In order to prevent an accumulation of gas in the mines, which is the principle cause of colliery explosions, an escape drift should be driven from the upcast into the summit of the goaf, providing the overlying measures are bound by a strong post girdle, which can resist the draw of the goaf to the surface. By this means the gas would escape to the upcast as fast as it was given off, but where the upper measures consists of loose shaly matter, and each fall in the broken section or goaf reach the surface, an escape drift would be of no benefit whatever in this respect, but the gas in this case would find its way into the return airway under certain atmospheric changes, and would in connection with the return current, ascend the upcast. The gas would be drawn up the upcast shaft through the 'gas drift' and bypass the furnace at the bottom of the shaft.

Goaf - The worked out ground of a coal mine

Goit – Drainage ditch (north of England term)

Hard heading - A drivage through rock and coal at an angle to contact a seam for future production.

Haulage engine – A steam, compressed air fixed engine, on surface or below ground. Used for taking into the district trams filled with supplies and returning with a full journey of coal.

Haulage plane – The actual 'run' of a journey into a particular district, its gradients, turns, etc., details that are familiar to the haulage-engine driver.

Heading - A drivage in advance of any coal-face, driven to determine mining conditions ahead.

Haulier - A miner who drives a horse to the coal-face or stall with an empty tram and returns to the 'double parting' with a full tram of coal. He is in sole charge of his horse.

Haulage engine - A steam, compressed air, or electrical type of fixed engine, on surface of below ground. Used underground for taking in a district supplies for the face and returning with a full journey of coal.

Hitcher - A man at pit-bottom who operates the shaft signals which are heard by the winder and banksman.

Inbye - A word to describe the relative position of anyone in a mine e.g. "He has gone inbye" means he has gone towards the coal-face.

Incline - Any inclined tram road underground, usually provided with a haulage engine taking men, stores etc; inbye and coal or rubbish outbye.

Intake - The route taken by fresh air from the downcast shaft to the workings.

Journey - A number of trams linked together.

Knocker - A signal box connected to a pair of signal wires, hung for the whole length of a haulage road and into the engine-house. A "rider" would signal to the engine-man to move or stop a journey of trams, on these low-current wires.

Lagging - Timber 'slats' erected above and around sides of wooden 'Pairs of timbers' to ensure no stones could fall on a man passing by.

Lamp station - Place where a lamp could be re-lit.

Level – A level is a drivage tunnel which follows the seam of coal from the surface. Other factors, such as water and roof conditions, would decide the accrual pitch of the level's initial gradient.

Longwall - A method of mining coal with all the colliers of that district manning one lengthy coal-face. No pillars were left behind in a longwall face and the roof was allowed to 'cave in' behind the line of supports.

Management of mines – 'Official' was the generic term for all levels of management, from agent down to shot-firer. Formerly, in large coal companies one or more 'Agent' would have been in charge of a group of mines. Each mine would have a manager (viewer) who was required in the 1870's to be properly qualified and answerable (but not legally) to the Inspector of Mines. The under- manager (or under-viewer) was generally responsible for the immediate supervision of operations in his district. Overmen were responsible for the provision supplies when needed, including timber for support of the roof. The overmen of the 19th century also had the responsibility for calculating the wages due to each collier.

Master-haulier - An official who organises the tasks of hauliers and checks the shifts of horses in his care.

Manhole - Refuge holes made in a roadway for the shelter of a person from shot firing, or safety from a passing journey.

Ostler – A horse attendant, working in underground stables.

Outbye - Towards the shaft or to the mouth of a level.

Overman – See Management of mines

Packs (see cross-walls) - In long-wall faces, a wall of loose, available stones would be erected, and then packed tightly with loose debris. This would support roadways at the ends of the face and also direct ventilation efficiently.

Pair of timbers - Wooden roof supports consisting of two arms and a collar.

Pillar and stall – A system of mining a seam, by mining the coal in parallel ‘stalls’ advancing onwards. The stalls would be about 22 yards apart, depending on the roof conditions and height of seam. ‘Cross-cuts’ would be driven at right-angles every 25 yards to link up all stalls, this leaving ‘pillars’ of coal to support the roof of the district. Each stall would be manned by two workmen.

Rashing / Rashers - A layer of strata of a non-coal mineral that could describe as shale, not having the consistency of mudstone or sandstone. One of the characteristics of shale was that it was grainy in consistency, it could not be picked up a lump in the way of coal or stone, and when handled it left a slight, oily deposit on the hands.

Regulator - Similar to an air door bit with a smaller sliding door on it. You slide the door across to change the area of the opening thus regulating the air flow.

Repairer - A workman employed on out-bye work, repairing and replacing damaged roof supports, and generally ensuring a good state of airways, etc.

Return - A ventilation term. The area of a mine through which travels the foul air and gases from the workings and coal faces, on the way to the upcast shaft.

Rider - A thinner piece of coal above the main seam (sometimes too thin to work). It is often of inferior quality. The tender clod probably means the muck between the main seam and the rider which is of a soft quality so that it often falls when the coal is removed.

Rubbish - A general term for any sort of debris, stone, dirt, etc, to be disposed of.

Safety lamp - see ‘Davy.’

Seam - One of a number of beds of coal, normally found throughout a coalfield.

Shaft - The vertical sinking of a colliery to a required seam. Most shafts are circular in section, and designed to hold one or two cages.

Shotsman - A qualified official who fires shot-holes in a district.

Sinker - A specialist miner, employed for the sinking of a pit-shaft.

Stall – See pillar and stall.

Sprag - A piece of wood tapered at each end and inserted between the spokes of a tram wheel to stop the tram or to prevent it running away when on an incline. Also refers to a temporary prop, erected to support a ripping lip until a permanent prop is stood.

Squeeze - The increasing pressure of a weak roof in mine workings, detected by the crushing of timber supports - sometimes accompanied by audible cracking of roof strata.

Stall - A working place at the coalface where the coal was extracted; in a coalface 100 yards long there would be as many as 20 or 30 stalls, each separated by a pillar of coal left to support the roof.

Stemming - Clay or other inert material, used to pack behind the explosives in a shot-hole.

Strata - One of several parallel layers of rock etc., arranged one on top of each other.

Sump - An extension downwards at the bottom of a pit-shaft to contain the water that seeps down the shaft. It would then be pumped to the surface.

Tamping - The pressing of rubble or horse manure onto the explosive substance inside the bored hole of an arm or collar to stop any flames reaching out and causing an explosion.

Timberman - A workman who would 'notch' and prepare wooden posts for the securing of the roof. A man employed for the re-timbering of the supports of an old roadway.

Top - Commonly used in mines to describe the roof of a seam, e. g. "The top needs extra supports."

Under-manager - The qualified person in charge of the mine in the absence of the manager.

Upcast shaft - A secondary shaft that returns stale air to the surface. It normally contained a furnace fire at shaft bottom.

Viewer – Colliery manager during the 19th century.

Water balance – See balance pit.

Water Gauge – Instrument used to determine the pressure difference between either the 2 shaft bottoms, or the main intake and return roadways, thus find out the ventilating pressure. Still used to this day only more up to date magnetic gauges rather than a glass U tube with water in.

The seams

Following you will find a map of the seam where the explosion occurred in the 1867 explosion at the Ferndale Colliery. Unfortunately trying to reprint a map this size to go into an A5 book is very difficult. Fortunately Reg Malpass has kindly supplied me with photographs that I have used. However, how these come out in print is hard to say, and I ask the reader to realise that I believe it is important they be included although at this size they might be difficult to see. I am sure anyone viewing these will realise the complexity of the underground workings depicted.

Gareth Harris

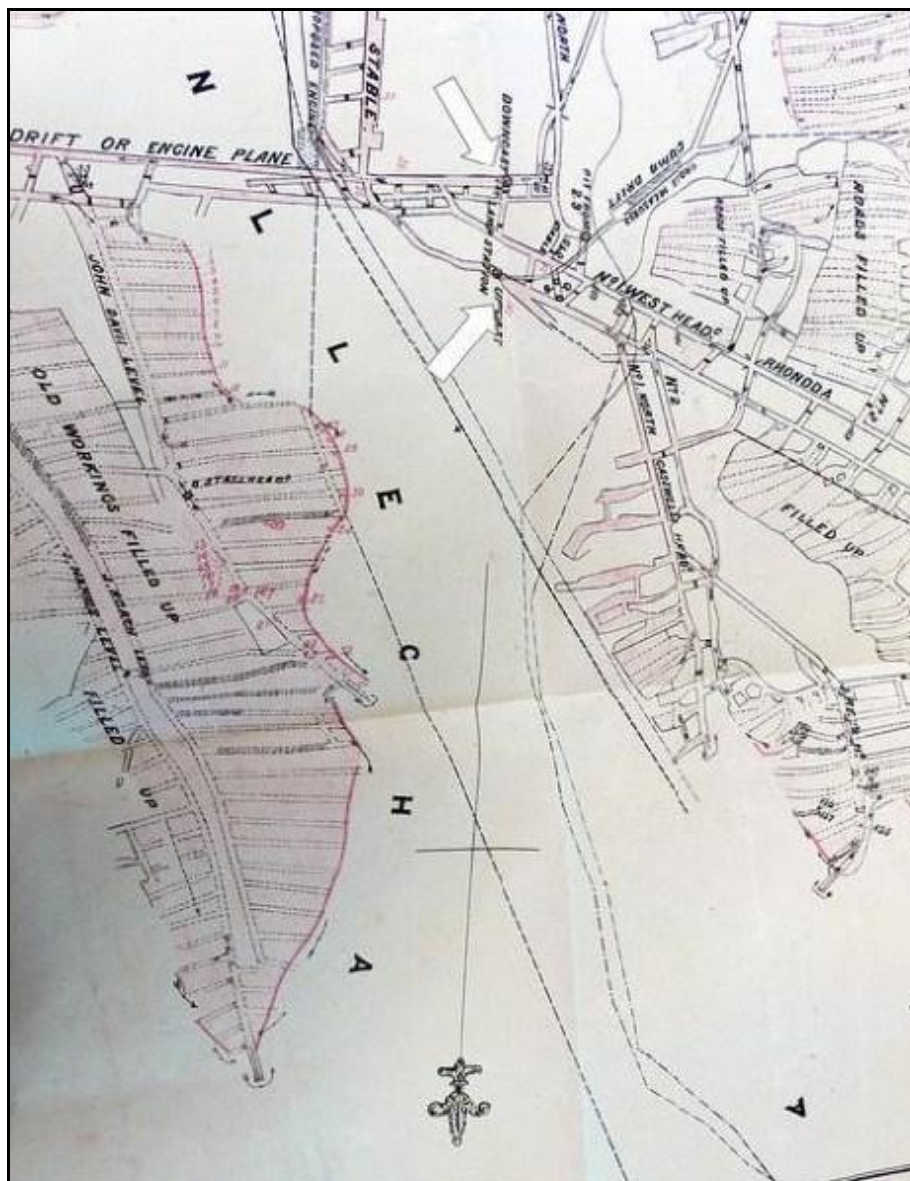
PLAN OF WORKINGS IN THE
FOUR-FEET SEAM
Ferndale
WHEN THE EXPLOSION OCCURRED
ON THE 8TH NOV., 1867.

SCALE, 4 CHAINS TO INCH.

REFERENCES.

NUMBERS IN BLACK REFER TO PERSONS KILLED BY SUFFOCATION.

- DO. RED DO. DO. BURNT.
- D CLOSE WOODEN DOORS.
- D CANVAS DOORS.
- SHOW BRATTICE FOR CONDUCTING AIR TO FACE.
- WOODEN DOORS ALLOWING SMALL SCALE OF AIR.
- SHOW DIRECTION OF AIR CURRENT IN RHONDDA.
- DO. DO. DO. DUFFRYN.
- DO. DO. DO. BLAENLLECHA.
- I REPRESENT AIR STOPPINGS.
- ∧ AIR CROSSINGS.
- B AIR STOPPINGS ALLOWING SMALL SCALE OF AIR.
- SD SPARE DOORS.
- WORKING PLACES.



Part of the four-foot seam of the Ferndale Colliery 1867
 (Courtesy of Reg Malpass)

TO SCHOOL-MASTERS EDUCATING CHILDREN
PAID BY THIS COMMITTEE.

You are requested to observe the II. Rule sent herewith, and to inform the Secretary of any default either in weekly attendance or withdrawal from school.

You will please send your account to the Secretary quarterly, to the 25th March, 24th June, 29th Sept., and 25th Dec. in each year

You will please in all your communications give the printed number as well as the name of the child or children.

You are requested to admit no child to be paid for by this Committee without a printed order signed by the Secretary.

FERNDALE COLLIERY EXPLOSION
(1867),
RELIEF FUND.

TRUSTEES (RIGHT HON. H. A. BRUCE, M.P.
RICHD. FOTHERGILL, Esq.
GEO. ELLIOT, Esq.

CHAIRMAN—RICHD. FOTHERGILL, Esq.

CENTRAL COMMITTEE,
ABERDARE, GLAMORGANSHIRE.

MR. WM. JENKINS, Hon. Sec.
REV. D. M. JENKINS, SECRETARY.

ABERDARE:
Printed by William Morris, Post Office.

T 9/21

RULES.

I.—That the widows be paid at the rate of 5s. each, and children at the rate of 1s. 6d. each per week, exclusive of education. Boys to be chargeable to the fund till they attain the age of 12 and girls 13 years of age.

II.—That it be imperative upon all widows and others receiving relief from this fund, in respect of children, to send such children to school—girls until they attain the age of 13 years, and boys until they attain the age of 12 years; that the cost of their education be paid by this Committee, and that if any of such children be withdrawn from school without the permission of this Committee, the relief from this fund be discontinued, and further, that for each week that the child does not make up the requisite number of attendances the week's pay be stopped unless absent with permission, or sufficient reason can be shown.

III.—That in any proven case of misconduct, on the part of any recipient of this fund, or if any widow have an illegitimate child, the relief from this fund be discontinued.

IV.—That a marriage portion of from £10 to £20 be given, at the discretion of the Committee, to each widow who remarries, two-thirds to be paid immediately upon marriage, the remaining one-third in twelve months after marriage.

V.—That parents who were wholly supported by their sons shall be paid at the rate of 5s. per week.

VI.—That orphans be paid at the rate of 2s. 6d. each per week. Those children who are partially blind to be paid 1s. each per week extra.

VII.—That the cost of schooling shall be paid for by the Committee to the school-master direct, not to exceed 6d. per week. Parents or guardians to choose their school subject only to the approval of the Committee, as to the quality of the education imparted.

VIII.—In the case of posthumous births the sum of £1 should be given to the mothers to meet the additional expense. That in case of difficulty where medical aid is required the Committee pay the medical man 10s. 6d. if called in by the midwife in attendance upon her.

IX.—That the widows in Aberdare district be paid in the Board of Health room, at the Town Hall, on alternate Fridays, at half-past ten o'clock, and widows are requested to be punctual.

X.—That widows residing at a distance be paid by check monthly.

XI.—That all recipients of this fund give immediate notice to the Secretary of any change of residence.

XII.—All communications to be made to the REV. D. M. JENKINS, Aberdare.

The rule card for the 1867 Ferndale Colliery Disaster Fund given to each member receiving benefit.

All Ferndale Pits & their history

No.	Name	Sunk	Closed	Shaft depth	Notes
1	Blaenllechau	1857	1959	200 yards (180 m)	First pit sunk in the Rhondda to work steam coal. After sinking of No. 5 was sunk to same depth
2	"	1870	1936	225 yards (206 m)	1,540 yards North of No. 1, located next to No. 4. Closed before the outbreak of WWII.
3	Bodringallt	1864	1936	238 yards (218 m)	Sunk by Warner Simpson and Co. Bought by David Davies in 1890. Sold to Cory Bros before 1923. Closed in 1936, but used a ventilation shaft for No. 1 & No. 5.
4		1876	1936	300 yards (270 m)	1,540 yards North of No. 1, located next to No. 2. Closed before the outbreak of WWII.
5		1889	1959	358 yards (372 m)	40 yards North from No. 1.
6	Pendyrus No. 1 (Tylorstown)	1876	1936	464 YARDS (424 M)	1.5 MILES (2.4 km) South of No. 1., developed by Alfred Tylor's Colliery Co.
7	Pendyrus No. 2 (Tylorstown)	1876	1936	464 yards (424 m)	1.5 MILES (2.4 km) South of No. 1., developed by Alfred Tylor's Colliery Co.
8	Cynllwyn Du (Tylorstown)	1858	1936	606 yards (554 m)	Sunk by Thomas Wayne as Ponty y gwaith in 1858, it was renamed Cynllwyn Du. Closed, but was re-opened by David Davies in 1892 to access the Gellideg seam. Extended to a depth of 606 yards, it was the deepest mine in the Rhondda.
9	Tylorstown	1907	1960	550 yards (500 m)	Sunk to the Yard seam by Messrs. Alfred Tylor's and Colliery Co.

The end of the 1867 Ferndale Relief Fund

By July 1871 the total amount collected was: - £17,754 to which is added £1027-17 – 5d for interest, making a total of £18,782 - 9 -1d. The total expense of collecting this large amount, together with the entire cost of administering the fund to 3/3/1871, or more than 3 years, is only £592-4s-0d, or a fraction over per-cent up to March 3rd. Twenty-two widows had re-married, 44 widows dependents and children had emigrated and 10 had died. Since that date one had remarried and 5 emigrated.

For the year ending March 3 rd	1869	yearly relief paid	£1818-6-6d
“ “ “ “ “ “	1870	“ “ “	£1502-15-6d
“ “ “ “ “ “	1871	“ “ “	£1264-9-0d

Nearly 50 of the claimants are scattered over the country from London to Cornwall in England and from the lead mines of North Wales to the lower part of Carmarthenshire in South Wales. These have all to be paid by check monthly while those who still reside here are paid fortnightly. Also 100 children scattered over nearly 30 schools in different parts of the country whose attendance has to be looked after and school fees paid regularly.

On 27th July 1883 at the Annual meeting of the subscribers Mr. David Davies proposed “that the money now in hand belonging to the Ferndale Fund be transferred to the Colliers Permanent Fund.” He remarked that the remaining recipients could be paid from the Permanent Fund on the same conditions that they were now paid, and referred to the resolution past on 26 November 1867, that the subscribers should decide what was to be done. When the remaining subscribers met a great debate took place and heated arguments took place, the majority of the mining community being opposed to the recipients, the South Wales Permanent Fund as it was run by the colliery owners, who they believed could not be trusted. However, the rules made in 1867 could not be altered and in January 1886, £4,500 was handed over.

The final words in the Minute Book of the Ferndale Relief Fund summoned up how many felt: - “Thus the labours of the committee came to an end, the money collected for the sufferers from the Ferndale explosion in 1867 has been estranged for the use of others who had neither right no claim to it. I hope the claimants, the real ones, will be justly treated with as much consideration as shown to them hitherto. – **J. J. George**



Two miners prepared for work at the Ferndale Colliery 1907. The one on left, Griff Jones, lost an eye in the 1867 explosion. The shorter collier was William Jones, about 25 years of age. These men were not related.

Griffith Jones and William Jones (not related)

The following letter was received by the author of this book from the Great grand-daughter of one of the colliers in the photograph on page 289 (over) and Griffith Jones on page 291, shortly after this book was first published: -

Taff St.
Ferndale
Autumn 2013

Dear Mr. Harris

The older man is Griffith Jones (Griff Ffaldau), my Great-grandfather who lost his right eye in the 1867 explosion in No. 1 Pit., Blaenllechau. He was born in 1849 at Aberdare, moving to Blaenllechau in his early twenties. He was one of eight children and a collier from the age of 11 or 12, walking to Blaenllechau from Aberdare over the mountain dividing the valleys. The other photo I had of him was of him in his clean clothes showing his right eye closed as is shown in the photo in your book. The younger man is William Jones (Pilot Bach). He lived in Ferndale at the top of North Road, left-hand side and just before Morris Terrace in one of the white cottages which were up off the road. Enclosed is a copy of the cutting, possibly from the *'Daily Mirror'* or *'South Wales Echo,'* taking the age he gives and the date in of the article about Eisenhower being made 34th President its date is probably 1952 or 1953. Therefore William Jones was born around 1882. No idea when he died.

Meryl Gorringe (nee Jones)

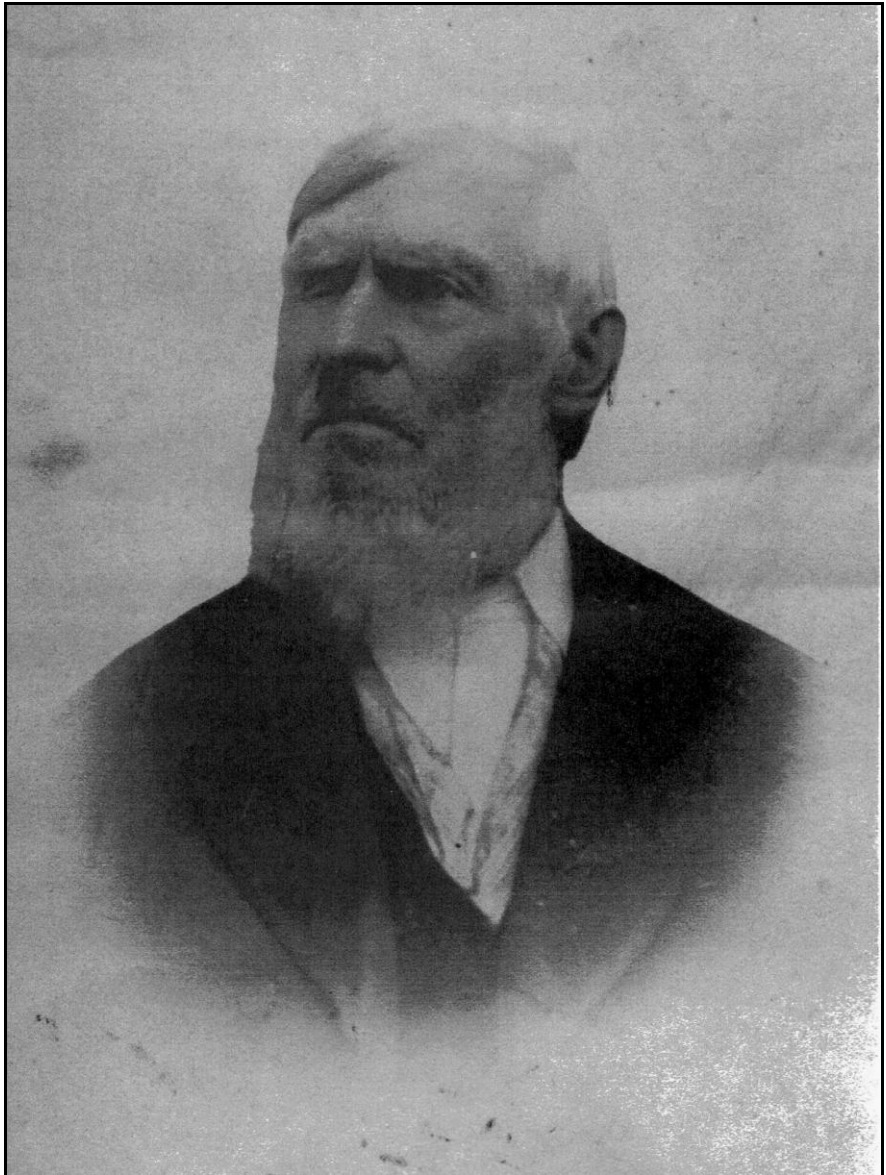
The newspaper report:

They call him 'Pilot Bach'

Meet the Tom Thumb of the Welsh coalfield

Seventy-one-year old Mr. William Jones lives alone with his memories in a small house tucked away in a small house on the mountainside near

Ferndale, overlooking the deserted pit where he worked for 35 years. Mr. Jones, known to all as 'Pilot Bach' has been called the 'Tom Thumb of the



Griffith Jones

Who lost his right eye in the Ferndale explosion of 1867.

(Photo courtesy of Mrs. Meryl Gorringer, nee Jones)

Weish coalfield for he stands only 37½ inches high and has never weighed more than five stone. Born in Ferndale, not very far from the 83-year-old cottage where he now resides 'Pilot' went to work as a door-boy at the age of 13 in the No. 2 pit, which was worked until the time of the depression. For a 9½-hour shift he was paid 1s-5½d. and his contemporaries had to admit that he was capable of doing every bit as much work, and possibly more, than the fully grown men who worked at his side. During his 35 years under-ground he progressed from doorboy to engineer, passing through nearly every job except that of actually cutting the coal.

An easy 'Fiver.'

"The easiest 'Fiver' (£5) I ever earned was when they wanted to put my photograph in a mining exhibition in Cardiff," said Mr. Jones. "I was placed between two huge pieces of coal and the caption said that I was the smallest doorboy in the coalfield." The No. 2 (pit) was closed down in 1926 and 'Pilot' was on the dole for some time before being offered a job in the Blackpool Tower in the midget colony as a salesman. The job didn't suit him though – 5s. a week was insufficient remuneration for the Rhondda man and after three weeks he came back to Wales. For the last 20 years, since the death of his parents, he has lived on his own in the minute home, doing his own cooking and performing all the household duties.

A bachelor, he used to be a great boxing fan and also a supporter of Ferndale R.F.C. when the club was in its hey-day. An injury suffered while climbing a ladder to reach a cupboard a few years ago has been the cause of persistent rheumatic trouble, so 'Pilot' spends most of his time at home now, reading the papers and listening to the wireless. His only complaint is that he has to pay just as much for a new suit as a man six feet tall. "That doesn't seem right to me," he said, "but the tailors say that there's more work in making a suit for me than there is in making

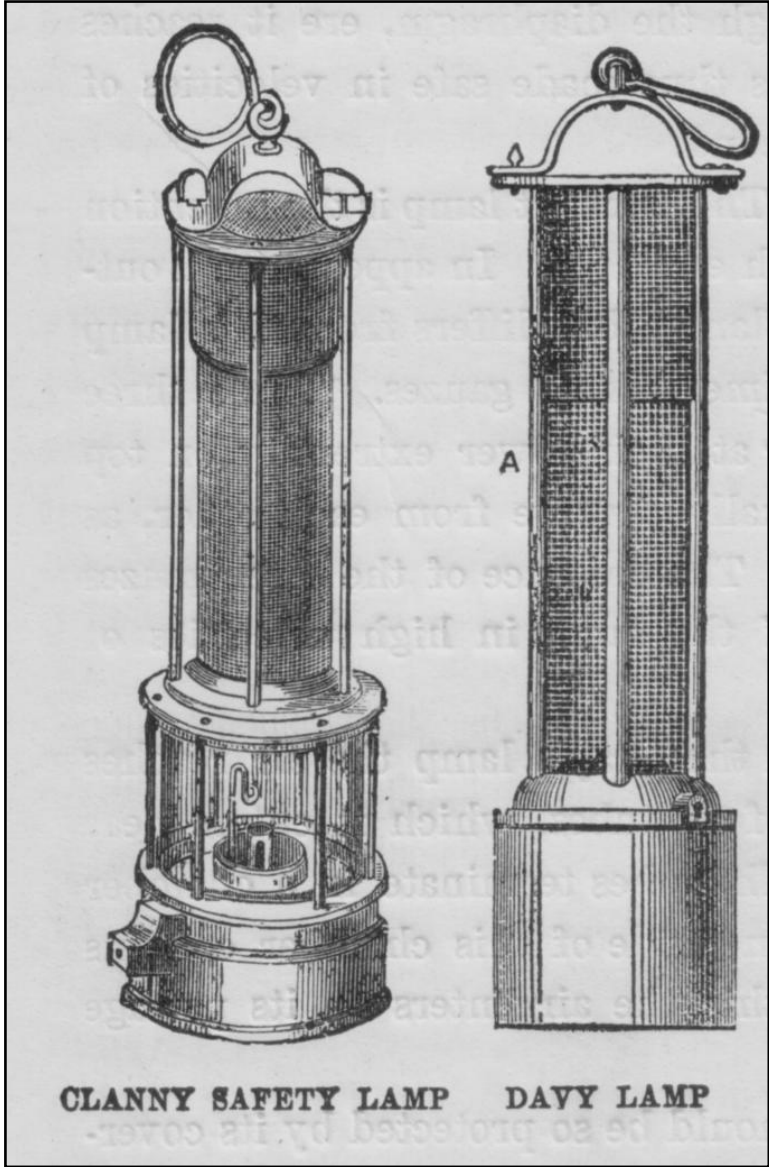
one for a normal sized chap.” Mr. Jones, who claims that he could write a history of the Rhondda Fach – “for I can remember when there was nothing here except the mountains and the valleys’ – considers that he has had a grand life. “I’m quite content here, he said. “When I begin to feel a bit lonely I sit down and think of all the happy years I’ve had.



A photograph of the family of the late Griffith Jones taken in 1927 . Left to right: - Anne, his widow; Ruth Jones, Griff's daughter; and Ruth Leach nee Jones (baby), great-granddaughter; David Griffith Jones (known as 'Dai the oil'), grandson. Taken at 19 Blaenllechau Rd, Blaenllechau (formerly called Club Row). (Photo courtesy of Mrs. Meryl Gorringe, nee Jones).



In 1988 adjacent where the Ferndale No. 1 and No. 5 pits once stood a memorial was erected commemorating those miners who worked or were killed or injured in the Ferndale pits, including the 231 miners who lost their lives in the two frightful explosions at No. 1 Pit in 1867 and 1869.



Acknowledgements

Many thanks to David Gwyer for once again proof reading this book, I'd be at a loss without him to correct my mistakes. I'd also like to thank Mark Baker for his kind foreword and Reg Malpass for letting me use his maps of the underground workings of the Ferndale Colliery.

I would also like to thank the reference and local study sections of the Merthyr, Aberdare, Treorchy and Cardiff libraries, whose assistance is greatly appreciated.

Thanks once again to the Aberdare Historical Society for allowing me to use the majority of their Glossary of Mining Terms.

Many thanks to the members of the Welsh Coalmines web – site who have help me by explaining many mining terms.

Also thanks to Mrs. Meryl Gorringe (nee Jones) for the photographs and story of her family.

References

Most references in this book are taken from newspaper reports from the following papers: -

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