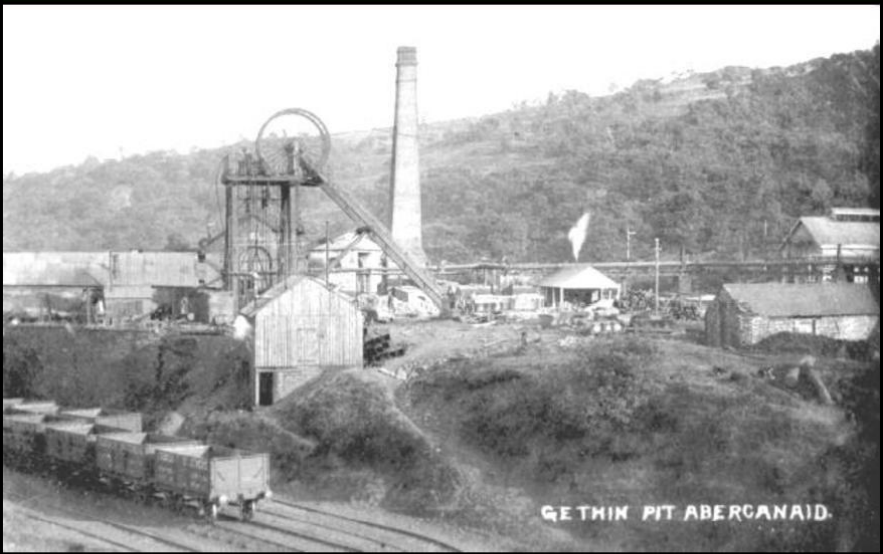


**THE GETHIN COLLIERY DISASTERS**  
at Abercanaid 1862 & 1865



By Gareth Harris



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## **Introduction**

Everyone knows about the terrible colliery accidents that occurred in the Rhondda valley and to a lesser extent those in the Aberdare valley, but the Merthyr valley seemed to have been relatively lucky in escaping these catastrophes. However, when searching through the list of south Wales disasters the name Gethin kept on cropping up. On my investigating I discovered that not one but two major disasters had occurred at the Gethin pits, Abercanaid, near Merthyr. The first, in 1862 saw the death of 47 men and boys, the second, in 1865 when another 34 were victims. These little-known disasters deserve better recognition, so I decided to write a book, through newspaper reports, to record these horrific events. It goes on to record the poor working conditions endured by the colliers at this early stage of the coal industry in the valleys, and in particular the poor ventilation that allowed these events to take place. The race to provide coal to the Crawshay Ironworks at Merthyr, who were the owners, and their reluctance to invest in the No. 1 and No. 2 Gethin collieries, led inevitably to the horrors that ensued. This are the stories that unfold through this book.

**Gareth Harris**

To help the reader a Glossary of Mining Terms begins on page 328.



## Preface

The Cyfarthfa Ironworks was a major 18<sup>th</sup> and 19<sup>th</sup> century works located on the north-western edge of Merthyr Tydfil in south Wales. It was one of the four main ironworks in Merthyr, the others being Dowlais, Plymouth and Penydarren. The lease of the large tract of land at Cyfarthfa and its mineral properties had been taken out in 1765 by Anthony Bacon and William Browning for ninety-nine years, and had ultimately passed to the Crawshay family.

The landowner was Lord Dynevor, who wanted better terms for the renewal (in 1864) than those proposed by William Crawshay immediately after the death of his father (also named William) in 1843. Only blast furnaces stood on the leasehold land and Crawshay owned the land the other side of the river, so Dynevor was in a weak position, Crawshay being able to dismantle the furnaces and rebuild them opposite if they wanted to. This dispute went on for years until 1860 when William Crawshay announced that he would not be renewing the lease. The loss of American markets was hitting the iron trade badly, but even if there should be an improvement, William had lost faith in Cyfarthfa's future and decided not to renew the lease.

But Robert Crawshay felt his duty towards the ironworks workmen and pleaded earnestly with William, and his father, who would never have listened to anyone but his dear "Roy," gave way at last. Negotiations were resumed with Lord Dynevor and a new lease was drawn up and signed, and the Cyfarthfa employees rejoiced that their jobs were safe. Of course Robert was the hero to the people of Merthyr. Popular songs about him were sung in the town. He was hailed as "an earnest friend and promoter of Merthyr".

During these unsure years the fate of the Cyfarthfa ironworks had hung in the balance, William Crawshay refused to allow money to be spent on the collieries he owned, as they were only used for supplying coal to the ironworks. In 1839 these pits were put under Henry Crawshay's management, but soon were passed on to Robert Crawshay. He did his

best to keep them in good condition, but any suggestion about improvement was vetoed by his father.

In 1849 William Crawshay extended the area of Cyfarthfa's coal supply by sinking the No.1 Gethin pit at Abercanaid between the canal and river. It was named after the nearby farm. Gethin No. 2 was later sunk from higher up the mountainside and a tramway incline connected the two collieries, passing over the Glamorganshire canal. The Crawshay's had also laid their own private railway in 1852, to run between the higher pit (No. 2) and the furnace coke ovens at Cyfartha.

Close to the Gethin farm was the Gethin Arms, with its own boat basin. The Gethin collieries also had their own basin alongside Gethin No. 1 pit and William Gomer, a local man, interviewed in 1949, remembered the coal from Gethin No. 2 was actually tipped into boats directly through a hatch in the incline bridge.

The Gethin pit had two winding shafts, lower and upper pits, no.1 & no.2 respectively, both about 120 yards deep. There was also a shallower shaft used for ventilation, which was run by furnace. Yet another shaft was kept for pumping only.

This is the background to what would become the story of two terrible tragedies.

## Chapter one

### **The Gethin Colliery Explosion – Wednesday, 19<sup>th</sup> February 1862**

Frightful catastrophe! - 47 Lives lost and two men severely burnt

On Wednesday afternoon, 19<sup>th</sup> February, 1862, a report was spread that a fearful explosion of fire-damp had taken place at No. 1 pit, Lower Gethin Colliery, Abercanaid, near Merthyr Tydfil, the property of Messrs. Crawshay and Sons, Cyfarthfa Ironworks (reported the '*Cardiff Times*'). Soon crowds of persons, including friends and relatives of the hapless men, ran with palpitating hearts to the spot, anxious to hear the worst. On reaching it four had been taken up alive, but terribly burnt; one of them, a boy residing at Troedyrhiw, it was said had both his eyes burnt out, and was otherwise injured. As will be easily conceived it was some time before anything like an accurate account could be obtained of the calamity. Meantime the crowd had become densely packed from the arrival every moment of hundreds, impelled by terror and anxiety, to visit the fatal spot. Mounted messengers were rapidly passing to and from Cyfarthfa Castle, and everything that skill and daring could accomplish was done to ascertain the fate of those in the pit.

At length the mournful intelligence reached the bank that their worst fears had been confirmed - that the whole of the unfortunate men employed in one part of the pit, were laying lifeless corpses. Several horses having been killed it became necessary to remove them to the bank before the bodies of the men could be got out. About six o'clock the first portion, being six in number, were brought to the surface, and immediately sent to their different dwellings. In another hour the remainder had been brought up and carried to the railway, where they were placed in trucks and thus conveyed up the line, stopping at the Collier's Row, Penyrheol and George Town, for the purpose of leaving the bodies at their different homes. They then proceeded to Cyfarthfa Upper Yard.

The scene was most harrowing and the dark night was filled the cries and shrieks of the relations, as by the light of the workmen's lamps they passed from carriage to carriage in search of friends or relatives, and the

scene baffled description. Respecting the origin of the calamity various rumours are current, but there is not one on which any reliance can at present be placed. The number of bodies recovered on Wednesday night, amounted to 45, but it is believed that others are missing. Unlike the Hartley accident, that occurred on Thursday, 16th January 1862, which resulted in the deaths of 204 men, it is said there are some who were engaged in the pit that have escaped. If so, they will be able to tell the dreadful tale, but at present so much excitement prevails that nothing can be relied upon. The greater portion of the men were married, and some of them have left large families to mourn their loss. The bodies were in some instances so much burnt as to render identity almost impossible.

**Latest particulars** [From an esteemed correspondent]

Further detail of the appalling catastrophe - Thursday evening.

The whole neighbourhood of Merthyr, Abercanaid, Pentrebach, and Troedyrhiw was suddenly, at mid-day Wednesday cast into the greatest gloom by the sad and fearful intelligence that a most serious and destructive explosion of gas had occurred at Lower Gethin Colliery, No. 1 Pit, which had most probably swept a large number of its hard-working inmates without a moment's warning into a solemn eternity. No 1 Lower Gethin Pit is situated on the bank of the Merthyr and Cardiff Canal closely adjoining a large number of houses, lately built on the right hand side on the Taff Vale Railway between Merthyr and Troedyrhiw, - and the village is known by the name of Abercanaid in the parish of Pentrebach, a district lately formed from the large and populous parish of Merthyr Tydfil; it is within 100 yards of the Taff Vale Railway, between the River Taff and the Merthyr Canal - and is about a mile from the village of Troedyrhiw. The pit can be easily seen from the railway. There is a large pumping engine closely attached to it. The depth of the pumping shaft is 130 yards, and the depth of the working shaft is 126 yards.

It is not known as yet what might have been the cause of the explosion, and it is very probable that it will be difficult to ascertain correctly how, where, and by whom the gas was ignited, owing to the sad fact that all the men, with the exception of two who were saved, but one of whom is

unlikely to recover, have either been burnt or suffocated (by what they call the after-damp) to death. The fire fighter, who is severely burnt, has expressed it as his opinion and belief that the explosion could not have taken place but in the farthest heading in the works, known as John Cox's heading. It is now rumoured and reported at Troedyrhiw that one of the men working in the pit who now survives, having been through severe indisposition prevented from going as usual to work yesterday, declared to his friends about three weeks ago, that he firmly believed that an explosion would very soon take place in the pit, on account of the gas lately greatly accumulating in the pit. Whether the above is correct remains to be proved, and undoubtedly, such will be inquired into at the inquest.

The state of things in this neighbourhood when the accident was reported can more easily be imagined than described. Seriousness and anxiety seemed to reign over all and very little hope was entertained of ever recovering those who had suffered from its terrible results. There were 150 men employed in the pit, and it is owing to the general good ventilation of the pit that the lives of those who were working in the other end of the pit were preserved. The explosion reigned fatally and fearfully in the extreme end of the pit on the Merthyr side of the Aberdare mountain and notwithstanding the awful havoc which had been made in breaking air-doors, tearing bratticing, and producing heavy falls of rubbish, great exertion was immediately made to ascertain what amount of mischief the furious burning element had been the means of accomplishing in the narrow subterranean passages of the pit. This circumstance has given an additional proof that our colliers and miners are true heroes and men of the greatest courage, ready and willing in a case of emergency almost to sacrifice their own lives, if they could by doing so, be of any service to alleviate the sorrows and trials of their fellow workmen.

As soon as a large number of strong, able, and courageous men, who had been overcome by the foul air, gas, and sulphur, in their untiring efforts and unwearied perseverance to recover their fellow workmen had been brought to the surface, a large number volunteered to go in their stead. Thus, one lot after another repeatedly succeeded each other in their

sympathetic and charitable work with the greatest readiness, until they ultimately succeeded in recovering 44 of their fellow creatures who had been so disastrously interred in the bowels of the earth. Three were brought home alive, one has since died, the son of an aged widow and her chief support. Another is not likely to recover, and his father, who was the fireman, it is supposed, will recover. When the first tram, containing six corpses, the remains of those who had so lately descended in full enjoyment of life without ever thinking of such an end to befall them, were brought to the surface, it is too difficult to describe the state of things amongst those congregated around the pit's mouth. Horror mixed with sympathy was reigning over all. The tears, the cries, the lamentations and the sighs of mothers, fathers, wives, sons and daughters, brothers, sisters, relatives and friends were heart-rending, and could be heard distinctly for a considerable distance.

Thus, it continued until early this (Thursday) morning, when the 44th body was brought to the surface. There are two more in the pit, one is buried amidst a heavy fall of rubbish and the other is in the farthest end of the works, where the gas has so accumulated that no one notwithstanding their constant and repeated efforts is able to penetrate through it; but it is supposed that both will be recovered in less than 24 hours. Thus, we find that 44 have been recovered, two not yet recovered, and one died from the effects of the explosion at Troedyrhiw this morning, making 47 lives lost and two severely burnt. It is conjectured that some of them were at dinner about 12 a.m. at the time of the explosion, from a fact that a large number of the dead men were found together in one heap.

A haulier and a doorkeeper were found buried beneath a dead horse, which had been dreadfully burnt about his body, legs and head, in the midst of a large quantity of rubbish. There were four horses burnt to death they were in the act of bringing loaded trams to the bottom of the pit. Some of the horses were brought to the surface this morning. Great praise is due to the several strangers, agents, surveyors and others, for their indefatigable labours throughout the night and today. Amongst those who have laboured energetically, are Mr. Moody, coal agent, Cyfarthfa, Mr. Eynon, sub-agent; Mr. Laverick, coal agent, Plymouth, who

has displayed great and distinguished courage, and his sub-agents. Mr. Jartant and Mr. Wales, surgeons, Cyfarthfa; Mr. Dyke, surgeon, Merthyr; Mr. Jones, cashier, Cyfarthfa, and others whom we did not know. Superintendent Wrenn and his force of able-bodied men, under his good guidance, did great service. It would be well for Mr. Wrenn to teach some of the policemen not to be quite so insolent to those, who kindly and respectfully would ask them a question - a respectable man would not ask them anything that would interfere with their duty. Besides the above, the clergy and gentry of the neighbourhood were present in large numbers. Among whom we noticed: - The Revs. W. Green, incumbent of Pentrebach; D. Morgan, Abercanaid; L. Price, Troedyrhiw; L. Lewis, Esq., Glantaff House; L. W. Scale, Troedyrhiw House, and others.

A large number of managers, agents, and others, are coming from all parts of the neighbourhood. The inspector, Mr. Evans, Swansea, arrived at about 12 noon, and immediately descended into the pit. Soon after, he was followed by Mr. Dixon's agent, from Aberdare. It seems likely now that all the practical agents and engineers have descended into the pit, they will be able to throw some light as to how the occurrence took place. Most of the men who were killed were married men, and some had very large families; the greatest part of them resided in Merthyr - very few in Abercanaid, and only four at Troedyrhiw. It is expected that they will be buried at an early date. I am not able to give you any further details of the circumstance, but shall communicate to you again, whatever information I can get.

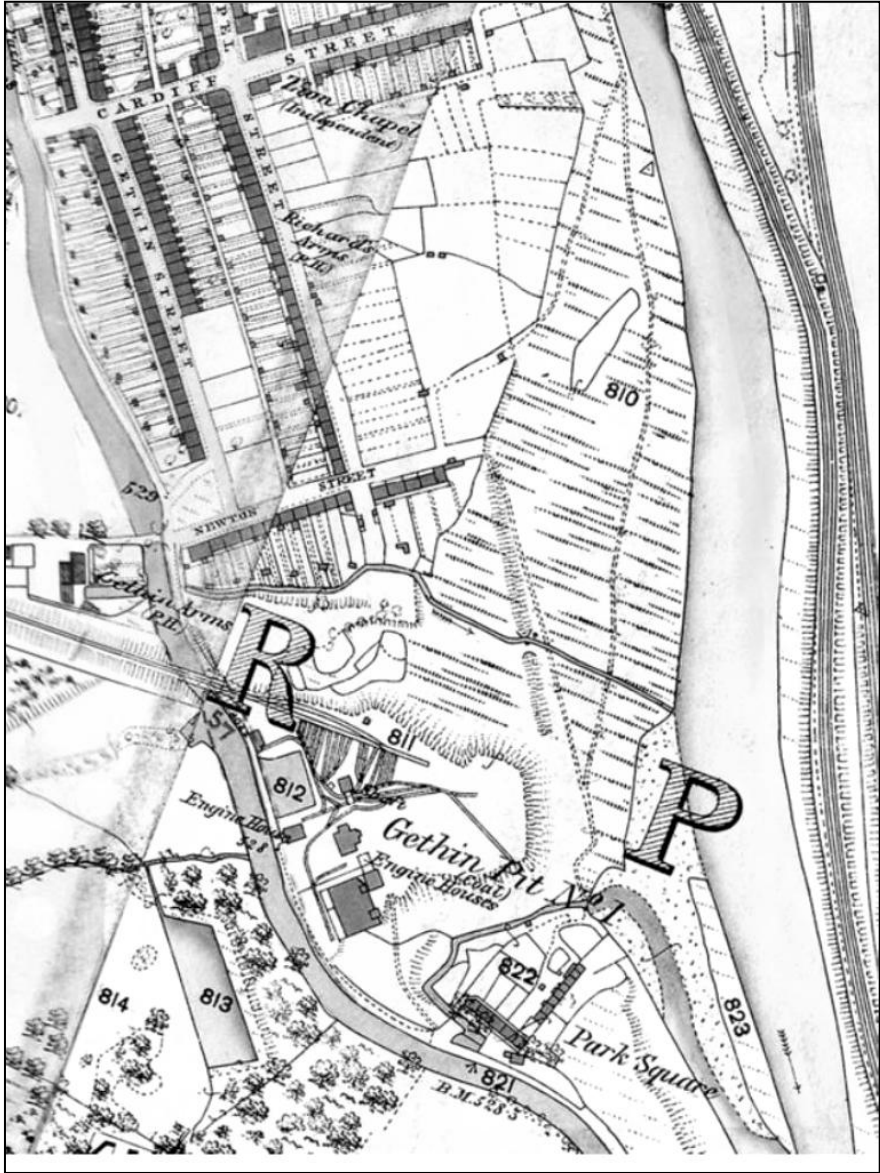
Let us hope that the Merthyr people who have already established an institution for relieving widows and children of workmen accidentally killed in our coalmines and iron works, will, according to their usual custom, contribute handsomely towards the bereaved in this case. I have no doubt that the Rector of Merthyr and Mr. Fowler will be first and foremost in the matter, and let us trust that Cardiff and other towns will cheerfully sympathise with the bereaved by rendering a helping-hand in this dreadful emergency. Other newspapers carried reports of this explosion, many carrying vivid descriptions of the injuries suffered by those that had become victims and how the 'accident' could have occurred. The '*Monmouthshire Merlin*' wrote: -

## **Terrible catastrophe at the Gethin Colliery, Merthyr**

Once more, the Destroying Angel, with appalling swiftness executing his work of destruction, has entered the coal pit. Once more death, in one of his most horrible shapes, has again with unerring hand, aimed his deadly shafts, plunging numerous families into the most distressing anguish, and hurrying, without a moment's warning, prepared or unprepared, a multitude of human beings into the presence of their Judge. Of late years, colliery accidents have occurred in quick succession, and to some of them, by reason of the disastrous consequences by which they have been attended, a most painful prominence has been given; hundreds of hard-working men, while toiling to procure a commodity now indispensable to the requirements of civilized life, have been suddenly overtaken by an untimely end - wives been made widows, and children fatherless. Little more than a twelvemonth ago, this neighbourhood was thrown into a state of deepest consternation by the catastrophe at the Black Vein Pit, Risca, by which 142 men lost their lives. Other similar calamities, though less disastrous in their effects, have occurred more recently and the country, after being moved to its very centre by the late dire event at the New Hartley Colliery, has scarcely recovered from the shock, when the voice of lamentation and woe is again heard — the pestiferous blast has again gone forth, and though, happily, in this instance, the victims are less numerous, no fewer than forty-seven persons, in the full vigour of strength and manhood, have been relentlessly smitten down. Surely, these frequently recurring calamities, must, as with a trumpet tongue, force upon every thinking mind the question: -

Can no means be devised to check this wholesale slaughter - to arrest this sacrifice of precious life - to prevent our coal-pits being so repeatedly converted into vast and hideous charnel houses? Yea, verily, and the answer to the question is obvious; and recent events will doubtless so awaken a spirit of inquiry and so shape public opinion, that the parties responsible shall be compelled to adopt measures at least to mitigate the danger which is now attendant upon working a large area of the British coal fields. Risk and peril to a certain extent, the collier must,





Ordnance survey map of 1875 showing Gethin Pit No.1

unquestionably, under the most favourable circumstances, ever encounter in following his vocation but if that peril be permitted to exist beyond the minimum amount, gross culpability and heavy guilt lie at some one's door. And can anyone attempt - dare any one venture, to plead that the hazard run by colliers has been reduced, or even nearly so, to the lowest ebb?

Where then lays the blame, for blame there is, more or less, perhaps, with all parties concerned. With the workmen themselves, for their positive negligence and flagrant violation of the laws by which, if only for their own safety, they ought to have felt themselves bound. With the colliery proprietors, or some of them, for allowing a non-observance of the rules by the men, with little or no punishment, and for counting human life of less value than gold - for neglecting, in the construction of their pits, certain provisions palpably necessary for the security of men, in order to diminish the outlay. And with the Government, for not passing more stringent enactments to preclude the adoption of that parsimonious policy, so frequently crimsoned with human gore - for not making it imperative that all those appliances which common sense declares, and experience has demonstrated, to be indispensable to anything approaching to safety in coal getting, should be supplied and with the Government also for not imposing heavier penalties both upon masters and men for the slightest infringement of the law. The smallest degree of blame probably attaches to the workmen in many instances, ignorance, and in all cases, that recklessness, or disregard of danger, which invariably accompanies the habitual pursuit of a hazardous occupation, and is ever the result of daily exposure to peril, are perhaps extenuations which can be pleaded only in their behalf. But, ere long, Government will doubtless atone for past shortcomings, and then the remedy of the other evils indicated will follow as a natural sequence.

There may be an outcry raised by a few against a measure, which will entail upon them the expenditure of thousands of pounds! But these will be over-ruled. The remedy must come, at least so far as human skill and knowledge can secure it. The public will demand it of their lawgivers - they have a right to demand it - it is their duty to demand it. It cannot be permitted that human life should be weighed in the scales against self,

and the balance be in favour of the latter. Men are more precious than money. Neither Britain, nor any other country, can afford that her manhood, and the flower of her youth, should, at brief intervals, be immolated at the shrine of Mammon.

We now proceed to relate, as far as we have been able by a personal visit to the scene of the calamity to gather the details of the terrible accident which has led to the foregoing remarks - namely, an explosion of firedamp at the Lower Gethin Pit, Merthyr, which took place about mid-day on Wednesday last. It may be premised, however, that our introductory observations were penned without the slightest reference to the Gethin Colliery they bear wholly and solely upon the broad question, and are neither more nor less than the honest avowal of a sincere conviction that defects of a most grave character have existed, and do exist, in legislative enactments relating to the working and management, of collieries generally.

As regards the Gethin pit, as far as we have learned, as will be noticed by our report, not the slightest degree of blame in reference to the accident of Wednesday attaches to the proprietors on the contrary, they seem to be deserving of commendation for the admirable arrangements of their collieries. The Gethin collieries, which are the property of Messrs. William Crawshay and Son, and are situate about a mile and a half from the town of Merthyr, might be termed a double colliery, known by the name of the Upper Gethin and Lower Gethin pits, a horse road connecting them. The Lower Gethin consists of two levels, each extending from the shaft about a mile and a half, the one stretching out in a south-westerly direction, (and in which, about midway, the explosion occurred,) the other towards the east. The depth of the shaft from the bank is 126 yards. The coal, which is the four feet vein, is of a superior kind, and, except the small quantity consumed by the workmen, is devoted exclusively to coking, for the use of the Iron works.

The pit is by no means of a fiery nature, and, as we were informed was on the morning of the explosion perfectly free from any indication of danger. Its ventilation appears to be almost perfect, and, in this respect, it is, we should imagine, nowhere excelled. Every care and precaution

seems to have been exercised to ensure the safety of the men, and there are three modes of egress from the pit. As already intimated, the Upper and Lower Gethin pits are connected by means of a horseway, and the ventilation is provided for by an upcast and downcast shaft to each branch. In case of accident, as we have said, there are three ways of escape, namely, by the ordinary shaft; or failing that, a mode of escape by the pump shaft is afforded by means of a ladder or again, the horseway referred to opens a communication with the Upper Gethin pit, the shaft of which makes the third point of egress. Of course, vice versa, should it be necessary, from the upper pit to the lower. It will thus be seen that no precaution would appear to have been neglected, which would tend to the security of the workmen.

Alas, that even these arrangements, admirable as they are, should have been powerless to avert the fatal catastrophe, which notwithstanding all, has occurred. It is likely, however, that had equal facilities been afforded at the Hartley Colliery, the late accident would have resulted less disastrously. The number of men employed in both pits is about 300, and these are pretty equally divided. For the most part locked lamps are used; but so perfect is the ventilation considered, that in some portion of the workings naked lamps are permitted. Although 150 is the complement of men for the Little Gethin pit, for some reason, not more, it is certain, than 120 went down on the morning of the fatal day - Wednesday. Prior to their descent, the pit was examined as usual and reported as safe, and so far as can be ascertained, nothing unusual transpired until about mid-day, when from some cause, as yet enveloped in mystery, an explosion occurred, quickly followed by the stealthy but sure and swift destroyer, the collier's scourge, choke damp, and 47 poor fellows who but a few hours previously had left their homes in the pride of their strength, were laid lifeless.

What seems remarkably strange is the statement made to us by the banksman - that he heard no explosion, nor had he the slightest conception that any mishap had occurred until one of the workmen engaged in a part of the workings where the fatal poison had not penetrated, came to bank and communicated the appalling intelligence. Then the gloomy tale spread over the neighbourhood with all the rapidity

for which ill tidings are proverbial. Numbers flocked from Merthyr and places adjacent, and in an incredibly short space of time the pit's mouth was surrounded by the anxious and weeping friends of the men in the workings - their suspense driving them almost to a state of frenzy, their bosoms torn with the most conflicting emotions - dreading that their worst fears would be realized, and yet striving to hope against hope. With the exception of the ill-omened messenger, none of the men who worked out of the reach of the noxious vapour came to bank remaining below to be ready, on the first opportunity, to afford succour, if it should be in their power, to their hapless comrades. In little more than an hour, the pit was so far cleared of the foul air as that others were enabled to descend the shaft, and in less than two hours, the state of the workings admitted of a search being commenced, a circumstance that speaks volumes as to the efficiency of the ventilation.

On discovering the scene of the catastrophe, a sad, sad sight presented itself. The ravages of the after-damp extended through numerous headings, and for a considerable distance and on entering each heading the brave searchers found themselves in the presence of the dead, and yet they seemed not dead, but sleeping. Alas, it was indeed the sleep that will know no waking until the resurrection morn. Poor fellows, though the features of many wore an aspect of such singular placidity, though the posture in which their bodies were found was so natural and apparently easy, proofs were by no means wanting of the fury with which the pestiferous blast had sped on its errand of Death. Doors, door posts, brattices were scattered in wild confusion, as though torn from their position by some giant power. Three trams, which had been apparently encountered by the blast as they were being drawn along the windway, were upset, while the horse lay stiffening a short distance from them. Three other horses were also found dead.

Soon after five o'clock a number of the bodies were brought to the bottom of the shaft. By this time 1,000 or 1,500 persons had congregated around the mouth of the pit. The scene was one beyond description, truly heartrending. The torture of suspense had in many cases given place to the agony of despair. Women moaned and convulsively clutched their fatherless children, and children clung around

their mothers. Some could find no vent for grief in tears but stood motionless, and gazed with fixed eyes down into the tomb of the relative - husband, brother, father, son. But who shall tell the feelings that wrung the heart of the undemonstrative mourner? With two exceptions the whole of the missing men were discovered before eight o'clock — but three only were alive. The task of bringing them to the bank was accomplished in a short space, the bereaved relatives identified them as they reached the top and by nine o'clock they were all conveyed to their late habitations, now the abodes of misery and woe. Almost immediately after the explosion, Mr. Robert Crawshay was at the pit, where he stayed the whole time, aiding and superintending the efforts for the recovery of the entombed men. Mr. W. Crawshay was prevented by severe indisposition from leaving his home. The cashier, Mr. William Jones, was underground for some hours, cheering and encouraging the men by his presence and by his knowledge rendering efficient assistance to the men engaged in their doleful task.

During the whole of the time the search was going on Messrs. Instance and Wills, surgeons of the works, and other medical gentlemen from Merthyr and Troedyrhiw, were on the spot, ready to give assistance, but unfortunately those for whom they would have performed their kindly offices were beyond their power. Several clergymen of the district were also present. Of the three men who were brought up alive, one died on Thursday. Up to seven o'clock Thursday evening, there were still two missing. One of them is a young man, a stranger in the neighbourhood, who went down the pit for the first time on Wednesday. Little did he dream it would be his last time. The *'Aberdare Times'* reported:

#### The explosion in Gethin Pit

The awful occurrence, happening as it did so closely after the dreadful accident at Hartley (that occurred on Thursday, 16 January and resulted in the deaths of 204 men), has given rise to a most painful and widespread feeling of regret. Not only South Wales but also Great Britain in its entirety wrings with sorrow, and the hearty sympathy of the British nation has been aroused. The columns of the London daily papers have been burdened for some days past with copious details of the sad

catastrophe. Various statements have been made as to the immediate cause of the accident, but nothing of a positive character will be publicly known until after the holding of the inquest, which will take place on the 4th inst. From all we have been able to learn, the proprietor of the pit, William Crawshay, Esq., is most anxious that a searching and rigid examination into the cause of the dire occurrence, which has plunged so many families in grief and awakened so boundless a feeling of sorrow, should be made, and judging by the intelligent character of the jury, the well-known impartiality of the coroner, and various other circumstances, we have every reason to expect that the ends of justice will be fully met.

The Relief Fund occupies a prominent place in connection with this untoward accident, and we have every reason to believe that the wealthy and well to do of our neighbours will now, as on every other pressing occasion, respond to Charity's appealing voice with that magnanimity for which they are deservedly famed. For the unfortunate fellows who were by an unexpected and insidious occurrence cut off forever from their homes and their dear ones, we can do no more, but there yet remains unto us a duty to perform. The bereaved mourners' burden can be lightened - the poignancy of the widow's grief can be assuaged, and the orphan's lot can be made less hard to bear! By the Highest and greatest of all authorities, we are taught to love one another, that we should each other's burdens bear, and reflection teaches us that

"The drying up a single tear has more  
Of honest fame than shedding tears of gore."

On Monday the committee met, and when the subscription list is set on foot, Mr. Crawshay will head it with, we are told, the munificent sum of five hundred pounds. At the police court, on Saturday, the subject of the late calamity and the need there exists for at once preparing to do something for the hour, was feelingly alluded to by J. C. Fowler, Esq., the stipendiary magistrate. He said he could not take his seat that morning without taking the opportunity of expressing his feelings of sorrow and sadness for the terrible calamity with which they had been visited. He was sure that the whole town would deeply deplore the death of nearly

fifty industrious colliers, and that those who were deprived in a moment of their protectors and supports in life would be much and often in their thoughts.

By a singular coincidence, they had actually set on foot that week, an association for the relief of persons suffering from accidents in mines. That society could now proceed to act without delay. He had written to ascertain the views of the proprietor of the colliery, with regard to the families of the deceased colliers, and would be prepared on Monday to adopt further measures in combination with those of Mr. Crawshay.

### The killed

We give below the names, ages, residence, and habitations of the men who have perished by this unhappy accident: -

1. **Thomas Evans**, George Street, 14, haulier' burnt, leaves a widowed mother.
2. **Samuel Jones**, Ynysfach, 38, collier, burnt, a widow and two children.
3. **Thomas Evans**, Penydarren, 20, haulier, burnt single.
4. **M. J. Edwards**, George Street, 37, collier, burnt, widowed mother.
5. **Lewis Rees**, Picton Square, 22, collier, burnt single.
6. **James Gwynne**, Cyfarthfa Lane, 32, collier, suffocated, a widow and four children.
7. **William Davis**, Wyndham Street, Troedyrhiw, 21, collier, suffocated, single.
8. **William Humphries**, Coffin's Court, 13, door-boy, orphan.
9. **William Hughes**, Witty's Court, Glebeland, 11, door-boy, burnt, orphan.
10. **Griffith Griffiths**, Nantygwenith Street, 17, haulier, burnt.
11. **William Evans**, Upper-Collier's Row, 24, collier, suffocated, a widow and one child.
12. **John Edwards**, Nantygwenith Street, 52, collier, suffocated, a widowed mother,
13. **Daniel Griffiths**, Howell Street, 48, collier, suffocated, a widow and two children.



14. **Griffith Griffiths**, Howell Street, 13, haulier, suffocated.
15. **Thomas Evans**, Cefncoedycymmer, 38, collier, suffocated, a widow and six children.
16. **Samuel Morgan**, Heolgerrig, 27, collier, suffocated, a widow and three children.
17. **William Williams**, Heolgerrig, 32, collier, suffocated, single.
18. **James Turner**, Tydfil's Well Road, 35, collier, suffocated, leaves a widow, pregnant, and two children.
19. **Silvanus Griffiths**, 43, Cefncoedycymmer, collier, suffocated, leaves a widow and three children.
20. **Thomas Jones**, Lower Collier's Row, 20, haulier, single burnt.
21. **Richard Lewis**, Twynnyrodyn, 50, collier, burnt, leaves a widow and a grown-up family.
22. **Ebenezer Jones**, Tranch Fach, 44, mason, (brother of Mr. Titus Jones, auctioneer,) burnt, leaves a widow and six children, three of whom are at work.
23. **Titus Jones**, Tranch Fach, 16, mason, son of Ebenezer Jones, mentioned above, burnt.
24. **Morgan Griffiths**, Mount Street, 25, collier single, suffocated.
25. **Thomas Morris**, White Street, 13, door-boy, burnt, a widowed mother.
26. **Rees Morgan**, 35, collier, burnt, a widow and four children.
27. **Daniel Rees**, Tramroad side, north, 33, collier, suffocated, a widowed mother.
28. **Herbert Davies**, Rhydycar, 20, haulier, single, burnt.
29. **Evan Davis**, Twynnyrodyn, 45, collier, suffocated, a widow and six children.
30. **Griffith Powell**, Chapel Street, 56, collier, suffocated, a widow and one child.
31. **John Jones**, Heolgerrig, 26, collier, suffocated, single.
32. **John Lewis**, Nantygwenith Lane, 62, roadman, burnt, a widow.
33. **William Lewis**, Abercanaid, 47, collier, suffocated, a widow and four or five children.
34. **William Lewis**, junior, Abercanaid, 18, suffocated, single.
35. **Morgan Evans**, Grawen Terrace, 13, haulier, burnt.
36. **George Rees**, Tramroad Side north, 20, collier, single, suffocated.

37. **William Jenkins**, Tramroad-side north. 29, and his brother, **David Jenkins**, 21, both colliers and single, and both suffocated, a widowed mother.
38. **William Richards**, Wern, 43, collier, suffocated, a widow and four children.
39. **Isaac Davis**, Abercanaid, 41, collier, burnt, a widow and five children, three working.
40. **Jenkin Jones**, Park Square, 39, collier, single, suffocated.
41. **John Jones**, Gethin, 31, collier, suffocated, a widow and two children.
42. **Edward Beynon**, Rhydycar, 37, collier, brother of Mr. Rosser Beynon, Penydarren, suffocated, a widow and three children.
43. **Benjamin Richards**, Iron Lane, Georgetown, 30, collier, suffocated, a widow, near confinement, and one child.
44. **Thomas Griffiths**, Troedyrhiw, 17, collier, single, burnt — brought up alive, but died on the following day.
45. **Daniel Walters**, 21, sawyer, Bethel Street, widow near confinement, suffocated.
46. **Thomas Edwards**, collier, 14, Flowill Street, suffocated.
47. **Thomas Thomas**, collier, 14, George Street, burnt.
48. **Lewis Rees**, stranger from Carmarthenshire.
49. **Henry Richards**. (Added by author of this book)

As a summary of the above list, it may be observed that of the 47 initially killed, 26 perished from chokedamp, and 21 from being burnt. The list also shows that this calamity has resulted in making 21 women widows the number of children left fatherless is 57, of whom six only are of an age to procure a livelihood by working. There are also six widowed mothers deprived of sons on whom they were for the most part dependent for support, and three of the widows are near the period of confinement. No catastrophe so extensive in its fatal results has taken place in the Merthyr Valley within the memory of living man — or at least for the last fifty years. It is, indeed, a remarkable fact, that while extensive explosions, attended with great destruction of human life, have been unhappily of frequent occurrence within the last fifteen years in the collieries in the Aberdare Valley, few such calamities on an extensive

scale have taken place in what may be called the Merthyr Valley range of coal-works. The Editorial of the same newspaper reported: -

### The Abercanaid explosion

The dire occurrence at the Hartley Colliery is still fresh in our memories. The painful revelation in connection with one of the most fearful colliery accidents on record had only just been published to the world, when an occurrence as melancholy, though not as fatal, has happened at our very doors. (Wrote the editorial of the '*Aberdare Times*'). On Wednesday last, nearly 50 poor fellows were hurried into eternity with 'one fell swoop' in the Gethin pit, near Troedyrhiw.

All Wednesday night, and during the whole of Thursday, the surrounding district was in a state of gloomy commotion, consequent upon this sad catastrophe. Wailing women, and despondent men, hurried back and forth near the fatal spot where 45 human beings had just fallen victims to the foul insidious influence of firedamp! Can nought be found to prevent these awful occurrences? Cannot human science or human skill and care devise some means of averting these fell disasters?

Well might our Merthyr friends have held their meeting to establish a fund for the relief of sufferers through colliery accidents. Little did they anticipate when they made their commendable propositions, and uttered their generous sentiments, that their neighbourhood was doomed shortly to be the scene of so much trial and suffering of the kind they were intent upon relieving!

Now that the woefulness of their plans can be proven at their doors, I trust they will not stay their hand. Let this lamentable accident inspire the neighbouring proprietary and gentry with a feeling of generous sympathy; let those who enjoy the genial heat and the ruddy glow of the explosive mineral, which costs so many precious lives to bring to the surface, exercise a spirit of benevolence and charity, and the collier's lone widow and cheerless orphan will bear their fate with less sorrow. The '*Cardiff Times*' the following week reported: -

## **Awful explosion at the Gethin Colliery near Merthyr**

We have to bewail the occurrence of a disaster second only in horror to that of Hartley. At the Gethin Colliery, Abercanaid, a deep and reputed dangerous working, the property of William Crawshay, Esq., an explosion occurred on Wednesday, about eleven o'clock, and as the people of the district know from sad experience the signs of these catastrophes, a great crowd quickly assembled at the pit-mouth. For a long time, however, the smoke that ascended thickly charged with carbonic acid gas, rendered descent perilous, and it was not until a late hour at night that the full extent of the disaster was known.

The pit, in full working, employs a hundred men and boys; but fortunately there were only fifty engaged at the time of the explosion in the headings where the explosion took place. How this occurred is as yet enveloped in mystery. It is certain that the extreme heaviness of the weather had a great share in bringing the condition of the air below to a ripe state for an explosion. The horrors of the calamity were unfolded in detail. First eight bodies were brought to the bottom of the shaft; then a few more; soon the number reached twenty-five; and the latest account on Wednesday night was forty-three poor fellows — blackened, destroyed forms of what so late was full of the little happiness and the hope vouchsafed the poor collier-had been brought up dead.

### Later particulars

Gethin Pit is about 132 yards in depth, and in all its arrangements can be contrasted favourably with the best pits of the county. It is so subdivided, and so excellent are the precautions taken, that any explosion would be confined to a portion only. Hence, though there were a great number of men employed in the colliery, only those who happened to be in two headings, composing the four-foot seam, were the sufferers. Three men were brought up first, but so injured that one died soon afterwards. Volunteers were numerous, and though there was considerable danger in descending, agents, colliers, overmen, and men, vied with each other imperilling their lives for the rescue of the men. The scene at the pit's mouth was agonizing in the extreme, and throughout

the district the most intense excitement was caused. The sufferers belong chiefly to Georgetown, Merthyr. One family has lost five of its members - the Evans's of Tophill. Two brothers fell victim, and one woman has to lament her son, nephew, and brother-in-law. The latest accounts give forty-nine as the number of the bodies brought up, and one is reported as still missing. Two of these could not be recognised - indeed many of the sufferers were bruised in a most fearful manner, others looked as tranquil as if they had died in sleep.

The whole town is in mourning. Every part has lost some, either few or many, and the wailing on Wednesday night was touching to a degree. As the sufferers belonged to all parts of the town, but chiefly Georgetown, the scene at night was of the most striking character. The streets were thronged, and every now and then after nine o'clock, and even before, a tramp would be heard, and there, on his comrades' shoulders, came one who had died in no battle charge, or fallen with his front to the foe - only the maimed, blackened collier, who had perished in the pit. One group we followed home. There, in a little cottage, one of many in a row, were assembled the friends of the expected collier, endeavouring to console the wife, who screamed ever and again in the intensity of her emotions. Presently the tramp was heard. All was profound darkness without.

A man came to the door with candle in hand, and, with shaded eyes, looked out upon the night, and the black night scene that was coming. And then down the little garden that was never more to have its owner's evening care, came the corpse, borne on a plank, and the crowded little room became agitated, and forms moved here and there in alarmed haste. Then the plank was lowered, the body taken in, the door closed upon the crowd, and over that meeting between the dead husband and the sobbing wife, the scene dropped - the curtain fell. By the latest accounts the numbers ascertained, for certain, are forty-eight dead and one missing. Some imagined the missing man might possibly have escaped, but as the falls are great, in all probability the poor fellow is added to the long roll of deaths. There is one remarkable feature of this appalling catastrophe, and that is the comparative paucity of information which has appeared in the public prints respecting it. Whether it is that the wholesale destruction of human life in that portion of the mine

where the explosion occurred, has prevented the possibility of learning anything like a detailed account of the calamity or that the public mind has become horror-stricken by the recurrence of a coal mine misadventure second only to Hartley, Risca, Cymmer, &co. Certain it is that hitherto there has been little that could feed the desire of the public to learn full particulars.

Both these causes may have operated and perhaps it is well, for the sake of the memory of those who are gone, and those who are responsible for the management of the works, that this reticence has been observed, and that there has been a suspension of judgment until the coroner's jury have the facts brought before them next week. We agree with the correctness of the principle which leads men to suspend their judgment until the full facts are ascertained on which to form an opinion. No doubt suggestions were easily to be had the first moment or two after the occurrence; but seeing that nearly all the poor fellows were swept away it is much better that we should wait until the inspectors are prepared to give the results of their inquiries.

The general public know little of those perils to which the collier is exposed every day, when cutting the article which contributes so largely to our comfort. By the aid of an intelligent workman we are in a position to illustrate our verbal description by the above woodcut. It will be observed that we have had to contend with a difficulty in making the illustration comply with the rules of art, because it embraces what in fact is both a section and ground plan, besides a sketch of the colliery as seen from the surface of the earth. We think, however, that by the help of references, as given above, we shall be able to show tolerably clearly the nature of a coal-mine, and also the effect of the calamity which occurred last week.

#### Description of the mine

The Gethin Colliery is, as we have already stated, the property of William Crawshay, Esq., the owner of those magnificent iron works known as the Cyfarthfa works. The name of Crawshay is famous in the annuals of iron manufacture, as our own columns have testified, by the "Records and

Recollections" we have published of the Crawshay family. We accept the statement which has been made by Mr. Crawshay, and which will be found below, that he has done all that wealth and intelligence could do to make his works safe and complete and it is a matter of great thankfulness that this is the first serious calamity which has occurred in connection with this gentleman's works.

Everyone joins in the hope that it may be the last! We believe we are correct in stating that the greater portion of the coal obtained from the Gethin is used in the manufacture of iron. It is an extensive colliery, having been worked for many years, and consequently traverses a large space of ground beneath the surface. There are two shafts to the pit, and the arrangements for ventilation are considered to have been very ample. Our illustration has only to do with the shaft nearest the incline. The conical house at the top of the shaft contains the machinery for winding up and down. At the bottom of the shaft (B) is the cage, to which is attached the massive chain by which the ascent and decent is effected.

#### **Thursday, 27<sup>th</sup> February 1862**

On Thursday, the coffins, which are all furnished by the proprietors, were taken to the homes of the bereaved and it was a melancholy sight to witness the batches of three and four coffins at a time borne through the streets, the strange procession and the subdued and saddened manner of the bearers, impressing the bystander with a feeling of melancholy and awe. Among the unfortunate men who were killed was the overman, Samuel Jones, a steady, industrious, intelligent man, and respecting whom we heard but the one testimony from the many persons of all classes with whom we conversed. From the list of killed it will be seen that in several cases, father and son were found dead.

The case of Daniel Griffiths, or as he was known among his comrades "Gipsy Dan," and his son aged fourteen, is a touching one. In the words of our informant "they were found clasped in each other's arms, the son clinging to his father's breast." Griffiths has left a large family - "miserably poor" - in such abject poverty indeed, that when the two

bodies were conveyed home to the widow, there was not even a table in the house on which to lay them. And although this may be an extreme case, we were assured, upon unexceptionable authority, that many of the families of the deceased will by this lamentable occurrence are plunged into utter destitution, their only earthly support having been taken from them. But the munificent contribution of the British public in aid of the sufferers by the Hartley disaster, forbids our doubting for a moment that some steps will be taken to rescue from want and deprivation those who have been bereaved by the Gethin explosion.

We hardly need commend to the consideration of the benevolent the paramount claims of these widows and orphans upon their charity promptitude is imperative. Not the least affecting circumstance in connection with this disaster is the fact that it occurred while the unfortunate men were at dinner, and that in the mouths of many of the deceased, on the bodies being recovered, partially masticated food was found.

A striking illustration of the appalling suddenness and awful rapidity with which the destructive agent came and performed his work. Of course, nothing is positively known of the origin of the explosion, but numerous conjectures are abroad, one of which is based upon the above fact, namely, that one of the men on going to dinner, neglected to close his door, thus breaking the ventilation, and causing an accumulation of gas, which ignited from a naked lamp or some other light being brought into contact with it.

Another conjecture is that one of the men went into an old working, where there was an accumulation of gas, and that thus the accident was caused. These suppositions will of course be taken for what they are worth and to make any conclusion before the inquest has been held would be premature. We hardly need say that this deplorable event has plunged the inhabitants generally of the district in which the pit is situated, into profound melancholy. No accident at all approaching to this in magnitude has ever at any previous period occurred at any of the Merthyr Collieries. We believe there was an explosion at the Gethin pit about nine years ago, when some twenty men were burnt, but it was



attended by no fatal results. Newport, Cardiff, and adjacent towns shared in the general gloom in which a neighbourhood is naturally shrouded on being visited by a calamity of so extensive and distressing a character. Mr. T. Evans, Government Inspector for the South Wales District, was summoned from Swansea by a telegraphic message. He hastened to the pit without delay, and has, we understand, been in the pit for some hours making an examination of the workings. Mr. Evans had not left Merthyr on Thursday night.

### The 49<sup>th</sup> victim recovered

The missing man, making the 49th, was found on Thursday, covered with two pieces of timber that had been forced out by the explosion, and a quantity of coal. The unfortunate man was named Henry Richards, a deacon in the Welsh Baptist Chapel, and a worthy practical Christian. He was found lying his whole length, and on his bosom was his little dog, like his master, cold and dead. He had crawled there in its death agony, laid himself down, and died. The descent to the works to recover the bodies, we are informed, revealed objects more terrible, at least in narrative, in the placid sleep induced by the choke-damp than those of acute but necessarily brief suffering from the explosion.

In most cases those who died from suffocation appeared to have passed away unconsciously. One unfortunate man was found in a stiffened state, overcome by death in the act of conveying a piece of bread to his mouth; another with his hand on the small box containing victuals which the collier carries suspended on his side, as though he were about to add to the portion of cheese found in his mouth a piece of bread. Of the 49 men who have perished on this occasion 21 have died from burns, and 26 from suffocation by chokedamp they leave 23 widows and 57 children, of whom six only are able to work. Three widows are near their confinement, while six widowed mothers are deprived of the support of sons on whom they depended. It is evident that there were fears of the coming catastrophe entertained by some. One man suspected fire so strongly that he actually kept away from work on Monday and Tuesday, and his son, who worked in the same pit, also remained behind. Tuesday night the wolf was at the door, very gaunt, and very threatening he

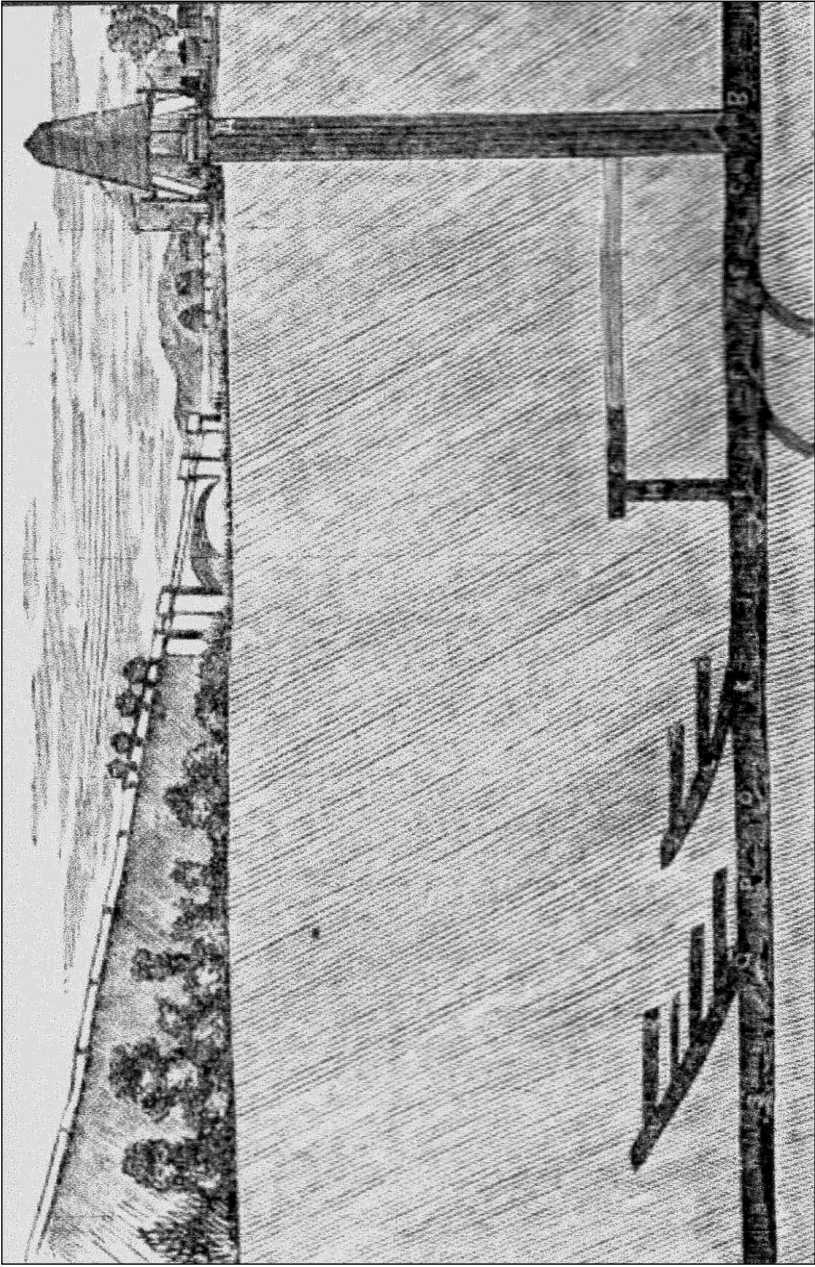
dismissed his fears and on the Wednesday morning resumed work, and at night, with his son, was brought home dead.

### More touching incidents

In another column in the same newspaper as above commented The late fatal and fearful explosion of gas at the Gethin Colliery, near Merthyr Tydfil has given us an additional proof not only of the hourly danger, arising from various causes to which our colliers are constantly exposed during their hard labour and toil in the bowels of the earth but also of their great poverty and indigent circumstances. It is really heartrending to hear of their great sufferings and want and the poverty of the deceased men and their families, which has been unveiled through this melancholy catastrophe, it is to be feared, is not a picture of the sad and destitute condition of a few, but of the colliers generally employed in our coal pits. Their poverty and destitution cannot now be attributed, in most cases, to any wilful waste or careless extravagance on their part, but to the general depression of the state of the iron and coal trade throughout the district.

This could easily be proved from the low state of the earnings of the men so employed. The following touching incident respecting the trying and poor circumstances of one of the deceased men, who lived at Abercanaid, is very affecting. He had a family of six children, two of whom had unfortunately, through an accident in the works, been deprived of a limb each, and they were obliged to shift as well as they could by the assistance of a wooden leg, in their underground labour. It so happened on the morning of the explosion, that they were both unable to go to their own work, owing to some obstruction in the works, which caused a temporary suspension of the ordinary work in the pit in which they were employed.

The father feeling keenly already the extreme poverty in which he was situated, told one of the sons that since he was idle for that day, it would be better for him to accompany him to work, that he might earn a little to assist him in getting some bread for the family for they had had nothing but bread alone for some time and scarcely enough of that



**Plan of the Gethin No.1 or lower pit, from a local newspaper of the time**

useful and necessary commodity for the support of life. The young lad very affectingly replied to his father, which must have pierced his fatherly heart like a deadly poisonous dagger - "Father I won't go to work any more without food, for it was owing to the want of food, being too weak almost to move, that I had my leg broke." And he would not go to work that morning; but the other son, who had also a wooden leg, volunteered to go in his stead, and both he and his father had to go to their subterraneous work that morning without a morsel of food. But alas! The terrible destructive explosion soon put an end to all their sufferings, and at the same time has greatly increased the suffering of the now mournful, as well as indigent, family.

It appears that a large number of the workmen employed in the pit were in very poor circumstances. The fireman said that he witnessed a few days ago, one of the now dead men, eating his dinner, which consisted of a small piece of bread alone, about the size of a man's hand and he had to divide that between him and his little son. Many such incidents could be mentioned to prove the real poverty and great destitution of the hard-toiling labourers of our coal pits.

It is to be hoped, therefore, that every effort will be made to alleviate the sorrows - to contribute to the support - and to render to the bereaved, destitute and poor families every aid which the Christian charitable people of this country, who are renowned for their willing and ready pecuniary sympathy, will undoubtedly feel it their duty to do. Charitable England will, no doubt, evince her charitable, sympathetic, and Christian feeling in this melancholy case, equally as much as she has done on similar serious and solemn occasions.

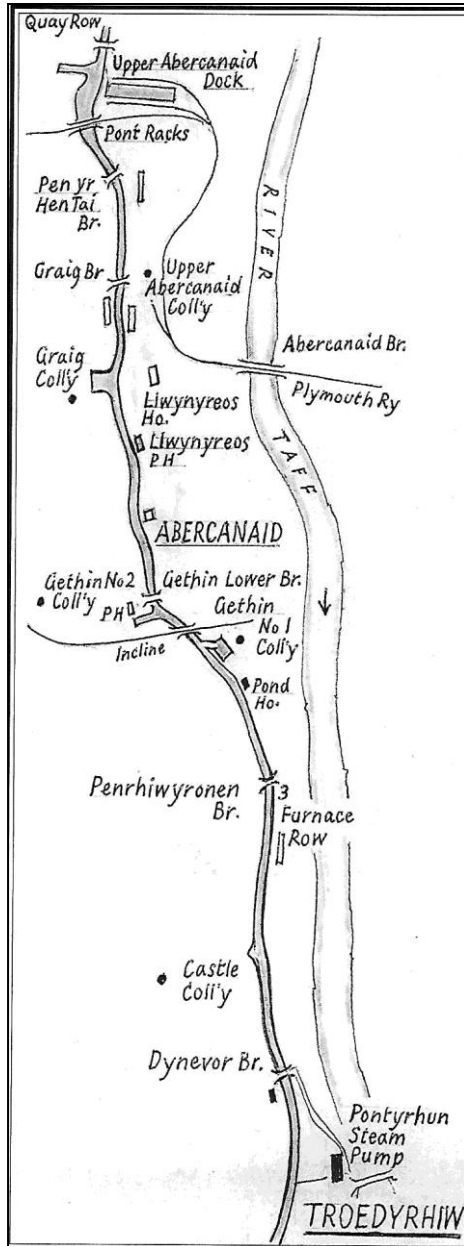
R. T. Crawshay, Esq., has already nobly tendered every means in his power to assist and comfort the bereaved families of his deceased workmen, and Mrs. Crawshay has been untiring in her labour of love in ministering to the wants and the necessities of all those who are the immediate sufferers, owing to this disastrous and fatal explosion. She has, I believe, visited every family of the deceased men, both in Merthyr, Abercanaid, and Troedyrhiw, and her sympathy, her charity, and her ministrations to them has greatly consoled their sorrowful minds, has to

a certain extent healed their bleeding hearts and has restored some amount of cheerfulness to their heavy-sighing bosoms. Her unostentatious kindness, and her truly heart-giving benevolence, will not be easily forgotten by the bereaved families, who have experienced such sympathy from the hands of one, who seems to have given herself entirely, during the whole of last week, to administer every aid she possibly could to all who are so overwhelmed both with poverty and grief by the recent catastrophe at the Gethin Colliery.

Mr. Crawshay himself has already contributed £500 towards the fund, which is being established for the support of the bereaved families. Mr. Bruce Price has also contributed £20, and other gentlemen have expressed their sympathy with them, by the ready manner in which they have promised to contribute towards such a requisite fund. The rector of Merthyr, as was expected, is busily engaged in doing all he can for the promotion of this truly deserving case of charity and sympathy.

All the inhabitants of Merthyr, who can afford to contribute anything, are with one heart and voice doing all they can towards alleviating the great distress of those who suffer by this direful calamity. It is expected that a munificent sum will soon be obtained from all sources, towards the necessary support of those, who have no means in their power for their daily sustenance, but are entirely dependent upon the charity of others.

The promises and encouragements, which have already been received, augurs well for the success of the this deserving and laudable institution, which is now being established for the support of all those who might on a future occasion, but we, hope not, become sufferers by such a dreadful calamity as the explosion of gas, or by some other untoward accident to which colliers and miners are exposed.



**Position of the two Gethin Collieries on the Glamorganshire Canal.**

**Chapter two**  
**Friday, 28<sup>th</sup> February 1862**  
The inquest

The coroner, George Overton, Esq., arrived at an early hour on Friday, and proceeded to select gentlemen to serve on the jury. At ten o'clock the inquest was formally opened in the Assembly Room, Bush Hotel, Merthyr, when the following gentlemen were sworn: - Mr. Thomas Stephens, foreman; Messrs. Peter Williams, printer; Edwin Gay, dentist; John Davies, grocer; John Nicholas, collier; William Harris, grocer; David Jones, grocer; Thomas Watkins, grocer; William Lewis, painter; T. Loveridge, druggist; D. Richards, innkeeper; Benjamin Ballard, saddler; John Davies, collier; William Gould, grocer; Rees Evans, miner; James Owens, grocer.

The coroner said he had no doubt they were all aware of the sad catastrophe which had occurred on Wednesday, by an explosion of fire-damp in the Gethin pit, the property of W. Crawshay, Esq., at Troedyrhiw, which had resulted in the death of no less than forty-seven persons. After going over the list as carefully as possible, he found that there were forty-five of the bodies in his district, the other two being in Breconshire. What he proposed doing was to view the bodies that were in the neighbourhood of Merthyr, which he believed numbered thirty-eight, and then proceed to Troedyrhiw, where the remaining seven bodies lay. He would not ask the present jury to accompany him to Troedyrhiw, but would summon another jury for the purpose on reaching the village. The coroner and the jury, accompanied by Thomas Evans, Esq., the Government Inspector of Mines, then proceeded to their mournful duty. The bodies were scattered over the whole district, and the ceremony of viewing occupied the jury upwards of six hours. The inquest was adjourned until Tuesday the 4th of March.

A jury was empanelled by the same Coroner at Penrhiw, about a mile from the Gethin works, where some of the deceased lived. This inquest, after the view of the bodies by the jury, was adjourned till the proceedings of the Merthyr inquest shall have terminated.

William Crawshay was in bed with rheumatism and too ill to travel from Caversham (the family mansion in Berkshire) after the explosion, while he wrote expressing his horror at the tragedy in a letter sent to the 'Times' and the local newspapers, saying he would welcome an official inquiry into its cause. He wanted to know "whether I am deceived or not in the professional talent which I employ at great expense", referring to safety experts he had on his pay roll. The following is the letter that appeared: -

To the Editor of the 'Times.'

Sir,—I thank you for your fair and proper observations in your impression of this morning upon the lamentable occurrence at my Gethin Colliery, near Merthyr Tydfil. By yesterday's post I had a letter from my son, stating in a few words (as the post just leaving) the simple fact of the awful occurrence, and this morning I have the following information from him, which I shall be glad if you will insert in this place: -

**Cyfarthfa, 20<sup>th</sup> February.**

*"My dear Father,—I grieve to repeat the accident at Gethin yesterday is most awful, 46 men killed in the whole, and four horses. It is most dreadful, and the whole place is quite upset by it. All the men being killed, there is no knowing exactly the cause of it; but it seems by all to be thought that it arose from an air door being left open. The men were at dinner in different places, and in some of their mouths bread and cheese were found; so these must have died most instantaneously, and no mark of injury on them; their features were quite placid, being killed by the "after-damp" others were burnt badly, and some frightfully bruised, their heads split in half. It was 7 o'clock before they got all the bodies up, as the falls prevented the men getting to them.*

*It is a most dreadful occurrence, and makes us all feel quite wretched. We are, of course, doing all we can in every way, and last night carpenters and sawyers were working all night at coffins and new air doors. The mine inspector will be here to-day, and I will let you know all that takes place. By all I can hear, I believe it must have been by leaving*



*an air door open, for there was no fear of fire-damp in that place. The colliers are mostly all out throughout the works, and nothing doing underground, so I expect mills and forges will be idle tomorrow. The poor fellows will be buried on Saturday. **Robert Thompson Crawshay.***

For more than 50 years I have myself, with the best professional assistance in the different departments which I could procure, conducted my works at Merthyr Tydfil, and during this period I cannot remember more than a single death at one time from accident there. I am quite appalled at this present awful and calamitous loss of life, and would ere this have been upon the spot; but, entering, as I shall in a few days, my 75th year, and suffering severely from rheumatism and neuralgia, I do not feel equal to the melancholy task. I have, however, directed my son that, nothing be spared for the relief of any poor creatures who may be living and injured, and I am sure his own feelings will have ensured this.

I am also earnestly desirous that the most searching and public inquiry may be made into the cause of this lamentable accident – that my pits, engines, air-ways, and all connected with the colliery, be subjected to the closest scrutiny of the best professional skill and knowledge to be procured upon the subject.

Every possible opportunity and facility of investigation shall be afforded by my son and I am as anxious as you or the public can be to know whether I am deceived or not in the professional talent which I employ, at great expense, to conduct, regulate, and carry on my works of all kinds, under-ground and above-ground, so that every advantage of ventilation and safety may be afforded to my workmen and I shall hope to find, after the closest examination of all the facts of this deplorable case, that it has arisen from accident, neglect, or carelessness of the poor creatures themselves, rather than from want of proper means provided for their safety by their employer; and shall, I think, not be sanctioned by this explosion by the long-continued freedom from any very severe accident at my works.

I beg to apologize for this intrusion upon your valued columns, and am, Sir, your before obliged servant. **London, Feb. 21. William Crawshay.**

## **Burial of the dead**

It was hoped by many that the funeral of the lamented sufferers at Gethin would take place at Cefn Cemetery — that some inscription in coming time might be placed there to record the event, and hand down the names of the poor fellows to the sympathy of other times and people. But the wishes of the bereaved were opposed to this. Some had yearnings to lay their dead in Aberdare, others in the graveyard of their own little chapel, and so there was no public demonstration on the scale expected.

**Saturday, 22<sup>nd</sup> February 1862**

The funerals

The terrible gloom which has prevailed in this town and neighbourhood ever since the dire calamity reached its climax on Saturday afternoon, 22<sup>nd</sup> February 1862, the time appointed for the funeral obsequies of the unfortunate victims. A thick, drizzling rain and masses of heavy clouds which overhung the vast range of mountains which surround "the iron metropolis of Wales" (as Merthyr has not been inaptly termed) tended to increase the solemnity of the occasion. A funeral procession, under any circumstances, is a solemn spectacle, but when, as in this instance, near fifty human beings cut off in the health and vigour of manhood are being conveyed to their last resting places under such circumstances, the sight is calculated to strike awe into the hearts of the most obdurate; especially when the misery and poverty of which it is the forerunner are presented to the mind in all their hideousness.

The whole of the works in the district belonging to Mr. Crawshay were closed at twelve o'clock, and the colliers wended their way homeward to put on such habiliments of mourning as their means could command, for the performances of the last sad offices of respect and affection they could pay to their deceased comrades. Large number of persons, too, dwelling in the neighbouring villages visited the town to witness the funeral processions. The majority of the shops had a portion of their shutters up, whilst some were entirely closed. It may be safely affirmed that so melancholy a sight was never before witnessed in Merthyr. People congregated in groups in the principal streets, and numbers made

their way to this or that burial ground, according as those with whom they were acquainted were to be interred.

At half-past one the first funeral procession made its appearance. There were several amongst the deceased miners who had come to Merthyr from distant towns, and of these, we learn, some were sent by the Vale of Neath Railway to be buried in their native places. It is customary in Wales for very large numbers to follow a corpse to the grave; but in this instance, where the number of the dead was so great, the followers were necessarily divided into smaller parties than otherwise would have been the case. Some of the poor fellows were followed only by about fifty or sixty - others by hundreds - the numbers varying considerably. In Tramway-roadside four corpses were brought out, all within a few doors of each other, and some hundreds of persons followed them. The roads were literally covered with spectators; whilst every now and then the cries of distress and mournful sobs of the poor widows and orphans struck painfully on the ear.

Four of the bodies were taken to Aberdare, a distance of about six miles. A very large procession followed them, reaching about a quarter of a mile in length, and great numbers of the followers were in tears. The whole of the corpses were borne on biers, and the great distance they had to be carried rendered it necessary frequently to shift turns. Soon after this procession came another of much greater magnitude, there being in this instance no fewer than twelve corpses, all of which were conveyed to the Cefn Cemetery for interment.

As near as we could judge, about 500 persons followed each corpse, thus forming a procession of fully a mile in length, and comprising from five to six thousand persons. At the St. David's (or Parish) Cemetery, thirteen of the deceased men were buried. The Rev. J. Griffiths, the esteemed vicar of Merthyr, and three curates, the Revs. Owen David Thomas, Penydarren; Edwin Rowland, curate of the Parish Church and Wm. Davies, Tydfil's, - well, officiated, and though, in some instances, the bodies were taken into the chapel in twos and threes, the whole of the burial service was read for each. The ministers, therefore, were fully employed in their sad offices throughout the afternoon.

The service was performed in Welsh and English, according, doubtless, to the wish of the friends of the deceased. In the parish cemetery, throughout the whole of the afternoon, large numbers assembled, and the walls were covered, in places, whilst not a few stationed themselves on a coal tip overlooking the graveyard, whence a view could be obtained of the mournful ceremony. The windows and doorways, in every street, were thronged with people as corpse after corpse was borne along. Several of the members of some of the processions sang hymns through the streets in a most impressive manner, and the effect was exceedingly solemn. In several instances where the deceased belonged to a benefit society the members wore their mourning regalia. Several belonged to the "Ivorites," whilst others belonged to "The Sons of Temperance," &c. Many of the coffins were entirely uncovered but the majority were supplied with palls.

To describe the whole of the processions would be an endless task, but we may here mention that, as far as we could learn, the corpses were distributed as follows: - St. David's (or parish) Cemetery, 13; New Cemetery, Cefn, 12; Aberdare, 4; dispatched by rail to different places, 4; the rest being buried in the various dissenting graveyards in the town and neighbourhood. We should state that the whole of the ministers - Churchmen and Dissenters - acted nobly throughout the entire proceedings. As may be easily imagined, great difficulty was felt in supplying biers for the whole of the coffins, and, as a matter of course, some little delay was experienced, though we must do the worthy vicar as well as other ministers, the justice to say that they most praiseworthy exerted themselves to obviate the inconvenience.

In two or three instances, we believe, the corpses, owing to the advanced state of decomposition, had to be buried on the previous day. The whole of the coffins were made at Mr. Crawshay's works, all of them being pitched inside, a precaution rendered necessary by the condition in which the corpses were left by the terrible fire-damp. The total number of the dead up to the time we write is 48 the two that were brought out of the pit alive are still lingering, but it was stated to-day that the recovery of one of them was exceedingly improbable, owing to the dreadful shock his nervous system has sustained by the explosion.

The burying of the dead was not finished until six o'clock in the evening, when the town was literally thronged by the number of spectators who had come to see the funerals. It may be desirable, in justice to the gentlemen in question, to state that the Rev. J. Griffiths and his curate, the Rev. Mr. Davis, as well as other ministers, visited the bereaved widows and families on Friday, and administered all the consolation in their power. Sad, indeed, was the picture presented to them. In one house they visited they found a widow and six children, in another a young wife with an infant only three weeks old! Whilst in a third a father and son lay, both clasped in the icy embrace of death! To every house upon which the sword of the destroying angel had fallen some scene of bitter sorrow was to be witnessed.

Now that the mortal remains of the poor colliers have been consigned to their last resting-place, the question naturally arises, what is to be done for the sufferers? We do not for a moment suppose that the people of Merthyr are wanting in sympathy to the unfortunate survivors, and cannot doubt but that public benevolence will reach their melancholy cases. As yet (Saturday) no public movement has been made since the catastrophe for rendering aid to the sufferers; but we are exceedingly pleased to record the fact that Mrs. Rose Crawshay (Robert's wife) has personally visited many of them and ministered to their necessities not in the spirit of the grand lady from the castle making a duty call, but as one feeling the sorrows of others, and trying to express her grief by any way practical. The

At the police court, on Saturday morning, J. C. Fowler, Esq. the stipendiary magistrate, previous to commencing the business of the court, made a fleeting allusion to the painful event. He could not (he said) take his seat that morning without taking the opportunity of expressing his feelings of sorrow and sadness for the terrible calamity with which the people of Merthyr and the neighbourhood had been visited. He was sure the whole town would deeply deplore the melancholy death of nearly fifty industrious colliers; and that these who were thus deprived in a moment of their protection and support in life would be much and often in their thoughts.

By a singular coincidence they had actually set on foot that week an association for the relief of persons suffering from accidents in mines. That society could now proceed to act without delay. He had written to ascertain the views of the proprietor of the colliery with regard to the families of the deceased colliers, and would be prepared on Monday to adopt further measures in combination with those of Mr. Crawshay. It was understood that a public meeting would be held. We have now to record a fact which cannot but excite in everyone who reads it the greatest indignation. A fellow named John Williams, from Brynmawr, was on Saturday morning brought before J. C. Fowler, the stipendiary magistrate, charged with stealing a flannel shirt, of the value of 7s. the property of William Edwards, one of the unfortunate victims of the colliery accident. The evidence went to show that the villain visited the house to console the widows and members of the family, and while there he contrived to go into the back premises and steal the shirt off the line. He was committed for trial at the assizes.

The most vigorous efforts were being made to clear the pit, a number of men were busily working in shifts to restore it to its normal condition and now that the state of the colliery has rendered it easy to see the extent of the damage, we are enabled to state with certainty that the injury done to the works is but trifling. Some of the doors were blown out by the violence of the explosion, as also were the brattices and the top sides of the level cross-heading, but beyond that no injury has been done. Mr. Crawshay's son, we are informed, went down on Friday and examined the working. There was also a good number of visitors at the spot that day, although, of course, nothing could be seen but the mouth of the pit, the place above ground having now resumed its wonted aspect, leaving not the slightest trace of the tragedy enacted below.

#### Incidents of the explosion

There are many touching incidents narrated in connection with this appalling accident, some of which cannot fail to elicit the warmest sympathy for the survivors. One poor fellow, whose previous occupation had been that of a sawyer, had, in consequence of being unable to obtain employment in that capacity, entered the pit on the morning of the

accident to work as a collier; but ere night he was numbered with the dead. Another man was found within three or four yards of the pure air, with his cap clenched between his teeth, having doubtless ran thither in the hope of escaping the dreadful choke damp, but was struck dead in the terrible run for life. At the entrance to the heading in which the explosion occurred, a number of trams and two horses had been hurled together in a heap by the force of the explosion, thus presenting a formidable obstacle to the means of egress, supposing any of the poor fellows had had strength enough to have effected it.

To those who are unacquainted with the nature of collieries, it may appear strange that the explosion was not extended to other portions of the pit. It may, however, be explained thus - the headings at the bottom of the shaft extend in different directions - the Yard seam one way, and what is called the four-foot vein, in which the accident occurred, the other. The inference is obvious. The noxious gas from the four-foot vein, was prevented entering the Yard seam by the great current of air ascending the shaft, and of course was confined to that part of the pit. That there will be the strictest investigation before the coroner we cannot doubt, and we sincerely hope that the deaths may prove to have been, as we now believe they have been, the result of accident and not of negligence. The public will doubtless await with anxiety the issue of the inquiry.

### **Sunday, 23<sup>rd</sup> February 1862**

Sunday was a solemn day in Merthyr. It was the first after the funerals. Funeral sermons were preached in all the churches and chapels. The Rector preached his in the evening at St. David's. The large church was unusually filled the great mass of the congregation being working men and their wives, who crowded the free sittings. During certain portions of the discourse the people were visibly affected, especially when the reverend gentleman spoke in his usual warmth and fervour, of his experience in these fearful calamities; an experience, which it is very possible no other clergyman in charge of a parish has ever seen in fifteen years. We give the substance of the sermon, believing that it cannot fail to interest our readers :—

**St. Luke XIII. 4.** — “Or those eighteen, upon whom the tower at Siloam fell, and slew them, think ye that they were sinners above all men that dwelt at Jerusalem.”—The history of the tower of Siloam falling upon these unhappy people is so well known, that I shall not further allude to it. You know it is my practise never to dilate on a well-known passage in Scripture. I take it for granted that you all know it already and of those who do not, I say great is their shame; they ought to go home and study it. I have given you the chapter, and I have given you the verse, and it will be a good religious exercise for those who do not know the details, to put them together at home after they have heard the sermon. If every preacher did this, the kingdom of God would be better known amongst us than it is, and Zion would have a greater increase.

Sermons would be also better appreciated. Whereas, according to the general practise in use at present, a preacher goes through the whole of the details. He tells us that which we already know. He wastes half of the time appropriated to the sermon, in explaining the commonest Scripture platitudes - things which every child in a modern Sunday school ought to know, or ought to be well schooled for it, if he does not know it - and by the time he comes to the real question of the sermon the interest is abated - men's minds are wearied by listening to the driest of all dry platitudes - their attention has become flagged, and all the good that a sermon might have done is entirely lost, because a preacher of the nineteenth century will follow no other model than that which St. Augustine or St. Bernard in the fifth or the sixth century knew it to be their duty to follow, when the Bible was a strange book to the world, and not the familiar every-day book, thank God, it is to most of us now. I must, however, say this, or you will never comprehend the thread of the discourse

I propose to give you that the people of Siloam were under the very erroneous impression that the falling of the tower was a judgment against those upon whom it fell! Our Saviour, therefore, in the text, takes occasion to correct their false judgment. He schools them to be more charitable in their conclusions. He does not deny that they were sinners. He only guards them against imputing more sin unto those unfortunate sufferers, than unto themselves. You will find it all in the



Gospel; I will not, therefore, quote it for you. There is nothing to me more wearisome, and I think more unprofitable, than to make up one's sermon of a lot of patchwork, garnished with quotations from Scripture.

Some people's sermons really consist of nothing else. I will not say what I think of them; but I pray God I may never become so idle or so indifferent to the real object of preaching, as to follow them. Our Saviour's intention was, in fact, to teach the world not to judge harshly of those who suffer by the common accidents and misfortunes of life; but to let such examples be a warning unto us to amend our lives, and to let us know that death comes to us as a thief in the night, and that it is a fearful thing to fall unprepared into the hands of the living God.

We all have need, brethren, to learn this lesson more or less. It is a common failing to attach a special judgment unto men when they are overtaken by accident or misfortune. This is often an error. Still God does visit in this world. I am as persuaded at this, as I am now speaking unto you. I cannot read history; I cannot read my own life; I cannot read the lives of those with whom I come in daily contact, without seeing the finger of God now and again stamped upon them. Your "doctrinaire men," year men of Mr. Buckle's stamp, and I am sorry to say they are on the increase, these men would put me down as a dreamer, or an enthusiast; but all I ask of them is, to leave their study - to abandon their arm-chairs, and mix in the world, see it as I see it every day of my life, - an over-ruling God coming in here, and going out there, and let them note down what they see, and then let them say, whether judgments are mere accidents or not? I declare to God, I would sooner give up the Bible and everything relating to it. I would tear it myself into the merest shreds, and maul it, and trample it into pulp, sooner than I would give up this doctrine of an over-ruling special Providence interfering in, and directing the ways of individual men. I say this, because I know that if I were not to believe in it, I should go wrong to-morrow, I have otherwise such little faith in my divinity.

I want no better proof to convince me of the existence of a God, and the future recompense or reward, or punishment hereafter, than to study God in the way he deals with man here. In this way I see God written in

the ways of man, as clearly as I see the sun written in the sky at noon day and I will add further, that if I failed to see Him, I would give up my God to-morrow. Why? Look at a man who is, or who has been a great sinner. Are not the chances ten hundred to one, that God will let him know of it one way or another, even before he dies. Either God will visit him through the instrumentality of some great calamity, or else he will visit his innocent children, or his goods, or his chattels, or some event in his life, that will force him to feel, and that deeply too, that the Great God of heaven is not to be denied with impunity!

Nevertheless, I admit we must qualify these judgments; we must discriminate between one and the other; we must see as our Saviour indicates in the text, whether it is a judgment on the dead, or a lesson unto the living. If we do not keep this distinction in view, we fall into the same error as the hearers of our blessed Saviour did, and impute sin, where no special sin was intended. Having made these remarks by way of caution, as it were, they will, I think, suffice to explain, why I have selected the fall of the tower of Siloam, as a fitting text for making a few observations on that terrible accident, which has shaken the nerves of every strong man in this parish. When I left the last parish I was pastor of, I declare I thought I had done during my lifetime with these fearful explosions.

This valley had been so free from them, that I think I was justified in coming to this conclusion. But here we are again - the same sorrowful and dreadful scenes around us - the same sad visit to be paid to the friends of the dead - the same lengthened string of funerals, coffin following coffin, and wail succeeding to wail. Oh! I have seen enough of these things to melt the hardest heart.

During the thirteen years I lived on the other side of the mountain, independent of small explosions, which were more or less always taking place, sometimes killing and sometimes not, - there were several great accidents in that valley. In these taken together, there were over two hundred souls hurried at once to face their Maker without note and without warning. I have seen the coffins piled up in the aisle of my Church one above another, simply because the Church could not

otherwise hold them, and because the day (though the longest the summer gives us), was not long enough to apportion to each body the last offices of the dead.

I have heard the piercing shriek of the wife, the sorrowing wail of the mother, and the deep groan of the father, as the bodies of their lost ones were committed, earth to earth, ashes to ashes, and dust to dust. Oh, yes, I have heard enough of these lamentations and woe to crack the heartstrings of the stoutest man that ever stood over a grave. This is not the place to enquire why these terrible explosions do occur so frequently. Let that be argued elsewhere, and I hope and trust in God it will be. Though we may say here, that it is only human and Christian to exercise every precaution, to spare no expense, or science, which money can command, where so many lives are concerned. there is none.

But we do think it our duty to say, as Pastor of this parish, speaking for his flock, we say as we have often said on similar occasions - we say it on behalf of those who survive, on behalf of those who are liable to become victims of the same wholesale slaughter, that as the workman should exercise every care, so should the master never cease to exercise every skill. As if our firesides on a cold winter's evening, when the frost and the snow have bound the earth in chains, the last thing upon our minds is the debt we owe to the poor miner for all the comforts with which we are surrounded.

There is no body or class of men to whom we owe more obligations socially than that of the miner. All our luxuries, our comforts, our dress, a great part of our daily food, all we owe to the perils of the miner. Nearly every enjoyment a man has in these days, his necessaries, and his luxuries are produced through the efforts of steam; and it is the miner that gives to the steam its fuel. I look upon the miner as the prime mover of everything that is sociable in the nineteenth century. It is owing to him we journey to and fro with the rapidity of a bird possessed of the fleetest wing; it is owing to him poor people are dressed so warmly, and decently, as thank God, and the blessings of Free Trade, we see them now.

Well, do we consider these obligations? Do we fully comprehend to whom it is we really owe them? Do we appreciate the worth, the risk, the peril that a man undergoes in order to obtain for us all these comforts? Why? - one single stroke of the mandrill is enough to introduce the fell fiend, the miner's demon, the fire-damp - nothing more is wanted to blow up the whole mine, and to bring destruction unto every living thing in it. We do not, I fear brethren, often consider this. But whether we do or no, which I much doubt, let me beseech you, underground men, and oh - how often have I addressed you to the same effect - let me beseech you at any rate to consider the terrible uncertainty of the life you lead. The soldier storming the breach, or the mariner riding the hurricane is not nearer death than you are every day of your lives. You have therefore the greater need than all other men to be always ready, and be always prepared. Just hear from me one single instance of a miner that was prepared, and who met his death as a hero and a Christian would.

I will not mention names nor the circumstances, but the tale is true. A portion of a shaft fell upon him: he was buried five fathoms deep. His comrades could hear every word he said, and he could hear them; but the air was getting fouler and fouler every moment. They worked away to rescue a fallen brother as mariners and miners know only how to work, for no other men have I ever seen brave death - and God knows it has been my painful witness to verify the fact often - like mariners and miners do. To the questions they sent to him now and again in this living grave he answered - "I feel the cold hand of death upon me; if there is any hope of my being taken up, tell me, but if not, tell me."

There was, however, no hope, though no men worked with more of a will than they did. Suffocation was inevitable. And what did he say? "Oh, said he, it is the Lord's doing, let him do what seemeth him good. Tell my father and my mother not to be sorry as those without hope for me; it is now only that I am happy; it is now only I see what it is to have lived with God I feel that God is with me, and that I am going,—I do believe I am going to heaven." Here his voice failed, and he never spoke again. Working men, you who lead a rollicking, yet a dangerous life, see what it is to be a Christian. But let us come to some practical end. The last three

days it has been my painful, yet bounded duty, to visit the widows, the orphans, the childless, and the fatherless. This is the eighth time I have gone in the last fifteen years, through the same melancholy duty. I declare I had rather ten hundred times face the enemy in the battlefield, with all its risks, than go through this most melancholy of all duties. No words of mine can detail to you the sorrows and the sufferings of the bereaved. We hear of them, and we pity them; but to come in contact with them, there is the trial. I will draw a veil over it all. I will attempt no description of the widow's wails - the house with the crowded children, and the cupboard that may be henceforth bare. Nay, nay, God forbid. Let humanity cry against it. Let us one and all, brethren, do something to soothe the widow's sorrow. Let it not be said that the union and the parish are provided for them, but let every man dip his hand deep into his own pocket, and let him do that which he ought to do, in as far as the bounty of the Lord has enabled him to do. An opportunity will be given unto every one of you. A public meeting will be held in the course of the week to organise a public subscription and I hope and trust that there is not one here, whether he be master, or whether he be man, that will not do as much as in him lies to comfort the widow and the orphan in their terrible affliction.

### **Wednesday, 26th February 1862**

Important public meeting at Merthyr in aid of the bereaved

On Wednesday night, 26th February 1862 a very large and influential meeting was held at the Temperance Hall, Merthyr, in order that means might be devised towards raising a fund for the support of the bereaved widows and orphans of the Gethin calamity. At seven o'clock, on the motion of J. C. Fowler, Esq., seconded by the Rev. J. Griffith, rector of Merthyr, it was proposed and carried that the High Constable take the chair. J. D. Thomas, Esq. readily acquiesced, and rising observed that only a short time ago a meeting had been convened to take into consideration the sorrows of poor colliers' widows and orphans at Hartley, between the time when the meeting was convened and the time when it was held, public charity had poured in so fast that aid was no longer needed. Upon this it was very judiciously suggested by Mr. Simons that the opportunity should be taken and a permanent fund

started to provide for future contingencies. The committee had been appointed, but before steps were taken this awful catastrophe had occurred, and they had deemed it better to suspend the project for a time in order better to grapple with the great emergency now before them.

Accordingly they had met that night solely to establish a fund for the relief of the widows and orphans of Gethin. At a previous meeting it had been observed that the sensation produced by the suffering and the sorrows of a poor widow here would be quite as great as that produced at Hartley, though they little thought when that observation was made how quickly it would be brought home to them. He had much pleasure in reading to them a letter received by Mr. Robert Crawshay from his father, wherein they would see the view taken by the proprietor of the works on the question of relief to the sufferers: -

**Caversham Park. Feb. 23<sup>rd</sup> 1862.**

*My dear Robert, — I have your letter of yesterday and enclosures of the High Constable's communication to you in pencil, with your reply in ink to them and to which I now add my replies and I wish you to see the High Constable or let Mr. William Jones do so immediately, and show him what I say. Meantime I hope you have given immediate relief to such of the poor creatures' families who need it by the death of the deceased, and I desire that in all urgent cases it be continued weekly until permanent relief be afforded in some other way to them. I await list of the sufferers, their names, ages, families, &c. I most absolutely decline any prejudging, or any attempt at explanation of the cause of the accident.*

*Before the proper tribunal, the coroner's inquest, and the inquiry of Inspector of mines and collieries, every possible assistance shall be given to ascertain it, but I court no favour or feeling by any previous statement which I could only make, that neither my pit, airways, or agents were the cause of this lamentable loss of life, and that it is attributable only to the carelessness or negligence of some of the poor sufferers themselves. I quite approve everything which you have said and done, and on any future question at this lamentable affair you will give your own views,*

*leaving me as the sole owner of the works to give my decision, and what I shall be dictated by every possible sense of humanity and Christian feeling. Pray keep me informed daily of what occurs, and I would almost wish that the High Constable be requested to read this letter at the meeting which he proposes calling, that the parties attending may clearly understand my feelings upon this most awful occurrence.— I am, my dear Robert, your affectionate father, "William Crawshay."*

After commenting on the fact that Mr. Crawshay reserved to himself the right of attending to the immediate wants of the poor people, the High Constable concluded by stating that the business of the meeting had been confided to the hands of a few gentlemen, but it was competent to anyone in the course of the meeting to come forward and aid them. He would only say that he hoped no attempt would be made to prejudice the case, they would confine themselves to the relief of the sufferers, not take to themselves any judicial capacity. The *'Times'* newspaper set them an excellent example by suspending its judgment until after the inquest or trials, and that example he hoped they would they follow. He would now call on the Rector of Merthyr to make the first proposition.

The Rev. J. Griffith, in responding to the call, said that the resolution he held in his hand was to the effect that the meeting felt deep sympathy for the poor widows and orphans, and that it pledged itself to do its utmost to alleviate their sufferings and trials. All present should unite their efforts to bring this about. He felt certain that there was no man there who required any single word to be said to strengthen that resolution, either from him or anybody else. The sympathy excited throughout the parish was so universal, and the shock was so sudden from that valley, at least so unprecedented, that the last thing wanting was Christian charity in behalf of the unfortunate sufferers.

He meant, of course, those whose worldly prospects were ruined by this awful catastrophe. They could not bring back the dead; but they might do something for the living. They could not bring back the dead father, the lost husband, the loving brother, or the boy just rising into manhood, who, until now, was the hope and the prop of his widowed mother — now a widow twice told, first a widow when she lost the father, now a

widow when she has lost her son, and the only prop she had in her old age. These were cases that always occurred in accidents of this kind, and most deplorable they were. It was his painful duty to assist them, and no words of his could ever depict the sad scenes of misery they gave rise to. There were others to follow him, and many resolutions to be moved, he would not therefore detain them with any details. But in order to speak to the resolution, he might give them a few types of the cases that do occur.

The first house he entered was on Thursday evening last. There was an aged woman pacing up and down. "God, surely, was not trying me in that hard way. What, my two sons dead it could not be. One, it is true, has come home to me. There is his body, sir, lying on that bed. Did you ever see a finer corpse? Oh, what a boy he was! How he loved his mother!" Then there is the other somewhere. They say he is killed, too, but I cannot believe it. It is now four-and-twenty hours since the accident happened, and they have not brought his body in yet. I cannot believe he is killed. My boy is gone somewhere else. He will return by-and-by. God is kinder than that, I know."

Then he went to another house. There he saw a woman in the full strength of her years. But a few hours ago she was rejoicing in the "quiver full of arrows the Lord had given her." The eldest he sees is not ten years of age. The mother is not crying. She is overwhelmed and absorbed in grief. Hard by, stretched on the bed is he who was the pillar of her household. He looked towards him, and he felt that so long as that brawny arm could have wielded the mandrill this mother could never want a protector and these children never want a meal. But all this is changed. With a sad heart he passed and progressed on his melancholy journey, entering another life, another abode of misery. And what did he see there? Two stalwart bodies, men with frames of steel. He asked a few questions, and breathed more on hearing that these men were single, and was happy to think that if the mandrill and the shovel are now at rest the cupboard here at any rate will never need filling again. But a kind neighbour soon undeceived him of his error. There is an aged woman upstairs, the mother of these stalwart men.



They were her sole support, and she needed no other. They were proud of her, and she was proud of them. "No wonder, sir," said one of the neighbours. "Did you ever see a collier's house better stored than this? Oh sir, you must see the old woman. She has been lying there for many a day, and you may well fancy what her bed is now." Upstairs they went, and there, propped up by pillows, attended by kind neighbours, we are soon ushered to the aged mother, numbering some eighty years, and a sad tale she has to tell.

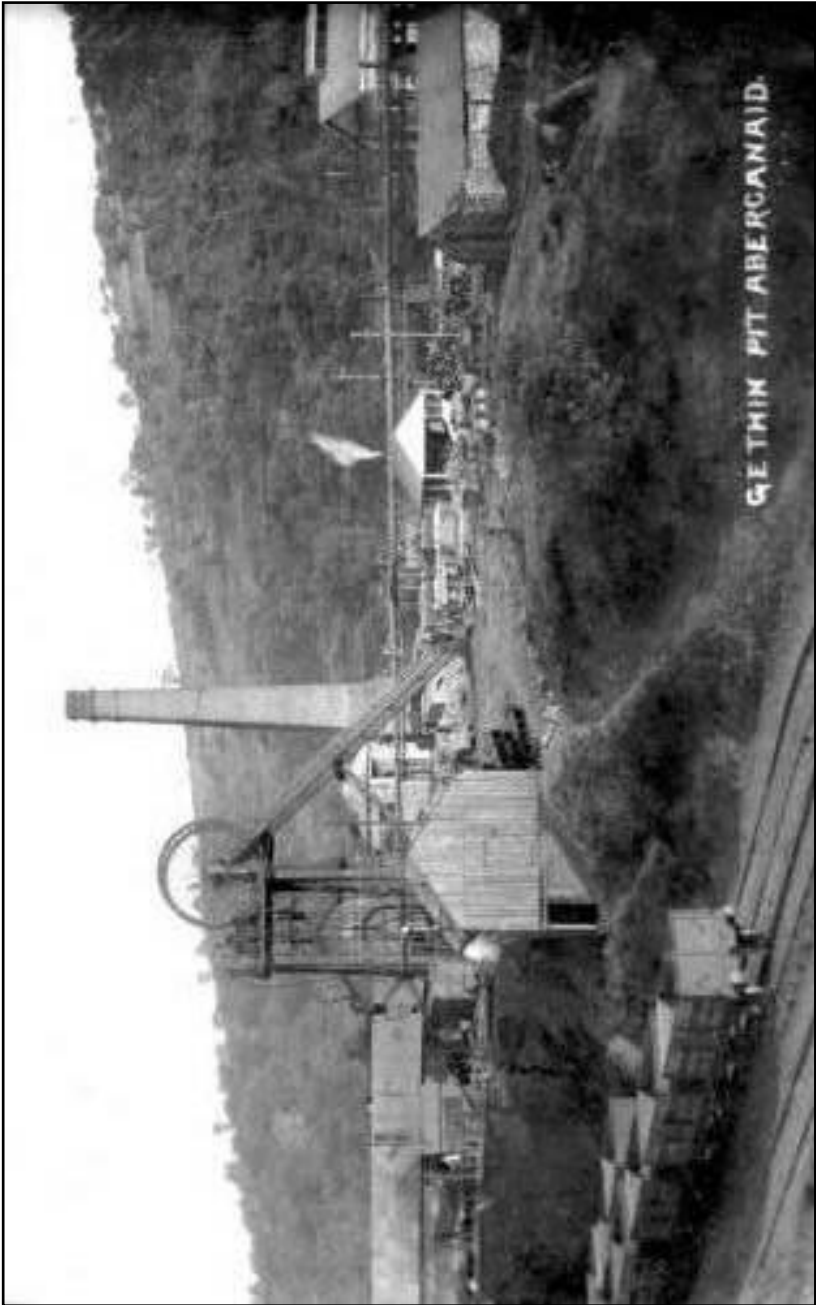
Then we go again to another cottage. This is the saddest of all. Here is a young mother having just begun life, two children are crawling about the ground, and another is lying a helpless infant at the breast. The eldest does not number three years, the second is not two, and the last of all is only two weeks, and the poor woman has now to leave the only bed in the house in order to give full room to the body of her dead husband. This was the saddest case of any he had seen, a case too sad for any description. For who could sound the depths of this poor young wife's sorrow. Even under the best of circumstances it is always a sad thing to lose either parent. It is the saddest thing, God knows. But the sadness of it is often alleviated when we know that in creature comforts, at any rate and in those things which children most of all require, there should be nothing wanting. We grownup people, said he, are soon inured to bear hardship. But children wither away under them. They die and go to a better world than this. There is nothing that melted his heart in the pits so much as to see a starveling child. His little wizened face shrivelled and shrunken, his little blue nose, and that gaunt look which is the never-failing attendant of hunger pinching and griping his little belly.

Well, what shall be said there tonight? Shall these poor orphans be subject to misery like this? I would say, "God forbid it." Nor did he believe either that it would be. There had been so much sympathy shown already that he firmly believed that they would set in motion that evening a machinery that would not fail to bring in a bountiful harvest of subscriptions. He believed they would raise a fund that would put every one of the poor sufferers, whether widows, mothers, sisters, or orphans above the necessities of daily want.

Our case, he would thank God, bad as it was, was not so bad as that at Hartley, still, there was a public sympathy raised, and it would be well to avail themselves of it, and excite it still further, first, by local exertions and showing the public what they themselves were resolved to do.

The Rev. Gentleman then read a list of subscription, showing what has already been done, and announced a total of £170. But he had something better than that. He received that morning a letter from a poor servant girl, containing twelve postage stamps, and requesting that it should be placed as her mite towards the poor sufferers from the Gethin explosion. The rev. gentleman read the letter, there was no name attached to it, the postmark was Taunton. But anything more like the offering of the widow's mite he never had experienced in the whole course of his life. He hoped the example would operate, not only upon the meeting, but upon the whole town. That poor servant girl's letter from Taunton was a proof that public sympathy abroad was largely in their favour, and he had no doubt, therefore, if the town would do its duty in the matter, and he felt that the country generally would do its duty too. The rev. gentleman concluded, amid much cheering, by moving the resolution.

Mr. Thomas Price in seconding the resolution remarked on the able and eloquent way in which the rector had spoken to the resolution, and that consequently the less he said the better, though he believed that the most eloquent of men failed in adequately describing human sorrow such as abounded around them, of widows and orphans deprived in a moment of their protector. For those poor fellows who are gone we could do nothing, but they could do something for those left behind. Though they could not stem the tide of sorrow, they could sympathise with them, feed the hungry, and clothe the naked. He knew of no mission that was nobler, and doubted not of its entire success. Their part lay in assuring the collier, by practical means, that even if by casualties in the pursuit of his labours he was deprived of life, and his wife and family left without his aid, that even then they would not be left to the union or the street. Such was intended by providing for the bereaved, and giving this practical assurance would, he little doubted, have the favour of the Almighty.



Probably the only photograph of the Gethin Colliery

The High Constable observed that since the rector had plunged into the matter in his vigorous manner, he thought this a fit time to read another letter from Mr. Crawshay, which with the exception of one paragraph was the same as the other. That paragraph was to this effect that he, Mr. Crawshay, for the present had taken into his hand the immediate necessities of the poor, and would reserve to himself the question of immediate relief. He would also read a letter enclosed to him by Mr. Robert Crawshay, to this effect: -

### **19, Prince's Gardens, Kensington.**

*Dear Sir, The newspapers have informed me of the terrible accident which has happened at Gethin pit, and I have heard on the subject from the Rev. J. Griffith. Before, however, I had received his note, I had determined to send something for the families of the poor sufferers, but I think it is best to send it to you, if you will kindly take charge of it, and pay it for me to the fund when it is set a going. The note enclosed a cheque for £100. (Loud applause.) Yours truly, Mr. William Crawshay. "Dynevor."*

The next resolution was proposed by J. C. Fowler, Esq., "That it is desirable to provide pecuniary means for the relief of such privations as may have been occasioned by the accident at the Gethin colliery." Our worthy stipendiary magistrate remarked he was only glad these communications had been read. Lord Dynevor was a munificent man, always ready to come forward with noble aid, and it was a fortunate thing for the county that he had such a good purse. He knew his friend the Rector, from his personal knowledge and power of description, would still further enlist their sympathies if such could be.

Never before had he received so strong a shock when he heard of the dread disaster, and he was sure that feeling was general. He would confine himself to a different phase of the subject, the financial. He had started in his own mind with the thought that it would be well to know what sum would be required. He had gone into the subject, and now gave them the result, not as a dogmatical conclusion, for he was certain there were many in the hall who could give them better basis to go upon. He found that there were in round numbers eighteen widows and sixty children unequally distributed. Put by way of estimate three children to

each widow and that will give the extent of what we shall have to do - eighteen families.

Now, what should be done with these? He would suggest that they should be placed in as good a position, in as comfortable circumstances, due regard being had to their own exertions, as if the accident had not happened. (Cheers.) Taking the highest and lowest amounts given by the Cymmer fund as a basis, he should think that each family would require 12s. 6d. a week and this was about the sum the committee would have to give them. Multiply that by the number of weeks, and they had £32 10s. multiply this by eighteen, and this would give £600 per annum.

If they would take the Cymmer fund as a guide, they would find there was a gradual decrease in the number on the relief sheet. That fund was dispersed in six years. Supposing they allowed five years for this, and assuming some of the widows might marry, others go into trade, and some, possibly, migrate, and assuming further that there would be a diminution of a fourth of the number every year, the smallest sum required for the purpose would be £2,000. He did not say that it should be limited he could not see why a fund should be confined to any arbitrary time, but extended and made to last the whole lifetime of the bereaved.

Respecting the Cymmer fund, he would not take upon himself to judge the matter, but he should like to know what had become of the remainder of that bounty. He was confident there would be no difficulty with this machinery once set in motion. That morning, in company with his friend, the rector, he had made a preliminary call at a few only of the tradesmen, and he had the greatest pleasure in saying they had been met warmly and generously, not one refusal had they received, not one instance occurred where they were turned away without having their request kindly granted. With reference to those cases brought before them by the rector, and which he was sure must have awakened their strongest sympathy, he had one to add brought to his notice by Mr. Wrenn, who, he need scarcely say, had been walking from house to house, and affording relief in the kindest manner ever since the calamity.

The case in question was that of William Lewis, a collier. He and his eldest son went down Gethin pit that fatal morning, and were both killed. His second son, who was in the habit of working in the same pit, had been spared, and how did they think? Why, that boy had not gone to work that day because there was no food in the house for him to take with him for the day, (sensation). Nine months ago the second son had lost his leg in the Gethin Pit, and some years before the son who was killed lost his leg in the same pit; the third son had also met with a severe injury; the father had been ruptured and confined to his bed for sixteen weeks; in short, that poor family had sickness, accidents, misfortunes for three consecutive years, until this crowning misfortune happened. When we heard of such as this, said the worthy speaker, it made one ashamed to pay any attention to the little ails of our own lives.

There was another case also - Isaiah Davies, one of the sufferers, had left a widow and six children. She had no money, no club, and was in all respects destitute. Another widow, enceinte at the time of the calamity had a constant succession of fits ever since; every day it was expected she would be prematurely confined, and her life, as all must know, was in great danger. Before sitting down he had one suggestion to make. It appeared to him that the general system of Life Insurance, based on good tables, certain guarantees, should be introduced among the workmen, and that owners of works should insist that no one go to the works without having a policy of insurance. In conclusion he hoped the contribution would be general from rich and poor, that interest and sympathy, not in words, but in deeds, should be shown by the whole working population.

The Rev. G. W. Humphreys said, in seconding the resolution, he would confine himself to another aspect of the subject, he had been deeply moved by the Rector's vivid narrative, as all were, but if those who had been in contact with the families of the sufferers were to relate their experience, they would keep the audience until a very late hour. Two of his own acquaintances were among the killed they were worthy, good men, devout, attentive to their religious duties, and both excellent husbands.

He had visited the widow referred to by the Rector. She was in a state of stupor, but soon after he had been there two young colliers came in, who had been the friends of the dead, and the intensity of that widow's sorrow when they entered he never saw equalled. On the other side of the road there was a husband and nephew and thus in that spot there were four lost to the same family. He had also seen James Gwynn's widow, and the poor woman's observation was remarkably touching - "We have had our troubles every day, little sorrows, great trials, but they passed, and we forgot them, but this trouble will last our lives, we shall never forget it." He would remark upon the strong and urgent claims these sufferers had upon us. True, they could not bring back the lost, and restore them their husbands and sons, but still they might lighten their hearts and cheer the future. Human sympathy was great, but the depth of woe, such as they had seen, could never be touched by it. All that could be done was to soften the pangs of want. He hoped each would contribute in the same ratio as God had prepared them in the world.

Proposed by Mr. James Ward Russell: - "That a subscription towards this object be immediately organised upon a comprehensive system, and that the pecuniary need of obtaining a large relief fund be urged upon the public not only within the neighbourhood, but throughout the length and breadth of the land." Mr. Russell remarked that his resolution followed as a matter of course, for unless his was adopted the others would be of no manner of use. They had lately had, unfortunately, instances of how the English heart sympathised with brethren in distress. Hartley had come home to them now. He would urgently impress upon their minds the necessity that existed for beginning liberally at home, otherwise the appeal would not be so liberally responded to from abroad.

They had heard a fair list of subscriptions, and he hoped it would have the effect of making all put down their names, and then others at a distance would give them aid in an equally generous and liberal spirit. That morning, on entering his room he received one of those unpleasant letters called a "dun." The writer, after stating that he would be obliged for the money, added that he should be glad if he (Mr. Russell) subtracted a guinea from the amount and handed it to the fund.

(Cheers.) If all correspondents would assist in this manner they would soon have enough. He had no doubt sufficient would be obtained, and then it would be their duty to see the bounty properly applied, and to carry out their labours in a way that would satisfy their consciences in having done their duty in the hour of need.

Mr. T. W. Goodfellow seconded the resolution, and did so under the influence of peculiar and opposite feelings, feelings of sorrow for the sad accident, and feelings of satisfaction in seeing so many gentlemen of influence come forward to devise a scheme whereby the suffering of the bereaved might be lessened. His resolution had to do with the real, not sham, sympathy. It called upon the man not to say what he feels, but how much he felt. He thought direct application should be made to the public, who should be plainly given to understand that it was their duty to liberally support the movement. If it should be necessary to appeal to the workmen, he had no doubt those appealed to would have the will; but in consequence of the bad times, they might possibly not have the ability. After commenting on the effect produced on the meeting by the servant girl's conduct, and highly eulogising her, he added that working men would not be respected for the amount they gave, but for the sacrifice they made. A penny given by a workman would be as gratefully acknowledged as £20 from those able to afford it. He thought they might calculate on the assistance of working men, and concluded by suggesting that each branch should be classed. The miners have a fund. The collier's one, and so on, and then they could see what each class contributed.

Proposed by Mr. Frank James: - "That a committee be appointed, whose duty it shall be to give ample publicity to the claims of this fund, and industriously solicit contributions in such a manner as to them shall seem appropriate." Mr. James observed that he was afraid the amount named by Mr. Fowler would be too small. (Hear, hear.) He thought they could not have too much, and he should hail it as a most fortunate circumstance if, like Hartley, public liberality should pour in upon them, for he conceived the time to be at hand when something was required to be done permanently.



For the last ten years these dreadful accidents had happened one after another, notwithstanding all care and science. As coal was the basis of our prosperity, and seeing that the coal trade must be carried on, and that these accidents cannot be prevented, it would appear to him vitally important that a permanent provision should be made to meet coal accidents. He would suggest two means, one a general fund for the district, say in Monmouth and Glamorgan; and the other, that the Legislature should take up the matter, and enact that coal owners, as well as buyers should set apart a sum of money to meet these cases. He concluded by hoping that means would be taken to afford the poor sufferers better help than simple parish relief.

Mr. W. R. Smith, in seconding the resolution, observed that it was very often a resolution was like its committee - dead, but this was full of life. He would crave permission to say a word or two on the suggestion of Mr. F. James, who had given it with his accustomed force and vivacity. Necessity had forced upon them, by recent events, the need of a permanent fund, and he thought much might be done by themselves. On Saturday night, of all the saddest sights he beheld, that was most so, not so much by the coffins of the dead as those who followed after. It was incumbent upon them to do all in their power towards the subsistence of these mourners. They all depended on them for all comforts, all luxuries, every pleasure they cherished sprung from the labours of the collier. How could Merthyr exist, how so many respectable and wealthy men be found amongst them, but for the working, toiling collier?

He himself believed they would not feel comfortable and happy, if looking at the subject in this light, they neglected doing something in return for those poor mourners, something that should be an honour to themselves, and a glory to the town. He concluded an eloquent speech, which we regret having no room for, by a vivid description of a case brought under his own notice, and urging speedy and voluntary donations to be at once sent in, and thereby lessen the labour of the committee. The names of the committee were then submitted to the meeting, and many individuals from various portions of the hall having suggested others, the list of the committee was as follows:—

The Committee: - The Revs. J. Griffith, Rector; G. W. Humphreys, John Howell. Messrs. J. C. Fowler, J. D. Thomas, J. W. Russell, T. Price, T. W. Goodfellow, J. Bryant, Frank James, William Harris, John Jones, Henry Wrenn, W. Simons, George Roach, D. Rosser, C. E. Matthews, William Gould, J. W. James, J. C. Wolrige, E. W. Scale, Walter Smyth, Thomas Williams, W. R. Smith, Thomas Evans, Robert Jones, Lewis Lewis, John Garnon, Rosser Beynon, John Walters, Richard Price, D. Williams, David Rees. And the men of Gethin Pit to send two of their number.

Proposed by J. W. James, Esq., and seconded by Mr. John Beynon: - "That Mr. Thomas Stephens be requested to undertake the duties of Hon. Secretary. Proposed by E. W. Scale, Esq., seconded by J. C. Wolrige, "That the Brecon Old Bank and West of England Bank be requested to become the Hon. Treasurers to the Fund." This, with a vote of thanks to the chair, and an excellent speech in return, closed the meeting. Present subscriptions £447 17s.

The '*Merthyr Telegraph*' of 8<sup>th</sup> March 1862 wrote: - Following up the suggestions of Mr. Russell, at the late meeting in the Temperance Hall, Mr. Price, draper, has exerted himself in behalf of the sufferers, and succeeded in obtaining subscriptions to the amount of £44 17s. 0d. The following is the list of the subscribers who have remitted this amount to Mr. Price, and we shall have great pleasure in noticing any similar list from any other gentleman, whether committeeman or otherwise: -

Messrs. Copestake, Moore, and Co., London, £10; Milligan, Forbes, and Co., Bradford, £10; Morrison, Dillon, and Co., London, £5 5s. J. and R. Morley, London, £5 5s. Carlton, Walker, and Co., Manchester, £5; Marling, Strachan, and Co., Stroud, £2 2s; Ryland and Sons, Manchester, £2; Leaf Sons, and Co., London, £ 5 5s. Whenever a disaster of this type occurred, some showed their sympathy by sending self-penned poems to the local newspapers. The '*Merthyr Telegraph*' of 1<sup>st</sup> March 1862 carried the following poems: -

## THE GETHIN EXPLOSION.

Oh God is't it not a fearful thing  
That fifty lives should thus be lost,  
And comforts that their labour bring  
Are purchas'd at such awful cost ?

A flash—report—a sulphurous smoke  
A fight for life with death—'tis o'er,  
And hearts that beat, and tongues that spoke  
Are silent, dead for evermore.

Without a moment's warning sent  
To everlasting joy or thrall,  
The good life and the life misspent,  
May God have mercy on them all.

Listen to the dreadful notes of woe,  
The wife o'er him she loved so well;  
Who—though her lot in life is low  
The measure of her love can tell?  
The widow'd mother o'er her son  
Weeping in accents of despair,  
Bemoaning her lost lov'd one,  
Who toil'd and kept her by his care.

Added to their great sorrows yet,  
Shall hunger, poverty them sting ?  
"Whose husbands, fathers, toil'd to get  
Their daily bread, and comforts bring.

Nay, for out of the boundless store  
That in our land is earn'd by thrift,  
Let each one give his mite, or more,  
And heaven itself will bless the gift.

D. R. L. Merthyr - Cardiff and Merthyr Guardian

## THEY'RE GONE

They're gone, poor men, for ever gone.  
From life's uncertain shore,  
And many, late in health and strength,  
Shall glad their homes no more.  
No more shall the mother's kindly voice  
Shall welcome home her child, -  
No more the sorrowing wife shall be  
By loving smiles beguiled;  
No more their little ones shall watch  
Their fathers home again -  
No longer see the fond caress  
They never sought in vain.

They're gone, alas! for ever gone -  
Gone in the midst of toil, -  
Called as they bravely battled forth  
With this worlds' turmoil!  
Gone in the bowels of the earth,  
Far from the light of day, -  
Called forth, without one warning word,  
From all their loved away.  
On, on, the fatal choke-damp rushed,  
With overwhelming power;  
And men and boys in dread dismay,  
Did 'neath its influence cower.

**Emily Stevens** *'Cardiff and Merthyr Guardian'* 1<sup>st</sup> March 1862

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## Chapter three

**Tuesday, 4<sup>th</sup> March 1862**

The Gethin colliery explosion – The adjourned inquest

The inquest on the bodies of the unfortunate men who lost their lives at the Gethin Colliery on the 19th ult., which had been adjourned from the following Friday, was resumed on Tuesday morning, 4th March 1862, at the Assembly Room, Bush Hotel, Merthyr, before George Overton, Esq., coroner. The proceedings commenced about 11 o'clock. There was a large attendance throughout the day, the majority of whom appeared to be working men. The following gentlemen were sworn to serve on the jury: - Mr. Thomas Stephens, foreman; Messrs. P. Williams, John Davies, John Nicholas, William Harris, Daniel Jones, T. Loveridge, David Richards, William Lewis, James Owen, Thomas Watkins, Rees Evans, William Gould, and Benjamin Ballard.

Mr. Charles James attended to watch the proceedings on behalf of Mr. Crawshay, and Mr. Kenyon Blackwell was sent specially to attend the enquiry on behalf of the Government. Mr. Thomas Evans, Inspector of Mines, and Mr. Brough were also present. The Coroner in his address to the jury spoke as follows: - "We are assembled here today for the purpose of proceeding with the very important investigation which we commenced on the 21st of last month. I am sure it is unnecessary for me to impress upon your minds the importance of the inquiry, as the appalling fact of its involving the sacrifice of 47 lives is quite sufficient of itself to rivet the strict attention of you all. The numerous serious calamities that have recently occurred in connection with collieries have very naturally tended to cause a deep sensation in the public mind, and our proceedings will be watched with a strict scrutinizing eye by the whole of the kingdom. Let me therefore entreat you to devote your best attention and energies to assist me in instituting a most strict and searching inquiry into the cause of this unfortunate occurrence."

Before we proceed with the examination of the witnesses I will draw your attention to the different points which you will have to investigate. These will be, first, - What was the cause of the occurrence? Secondly -



**St. David's Square, Abercanaid, built for the local colliers near the No.1 pit. Demolished several years ago.**

Did it arise from accident or culpable neglect? These are the two points to which you will have more particularly to direct your attention, and I trust you will be able to come to a satisfactory conclusion upon both of them. To enable you to form your opinion upon the first point, I have summoned all the officers connected with the pit, some of the colliers employed, and all those persons whom I thought likely to throw any light upon the subject. There is unfortunately but one person who was present near the scene of the explosion at the time, who has survived, and if he is well enough he will appear before you and give you his testimony, and if it should appear in the course of our inquiry that there are any other persons whatever whose evidence you would wish to have, if you would only intimate it to me I will take care to have them immediately summoned. You will also have the evidence of the Government Inspector, Mr. Evans, and other scientific persons to assist you, and I trust by these means you will be able to arrive at a safe conclusion.

Having satisfied yourselves on the first point, you will then have to consider the second and most important question, namely, whether it arose from accident or culpable neglect. This question may involve an intricate question of law, to which I shall have an opportunity of drawing your attention, and explaining to you after we have gone through the evidence, if it becomes necessary. But in the first place you will have to investigate minutely the arrangement of the works, the system of ventilation, and working adopted and the manner under which they are conducted, and whether the proprietor's agent and workmen have all discharged their several duties correctly and properly. And to facilitate your inquiries on this hand allow me to remind you that there are two acts of Parliament which were expressly prepared in reference to collieries, to which your attention will be more particularly directed. These are 5 and 6 Vic. 23 and 24, cap 151, commonly called the acts for the inspection of collieries.

Those acts contain general rules which shall be observed in every colliery by the owners and agents thereof, and they provide that in addition to such general rules there shall be established and observed such other special rules for the conduct and guidance of the persons acting in the

management of such collieries, and all persons employed thereon, as under the circumstances appear best calculated to prevent accidents, which rules, when approved of by the Secretary of State, are to be the established rules of the colliery.

There is a melancholy fact disclosed by the report made to Parliament by the Government Inspector for the year 1860, which has just been published, that casts a sad gloom upon the district, and I am sorry to say it accords too truly with the former report. From this it appears that the deaths arising from accidents in coal mines in the South Wales district is greater than any other of the twelve districts into which the kingdom is divided, except one. I entreat you to give your earnest attention to the matter during our inquiry, with the earnest hope that while we are investigating the present calamity, we may elicit some useful information that may prevent a repetition of the melancholy scene we have on this occasion witnessed. The Coroner then remarked that although they were there to enquire into the loss of many lives, they would confine themselves to one, viz., that of Samuel Jones, the overman.

**P.C. George Wright** was first sworn, and deposed as follows: - "There was an explosion at the Gethin pit, by which 47 lives were lost. I produce a correct list and description of those killed. I accompanied the coroner and jury to view the bodies one of those was Samuel Jones, overman, and one that was brought out of the pit on the 19th February."

**Mr. Instance**, surgeon to the Cyfarthfa Works was then sworn: - "There was an explosion on the 19th February, at the Gethin Colliery, belonging to Mr. Crawshay, by which 47 persons were killed. The list produced gives the names and cause of their death. Out of these 46 were brought up dead, Thomas Griffiths, who was brought up alive, died on the following morning. Two escaped - a man and a boy, Thomas Thomas and David Thomas."

**John Lewis** sworn: - "I am engaged in Cyfarthfa as mineral surveyor. The Gethin pit is on the Cyfarthfa property, and belongs to William Crawshay. I produce this plan; it is a correct plan of the workings of the Gethin pit. I have a list marked on the plan where the men worked and the place



where they were found. The persons who assisted me are here, John Eynon, the overman, and John Lewis Morgan. They assisted me in discovering the bodies after the accident. I produce also a copy of the printed rules of the colliery. They have been duly published and stuck up, according to the Act, in the different lodges and at the pit, in the usual way, for some months since. Mr. John Moody is the general manager or viewer. Mr. Moody is responsible for the management and control of all the collieries only - not the ironstone mine. Mr. Moody has several overmen as assistants. John Eynon is the under viewer over a portion of the works of which this forms a part. Samuel Jones, one of the deceased, was sole overman of No. 1 pit, where the explosion occurred.

The Gethin colliery consists of two working pits - No. 1 and No. 2. The explosion took place in No. 1. The names of the firemen I do not know. The Gethin colliery was opened for work 13 years ago. There is one pumping pit and an up-cast pit. The dimensions of both pits is 17 feet by 10 feet - the up-cast shaft is circular, 10 feet internal diameter. The pumping pit is 17 feet by 10. The depth of each pit is nearly the same, about 125 yards. The total area of the working pits is 180 acres - one about 93 acres. The pits are sunk to the four-feet vein. A small portion of the Yard vein is still worked, six or eight men only being employed - the Yard vein is situated above, and the extent worked is about 10 or 12 acres. I am not sure whether they join - but in some places they are within a Yard of each other.

The ventilation is carried on by means of two 8 feet furnaces, a sketch of which I produce. The two pits are worked distinctly, the ventilation of each being separate from the other, until they unite near the flue. The furnaces are common to both and the explosion took place in the west level, from No. 14 cross heading, near the face of the level, and was confined exclusively to that part. The length of the level is 1 mile and 94 yards from the bottom of the pit. There is another seam from 15 to 20 yards, called the six-feet coal seam and other seams below that. None of these have been worked in the immediate neighbourhood of the explosion. There are no other workings on the west side, except those in the Aberdare Valley. Mr. Hill is working to the north side on the rise on the same side of the valley, between 400 and 500 yards off. This No. 1

pit is the deepest on this side of the valley. The arrows marked on the plan correctly represent the course of the air.

My opinion is that the explosion took place in No. 19 cross-heading, and I am guided in forming that opinion from the fact of a man being found in that stall very much burnt and bruised, and that part of the works being more damaged than the rest - his name was David Jenkins, a collier, working in this stall - the only stall in that heading. He was not brought home until the following evening. The doors were also blown to pieces. There is no other fact that I am aware of, causing me to form that opinion. When I visited the pit in company with the Government Inspector I perceived the brattice at the top of No. 19 heading blown downwards and the door frame of the stall had been blown inwards into the stall. In the heading there were three persons found. In No. 18 cross heading there was damage also done; a tram was blown into the stall in that heading. There was a mason working at the mouth of that stall, Ebenezer Jones, and another man of the name of Benjamin Richards.

They were found at that spot severely burnt and bruised. I noticed that there was mortar there, which had been blown inwards - the mortar was blown in a northerly direction. The mortar had been placed on the south side at the entrance to the stall, and was blown in two directions, up the cross heading and in the direction of the stall. There are no indications of the origin of the explosion anywhere, to the south of the level nor to the east of No. 17. There were four persons and two horses found, all burnt, at the bottom of No. 19. At No. 20 there were five bodies found, one of them burnt and bruised."

**John Lewis Morgan** sworn: - "I am a collar, working at the Gethin pit. I was working there at the time of the accident, on the other side; I heard nothing of the explosion in the part of the work where I was working. Someone came to call me. I then ran to the bottom of the pit. I was there first, and went on before Eynon, and before anyone came down. I went and got a lamp and then went on. There were others working with me. I assisted in getting out nearly the whole of the men, I knew some of them; knew Samuel Jones; found his body in the level at the bottom of No. 15."

**John Eynon** deposed: - "I am under-viewer of the lower part of the Cyfarthfa coal works. I have six pits to superintend. I believe there are about 800 men employed there. No. 1 Gethin is one of the pits. I was in the pit at the time of the explosion, in the east side. I did not hear anything of it there. I happened to be coming to the mouth of the pit about a quarter of an hour after the explosion. I proceeded on to the west side in search of the bodies. I assisted in getting them out, and took measures for that purpose as soon as I could. I was there when Samuel Jones was found, at No. 15 cross heading. I went down to the pit and gave information as to where the bodies were found. I believe the plan produced to be correct."

**John Lewis** recalled: - "There were five persons working in the level at the bottom of No. 20 cross heading. They were all suffocated except one who was burnt. They were found at a place marked 'A' on the plan."

**John Eynon** recalled: - "I believe they were eating their dinner at the time of the explosion. I found cans and boxes near, and some of them had food in their mouths. Colliers generally take dinner about twelve."

**John Lewis** recalled: - "There were four persons, two hauliers and two door boys found congregated together, and also two horses at 'B', at the bottom of No. 19 cross heading, burnt and bruised. One of the hauliers was on the main level with one tram at No. 20 heading, and the other bringing a tram of coal from No. 19 heading, had not arrived quite in the road; the horse was blown towards the west. There were three persons found at point marked 'C' in No. 19 heading, one burnt, one suffocated, and the other suffocated and burnt slightly. Two of them worked at 'D.' at the top of that heading, and the other in the stall in the same heading, burnt and bruised. At the point marked 'E.', No. 18 cross heading, there were two persons found in the main level, one badly burnt and the other suffocated - one a collier and the other a mason.

At point 'F'. at No. 18 cross heading, there were two persons found, their working-place was in the stall at 'G' in the top of that heading, both suffocated. At the top of No. 18 cross heading, at the point marked 'G', there were two persons found, they were working there - one was the

mason, Ebenezer Jones, who was referred to before, badly burnt, and the other burnt and bruised. At point 'H', in the main level, in No. 17, at the bottom of this heading there were 5 found - three suffocated, one burnt slightly and bruised, and the other suffocated, burnt and bruised. The two that were burnt were working in the stall marked 'h' in No. 17 cross heading, two others were working in another stall in the same heading marked 'i', they were suffocated. The fifth was working at 'g' in another stall in the same heading. There were three found in No. 17 heading, at the point 'l', near each other, one suffocated and slightly bruised, and two badly burnt, John Lewis very badly burnt; their working place is marked 'k', one was a roadman repairing the road, at the place he was found.

At the point J, No. 16., there were seven found, all suffocated except one, who was slightly burnt. At the bottom of No. 16 cross heading on the level — two of them worked in a stall marked 'l' — two in a stall marked 'm', in the same headings - two in a stall marked 'n', in the same heading — one was at the point marked 'p', ditto, repairing the airways — one found in No. 16 cross heading, marked 'k', suffocated, his working place marked 'o' two found. 'M', six persons found, bottom of No. 15 cross heading, four of which were repairing the level; one was Samuel Jones, the overman; he was engaged with four others in repairing the level at that part - all more or less, burnt or bruised. One a collier at 'q' was suffocated. One found at 'N', No. 15 cross heading, suffocated, worked in a stall marked 'r', in that heading. Three on level at point 'O', one haulier and two door boys, all badly burnt and bruised. Two horses were attached to trams coming out of the pit. The horses were found lying across the level, the coal being blown towards the horses."

**Eynon** recalled: - "There were 153 persons working in No. 1 pit; 111 on the west level, and 42 on the east. There were seven men burnt on the west, this includes ten men who were working in the Yard vein, hauliers, door-boys and all."

**Thomas Thomas**, fireman, one of the survivors, who was still suffering severely from injuries received, was then called and said: - My duties are to go round the works every morning about a quarter past six when

working in the day, to see that everything is safe for the men to go to work, that the doors are properly shut, and if there is fire in the pit. I go around alone with a fire lamp, and if I find there is fire there I stop the men from working, and go myself to the overman to tell him of the state of the work. If there is no fire I tell the colliers to go to work. The colliers at this time are at the top of the pit. After the men go down I keep watching the work all day. When working at night I go down about six o'clock, and go round to see if all the doors are fastened, whether the men work or not. I remain in the pit all night and go all over the works in the morning where everyone works, between three and four o'clock until six, when I leave off. If all is right I leave a cross on every stall and heading with chalk. If there is fire there I put up a signal - two pieces of wood across the road, far enough back from where the fire is. I also put a board there with fire on it.

On the day of the explosion I worked by day, and did not have time to examine the workings before the men went down to work about half-past six; saw the night fireman, Rees Herbert, at the top of the pit, he said all was right except a little fire at the head of John Jones's stall, about ten yards back from the face. John Jones's heading is No. 20. When Rees Herbert told me the fire was ten yards back, the place he alluded to was in a little hole between the timbers. There had been a slight fall where the fire was, I don't believe there was any blower there. I then went on and found the gas and put up a door to clear the fire, which had the desired effect - this was about nine o'clock. The air did not all go through this part. There was about two feet on each side, and a Yard at the top. The heading was six feet high, and nine feet wide. The door I set up was about one Yard high and five feet wide.

I took a brattice from the wind-way in the level. They were idle. I thus went into the level, and into the cross heading to the top. I then went to the next cross heading. When I was at No. 19 heading I went into the stall and found all right. I went to No. 18, a mason was there walling a door, and everything was in its place. In No. 17 all was right; the men at work; did not go to the top. No one working in No. 16 all was right. My boy was bringing a tram from No. 16. The tram went off the plates, and I helped him up. He went down the heading, and I went back to dinner.

I went, too, between the 14th and 15 heading. My son and two others were oiling the wheels. When I was between the 14th and 15th heading the explosion took place. I was knocked down, and burnt a little on the hands. The explosions came behind me." The proceedings were then adjourned.

### **Wednesday, 5th March 1862**

The inquiry was re-opened this day at half-past ten. The Coroner stated that he had been favoured with many important communications, from gentlemen who professed to have a perfect preventative for explosions. One of these was from Mr. Colville, Belvedere Square, London; Mr. Harwood, of Kidderminster; and T. G. Williams, of Maenavar. The last named gentleman had erected his apparatus at the Angel Inn, and the coroner suggested that, in the middle of the day, if the jury thought fit, they might go down and examine it.

**Rees Herbert**, night fireman at No. 1. Gethin pit said: - "I cannot read at all. Night turn, I go in at six o'clock. The overman has read the rules to me. [He then went on to enumerate his duties.] On the day of the explosion, I had worked the previous night turn. During the night, I found some gas in No. 20 heading, about six yards from the fire, between two pairs of timbers there was a slight fall between the timbers there were no flames there was about a foot between that place and the Yard vein. I believe the gas accumulated between them. There is an air-pit between 14 and 15 headings and the top from thence to the end of the west level is bad, the roof often breaks down in all the cross headings between the timbers up to the Yard coal. It breaks down in some of the stalls as well. At times I find gas in other places. Never found any in No. 17. Have found gas in 16 heading, but not on that day. Have seen some in No. 15, but not for some days. Have not shut up any stalls with the word "fire" in Nos. 17, 16, or 15. There was fire in some places, and I put marks there.

About three o'clock in the morning, I saw the gas in John Jones's heading. I put the mark, and did not do anything myself, but told the haulier to take a safety lamp in, and told the day fireman, and the overman, the

state it was in. There was no time for me to move the gas. Ordered no one that morning to take a safety lamp into No. 17 nor between that and the end of the level, men were engaged pulling back the pillars in No. 15. They always used safety lamps. In No. 12, there were four stalls where the men used safety lamps. Two men in No. 10 heading in a stall used them. It was an old work being carried on, thinning the pillars. Another two in the inner dip, used them. This was on the day of the explosion. They always work the pillars back with lamps. The night firemen give orders to the day firemen who are to use lamps. The hauliers going to the stalls and headings use safety lamps, the door boys the same when they go to the places where the lamps are under. All the persons who were killed, except four used naked lights." Some time was then taken up in rectifying an inaccuracy in one of the plans.

**G. W. Laverick, Esq.,** coal viewer at the local Plymouth Works heard of the explosion at two o'clock in the afternoon. Went to the pit, and met Davies and Mr. Kirkhouse. Did not examine any doors until I got to No. 13 and 14 headings. A great many bodies had been brought there. Went to the bottom of 16 heading found the men employed in putting up doors they had got temporary brattices put up at 15. I then proceeded to 18; when I got up about fifty yards on the road, I picked up a burnt handkerchief. Did not observe the doors farther up the heading till all the bodies had been recovered. There was a brattice across the 18 heading, placed another, and conducted the air to No. 19. At the bottom of 19 heading found a horse blown across the level. Attached to the chain was a tram of coal. The tram was off the road, about eight or nine feet off the north side of the level on the commencement of the parting. On the west side of the heading, saw a portion of what seemed to have been a door. Did not observe anything of the other doors. There had been a fall between the level and the wind-road. Could not proceed any further on account of the choke-damp. We then came to the bottom of No. 19. I believe the door at the bottom of 19 must have been kept open at the time, otherwise it would not have been shattered to pieces. The haulier was jammed between the rib and the trams. They had to lift the trams to move his body. The horse was blown across, with his head inclined to the west, indicating that the blast had come down the heading from the north.

Further up we came upon four men, who appeared to have had their dinners, from the stoppers being out of their bottles. They appeared to be suffocated. I observed one of the five men at the bottom of No. 20 was blown west. I did not examine the stalls. The men at No. 20 were not burnt; those at No. 19 were severely burnt. From this I conclude it took place in the mouth of No. 19 heading or the jam up the stall. I will not undertake to say which, either the heading or stall.”

**Edmund Rees**, watchman: - “I am the master watchman at the Gethin pits No. 1 and 2. I have six men under me. Can read a little. (Rules shown him). Cannot read them. Have had them read to me. My duty is to go round the work to some part every day. The roads are not under my care. I have to clean away the falls, and clear the windways. The vein of the windways between the stalls is one Yard and six inches in height, and five feet wide. All the air in the cross heading does not go through the windways. There is a scale in the windway at the top of the heading. The men do not come to me when they want air. I do not wait for orders from the overman or fireman. I find the falls myself. Within three or four days to the explosion I had been through every accessible part of the pit, and examined it.”

By Mr. Brough: - “Never found gas in any of the old airways. Have tried the jam with Samuel Jones; never found any gas. Never opened the doors to see how much gas would accumulate. Never saw any blowers there. I was not there when the explosion took place some years ago. At the time of this explosion I was at the place.” This closed the second day’s inquiry.

### **Thursday, 6<sup>th</sup> March 1862**

#### **The Gethin Colliery inquiry (The third day)**

The inquiry was resumed this morning at ten o'clock, the first witness called being **James Thomas**, collier, who said: - “I was working in No. 1 pit on the day of the explosion, taking a skip out of one of the stalls in the dip heading. “I heard the explosion, it blew open the door. There was only one door to the heading where I was working at the time of the explosion, but there had been two till within a few weeks. The explosion



came down my windway, and out into the main heading. The heading where I was working was a cross heading out of the main heading. My lamp was not put out, I had light till I got to the air. I found the doors opened on the upper side-towards the level. I think the blast must have come through my windway from the manner in which my door was blown. There was no gas to do any damage to my stall. Gas must have come in with the air. There is gas on some mornings in my stall. Sometimes a week will pass without any. I found plenty of air there.”

**Lewis Davies**, collier, sworn, deposed: - “I work in Joseph Cox's heading, No. 17, in the second stall from the bottom of the heading, but I was not working on the day of the explosion. I was cruising.” There was no other reason for my not going to work. I saw no gas there. Have seen it in others. I worked in that stall for a few weeks by myself. I had previously been working in No. 15 heading (David Evans's or Dai Penyard's).

Never told anyone that I was afraid to go to work that day. Did not use a safety lamp in Cox's heading. I know those who worked in the next stall. They did not use safety lamps. I have used a safety lamp in Dai Penyard's now and then. There was fire some mornings — perhaps once a fortnight. I worked in the third stall from the heading, which is now finished. The fireman told me when to take a lamp. Unless he told me I did not take one.” By a Juror: - “Never found gas in a stall when the fireman had marked it all right. By another Juror: - “I should know gas by the flame of the candle at once.”

**Joseph Evans**, collier, said he worked in 17 cross-heading — in the fifth stall to the rise. “I worked with Evan Davies. Was not at work on the day of the explosion, having been with the last witness the night previous, and was not fit for work. That was my only excuse for being absent. Davies was at work and was killed. I have worked in that stall a month and four days and before then with the last witness in Dai Penyard's heading, No. 15. There was occasionally a little gas on the top of the road. During the last fortnight I do not believe there was a lamp full of gas, although we used safety lamps during that period. Saw no gas for nine days. Always found the caution boards put up when there was gas.”

By Mr. Blackwell: - "By the lamp full, I mean when there is enough gas to strike a flash in the lamps." Further explanation ensued, which showed that when there was not a "lamp full" there was, in fact, no gas at all. By the Coroner: - "The day fireman gave us notice when there was fire in the stall, and instructed us to take safety lamps. We hang our lamps on the post on the lower side of the road. The fire would be on the upper side, and would not come to the lamps. If there was a large quantity of gas we should not be allowed to work at all." By Mr. Blackwell: - "The fireman would prevent, us. I have never been stopped working; I have never seen so much fire as that it would reach the lamps." A Juror: - "I should like each witness to be asked as to the current of air which passes through where he is working, and whether it is sufficient." By Mr. Blackwell: - "It is a question whether the working collier is capable of giving an opinion." The Coroner said the question had not escaped him but he thought the scientific gentlemen would speak best upon that point. Mr. Brough: - "The colliers know whether the air is fresh and strong." On the question being put, the witness said there was plenty of air in the last stall where he worked but not quite so much where he worked before. He was never afraid of an explosion. There was always plenty of air where he worked.

**Joseph Edwards**, collier, said he worked at Cox's heading (17) in the lowest stall in the heading with his brother. I was not at work on the day of the explosion. I was working at night, turning the stall, so as not to be in the way of the hauliers. No one was at work in the day at that stall. The witness's brother was then called and sworn, and the Coroner explained that though these witnesses were not present at the time of the explosion, they had very properly been brought forward in order that the jury might have an opportunity of questioning them why they were not at work, and that they might be interrogated upon any question that might arise. In reply to questions, the witnesses stated that during the two nights they had been at work in that stall, they had seen no gas. They worked with naked lights. Joseph was previously a labourer, and had seen no gas. Edwards was examined as to the practice of using lamps and naked lights, and as to the condition of the workings, his evidence being corroborative of that of other witnesses; in the parts of

the pit where he had worked, there was plenty of air - a little more in some parts than others.

**John Jenkins**, sworn, said he was pit carpenter. He went down the pit after the explosion, about four o'clock, to assist, but was sent back to make new doors, and returned next day to put them up, instead of those which were broken. At No 15 cross heading he put up a door. He noticed that the doors and frames were blown away, but could not tell in what direction. I could form no idea. At No. 16 the upper frame was standing, but the door was down. The lower frame and door were both blown away. He thought the blast might come from either side, blow away the door, leave the frame standing, and he not be able to tell which way the blast came. He had looked and could not tell. The door was five feet high and six feet wide. The space on each side was 15 inches. In No. 18 the upper door and frame was blown away.

The frame of the lower and the plank and hinges fastened to it were left standing. He thought the blast came towards the level downwards, or the hinges would not have been left. In No. 19 the two frames were blown off. As he could not find the portions of the doors, he presumed they had been used for bratticing. Found one plank belonging to the door on the level, but could not say whether it was blown or thrown there. The coal on the tram seemed to have been blown in the same direction. There is a space of between seven and eight yards between the first and second doors. No. 20, the upper door and frame were blown away. I think the blast came down; I judge from the position of the door. I think if the blast came the other way it would have torn that door off the hinges.

**Edward Rees**, recalled, said he was in the pit about a quarter of an hour after the explosion. There were no men employed between No. 14 heading and the pit heading when he was there.

**Mr. Bedlington Kirkhouse**, agent at the Cyfarthfa Works, said: - "I have nothing to do with the collieries. I heard of the explosion about two o'clock, and hurried down to the pit as quickly as possible. I went down with Mr. Laverick and several others. We explored each stall until we

came to No. 19, the door of which I noticed had been completely blown down. A tram had been blown away to some distance, and several bodies were badly burnt just about there." He saw plenty of evidence of the explosion in the heading, such as bodies burnt and knocked about, and partitions of brattices knocked about in different directions. "Went into No. 20 and found five men between 19 and 20. I examined the fire - felt their hands and faces, and believe them all to have been suffocated."

The Coroner (to the witness Eynon): - "Was one of these Isaiah Davis?" Eynon said he was. The Coroner: - "The medical testimony is that he was burnt. Do you think he was?": - Eynon: - "I said yesterday I did not think he was." In reply to Mr. Blackwell the witness said Isaiah was working in the roadway to the rise of the level. Examination resumed: - "The men were all leaning down in a sitting posture, as though at dinner. One had a piece of bread in his hand, and there was a can of tea which had not been upset. I don't think the men had been blown at all - I think they were scarcely moved. Saw the doors of No. 20 heading were blown away, but had no opinion as to the direction of the blast. Did not go up No 20. I think the explosion took place in No. 19. How or in what part we could not venture an opinion. There is more force generally at the point where the explosion breaks out. The men are more burnt." Mr. Blackwell: - "I venture to express a different opinion to Mr. Kirkhouse. I don't think it necessarily follows that the greatest force is felt at the place of ignition. It would depend upon the state of the workings." Witness: - "Not where the effects of the explosion cover a large extent I admit, but where they are somewhat confined."

Rees Rees, lamp-man, for the lower Gethin pit, said he had a son and a nephew in the pit but they were uninjured. "Generally there are about 30 or 35 safety lamps in use a day. There have been more. There were about 40 lamps in use at the time of the explosion. I have 110 in stock. I have had as few as three lamps out at a time - perhaps 18 months or two years ago. Not so few as a dozen within the last six months. Some of the colliers, and the wasteman, who go in the airways always have lamps; and also the door boys and hauliers who work from the top of the headings when the men use fire lamps. Colliers who are working back

pillars use lamps, and no person is allowed to go near them on any business with a naked light.

**John Woods**, flueman, at the Gethin colliery was at work on the day of the explosion. Heard nothing, and saw nothing more on that day than any other. By the Coroner: - "Was there no dust?" Witness: - "I saw none, indeed, Sir." Examination continued: - "Did not know of the explosion until two colliers came and told me, and told me to force the flue. I told them I could not force it much more than it was there were two very good fires - as good as there could be. They were drawing as well as they could."

**John Rees**, assistant wasteman, under Edward Rees, sworn, said: - "I work in the wastes. There are three besides me, and the master (Edward Rees) for No. 1 pit. At the time of the explosion I was at David Ellis's heading sitting down to dinner. I had been working at the top of the heading No. 12 in the return roadway. I went into the top stall. Thomas Edwards was cutting coal there. The return air-course passes through the stall where I had my dinner. There is coal between the stall and the waste airway. It was the top stall in work where I was. The explosion was very loud. I saw no fire. I went out as far as I could. My lamp did not go out. The air was so bad that I had difficulty in getting along. It affected my breath. I fell down several times. All the men in that heading escaped safe. I had been engaged in clearing a fall between 12 and 13 headings. It was not much of a fall - the top and sides had fallen. It did not interfere with the current of air."

Mr. Williams (of the '*Merthyr Telegraph*') a jurymen, inquired if there were many more witnesses to examine. The Coroner said he could not tell; he knew nothing of the witnesses or of the evidence until he entered the room. There were Mr. Eynon, Mr. Moody, and several other gentlemen, who would give scientific evidence, and which he hoped would be taken the following day. He did not know whether there would be more, and even if he did, he knew not that he had any right to tell him. There was a peculiarity about a coroner's court, that so long as any individual presented himself and said he had any information to give, he (the Coroner) had no power to close, but must hear it. Mr. Williams: -

“We have had enough evidence except scientific.” Another Juror said he was of a different opinion. He thought the men who were in the pit should know all about the matter. The Coroner said if there was any question of that kind, the jury had better consult together.

**John Eynon** was then recalled, and the evidence given by him on Tuesday was read over to him. Some discrepancy resulted between his evidence and that of James Thomas, as to the position of the door of No. 12 heading. James Thomas was re-called, and admitted that he might have made a mistake in the excitement of the moment. He was then examined upon the question of ventilation, and said his duty was to look over all the workings in the part of the colliery with which he was connected, and to carry out the directions of the viewer with respect to the arrangements. “I superintend the ventilation and take care that the headings are carried out according to the plans of the viewer. I have no power to change the course of the air without first consulting the viewer. He controls the airway and draws on the plans of the ventilation. Had read the rules.” [The Coroner quoted one of the special rules, which delegated to the under viewer the authority and responsibility of the viewer in his absence.]

“The viewer gives orders to the overmen as to the use of safety lamps, and the overman has to see that those directions are carried out.” Mr. Blackwell said he conceived that in large works, a person in authority did not give instructions to the second grade under him, but that the directions went through the successive grades. The Coroner: - “Then who is responsible in that case?” Mr. Blackwell: - “The overman is responsible to Eynon, and Eynon to the viewer.” Mr. Brough: - “The rules are very clear about that.” The Coroner, after referring to the rules, said the 6th special rule provided that the viewer should direct generally the places and manner in which lights were to be placed.

Examination resumed: - “I cannot say the quantity of air that goes down the pit, except that I have heard from the viewer.” The Coroner (to witness): - “I proposed examining you as to the quantity of air in the pit to trace the air and various splits. But you don’t seem to understand it, and I am afraid you would not be able to give the information and

therefore we must get it from Mr. Moody, but I am afraid we cannot attempt it tonight, at this late hour. Is there any other question to be put to the witness?" Mr. Blackwell: - "I think it not desirable to prolong the examination, we shall have to travel the same ground again." (To witness) "Where did you find young Thomas?" Witness: - "Above No. 12 heading. I can't say exactly. I met his father before him. The latter was walking with assistance. The former was being carried."

By Mr. Blackwell: - "I said yesterday I did not observe the doors from the 14 heading, except a door blown in at the top of the heading 19." In reply to the Coroner the witness said he had heard nothing to change his opinion that the blast came down No. 12 heading; or to make him think that the explosion took place in any other place than No. 19 cross-heading." Mr. Blackwell: - "You have heard the evidence as to the ventilation of this pit. Are there any statements upon that subject you would like to correct, or do you confirm them?" The witness said he had nothing to say against anything that had been said, except one thing, that the split air from the top of 17 heading did not return upon the men with the naked lights in the 17 heading, but was carried on to the return airway in No. 15.

Mr. Brough said this was a point upon which different men might give different opinions. Considerable discussion arose here, the point raised appearing to be whether a quantity of air which passed through No. 17 heading was carried back to No. 16, or whether it passed off through the windway into No. 15 heading and into the return airway. The witnesses said the air split about halfway in the heading, and so supplied No. 16 heading with fresh air.

The Coroner: - "What is your reason for saying so?" The witness said it was the natural course for the return air to pass across the top of No. 16 heading into the return airway, it was the shortest, and he had seen it so travel. Mr. Blackwell said the state of things described by the witness might vary from day to day. A fall in the windway would affect it. There appeared to be some difference in the plans upon the table, as to the indications of the course traversed by the air at this particular spot. It

was understood that the point would receive further elucidation by other witnesses, and after some further discussion, the court adjourned.

**Friday, 7th March 1862**

The Gethin Colliery Inquiry (The fourth day)

The inquiry was resumed at the usual hour. William Barry, who worked at No. 12 heading, David Ellis's, stated: - "Was at work at the time of the explosion, the force of which broke the two doors of his heading. We had safety lamps. We were driving on (or extending) the stall. The lamps were not put out. There was no door on the stall. It was the second stall. I came down as quick as I could. Did not see any fire. There were four persons besides, and all came out alive. There were double doors, and all were blown to pieces. There were no marks of fire upon them. I believe fire did not come down so far. I think so from fact of a horse being there not burnt. It is alive now." The Coroner expressed surprise that this circumstance had not previously come to light. Mr. Moody said he was not aware of it.

Examination continued: - "The horse was opposite David Edwards's dip - perhaps 60 or 80 yards off. The horse got up himself when the air cleared. I put up a door to clear the air. There were no men there from the pit's mouth when I got down. Three of the men assisted me - John Davies, Samuel Davies, and Thomas Edwards, the other man, Sam Sims, ran back through the pit. We went on together, till we found Thomas Thomas, inside James Gwynn's, heading. He was lying down with his head in and his feet out towards the level. I moved him forward to the air and gave him some water, and he came to himself. I took him home. I had previously worked in James Gwynn's stall. Sometimes there was gas in the holes. Sometimes used a lamp when gas was at the top. Gas would sometimes remain a week. During that time sometimes used naked lights. Knew when the gas was there by the fireman telling me. The fireman told us not to have our lights up passing back and forward. I was burned two years ago in that stall. At that time I worked with a naked light. Was not stopped from working in that stall. Don't recollect being stopped at all on account of fire.



Mr. Blackwell: - "I suppose you saw the need of stopping when you were burnt?" Witness: - "Yes, to be sure." By a Juror: - "The head room there was seven or eight feet. In driving on the air was good, but bad in coming back, and we were obliged to timber it all. There was no in the Yard vein where I was working. Have heard it did in some places. I have heard of gas being in the Yard vein, but do not know it of my own knowledge. Search was afterwards made, and we, as working men, were satisfied there was none." Re-examined: - "About a year ago the workmen thought there was gas in the old workings, and told Samuel Jones, the overman. He said any one might go and look. Two or three accompanied the fireman but none was found. Did not complain to Eynon, Moody, or Jones of gas in my own stall.

**Benjamin Beddoe**, collier, sworn: - Works at the Graig Colliery. Had once worked at the No. 1 pit, but left three years ago. Had worked in the Yard vein, it was sometimes fiery. Had not worked in the 4 ft. vein at all. In the Yard vein had seen the gas filling up in half an hour so that he could not work. Could always tell when the door was open. He knew very soon by the light of his candle, when in the level heading. Worked with a naked light. The door was often left open by the door boy after the haulier, and in about half-an-hour I should know it, and be obliged to leave the heading until it was clear. It was the custom for the door boys to accompany the hauliers but he (witness) complained to the overman, Elias Lewis, who was succeeded by Samuel Jones, of the door being left open, and a boy was then stationed to watch the outer door on the level at the entrance to the Yard vein. The brattice doors inside remained as before.

By Mr. James: - "Have three times applied for work at No. 1 pit since I left three years ago. My wife once applied to Mr. Moody, and I also applied to him and to Mr. Jones as well. The last application was about fifteen months ago." The Coroner said: - "I ought to state in justice to the last two witnesses, that they are brought here by a summons which I issued, they do not make their statements voluntary. I am sorry to find that men suffer from giving evidence of this kind. I am sorry to say it; but I have had several instances come under my notice when threats have been held out against them. Agents of collieries not far from here have

threatened men in consequence of evidence which they have been induced to give in inquiries of this nature and I therefore don't, if I can possibly avoid it, like to place men in a position where they are subject to the tyranny of the agents. I think it only justice to the men called to state they were summoned by me under a warrant - that they did not come here voluntarily. I hope no imputation will rest upon them in consequence." Mr. James: - "I hope no imputation will rest upon the masters either." The Coroner: - "No; but the inference from the questions put is that the men are ungrateful, or that they come here because they have been refused work. I hope they will not suffer for it. It was intimated that there were a few persons who could give evidence, if they were called, as to these workings; and I immediately issued a warrant last night. I beg you will consider they are unwilling witnesses." Mr. James: - "The only object of the question was to show that the men had no conception of danger in the pit or they would not ask to go back to work there. I have nothing to do with gratitude or ingratitude - only their asking to go back will lead to certain inferences."

**Seth Francis**, who gave his evidence in Welsh, through an interpreter, said he was a collier working in Werfa. Had worked in No. 1, Gethin pit, and left two years since. He worked in Daniel Rees's dip, in the 4 ft. coal. "Knew nothing of the workings except where I worked. There was a little gas, but not much. There was firing sometimes about four or five o'clock in the afternoon, when the air was got hot. By firing I mean flashing. I worked with a naked light. Worked in that dip four or five months, and during that period saw it flash three or four times. I was three years in the pit altogether, and used naked lights all the time. Worked in David Morgan's heading (10) before I went to the dip. Saw no flashes there."

By Mr. James: - "Had put rubbish in a stall at Samuel Jones's request. Through Samuel Jones, Mr. Moody complained of it two months afterwards. The complaint was that I had thrown rubbish in the airways. I was then turning a stall. I was then in William Edwards's dip heading. In consequence of throwing the rubbish in that manner, Samuel Jones threatened to turn me away. Heard no more of it. Had not been asking Mr. Moody twice for work in that pit, but in other parts of the working. Did not ask for work in any special pit. Had worked in several other pits."

Had asked Thomas Jones two or three times to be allowed to go back. Last asked latter end of last May. The matter of filling up the airway was never mentioned as a reason why I should not go back to Cyfarthfa. It was said they were full." The Coroner questioned the witness to show that he wished to go back to Cyfarthfa because it was nearer to his home.

**Daniel Phillips**, collier, working at Plymouth works, sworn: - "Knew No. 1 Gethin Pit, and had worked there three months. Left a year ago at latter end of last month. Worked in Evan Davies's dip, No. 4. Was drawing back a pillar. Saw no gas there at all. Worked with fire lamps. The air was quite fresh where I worked, and never told anybody it was bad."

**Isaac Jones**, sworn and examined in Welsh, deposed: - "I work in No. 6 heading to the rise. Was at work at the time of the explosion. Had worked there five years and a half. Had worked in No. 5 dip (Dai Edwards's). Had worked between 12 and 13 headings. Had been all round the pit some weeks since. The air seemed pretty well - did not take much notice. There are accumulations in some places. On that day he only saw gas in Dai Penyard's heading (15). He was in James Gwynn's stall. He was working with a safety lamp. He was killed. He did not say whether there was gas there often. Had sometimes gas in my own workings. Not often. I now work with safety lamps. Have done so for six months. Worked entirely with naked lamps before. Did not know whether there was any deficiency in Gwynn's airway. Don't know how the explosion occurred."

The Coroner: - "Do you know how it could be prevented?" Witness: - "We were talking in our heading yesterday at dinner time, and it was our opinion that if there was a separate intake airway carried along to the face of the level from the mouth of the pit, the air would then always be fresh to the end of the level. We were thinking, not that it would prevent the explosion, but that it would keep some of the men alive - that some of the men who died from suffocation would have escaped in consequence of the fresh air being carried to them, and the men who were unhurt might travel through the airway being carried to the mouth of the pit."

The Coroner: - "There was a windway driven from the mouth of the pit on the south side of the level to some distance in the way you describe, was there not?" Witness: - "Yes, sir to between 5 and 6 heading." The Coroner: - "What became of it?" Witness: - "It was stopped."

Examination resumed: - "The men are of opinion that should have been carried on parallel with the level to the end. We also think there should be water in the roads so as to prevent the dust rising in case of an explosion. This we think would reduce the number of deaths from suffocation. There is nothing else the men would suggest. We were eight or nine together when it was talked of. Mr. Blackwell: - "The plan you propose would no doubt give you more air at the face of the level but do you think it would have saved the men who were lost, and who were working in Evans, Edwards, and Cox's headings?" Witness: - "We are not certain it would have saved them; but they would have had a chance by having fresh air." Mr. Blackwell: - "But if that air was taken to the face of the level, it would have been farther from them than that to which they could now run." Mr. Brough said if it had been carried out *ab initio* it would have been a very good plan; but how were they to get over the old workings? Mr. Blackwell replied that there was no practical difficulty to the plan but that might be surmounted by bridging the openings. But it would be better not to enlarge the discussion. "I simply wished (said Mr. Blackwell) to draw attention to the fact that though this plan would have given more air at the face of the level, where, it may be the opinion of some of us, it was wanted, it is not probable it would have saved the men who were lost in 15, 16, and 17 headings. The air would have been delivered at a point so far from where these men were that it would not have availed them." Mr. James: - "Might not we now explain to the witness that one inhalation of the gas would be death?" Mr. Blackwell: - "I am not prepared to admit that." The Coroner: - "I do not think it would."

The witness has told us that the coal dust had a material influence. Mr. James: - "The deaths were very sudden." Mr. Brough said the fire-damp never entered the lungs. But death ensued the same, from inaction of the vital organs." Mr. Blackwell: - "That is a matter of opinion." Mr. Brough: - "If adopted at the commencement, the plan the man speaks of

would be a capital one; but it is too late now." A Juror: - "That airway which you speak of as being left, was carried on by Mr. Kirkhouse, and then when Mr. Moody came it was discontinued?" Witness: - "Yes." The Coroner (to witness): - "I am very thankful for your evidence. It is very creditable on your part to come forward and so express your opinion which I have no doubt will be borne out by other evidence as perfectly just and right." Mr. Evans: - "I think it right to say here that when I went to the colliery, I suggested that the colliers should go down and satisfy themselves as to the pit, and come here and give evidence. They all declined, unless I paid them, but that I did not feel justified in doing."

As the Court was about to adjourn for refreshment, Mr. Evans said if there was any probability the inquiry would not be terminated with that evening, he must ask for an adjournment over Saturday as he should not be able to attend the following day. Mr. Blackwell: - "I beg to protest against that, I having specially come down from London. If the jury are willing to sit, I must ask the Coroner to convene a court." Some further conversation ensued, the jury being opposed to sitting on Saturday, and a decision upon the matter was deferred.

**David Evans**, collier, sworn: - "I work in the Yard vein, No. 1 Gethin pit. The coal is brought out into the four feet vein. Have worked in the pit four or five years. In the Yard vein we get the air from the four feet level, entering into the Yard level, and thence into the heading where I am working. Have seen no gas in the Yard vein, where I have worked twelve months, last August. Before that I and four others worked in No. 15 heading on the four feet. I am Dai Penyard's mate. I assisted to drive about 200 yards and then went back to the Yard vein. I gave it up because I did not like the night work. That was my only reason. I worked in John Davies's heading (8). Never saw gas but when William Parry was burnt. Heard the explosion between Nos. 14 and 15 headings. I was in the Yard vein at the time and heard it. It blew open the lower door." The witness then corroborated the evidence of the last witness as to the means by which the ventilation might be improved. It was the general feeling of the men throughout the pit. Was not aware that these suggestions had been made to the overman. Could not say when the explosion took place, or how.

**Rees Davies**, collier, said: - "I was at work on the day of the explosion in the No. 17 heading. I was bringing two trams of coal along the bottom of No. 12 when the explosion occurred. There were five other hauliers with me — six altogether. Each haulier had a horse and two trams of coal. We stopped at the bottom of the heading to oil. There was about sixty yards between me and the first following after. The next was 150 yards behind again. Mr. Blackwell: - "Almost enough to fill the level up and stop all the intake air?" Mr. Brough: - "Especially under those arches." Mr. Blackwell: - "Especially in that narrow place." The Coroner: - "Where is that narrow place - you had better explain?" Mr. Blackwell: - "I have a note, and will ask that question. I know where it is."

Examination resumed: - "Knew these were coming after me before the explosion, because Sam Jones, the 'gaffer,' stopped me for all the hauliers to come on together, because he was putting up a pair of timbers in the level, and did not wish to be stopped so often to allow the hauliers to pass singly. When the explosion took place the trams had passed. Was not burnt, but blown, but not thrown down. Was six or seven yards in advance of his horse. Had a naked light which was blown out. Of the five hauliers who followed me, only Thomas, the fireman's son, came out alive. My door boy came out safe. One other door boy belonging to the five hauliers also escaped. Thomas was the second haulier behind me.

The second haulier was not with his horse, but lagging behind, his door boy bringing on his tram, and he escaped. Brought the coal from all the stalls in Cox's heading (17). When I go to Griffith Powell's stall, where a safety lamp is used, and which is the top stall of the heading, I always go in the dark and leave my light outside. There was a fall above the bottom, No. 15, cross heading, on Monday before the accident. They commenced to clear away the rubbish and timber at once. The overman and four others were there when the explosion took place. They were using naked lights. John Davies was driving in a stall at No. 12 heading at the time of the explosion. Had a safety lamp which was not put out. On hearing of the explosion he rushed on to the heading, which was full of dust. Did not see fire, and was not burned. Always had plenty of air, and never saw fire when he was at work."

**John Rees**, schoolmaster: - "I was formerly employed at No. 1, Gethin Pit, clearing the windways. Left last August, after being employed twelve months. Tested the gas one day at the end of the level about fifteen months ago. There was a door out of repair, and they wished to know how soon the gas would accumulate so as to fire. Samuel Jones wished to know what would be the effect if one of the doors should have happened to be broken or left open, so he ordered Cox and the other men who were working with naked lights to put them out, and while he and Edward Rees went to the top of the heading to try the effects of it he ordered us to open the door. We opened the door, and Samuel Jones and Edward Rees were at the top. Jones had his watch out, while Edward Rees, the wasteman, held the safety lamp. The gas appeared in the lamp in two minutes and a half."

**Mr. John Moody** said he was underground agent of all the Cyfarthfa collieries, the property of William Crawshay, Esq. The Gethin Colliery is one of those collieries. It was opened twelve years ago, and consists of two working shafts. There is one pumping pit and one upcast air shaft. The witness corroborated the evidence of Mr. Lewis as to the dimensions of the shaft, &co. The quantity of coal per day averages 150 tons from No. 1, and 200 tons from No 2. The two pits are winding pits. The total working area of No 1 is about 93 acres, and of No.2, 92 acres." Having corroborated other portions of Mr. Lewis's evidence as to the ventilation, he continued: - "The explosion took place in No. 1 pit, and was confined exclusively to the headings ranging from No. 14 to 20 cross headings. Under me I have two under viewers - John Eynon and Thomas Jones, and one assistant, Thomas Pearson Moody, my son; and eight overmen. Eynon had charge of the lower collieries. For No. 1 pit I have one overman. There is a wasteman to look after No. 1 and 2 Gethin pits, and two firemen, two fluemen, and a master labourer in No. 1 pit."

Witness gave the number of men employed as before detailed, and continued: - "The area of No. 1 shaft is 133 feet, and the quantity of air passing down the shaft is about 32,000 cubic feet per minute. When it arrives at the bottom of the shaft it splits into four parts, 3,850 feet go down into the 6 feet vein through the stone drill from the four-feet, where about nine men are at work. Another split, 4,600 feet, goes down

the new drift to the new pits now sinking in the four-foot vein. There were ten men in this new drift, but the air had to supply a large number of men besides. There is a small split, through a hole of six inches space behind the shaft, which takes about 1,550 feet, and goes to ventilate the old working. The fourth goes on to the west level, and is about 22,000 feet." The witness gave various ramifications of the air which it is impossible to render intelligible to the general reader. He gave the quantities of air which in its passage through the intake air course to the face of the level escaped into each heading by leakage, and pointed out the manner in which it was disposed of. He traced with equal minuteness the course of the return air. It being six o'clock, the Court, after some discussion, in which all the parties interested took part, as to the period at which the proceedings should be resumed, adjourned till Monday morning.

#### Rough notes at the inquest

Grim as the story was unfolding at the inquest, the *'Merthyr Telegraph'* gave these amusing stories that helped lift the gloom: - Mr. Ledger stays away too long and misses the most important evidence. A scene takes place between the Coroner and Mr. James, in which the latter gets snubbed and the jury and audience get a good laugh, which seems to put them in good spirits, and the cross-examination proceeds at a very slow pace.

A question is asked by one of the reporters, — "If Mr. Blackwell occupies two hours in cross-questioning Mr. Moody, how long will Mr. James take to re-examine?" Nobody thinks proper to answer the question, and the examination drags its slow course along. Two air-ways will not take in more air than one. I have said that already. Goes again into the sectional area of the wind-way, where both witness and examiner get into a fog, and nobody understands what they mean. A pig-headed juror remarked that if Mr. James did not stop his mouth, he (the pig-head) would leave the room. A question about bridges could not be made intelligible to the witness, and Messrs. James, Coroner, and Blackwell endeavoured to explain it, and so completely mystified the original question that they forgot what it was about.



During the discussion a juryman, very judiciously, we think, went to sleep, and was awoke by a terrible row consequent upon the fighting of two dogs. Witness did not consider it objectionable to allow three-fourths of the air to leak away through the separation doors, but thought it very questionable that Messrs. Brough and Evans should have leaked out of the jury room at one o'clock and had not returned at 3 p.m. The Reporters were unanimously of opinion that they were cooking their reports, fearing the process of "pumping" adopted by the Coroner in examining a witness. Of course this plan saves time, and is, in that respect, commendable.

Two 'Peelers' in attendance, and although they have got nothing to do, allow the fire to go out, and the ventilation gets very bad in consequence of the foul air exuded from the lungs of the colliers who crowd around the jury. A curious question was at this point discussed at the reporters' table, as to who the persons might be who were taking notes of the evidence with a large plan before them. It was generally believed that they were employed by the proprietors. The "Press-gang" considering this an encroachment upon their privileges, one of their number was deputed to ask one of them to name his "friend." The answer received was as follows :—

As an old Colonial Reporter I should prefer, if desired, our colonial custom of a free fight in which Coroner, Inspectors, and Jury be included, as being fairer than naming a friend, who might be prejudiced." This pugilistic epistle was considered beneath the dignity of the Press, and was consequently received with silent contempt. Another amusing dispute took place between Messrs. Coroner, James, and Blackwell, the latter gentleman, by way of a clincher, asserting that mining engineers would never ask Mr. James's opinion upon systems of ventilation. The Coroner snubbed Mr. James for again obtruding his opinions upon matters that he evidently did not understand, and begged him not to interfere with the witness.

At the end of this scene. 3.40 p. m., Messrs. Evans and Brough entered, and took their seats, evidently much fatigued either from mental or gastronomic exertion. Mr. Moody thought it no reflection upon his

ability as a manager that he had not read all the Government Inspectors' Reports upon Coal Mines during the last twenty years, and the Reporters were of opinion that he would not have been any wiser if he had. The Coroner read an extract, and asked Mr. Moody if he had ever seen it before, which was replied to by one of those peculiar smiles peculiar to the manager. Amid the multitude of persons attending the inquest one gentleman was the "observed of all observers." He stood with his back to the fire for the first six days of the inquiry, and performed in an admirable manner the office of fire-screen to the Coroner. Beyond this, and the additional fact that he wore large red whiskers, and gave numerous orders to the police officers, there was nothing remarkable about him, only he was a "marked man." (Mr. Superintendent Wrenn – author)

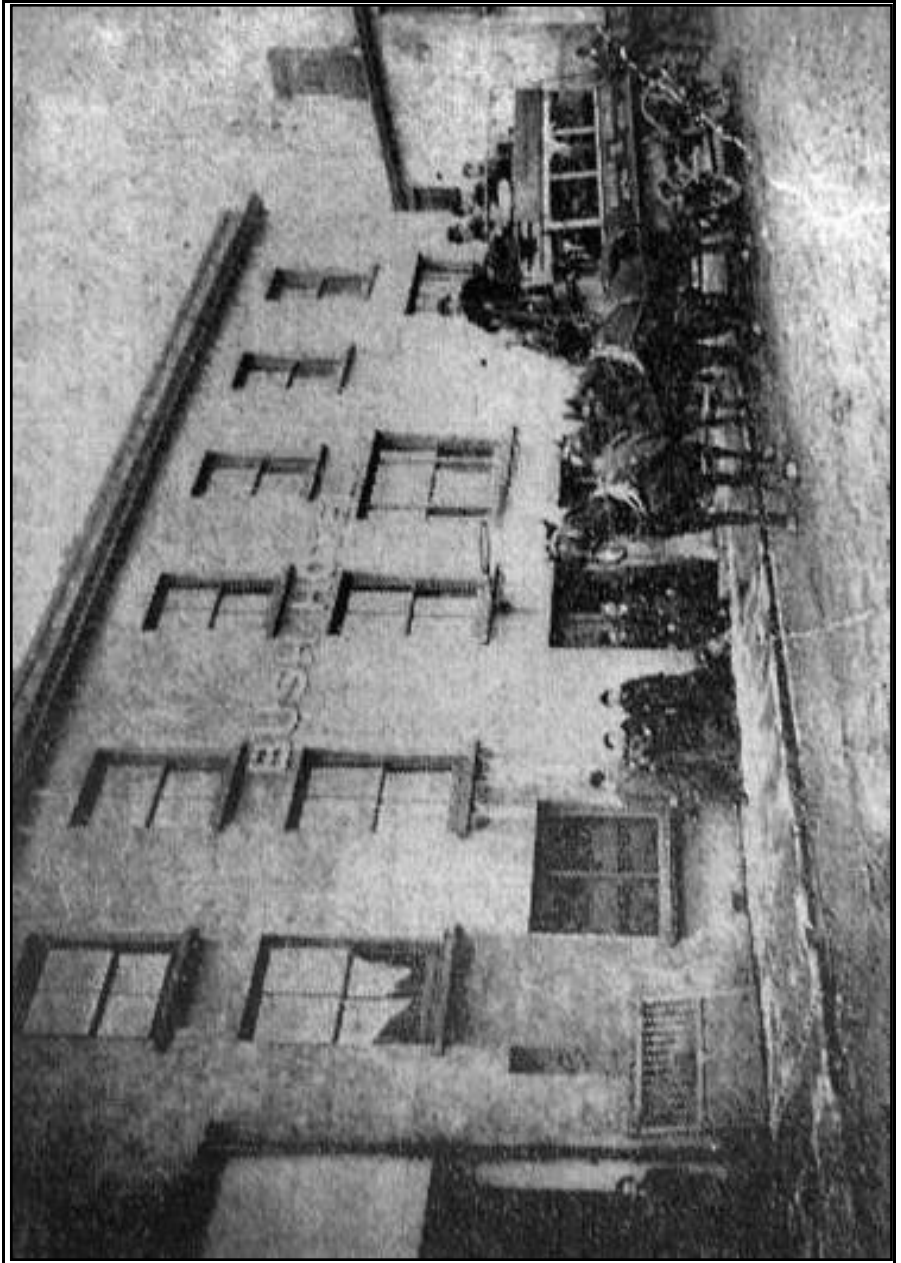
### **Monday, 10th March 1862**

#### The Gethin Colliery inquiry – (The Fifth Day)

The inquiry was resumed this morning for the fifth time, at half-past eleven o'clock. Lionel Brough, Esq., was not in attendance. The Coroner remarked before commencing the proceedings: - "I wish to make one observation.

On entering the room I found several letters addressed to me by different parties in reference to this present inquiry, throwing out certain suggestions and insinuations of various kinds. I can only say, in answer to these letters, that this court is an open court and a court of inquiry, and that I am prepared to receive evidence from what-ever source it may come.

I therefore beg all present distinctly to understand that if they have anything to say, this court is open to them. I cannot notice any anonymous communication; and I should not feel at liberty to take any notice directly of any letters I receive, because I don't think it would be proper. At the same time if the parties writing these letters are acquainted with any circumstances pertaining to this inquiry, and wish to come forward and give evidence, the court will be happy to hear them.



**The Bush Hotel, Merthyr, where the 1862 inquest was held**

We sit to hear the truth, and nothing but the truth. If anyone has any communication to make which is calculated to elucidate the question under inquiry, the court will be glad to hear it. I cannot say more. This is the only notice I can take of the half dozen communications I have received.

Mr. John Moody's examination was then proceeded with. The witness continued his description of the course taken by the air through the various headings and stalls. He then continued: "I took the measurement I have spoken of on the 4th of March, in the forenoon. My son was present. No-one else. Then the doors that had been blown down were put up afresh. The men were at work on the east side. Cannot say when I had taken it previously. Have no recollection. I do keep a register. My son has it. I leave it to him. He is in the employ of Mr. Crawshay, and has been so for about two years."

By the Coroner: - "His name was not mentioned by Mr. Lewis. In all regularly conducted collieries it is usual for the under viewer to keep a register." By Mr. Blackwell: - "Do not know if it is the custom in the North of England." Mr. Moody still maintained that his son had the register, and the Coroner contended that it was the duty of the under viewer to keep the register. It was his duty, still if Mr. Moody had the register, he (the Coroner) should like to see it." Witness: - "I have it handy, but did not bring it down. My son took it on the 25th January. I was not with him. He gave me the result of it. I took it with the anemometer, — no other way. I took it near No. 6 heading. I do not keep a register. I have been eight years in Cyfarthfa. The wasteman reports to me four or five times a week. I have no book. He reports the state of the waste. I keep no register of it."

A discussion arose between Mr. James and the Coroner as to the meaning of the 37th rule. The Coroner insisted that the wasteman should report every day, and that it should be reported in a book kept for that purpose. Then again, as to rule 63 which enacts that wherever there is fire no person shall work without safety lamps. Mr. Moody said that no person was allowed by him to work at all, if there was fire to be seen he gave the order. The Coroner: - "Then as regarded the firemen, it

appeared by the evidence that they went along the roadway to the face of the stalls, and no further, and returned without examining the gobs."

Mr. Moody: - "I have instructed them to search everywhere." The Coroner: - "There seems to be a great difference in what they did and what you say is their duty to do." Witness: - "There is a great disadvantage in having men who cannot read." The Coroner: - "Then you consider that a fireman acting in that manner would not be acting up to the rules?" Witness: - "I should. The wasteman ought to go through the ways. I believe it is the duty of the fireman to put up a fire board when he finds any symptoms of fire, as well as the cross timbers." The Coroner: - "Do you know that the rule has been violated?" Witness: - "I have heard the previous evidence." The Coroner: - "Do you think it was right that John Jones should have been allowed to work when there was fire in his stall? I do not press for an answer." "No reply." The Coroner: - "Do you think it right that two men should have been allowed to work in the next stall with naked lights? I do not press for an answer." No reply.

Examination resumed: - "I was last in the pit on the 11th and 12th of February. I have twelve collieries to look after. At the time of the explosion I was at home. On hearing of the explosion I immediately went down, and reached the pit at two o'clock. I went down with some others, and proceeded along the west level. Examined the doors of Nos. 10 and 12 cross heading. Doors of 10 were partly broken. Doors of No. 12 little more broken and all blown upwards. Examined the doors of No. 5 dip — both doors were broken in two pieces. Can't say in what direction they were blown. At No. 15 the doors had been blown to pieces, and some party who preceded me had put up a temporary brattice. At No. 16 Mr. Laverick came on and took charge of the heading. Agree with Mr. Laverick's evidence as to 17 heading. No. 18 heading I cannot speak upon. At 19 heading I noticed half of one of the doors blown downwards, in the direction of the level against the back part of the tram before referred to."

By Mr. Blackwell: - "This was between three and four o'clock in the afternoon." By the Coroner: - "I did not see the door boy as I went back in the level, and he was being carried out as I returned. The tram got off

about four feet on the other side of the level. Quite positive the door was blown towards the tram. That was the only thing I noticed about the trams." The register of the state of the ventilation from time to time was here produced by Mr. James.

Examination resumed: - "Did not notice the inner doors. I think the tram was outside the doors. I think the explosion took place in the 19th heading. I can't explain how, supposing the explosion took place in that heading, two men could escape being burnt. David Jenkins, working in a stall near the face of the heading was much burnt. Daniel Rees, working in that heading, was not burnt, I believe. I cannot say how the explosion took place." The Coroner: - "If you are satisfied that two men were suffocated in that heading, do you think, under those circumstances, the explosion could take place there?" Witness: - "I believe it did, and I can give two reasons for the opinion. First I found at the top of that heading the timber was far more charred than in any other part; and second,— I found Daniel Rees' coat at the top of the heading very much burnt; and I observed no clothes in any other heading. I believe Rees was burned, though his coat was not. He was not wearing it at the time. I believe the fire arose in the face of No. 19 heading. There was no damage done to any extent in the pit except in the 18 and 19 cross-headings. I noticed the five men of whom previous mention has been made near 20 heading. The greatest damage was in 19. Part of the pitwood was knocked down, and near the top of the heading about ten Yards of the roof fell, to the extent of eight or nine inches. The Yard vein was not visible. There was a small fall in the horse road in David Jenkins' stall — perhaps nine or ten inches. The timber was charred at the entrance to the stall. In 18 heading a few trams - perhaps three or four tons of stone fell from the top just below the parting of the stall. There were also two or three pairs of pitwood blown out at that place. The mason was badly burnt, but not so bad as Jenkins."

By the Coroner: - "Why might not the explosion have occurred there as well as in 19 heading? There were, precisely the same circumstances — men badly burnt and bruised." Witness: - "There were not the same appearances of fire here as in 19." Witness described on the plan a course which the fire might have taken, by which it would have caught

the men in one part of the heading, and not touched men in another part. Did not notice the door of the stall. There were no indications of fire in 17, 16, or 15 headings. The witness indicated on the plan the position of sundry falls consequent on the explosion. "I generally go down this pit two days a week. Believe the falls did not take place before the explosion, because it was the duty of the overman and wasteman to go through the windways daily, and I have confidence in them that they did so. I saw the overman, Samuel Jones, on the Monday and Tuesday evenings before the explosion, which took place on Wednesday, and asked him if he had been through the walking ways, and he said everything in the pit was right. No one told me there was a fall in the level. I have since examined the fall near No. 15 cross-heading, it is a very small one, and could not prevent the men from working. The men were at work on the Monday, but not on the Tuesday, because the Yards were full, and the men thought they would have an idle day. The fall was of no consequence, and no danger attached to it."

By the Coroner: - "From the evidence before us it does not appear to have been so small as you represent it. Have you measured it?"

Witness: - "Yes. It is about five or six yards long, and about seven and a half feet high from the vein, and 18 inches from the height of the coal. The coal is about six feet high."

By the Coroner: - "I dare say you heard the evidence that it was seven yards high?"

Witness: - "I did. It was wrong."

The Coroner: - "You did not examine the man at the time."

Witness: - "I did not consider it my duty. If you had given me the opportunity I would have done so."

The Coroner: - "If he was wrong you ought to have given him the opportunity of defending himself."

Witness: - "I did not know I had the opportunity."

The Coroner: - "The man gave his evidence straight-forwardly, and I think you ought to have asked him. Mr. James could have acted for you."

Examination resumed: - "They had not finished repairing it before the explosion. The winding shafts are worked by water power, and the water is pumped back again. When I went to Cyfarthfa the works in No.1 pit extended five or six hundred yards. That was between the fourth and fifth heading. I was previously at Clydach, near Swansea, about three years. The coal is not fiery. I was previously accustomed to fiery seams

at Killingworth, in the North. When I took charge of these collieries they were worked as now. The third level in the south of the main level was at work when I came to Cyfarthfa. It was discontinued by my orders. When I came here it was not used at all as an airway. I suppose it was intended as an extra airway. I did not think it was required. I cannot say whether it was to carry the air in or out." The Coroner: - "Am I to take that as your answer?" Witness: - "Very well."

Cross-examination continued: - "I did discontinue that level altogether. From that time we had a single level and return airway. I depended entirely upon the level as the intake air course. The level to the face extends about a mile and sixty Yards. All the coal from that pit is obliged to be brought through that level." The Coroner: - "Don't you think it very objectionable to have all that traffic of coal — trams and horses — carried backwards and forwards all that distance through the intake course?" Witness: - "I do not." The Coroner: - "Suppose that level had been carried on to the end of the works, and maintained as a separate intake air course, would it not have been better - would not the ventilation have been improved?" Witness: "I do not think so. I do not know that it was ever intended to carry on this level to take air to the end of the works. Neither my employer nor the overman nor any one ever told me so." The Coroner: - "And your experience as a mining engineer or manager of coal pits would not induce you to believe it was laid out for such a purpose?" Witness: - "I believe it was for some purpose of that sort. I should never have laid it out."

The Coroner: - "Do you think no benefit would have arisen in carrying the fresh current of air to the end of the works?" Witness: - "Not by an extra airway by the south side." The Coroner: - "Do you mean to say the principle is right?" Witness: - "I don't think the principle is right. I think the level is sufficient if driven large enough, and I think in this case it is large enough to supply the works." The Coroner: - "Supposing an explosion occurred, if you had the separate air course would it not prevent these doors bursting and the men being suffocated?" Witness: - "I don't think the men would have got the air sooner, because you cannot put up bays" (stoppings) strong enough to withstand an explosion. If the bays had been taken out it would not have prevented



any of the deaths by the explosion. Had the bays stood, I cannot say how it might have been; I have never found any door near No. 20 heading, purported to have been put up by Thomas Thomas."

**Thomas Thomas** (fireman), was recalled, and said: - "I remember a fall in the windway on the face near No. 20. I saw it on the morning of the explosion. It occurred on the night previously. Saw some men putting up timber and clearing the fall on the day of the explosion. There was no fall, but a fault in the roof near No. 15 heading. There had been a fall the week before. It extended some distance, but it had not fallen all at once. Nine foot timbers were used in timbering. Above that was a collar and a cross piece of pitwood. The Yard vein was not visible. There was no work on the day before the explosion, because the overman was giving in an account of the coal, and the colliers went out. Had been fireman for nine years. When he first went there was a separate air course on the south side of the level. There was no dependence to be placed upon it — air sometimes went in, but it was intended to take the air the whole of the way parallel with the level. It was intended as a separate air course that the air might not be heated by the horses. Mr. Thomas Kirkhouse intended to do this." Witness thought it would be of service. By a Juror: - "It was not customary to drive gas away in working hours if there was much fire."

Mr. Moody examined by Mr. Blackwell: - "I think the book produced contains an accurate register of the quantity of air passing through the Cyfarthfa collieries at the time it was measured, I did not measure it myself. I have taken the measurement of air at No. 1 pit. Beyond that book there is no record kept. I cannot say whether that book is accurate." Mr. Blackwell: - "How many times since 1858 has the air in the west level of No. 1 pit been measured?" Witness: - "I cannot say." Mr. Blackwell: "Has it been measured once in the west level since 1858?" Witness: - "It was measured on the 25th January." The Coroner: - "That was the only time?" Witness: - "No, several times." Mr. Blackwell: - "Don't be so fast. I shall not be satisfied by an answer of that sort. I am going to take down the number of times. You did not see it measured in January?" Witness: - "I did not." "Was it measured on that day in the west level?" - "I understand so." "Where?" — "I think above No. 6 cross

heading." "And where else in the west level" "I cannot say." Mr. Blackwell: - "Do you know what quantity was found at No. 6 cross heading on that day?" Witness: - "I think he (witness's son) told me 22,000 cubic feet." Blackwell: - "How many yards from the pit bottom is No. 6 cross heading?" Witness: - "I cannot say without measuring. About 600 Yards." - "Blackwell: - "You had no measurement of the quantity of air passing through the working places of the pit on the 25th January?" "Witness: - "Only the 22,000 in 6 cross heading." - "Had you any measurement taken in the working places in the west level, near the face of the west level, on that day?" - "Not that I am aware. I did not ask if he measured in any other place." "Then you know nothing about the quantity of air which was going on that day through the working places in that west level?" "Only the assumed quantity, taking 22,000 at the cross heading."

Blackwell: - "That is no answer to my question. Do you or do you not know anything of the quantity of air passing through the working places in the west level of No. 1 Pit on the 25th January., when you say the air was measured?" Witness: - "No." Blackwell: - "When was the last occasion on which the air passing through the working places in the west level of that pit was measured?" Witness: - "I cannot speak to that." Blackwell: - "Have you ever seen within the last year the air measured which was passing through that west level to the extreme end, and which was entering the working places in that west level at any time?" Witness: - "Yes, I have measured myself within the last twelve months. I cannot give the date." Blackwell: - "What was the quantity which you ascertained was passing along the west level at that time" Witness: - "About 12,050 feet." Blackwell: - "Which is the exact point at which you took the measurement on that occasion?" Witness: - "Inside of the air pit." Blackwell: - "Between the air pit and 15 cross heading?" - "Yes." Blackwell: - "How far is that from the face of the level, in Yards?" "About 440." Blackwell: - "There would be six pairs of separation doors at which the air might leak beyond that point?" Witness: - "I cannot say at that time the level has been standing for some time.

There would be three cross headings at that time, and the fourth going... there are now six cross headings?" "Yes." Blackwell: - "You have never

for twelve months, according to your own account, taken the trouble to ascertain what quantity of air went to the extreme end of that level?" Witness: "I have only measured once. You are talking of what took place twelve months ago." Blackwell: - "Can you recollect more than that one single time you have measured the air in that level?" — "Yes." "How many times?" "I cannot say. I have measured several times, but kept no account."

The Coroner: - "During the eight years, you mean?" Witness: - "Yes." Blackwell: - "Have you kept no minute about it?" "No." Mr. Blackwell: - "Will you look at that register book and say if you can find more than two measurements since the 10th September, 1858?" Witness (after examining the book): - "There does not appear any from that book." Blackwell: - "Will you take that book again, and tell me where the measurement first noted in that book (10th Sept.,) was taken?" "I cannot tell." Blackwell: - "What was the quantity of air which is recorded as passing through that west level on that day?" reply: - "4,320 feet." Blackwell: - "That rather disagrees with any of the quantities you have given us, does it not?" Witness: - "Very likely it was not measured at the same place." Blackwell: - "Follow me, and confine yourself to my question (question repeated) – Witness : "It does not agree." At this point the court rose. During the cross-examination of Mr. Moody, large numbers of colliers crowded the room, and apparently viewed the proceedings with intense interest.

### **Tuesday, 11<sup>th</sup> March 1862**

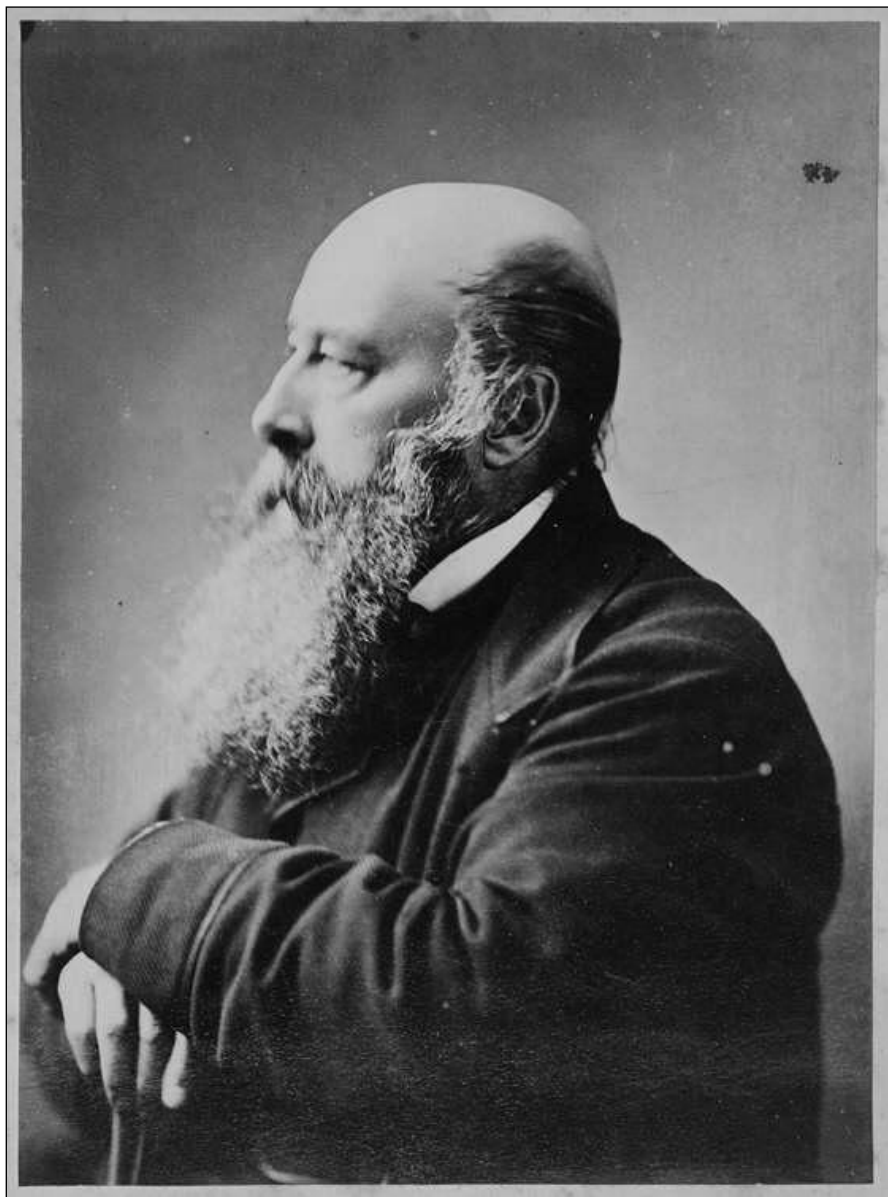
#### **The Gethin Colliery inquiry (The Sixth day)**

The inquest was resumed this morning at ten o'clock. Mr. Blackwell continued his examination of Mr. Moody, the underground manager. "The book produced describes the area of the place where this measurement took place. It is described as 48 feet area. I never found the air less than 20,000 feet in the main level by No. 6 cross heading. It was taken with Byranis's six-inch anemometer. I have never found so much as 20,000 inside beyond No. 6 heading. The sectional area of No. 1 shaft, down which the intake air descends, is about 135 feet. The sectional area of the west level at No. 10 is twelve feet by six feet. It is

not that size except in the mouth of the cross-headings. The size of the level about fifty yards further in is nine feet by six feet. I think I can walk along there without stooping. The dimensions of the level in the stone archery, between No's 14 and 15 headings, is 7 ft. by 5 ft. 6 in. at the present time."

Mr. Moody continued: - "The dimensions of the level between No. 17 and 18 headings is 8 feet by 6 feet. It is that size clear of the timbers. I think that a man six feet high could walk upright without touching the timbers. The dimensions of the airway at the back of the brattice at the face of the level is 6 feet by 3 feet. The dimensions of the airway at the back of the waste in No. 20 heading is 6 feet by 5 feet. The windway from the level into the stall in No. 20 is 5 feet by 6 feet. The windway, behind the brattice, at the face of 19 heading is 6 feet by 3 feet. The windway on the west side of the waste, in No. 18 is 6 feet by 5 feet. All the airways are liable to be obstructed by falls occasionally. All the air which passes through the working places in the stalls in Nos. 17, 16, and 15, except what leaks through the doors, passes through the windings. The main return airway is carried through the old abandoned stalls to the rise of the old works, for the whole of the working, I don't think that that air course is liable to be obstructed by falls. I mean by obstructions to totally stop up the airway. I have never ascertained, by inspection, information, or other means, what should be the relative sectional area of the main airways in comparison to shifts, and the length the air has to travel. I am aware that it is a subject that has occupied the attention of the principal engineers in the country. I have considered the subject and read about it.

I think that the area of the airways should be increased and not diminished, as the level and workings extend. The area of the airway in this pit has been diminished from 50 ft. to 18 or 16 ft. at the far end. I have stated that from the shaft to No. 6 heading, there was 21,000 ft. From that point to the outside of No. 15, there is lost about 10,000 ft. of that quantity, by leakage at five pair of doors and two scales. I have to conduct the outtake air through six more pairs of separation doors before it reaches the west face of the level, and enters the working places.



**Robert Thompson Crawshay, in charge of the Gethin Colliery 1862 & 1865**

I have seen the air measured before the explosion about No. 16 heading. I do not know when. There was about 10,000 ft., but I am not sure. Since the explosion I have seen the air measured between Nos. 15 and 16 headings in return air-courses, but I cannot tell the quantity. I did not ask the question, and I do not recollect if I was told the quantity. Mr. Evans and Mr. Brough measured the return air between Nos. 19 and 20 headings on the same occasion, but I do not know the quantity. I do not say that I have not had sufficient interest in the condition of the pit to ask the question, but I did not ask, as I did not like to interfere with their experiments. I do not recollect being told the quantity of air by anyone, and I did not measure it myself after the explosion.

The air at that point must have received the leakage of five pairs of separation doors. Did not tell you (Mr. Blackwell) the quantity was 5,000 feet between Nos. 19 and 20 return airway. I told you that I believed that was the quantity between 15 and 16. I have obtained no knowledge, from any source, of the quantity of air passing along the return on the 25th of February. All the quantities I have given are a mere guess. If the quantity of 5,000 feet be correct, the proportion of that air going round the face of the working places must have been 3,000 feet. I do not consider 2,000 feet per minute sufficient to work such a seam with naked lights. I do not think the quantity of air which would reach the face of the west level and enter the working places there would be larger on a day when the pit was not at work, and when the level was not obstructed by trams and horses, and the leakage less by the door being closed, than when the pit was at work.

I do not think there would be any difference between night and day measurement. I am not aware that fire-damp has often been allowed to accumulate in the Gethin pit during the night. It did so on one occasion, in the case referred to by Thomas Thomas, the fireman. I do not know that fire damp could accumulate without the fact coming to my knowledge. I doubt the truth of the evidence of the witnesses who said they had found gas in their stalls. I think I could get in an airway, four feet square, 11,000 feet per minute. I cannot tell its velocity per second. I cannot calculate it now. I do not say that I do not know how to calculate it. I think I could calculate it." The Coroner: - "Well, do it, and

answer the question." Witness: - "I cannot do it now." (Sensation.)  
Coroner: - "Do you know the rule by which such a calculation is ascertained?" Witness: - "I do not know the rule now." (Sensation.)

By Mr. Blackwell: - "I know that the air diminishes as it passes through the level. I do not see that if the level is extended much further there will be no air to reach the face. By continuing our present system, sufficient air could be carried as far as our boundary extends." Witness here said that he wished to say that the velocity per second of 11,000 feet of air passing through an area of 4 feet square would be 11½ feet. The Coroner: - "How do you ascertain that result?" Witness described the manner in which he arrived at his calculations. There is no part of the pit where the velocity is at the rate of 11½ feet per second. With our present ventilating furnaces, we get 11,000 feet, less the leakage of the doors.

I have read an account of the great accidents that have occurred in South Wales collieries. I am aware that Gethin pit is in the same basin as those collieries where explosions have taken place. The west level is approaching the Aberdare district, where so many accidents have occurred. I did not consider the close proximity of the Yard vein to the four feet a cause of danger. I am not aware that Gethin pit occupied a very dangerous position. I have never seen any indications of the unworked measures on the south side draining into our level. I cannot tell whether there is such a tendency, all I can say is I have never seen it. I am aware that fire-damp does exist in deep, unworked coal measures in a state of pressure. I am not aware that it is a necessary consequence for such fire-damp to escape wherever it can find a vent. It may be so, but I have not seen it in the Gethin pit. I am not aware that the immediate cause of the explosions in South Wales has been the use of naked lights.

The Risca and Cwmpennar explosions took place although safety lamps were exclusively used. I do not know that the use of safety lamps would have prevented the present explosion. I am not aware that it is generally the case that the great loss of life in these pits has arisen not from the injuries caused by the fire of the explosion, but from the blowing away of the separation doors, which caused suffocation. The doors of the west

level were blown away for at least 500 yards. There could be no ventilation after that in the working places. I believe thirty-five out of forty-seven were suffocated by the after-damp.

The separation doors are being constantly opened and shut, and are liable to be left open through carelessness. I am aware that the best regulated mines are now being laid out without any doors at all, except bearing up doors, the destruction of which would not destroy the ventilation. I know it is now the practice in some places to arrange the workings in isolated districts or panels — the ventilation of one having no communication with the other. Such a system must necessarily limit the loss of life in the event of an explosion. I do not think that such a system would have prevented the loss of life in the present instance, because the whole of the west workings would have composed only one panel. The ventilation was not altogether destroyed for more than 500 Yards. The distance actually destroyed was 375 Yards.”

By a Juror: - “I have never ascertained what quantity of atmospheric air is consumed by a given number of men and horses, in a given space, in a given time. I have never tried the quantity of gas exuded from the four feet vein per minute.” By Mr. Evans: - “My son made a note of the measurements and quantities taken by Mr. Evans and Mr. Brough on the 25th and 28th of February. I have found it the safest plan for the door boys to accompany the hauliers. We work the same vein of coal in other pits to the north of Gethin, and do not find more gas to the rise of the vein. The hauliers all use safety lamps when working at the pillars.” The inquiry was again adjourned.

**Wednesday, 12<sup>th</sup> March 1862**

The Gethin Colliery inquiry (The Seventh day)

The inquiry was resumed this morning, when Mr. Moody was examined by Mr. James, who has been watching the case on behalf of the proprietor. Mr. Moody said: - “During the eight years I have been manager there has not been one death in No. 1 pit from burning. The coal worked in Cyfarthfa collieries, from the 1st of April, 1856, to the 31st of March, 1861, amounted to 1,243,866 tons. During eight years there



has been raised upwards of two million tons. On the 10th and 11th of February last I was in No. 1 pit for seven hours each day.

I went over every working place to measure up the work. My duties required me to measure up the colliers' work once a month. I could not do this without seeing every man's work in every working place. Besides this, my other duties would take me two times a week into No 1 pit. During these inspections I made myself acquainted with the state of the mine in all its parts. Besides my own visits I had reports from the overman and under-viewer about four times a week. These reports were verbal.

On the supposition that a second airway had been carried to the face of the level, the effect of the explosion would have been the same, for the explosion would have run back in both airways as well as in one." The witness, at considerable length, showed the difficulties of carrying out two air-ways in No. 1 pit, and repeated, that even if there had been two airways the result would have been the same. He then described the air courses for the third time, and stated that his system of ventilation was the best he could think of. The witness was then re-examined by Mr. Blackwell, and stated that although there had been no deaths from explosions in the Gethin pit, there had been several persons burned at different times. Had heard that there were deaths from explosion previous to his management. Two airways would not take in more air than one. His reason for saying so was, not that the return airway was insufficient to carry it off, but on account of the sectional area of the shaft. The examination of this witness concluded at four o'clock, having occupied nearly three days.

#### Evidence of Thomas Evans, Government Inspector

**Mr. Thomas Evans** said: - "I am government inspector for this district. I examined the pit the day after the explosion, and once afterwards." After describing the appearances of the mine, he said, there are two very well constructed furnaces at the bottom of the upcast, and the shaft is used exclusively for ventilating purposes. "The system of ventilation is what is known as the 'pillar and stall.' I measured the air passing along

the level at No. 6 cross-heading on the 25th of February. The average of five experiments was 20,580 ft. per minute. On the 28th February, at the same point, and at the same hour of the day, twelve experiments gave an average of 20,540 ft. per minute. On the 25th of February, the air between Nos. 19 and 20 cross-heading in the return airway, was about 2,640 ft. per minute.

Near the same place, on the 28th, it had increased to 4,958 ft. Between Nos. 15 and 16, in the return airway, the average was 4,500 ft., while on the 28th it had increased to 7,000 cubic feet. The total quantity on both days was nearly the same, but great improvement had taken place towards the face of the works and in the return in Nos. 15 and 16. This improvement is to be accounted for by the tightening of the doors. The intake airway at different places present a small sectional area, and the return airway is also very small in many places, and does not present a sectional area of more than 16 ft. From personal observations, and from the evidence, I believe the first explosion originated in No. 19, extending along the level to between Nos. 12 or 13. I believe there must have been other explosions following in rapid succession, probably in No. 17, and at the bottom of 15.

The five bodies found at the bottom of No. 20 were not burned, with one exception, and were blown inwards, indicating that the blast had come from the east at this point. At the bottom of No. 19 four men were burned, and from other evidences, I feel certain that the fire originated in this heading and passed up 18. In No. 17 one man was found much burnt, while others died from suffocation. At the bottom of No. 16 heading only one out of sixteen bodies was found to be burned, and he was found on the level. In No. 15 some were found much burned. Although there are signs of an explosion at this point, I do not think it originated there.

In my opinion gas lodged in some of the holes in the roof and in the gobs, particularly about No. 16. The roof is bad in Gethin, and the falls frequently extend to the Yard coal. I do not think that the distribution of the air is well arranged, and the ventilation is too nearly balanced, and not sufficient to meet extraordinary circumstances, such as the condition

of the atmosphere, falls, or other obstructions. It will be seen from the diagram produced of the barometer taken at Swansea, on the day of the explosion, that the atmosphere was very low.

I do not think the air used for the ventilation of any part of the colliery where safety-lamps are used ought to be allowed to pass the naked lights where men are working. The shafts are well arranged for a good distribution of air, but the cross-headings should have a separate and distinct split of air, meeting in a proper sized airway, not less than 6 ft. by 7 ft. The main intake should in some places be doubled so as to ensure sufficient air passage when horses are passing. The up-cast shaft is too shallow and I would recommend a chimney of considerable height, or mechanical ventilation.

By giving the headings a distinct current of air, and working the top stalls first, the gas would be taken away to the return without any danger of explosion. I do not like the system of mixed lights, and in my opinion this colliery should in future be worked exclusively with locked safety lamps, and the use of powder discontinued. It should be remembered, however, that nothing but adequate ventilation, and strict observance of the 1st general rule of the Mines Regulation Act, can prevent a recurrence of such lamentable catastrophes. The safety lamp should only be depended on as an extra precaution in case of any unforeseen accident, over which the manager could have no control. There is no doubt the gas fired by a naked light, for naked lights were in general use.

The Coroner at this stage proposed an adjournment, when several of the jury expressed a wish to finish the inquiry before rising on account of the serious inconvenience of being so many days detained from business. The Coroner said he felt the full force of the remark, but in a case involving such important matters, he did not think that proper justice could be done by sitting up half the night. The evidence they had just heard from Mr. Evans was the most important he had ever heard since he held the office of coroner, and it demanded their calm reflection. Under these circumstances, therefore, he would adjourn the inquest till the following morning, and he hoped to be able to bring it to a close on Thursday night.

**Thursday, 12<sup>th</sup> March 1862**

**The Gethin Colliery inquiry - (The Eighth day)**

Evidence of Mr. Brough, Government Inspector for West of England

The inquiry was resumed this morning, when Mr. Brough, the Government Inspector for the West of England, was examined. He said: - "I am of opinion that the explosion occurred at the far end of the No. 19 cross-heading, and that then it rushed with lightning speed and force down that heading. The gas must of course have come in contact with naked light. In its flight the inflamed gas had, most likely, ignited other bags of fire-damp hanging above the collars in headings or stalls, and also gas that was nestling in the old gobs.

The explosion was not of force sufficient to do extensive injury to the colliery, though gas enough was fired to burn some men and horses; above all things, enough carburetted hydrogen entered into combination with its supporter to withdraw from the air underground a considerable proportion of vital oxygen, and thereby destroy by suffocation many of the persons who escaped the burning. Where coal gives out gas I object to the use of mixed lights. If protected flame is required in the rippings, all the pit should be put on safety-lamps.

I do not think enough air got into the far end of the western workings for the perfect safety of the people making use of naked lights; my reason for giving this opinion is that after that limited supply of wind swept the face of the main level it had to course the workings of several cross-headings. To the eastward there are portions of the intake too restricted in my opinion for the free entry of the fresh current; also there are places in the main returns of much too small a sectional area for the easy passage of dilated or rarefied air. I think more wind should have been sent through this long and extended western district of work.

The upcast air-shaft is one of but limited ascensional column, and I would myself put a much more lofty stack on it; its present dimensions bear no comparison in this respect with the downcast. It is customary to allege when inspectors encounter difficulty in discovering the cause of

accumulation of gas, that they attribute it to a diminished column of mercury.

I have only to state that much observation has been given to this subject, and the fact of reduced atmospheric pressure at the moment of some of the great calamities of the United Kingdom has been fully established; whenever the barometer is low I am myself always apprehensive of danger, the mercury is said to have been at 29 inches at Swansea on the day of the Gethin catastrophe, and this may be considered a point low enough to excite anxiety and induce extra care and caution in any pit where the coal is known to exude carburetted hydrogen gas. I may say this with still greater reason, inasmuch as there will be nearly half an inch difference between Merthyr and the seaside. This pit should have had more splits, in order to ensure a fresh supply at the extreme far end a long travel and contracted areas can only admit of languid currents, and it is proper to add that these distant points require the sharpest air, especially in the present instance, where the workings are approaching the fiery Aberdare neighbourhood.”

Evidence of Mr. Blackwell, representing the Secretary of State.

Mr. Blackwell was the last witness, he said: - “I have attended by the direction of the Secretary of State. I have only made one visit to the pit, and that since the accident, and therefore any observations I may make must necessarily be confined to the evidence on record. With regard to the place where the accident originated I think it may have originated from the explosion of gas in No. 19. That is the probability but the evidence does not appear to me to be absolutely conclusive upon that point. I think there is also a probability that gas swept out of No. 20 into No. 19 and that that may have been the first cause of the explosion, but the evidence on this point is not conclusive. I think that the gas which is stated to have been found in the hole of the roof of No. 20 was probably an indication that gas was coming away continuously at that point, very likely from the Yard coal.

The low state of the barometer would, no doubt, by relieving the coal from pressure, tend to produce a continuous flow of gas if that gas had

any tendency to escape. The thermometer was high on that day. This would have a tendency to cause the air to be slacker than usual at that time. The ventilation of this pit is maintained by a furnace connected with the upcast shaft or flue. The quantity of air which passes over the furnace in this position is determined in a great degree by the difference in temperature which exists between the columns of air descending in the down-cast and ascending in the upcast or flue. I think, therefore, that the probability is that the air was somewhat slacker on the day the explosion occurred than usual.

With regard to the sources of the gas which ignited in the subsequent or secondary explosions, which appear evidently to have occurred, any pockets of gas which existed would probably be swept out and picked up by the shock of the first explosion in its course. The recorded low state of the barometer on the day of the explosion renders it probable that such pockets existed more abundantly than usual.

I think it is also probable that gas to a considerable extent is actually generated, particularly in a dry and dusty coal pit, by any explosion that occurs. The blast of an explosion would gather up and envelope with flame a large quantity of finely divided carbonaceous matter, or coal dust, and I think it is only by supposing that this actually does take place, during an explosion, that we can fully account for the extent to which the fire and blast extended through the passages of the mine in the direction of the intake air.

The loss of life which occurred on this occasion was, as usual, far greater from the destruction of ventilation along the channel by which the intake air entered the pit, than from the injuries received from the mere explosion. This resulted from a very defective arrangement in the works of the pit. The separation between the intake current and the return was destroyed for nearly a quarter of a mile along the west level, and this along the only passage by which fresh air could reach the sufferers, or help be afforded them.

In this pit the insecurity of the main intake current was greatly increased by there being numerous lateral openings to the return, or the deep, as

well as on the rise of that level. The effect of such an arrangement as that which has been described was not only to create great insecurity in the maintenance of the ventilation, but to cause the abstraction of by far the largest portion of the intake air and its diversion into the return currents, before that intake air could reach the working places at the west end of the level, where nearly all the men were employed.

I think the inevitable conclusion is that the quantity of air carried into these workings has been constantly diminishing in proportion to the lengthening of the west level, because the lateral openings across the headings have been constantly augmenting in number as the level became longer. It appears to have been entirely overlooked that the quantity of air required in any pit should bear a relation not only to the number of men employed, but to the extent of surface of coal exposed. While the extent of surface of coal exposed has been increasing in this district, I believe that the quantity of air reaching the workings has been diminishing.

We have heard the very careful measurements made by Messrs. Evans and Brough, of the quantity of air in motion in this pit subsequent to the explosion, and when, except in so far as when the pit was not in work, things had not been restored to their normal state, which proved that the quantity of air which reached the end of the west level must have been, at the time of the explosion, quite inadequate, and greatly lower than the standard, which experience points out as necessary under similar circumstances.

I do not think, that on working days, when the west level is comparatively full of men, horses, and trams loaded with coal, and when the doors leading into the headings were being constantly opened and shut, that there could arrive more than 3,500 cubic feet per minute, at the extreme workings of the west end of the level. The point which the person to whom the management of the mine is entrusted ought to direct his attention, in the first instance, when determining his system of ventilation, to get the largest volume of intake air as possible to the face of his workings. Here it was nearly all allowed to eke away in its course.

Another axiom in ventilation appears to have been almost entirely overlooked, and that is, that it is impossible to get air into the workings of any pit if there is not sufficient road provided for it to go out again. I think that with so weak a ventilation at the face of the west level, as what appears to have been clearly proved to have existed at the time of the explosion that it was extremely imprudent to work at all there with naked lights.

There was, moreover, as Mr. Brough has pointed out, a distinct act of negligence committed on the day of the explosion by the day fireman in sweeping the gas which had accumulated in No. 20 heading out into the working currents where the men were using naked lights.

The men certainly ought to have been withdrawn from this district when this mode of dealing with gas was found to be necessary. All naked lights should have been withdrawn. I think the extent to which the west level had been constructed for about twenty-five yards along its course, by stone arches between Nos. 14 and 15 headings, presented a great obstruction to the intake air.

It is proved by the evidence of Messrs. Evans and Brough that the sectional area of this level was only thirty square feet. The west level beyond this point was also on account of the badness of the roof through this district, considerably contracted.

It would require that an airway should have the sectional area of 50 square feet to pass a quantity of 15,000 cubic feet per minute at a velocity of 5 feet per second, and this is the greatest convenient velocity which can be maintained throughout a working level of this description.

A somewhat lower velocity than even this, where the men are working with naked lights, would be more convenient. Above 5 feet velocity per second renders it very difficult for the hauliers to manage their lights. I think that 15,000 cubic feet per minute is the very smallest quantity which ought to have been relied on for working the west level section of this pit, and this quantity ought to have been conducted to the face of the workings after all loss from leakage had been deducted.



An additional airway would have been needed to get this quantity of air to the face. When I speak of 15,000 cubic feet per minute, I stated this as the minimum which ought to have been carried into these workings but I think a larger quantity would have been better, because this would have allowed the works to be arranged upon a system by which all the separation doors could have been done away with and under which the ventilation would have only been momentarily disturbed by the explosion, returning immediately afterwards to its normal state.

But to effect this, other changes would have been necessary in addition to enlarged intake air courses. The return airways must have been proportionally enlarged. With airways of the sectional area of 16 square feet, a velocity of 5 feet per second must be maintained to drag only 4,800 feet per minute through such passages, and that is a velocity which can scarcely be obtained in a narrow winding air course at so great a distance from the flue as the return air course at the western extremity of the workings.

This pit certainly occupied a dangerous position, so far as regards the probability of fire-damp escaping into the workings from the adjacent deep unworked coal field to the south. I think this consideration ought to have caused the pit to be worked with safety-lamps alone, and not with naked lights. Still this change, even if adopted, ought not to have superseded an improvement in the ventilation, which I think, even combined with the use of safety-lamps, was clearly very defective.

Nearly all large explosions which have taken place in this county have been already proved to have originated from naked lights. The presumption is that even where safety lamps have been used in pits which have exploded that these lamps were either defective in their construction, had been tampered with, or that some of the men had carried fuses or something of that nature into the pit. It is well known that unless a very rigid policy is established in pits worked by safety lamps men will tamper with them.

The careful experiments which have been made, with regard to the security afforded by safety lamps under very unfavourable

circumstances, shows that they are really and practically secure, if properly used; and the objections with regard to the light afforded by the old Davy, may be met by the use of some of the improved modern lamps, which afford more light. Most of these modern lamps, giving greater light than the old Davy, may be used with double gauzes, which gives greater security. It must, however, be admitted, that inadequate ventilation has been usually found to be the original cause of nearly all the explosions which have occurred, notwithstanding the immediate cause may have been the use of naked lights. Good and well arranged ventilation - that is, not only an adequate volume of air, but such a system of arrangement as is not liable to be destroyed throughout a great part of the pit by the shock of the explosion, and in which the effects of explosion are necessarily limited to a narrow district - is what ought to be sought for by every mining engineer in the pits under his charge. It did not exist in this pit."

#### The Coroner sums up

The evidence having now been concluded, the Coroner then addressed the jury. We give a summary of his address.—" We have now carried our inquiry as far as it is practicable, and I trust obtained sufficient evidence to enable you to decide upon your verdict. It now becomes my duty to offer you a few observations. In the first place let us see, before we proceed, to examine the evidences more minutely, what are the general facts as proved before us. It appears that about twelve o'clock at noon, on the 19th of February, an explosion took place in the No. 1 Gethin pit. One hundred and fifty-three living persons went down that pit on the morning, to follow their usual avocations, forty-two of whom were employed at the east side of the pit and the remaining were scattered about in different parts of the west level. Out of these 111 there were forty-nine who were employed near the end between No. 14 cross-heading and the face of the level.

All these forty-nine, with the exception of two, Thomas Thomas, and his son, were found dead. Thomas has described to you how it happened. He told us that as he was walking along towards the pit and was between certain headings, he felt the effects of an explosion from behind, by

which he was violently blown forward and stunned, and remained there until he was released by the persons who came to his rescue. His son, who was the only other survivor, had just come down from No. 16 with a tram of coal; he was found along this level, near his father, and from these and other data, it is manifest that the effects of the explosion were confined to the portion of the colliery lying to the west of No. 14 heading, between this heading and the face of the level.

The men on the other side of the pit do not appear to have been conscious that an explosion had taken place. The place where the shock of the explosion appears to have been most severe, and where the evidence points out as most likely to be the origin of the misfortune, seems to be No. 19 heading, where the mason, Ebenezer Jones, and his son were at work, or at the stall adjoining, with naked lights, and if there had been any gas existing in either the face of the heading or the stall, or brought there from any other part of the works, or a sudden blower had taken place it would necessarily take fire at those naked lights. These facts, corroborated as they have been by other evidence, will, I apprehend be sufficient to enable you to come to a conclusion on the first point that I propounded to you, viz. How and by what means did the explosion occur ?

Having satisfied yourselves on the first point you will then have the more important question to decide, whether it arose from accident or from culpable neglect. If the evidence lead you to believe that the catastrophe did not arise from any negligence or carelessness, but was one of those unforeseen casualties that ordinary forethought and caution could not foresee or prevent — casualties that must necessarily attend all mining operations, then, however serious it may be, and much to be regretted, it would only amount to accidental death.

But if, on the other hand, you consider that it arose from the carelessness or negligence of any of the various agents, overmen, or others, who had duties to perform in reference to the pit or the men, then it would amount to culpable neglect, and it would be your duty to find a verdict of manslaughter against the delinquent. Before I proceed

to refer to the evidence it may, perhaps, be some advantage to you if I endeavour to explain the law on this point.

The Coroner then read the law enacting that a verdict of manslaughter be returned in such a case where death ensues from want of proper caution or neglect. The Coroner then went over the various points in detail, and concluded an able summary by thanking them for the patience exhibited throughout the long and tedious inquiry.

The room was then cleared, and, after a consultation of an hour and a half, the Jury returned the following verdict which was read by the Coroner amidst breathless silence: -

### **The verdict**

“In the enquiry into the cause of the death of Samuel Jones and others at Gethin Colliery we find: *First, - Ventilation of No. 1 Gethin pit was deficient in quantity, badly arranged, and liable to frequent interruption. Second, - That the viewer disregarded the 1st General rule, and also permitted the special rules No. 16, 18, 24, 26, 31, 31, 37, and 63, to be generally disregarded by his officers and we find a verdict of Manslaughter against John Moody (the viewer).*” Application to the Coroner to accept bail was then made by Mr. Frank James, solicitor. This was granted, and Mr. Moody was bound over in £100, and two sureties, Messrs. Laverick and Kelly, in £50 each.

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## Chapter four

The '*Cardiff Times*' 7<sup>th</sup> March 1862 carried this story suggesting that the Gethin Fund was struggling to meet its intended target, whilst the Hartley fund was overflowing with donations. The Lord Mayor of London had opened two 'Mansion House Fund' appeals for each disaster, and had these valuable suggestions to make: -

### The Harley Colliery Fund - A good suggestion for Merthyr

The Lord Mayor, shortly after taking his seat upon the bench at the Mansion House, on Thursday, said he should like to say a few words with regard to the Hartley Colliery fund. He had been waited upon that morning by the Governor of the Society of Licensed Victuallers, accompanied by the Secretary of that society, and they brought him a cheque for the amount of a collection which had been going on for the last twenty-nine days. The amount of the cheque was £813. There must have been a considerable amount of devotion to the cause in hand to have accumulated so large an amount in such small sums. It showed how people would devote themselves to charity, and he could not help making that public acknowledgment of the benevolence which the public had shown on this occasion. He thought it right, however, to say that he considered that fund for the assistance of the wives and orphans of those who lost their lives at the Hartley Colliery arrived at such a state that it was hardly necessary for him to stimulate public charity any further.

He had said something about it a few weeks ago, and that time the money was flowing in at the rate £1,300 daily; since then the subscriptions had decreased, but as much as £200 were received in a week. He had seen an advertisement of a newspaper committee, of which the Mayor of Newcastle was president, by which it appeared that the already subscribed exceeds the necessity of that which they proposed to be used to create a fund to be applied to the exigencies of a similar character which might occur in future in Northumberland or Durham. The amount received at the Mansion House alone was within a trifle of £20,000, and that was the amount which was stated, after due consideration by persons who were competent to judge, as the probable

that would be required to meet the exigencies of case. The probability now was that too much had already been contributed. He hoped the public would now feel that enough had been done; but if subscriptions continued to be sent in he would be happy to receive them for the purpose of devoting them in another direction, namely, the accident at Merthyr Tydfil, by which 48 lives were lost; and if there should be any more, collections now going on which had been intended for the Hartley fund, he would feel much obliged if, when they were forwarded to him, he would be authorised to apply it for the relief of the sufferers by the accident at Merthyr Tydfil.

Meanwhile, the act of fundraising for the victims of the explosion was taking much space in the local newspapers. The '*Aberdare Times*' of 8<sup>th</sup> March 1862 had reported: -

#### The Gethin fund

Committees are now being formed in various towns, and in London we hear active measures are being taken with a view to forward this noble movement, and already about £1,700 has been collected. A little unpleasantness has arisen, and unless a permanent and general fund be established, will grow in proportion; and the reason is this: - There are many widows and orphans here who suffered bereavement from explosions like the one at Gethin, on a smaller scale, falls or such like, and those widows and orphans naturally say, "We are as great sufferers as those at Gethin, why should we not receive relief as well?" And they look upon the bereaved women and children of Gethin as being especially favoured, because the catastrophe which destroyed their support was on a larger and more prominent scale. We have no doubt this subject will receive every attention, for the movement should not now rest when a sufficiency of funds is gained for the Gethin sufferers. The following letter appear in the same newspaper a week later: -

To the editor of the "*Aberdare Times*"

Sir - Where accidents resulting in fatality are almost of every day occurrence, would it not be very desirable to establish a permanent fund

for the relief of the families of those unfortunate individuals who are carried away by death in so awful a manner? The miner we may say is constantly in danger, and would it not be a great source of consolation for him to know that should he be deprived of his life while toiling for his daily bread, in the dark subterranean channel, that his beloved partner and dear children would be provided and cared for? Would not the reflection soothe the anguish of his soul in his last moments? And would it not be a great consolation to the widow and fatherless in their sorrow and grief for the departed, that though they were deprived of their chief support, yet they were not left destitute, forsaken or friendless?

When a calamity such as that at Hartley or Gethin takes place, the public are respectfully invited (by the committee formed) to contribute towards their relief, and large and small subscriptions flow into the fund from every part, enabling the families to live above want. This is very commendable, and the promoters of such a design deserve the highest praise, but while we prepare and provide for those, we should not overlook the families of other deceased individuals who meet their deaths singly.

When an accident occurs resulting fatality to one person, the family of that person commands as much of our sympathy and support as any bereaved family in Hartley or Gethin. Their grief, trouble and sorrow are alike, their wants and necessities are the same, and the loss of each is irreparable. Why then should we provide for the one and neglect the other?

But Sir, do not misunderstand me. I do not wish to dishearten, discourage, or deter any from being a contributor to such a laudable fund. My motive is to extend the benefits of these funds by establishing a fund in the notable Valley of Aberdare, for the relief of all families left destitute by accidents. Let meetings be held in different parts of this valley, and there let the subject be sifted and discussed. Let every proprietor, tradesman, and workman, throw in their subscriptions so that a fund may be established, whereby we may not only soothe and alleviate the sorrows of the widow, but succour, help, and comfort them in their sorrow and distress. Apologizing for trespassing so much on your

valuable space, and hoping that some one more competent will urge the matter further.

I remain, Sir, yours, &c., 12th March 1862. "**Briton.**"

Comment: - So the inquest was over and the blame proportioned, however, the local newspapers had their views on the verdict and were not slow in putting them forward. The '*Cardiff Times*' of 21<sup>st</sup> March 1862 reported: -

Who is to blame for the calamity at Merthyr Tydfil?

The long and tedious inquiry before the coroner at Merthyr, respecting the Gethin explosion has now come to an end and a verdict of manslaughter been returned against the head viewer of the colliery. The facts elicited during the inquest are striking and suggestive, and from them we learn clearly the cause and details of the great calamity. On the night of February the 19th, the night fireman, in making his rounds, discovered gas in No. 20 heading. He appears to have given notice of this discovery to the day fireman on leaving the pit, but the only steps he had taken were to place up a cross-board before the working, to prevent any collier from entering that part, and informing the official who replaced him of the fact, in order that safety-lamps should be used. The day fireman did more than this. When the men were at work with naked lights, he at once set about clearing the gas away, and, by the erection of a door, expelled it from the heading and sent it to the quarter where there were a number of men employed with naked lights. An explosion ensued, and many were killed, and further ventilation, which was originally feeble and insufficient, was for the time destroyed, and the remainder of the colliers in the western part were suffocated.

Thus the proximate cause of the explosion was the carelessness of the firemen, and the inattention of the overman; but for its original cause, and for the death of the great majority of the men who were suffocated, the head viewer was to blame. The inquiry opens out a world of subject for reflection. We find that the seams of coal in Merthyr are of the non-gaseous kind, differing widely from the neighbouring seams of the



Aberdare valley, which have obtained notoriety by the explosions and disasters of Cwm Rhondda, Cefn Pennar, Middle Duffryn, and Lletty Shenkin. But in this particular pit of Gethin, the works have been extending towards the western seams of Aberdare and, though any man of reflection could see that in approaching a dangerous quarter, greater care and extended and improved ventilation were required, yet the work was carried on in the old way, with the same careless disregard - naked candles being freely used, and rules, special and general, violated, as if such an event as the existence of gas, and consequent explosion and loss of life, were amongst the impossibilities.

The evidence given by the Inspectors, and by the gentleman sent down by the Home Secretary, is of the most valuable kind, and lays bare the negligences and offences of the person to whom the oversight of the Crawshay collieries are committed. It may be that Mr. Crawshay pays highly for scientific talent; but if it is a fact - and we have no reason to doubt Mr. Moody's statement - that that official has twelve collieries to look after, the question very naturally arises whether Mr. Crawshay, in paying highly for talent, is not taxing that talent beyond human possibility.

Be that as it may, Mr. Moody cannot shelter himself beneath the shade of such an excuse because the responsibility, if too great, ought not to have been accepted, where the dangerous consequences of inability to overtake his duties rendered him liable any day to such a disaster as that which at last has overtaken him. Mr. Blackwell, a gentleman of great intelligence and experience in these matters, has placed on record his decided opinion as to the defective management carried on by Mr. Moody. The whole secret of failure is summed up in these words: -

*"In this pit the insecurity of the main intake current was greatly increased by there being numerous lateral openings to the return, or the deep, as well as on the rise of that level. The effect of such an arrangement as that which has been described was not only to create great insecurity in the maintenance of the ventilation, but to cause the abstraction of by far the largest portion of the intake air by its diversion into the return currents, before that intake air could reach the working places at the*

*west end of the level, where nearly all the men were employed. I think the inevitable conclusion is that the quantity of air carried into these workings has been constantly diminishing in proportion to the lengthening of the level, because the lateral openings across the gas have been constantly augmenting in number as it became longer. It appears to have been entirely known that the quantity of air required in any pit should bear a relation not only to the number of men employed, but to the extent of surface of coal exposed. While the extent of surface of coal exposed has been increasing in this district, I believe that the quantity of air reaching the workings has been diminishing."*

Mr. Blackwell also points out two essential axioms of ventilation, which appear to have been completely overlooked, viz., that in carrying out a system of ventilation, the person so engaged ought to get the largest volume of intake air as possible to the face of the workings;" and "that it is impossible to get air into the workings of any pit, if there is not sufficient road provided for it to go out again." In truth and in fact, the system of ventilation which all managers of collieries seem slow to adopt is that which would bring these deep caverns into as harmless a state as possible in the presence of naked lights. That is the grand point which should be aimed at by those who profess to give a practical application to the teaching of sciences.

In carrying on mining operations, the scientific man has many obstacles to overcome, the least of which cannot be considered the ignorance of those who are employed in the manual part of the work. We have to deplore the large amount of ignorance which prevails amongst the men who dig, and amongst those who superintend the diggers.

It was in evidence that some of the firemen could not read the rules in English, and very imperfectly in Welsh and we have it also on record that on the day of the explosion an act was committed by one of these men which if it did not show a great deal of ignorance as to the risk which he was running, at all events displayed recklessness in dealing with a dangerous element under circumstances which might have betokened the necessity for caution, even if past experience had shown that the pit had given the men immunity from death.

Mr. Blackwell points out this recklessness in the reference which he makes to Mr. Brough's evidence, and forcibly illustrates the insufficiency of the means which had been adopted to secure adequate ventilation. Having laid down the two axioms to which we have referred, Mr. Blackwell goes on to state that with so weak a ventilation as was carried on in this pit, the manager was not justified in allowing the men to work with naked lights. He fortifies that observation by the reference which he then makes to the result of the day fireman's negligence. That official committed "a distinct act of negligence in sweeping the gas which had accumulated in No. 20 heading out into the working currents where the men were using naked lights. The men certainly ought to have been withdrawn from this district when this mode of dealing with gas was found to be necessary. All naked lights should have been withdrawn."

Here is a combination of circumstances which fix upon the manager that absence of forethought which has brought down upon him the verdict of the jury. The manager permitted naked lights to be used, when he ought to have known that the physical capabilities of his ventilation were not possessed of sufficient force to counteract the depressing influences of atmospherical pressure; and as a consequence, when an ignorant man steps in and brushes out accumulations of vapour into the working currents where naked lights were ready to ignite the inflammable material of which the gas was composed, an explosion follows, which kills those with whom it came immediately in contact, and causes a rush of destructive power beyond its own immediate death-dealing effects, and suffocation to the whole of the men in that part of the pit, excepting two.

We should not like to commit ourselves to the opinion that dangerous mines, such as we have in this neighbourhood might be so perfectly ventilated as to enable colliers to work with naked lights. Still, we have no hesitation in saying, as the subject becomes better understood, the proprietor is left without excuse if he does not adopt the most powerful means of ventilation which are known to exist. If he does that, and does it, too, with the sanction of those men of experience who are best able to give an opinion, then he may be held up as a model proprietor, whose example may be safely followed. With the most perfect system of

ventilation - which would not only go far to prevent explosions, but also to promote the health of the poor collier - the careful manager, as it appears to us, ought by no means to eschew the use of safety lamps.

We have it on the authority of Mr. Blackwell that: - *"Nearly all large explosions which have taken place in this county have been already proved to have originated from naked lights. The presumption is that even where safety lamps have been used in pits which have exploded, that these lamps were either defective in their construction, had been tampered with, or that some of the men had carried fuses or something of that nature into the pit. It is well known that unless a very rigid policy is established in pits worked by safety lamps men will tamper with them. The careful experiments which have been made, with regard to the security afforded by safety lamps under very unfavourable circumstances, shows that they are really and practically secure if properly used; and the objections with regard to the light afforded by the old Davy, may be met by the use of some of the improved modern lamps, which afford more light. Most of these modern lamps, giving greater light than the old Davy may be used with double gauzes, which gives greater security."*

And he follows up this decided opinion with the following important remarks: - *"It must, however, be admitted, that inadequate ventilation has been usually found to be the original cause of nearly all the explosions which have occurred, notwithstanding the immediate cause may have been the use of naked lights. Good and well arranged ventilation - that is, not only an adequate volume of air, but such a system of arrangement as is not liable to be destroyed throughout a great part of the pit by the shock of the explosion, and in which the effects of explosion are necessarily limited to a narrow district - is what ought to be sought for by every mining engineer in the pits under his charge. It did not exist in this pit."*

With such testimony before us as this we cannot wonder that the jury came to such a conclusion neither do we wonder that so fearful a calamity has fallen upon the poor families whose bread-winners have been thus fearfully cut off. When will the day arrive that careless, negligent, cheese-paring men will awake to the dreadful responsibility

which hangs over their heads by the failure to do their duty towards the thousands of men whose lives are in their hands ?

#### The Gethin Relief Fund - No local subscription list?

Since the formation of a committee for the receipt of subscriptions to this fund, the entire amount of local subscriptions received has been £300 7s. 6d, but the total from all parts of the country up to this hour has been £1935. (Wrote the 'Merthyr Telegraph' of March 8<sup>th</sup> 1862). Why the subscription list is not announced by the committee in the local papers is a question we have puzzled ourselves in vain to answer. Surely if any class more than another is interested in knowing who are the subscribers, it is the class for whom the contributions are made, and why the committee should study to keep them in the dark on this matter it is difficult to ascertain. Will not the colliers and miners and other workmen of the iron works of Glamorgan and Monmouth look to their own organ for a list of the contributions to this fund? We shall be exceedingly surprised if they do not, and failing to see it that they will be tempted to ascribe motives to the committee of which their innocent hearts can have no conception. Advertising the subscriptions received from England in the Times may be both right and expedient, but it is also the duty of the committee to acknowledge publicly every local subscription, and that by the means best suited for the purpose. The fact is that unless the sense of the business men prevail in this committee, the public may soon expect the completion of the subscription list.

#### The Gethin fund – Subscriptions need underestimated

Mr. J. C. Fowler has addressed a letter this week, correcting the impression which may have been produced as to the probable amount required for the sufferers by this calamity. Instead of £2,000, at least three times that sum will be required. Many of the children are so young, that for eight or ten years they will require the fostering care of the benevolent to keep them from the parish. We should regret if any lack of sympathy should prevent a result so devoutly to be wished. It would be a disgrace to the community, if, after losing their natural protectors under the painful circumstances of a colliery explosion, they

were left to the cold care of a workhouse. (wrote the '*Cardiff Times*' of 14<sup>th</sup> March 1862).

Cardiff has made no sign yet on their behalf. How is this? Will no one get up a requisition to the Mayor, for a public meeting? Or cannot some other and more silent means be adopted for the purpose of raising funds? We have not much faith in a public meeting but it would be quite competent for half a dozen benevolent gentlemen to meet together and organise a working committee for the purpose of canvassing the town for subscriptions. The Mayor of Swansea, we observe, has done something towards the object; and we hope that Cardiff will not lag. Public opinion is divided on one phase of this relief question, which affects both Hartley and Merthyr.

A princely sum has been collected for the sufferers at Hartley, and the point has been mooted whether a portion of that large fund might not be transferred to Merthyr. The committee sitting in Newcastle appear to have arrived at the determination that a surplus of this money shall be applied to the formation of a fund for the exclusive relief of persons injured by mining accidents in the counties of Northumberland and Durham and at a meeting held in Newcastle, on Saturday last, three agents were appointed to circulate petition sheets, and to obtain the signatures of the pitmen of the two counties. Now that may be all very well on their parts but we very much question the propriety of keeping the project within the boundaries of the northern counties.

A superabundant benevolence, all flowing in one channel, and for one object, may seem to give the appearance of right to that district to appropriate the whole of the money but when another object is started — a most proper one by the way, but which is by no means peculiar as to its necessity to one district - it becomes a very serious question. How far the northerners should be supported in their movement? In our judgment, the final disposition of the money should rest with the donors and if possible the formation of one system of help should be devised - taking this surplus money as the nucleus of the fund - for the colliers throughout the nation. We observe that a plan of insurance has been suggested, thus carrying out the idea which we have all along urged in

reference to this important subject. Mr. Pease calls attention to the single cases of accident which occur so frequently, and suggests that each year should provide a fund equal to the cases arising in it, and the term of insurance he would limit it to five years, a longer period being easily provided for by a larger weekly payment.

Care, he says, should be taken that the premium payment should be so regulated year by year, after the experience of a year or two, that the Hartley fund should not be infringed upon, save in the case of any casual circumstance which might arise and he thinks that the surplus money, might be invested in the arms of seven trustees, to be selected by a majority of the coal owners who subscribed to the insurance fund. The project is one that will commend itself to the nation, we should think; but there is one circumstance which we must all regret, and that is, that no steps have yet been taken to get up a national scheme for insuring the lives of the poor fellows who labour in the midst of perils so great.

### **Prevention of mine explosions**

Under the above heading the following ably written article appeared in the London Review of Dec. 20th, 1860. (Wrote the Editorial of the '*Aberdare Times*' of 15<sup>th</sup> March 1862). Although the writer in this excellent journal had in view the terrible occurrence at Risca when he penned the article referred to, we think his remarks are so comprehensive and general that their reproduction at this season after the lamentable Gethin explosion - would be singularly appropriate. After a brief reference to the dire calamity at Risca, the writer proceeds: -

It will remind the public, already pained and dismayed by the frequency of such accidents that a great deal is required to be done to prevent them. It is a scandal to science that they ever take place; and till they be prevented they will be a scandal to our civilization. Can they be prevented? We believe they can. We now see vast reservoirs in every town of a gas made from coal, which is nearly akin to the explosive air generated in coal mines. We know that it only requires to be mixed with a certain quantity of atmospheric air to be equally dangerous, and yet we see it carefully kept under control, distributed over many miles,

conveyed in the end to millions of burners, and there not merely harmlessly consumed, but consumed to the production of an artificial day which may almost be said to double our existence. The very substance - or one so closely akin to it is scarcely to be distinguished from it - which below ground, untamed, unmanaged, destroys life in the most fearful manner, and above ground illuminates our houses and our streets. It is like fire, which, properly controlled, is our ablest servant, and uncontrolled is the most terrible of our masters.

Why, then is not this fearful agent in our mines put into chains, and made useful to us like fire, instead of being destructive? Why is it not collected in meters where it is naturally generated, and led in pipes to the pit's mouth and burnt there, lighting factories or setting steam machinery at work, or burnt in some of the multifarious ways in which coal-gas is now so usefully employed? There is no difficulty known to theory in the way of accomplishing such a work, and the destruction now caused by gas, or fire-damp, not being judiciously employed or judiciously got rid of, is a strong admonition from nature so to employ it, and so lessen labour, and save time, money, and lives.

Though it is too early to say from what cause this explosion occurred it is well known that the dread of being blown up cannot make miners prudent. They will rashly uncover a lamp to light a pipe; they need often more light than a "Davy" gives, and they impatiently procure it. No scheme of ventilating mines would be perfectly safe which does not prevent miners from coming with their lamps into contact with choke-damp. The question, then, for scientific and practical men is, 'Can it be collected as it is generated, and conveyed from the spot where it is generated, in pipes, beyond the reach of the miner to the mouth of the pit and the surface of the earth?' It is a good principle to apply mechanism wherever it can be applied as a substitute for human agency when we enlist the unerring powers of nature on our side, and have no occasion to fear the want of discretion in any of the persons employed.

A self-acting apparatus, constructed on the principle of the relative gravity of gases as affected by temperature, is the thing wanted and this scientific men should teach miners how to construct, or their knowledge



will be thought of little worth. If it be not, however, possible, as we believe it is, to collect the gas naturally given out in coal mines, conduct it in one stream to the surface, at best there is no natural impediment to ventilating every mine effectually. The art of ventilating is fully known, and it is only necessary that it should be properly carried out. No cost can for one moment be permitted to stand in the way of such necessary work. There is not a family in the kingdom which, while it enjoys the conveniences and comforts of a coal fire, and is sensible of the wealth and strength the country derives from its collieries, which would not, most willingly, pay sixpence or one shilling a ton more for coals, in order to ensure the safety of the colliers.

It would not willingly purchase its own enjoyments by sacrificing their lives; and whenever the mine-owners allege, as an excuse for neglecting the duty of saving the lives of the colliers, the expense of the necessary works, they will be answered by an indignant offer of the pecuniary means from every family in the empire. But this is not necessary. The coal-owners obtain enormous wealth by the mines secured to them as property by the public, and they are not justified in taking a sixpence for their own use, till the safety of the colliers is amply provided for. The public will willingly pay a tax for the purpose if necessary. It pays enormous taxes to obtain much less advantages. But as long as the owners of mines obtain immense wealth from them, it will hold them inexcusable for neglecting a single precaution to secure the safety of the hard-working ill-faring colliers.

No class of men is more serviceable to the community; no class undergoes greater privation, and the very least the public can do for them is to insist that the owners to whom it concedes the proprietor of the mines, should cherish the lives of the colliers as they cherish their own. Not only from the example of what is done above ground with gas, but from what is done underground in several mines and pits, both on the Continent and in England, it is clearly demonstrated that these terrible accidents are preventable, and the mine-owners are bound to prevent them. They are confirmed in the possession of the miner by the public in order that they may be worked for the public advantage. Everyone now knows that this is always best secured by each seeking his

own advantage but the mine owners and every one else must be firmly held to all the responsibilities which this principle imposes on them. The mine-owner must not by the support of the public grasp at wealth to the destruction of life and the law which gives him the ownership should make him pay or recompense, as far as he can, every person in the least degree injured by his neglect.

Railway companies some time ago used the privileges conferred on them by the Legislature with great negligence, to the infliction of much injury and when they were made responsible in their purses, railway accidents were not so numerous. This example should encourage us to enforce very stringently on mine owners the responsibility which they incur. We do not refer further to the particular case which has called forth these remarks. The Government has taken on itself some responsibility for the collier's safety, by appointing inspectors and interfering in the management of mines, and we shall consider it blameworthy if it does not enforce on the mine-owners in every part of the empire the obligation of preventing all such accidents. If they can be avoided, the mine-owner who permits them is little better than a murderer while the Government which supinely acquiesces in his negligence will be an accessory before the fact." The following article appeared in the '*Cardiff & Merthyr Guardian*,' March 22<sup>nd</sup> 1862, purporting to show that the Gethin Fund would get no help from the Hartley Fund: -

#### The Gethin colliery accident fund – No help from Hartley?

The Rector of Merthyr, writing to the '*Times*' acknowledging subscriptions received, says: - An impression is very prevalent from letters I have received that it is possible a certain portion of the over-plus contributed towards the Hartley accident will be given to us. I shall be obliged, therefore, if you will allow me to state that the member for Merthyr, the high constable and myself waited on the Lord Mayor on Thursday for this purpose. His Lordship read us a letter from the Mayor of Newcastle, giving us no hope whatever from that quarter. They propose making of that fund a Local Accident Fund to meet the local wants. Whether the Hartley Committee are justified in apportioning so large a sum for local wants only it is not for me to say, but, considering

the frequency of the accidents in the South Wales mineral basin the frequency and the large sum contributed by the public, I hope I may without offence venture to say that it is but fair that the Hartley Committee should call together in London a meeting of their subscribers, and so put it to them whether they consent to the surplus being made a local or a general fund for accidents in all coal mines.

The Hartley Fund was contributed for the Hartley accident, and it does appear to me that when all the wants of the poor sufferers from that accident have been met, the committee are in courtesy bound to consult those who have met them so liberally before they apportion the surplus to any local want whatever.

I mention this, hoping some of the subscribers to the Hartley Fund will ventilate the question in your pages. I know there is a very strong feeling on the subject, and that the poor widows and orphans of this parish do not meet with that sympathy which they otherwise would have met, had it not been taken for granted that a portion of the surplus will be given to us. We want £6,000 and we have not yet £2,800."

#### Poor Principality response to Gethin Fund appeal

"The Gethin appeal is steadily on the increase, but the subscriptions are coming in much more slowly than we could have expected from the magnitude of the case and the powerful way in which it appealed to the sympathies of the people. (Wrote the *'Cardiff Times'*, of 28<sup>th</sup> March 1862). We must confess that if the manner in which the people of the Principality has responded to the appeal was to be taken as anything like the test of their generous feelings, we should have a very bad opinion of them.

Here we have nearly a hundred widows and a great number of destitute children, rendered, by a sudden and horrible catastrophe, dependent on the cold mercies of the world; and yet for these the gentleman gives his guinea tardily, while the shilling of the tradesman and the equally valuable penny of the workman do not come at all. We hear of no ardent dissenting congregations, collecting their mites, and forwarding them to

the fund. If it was some missionary cause, or the distress of a convent in 'Tongataboo,' we should find a readier response.

This is surprising. Teachers of Christianity appear to be ignorant that one practical lesson is worth a hundred theoretical ones - that by teaching their hearers how to perform one generous act, they do more good than by a dozen disquisitions on scriptural points. And, by the way, what a firm hold it would give them on the people. Let us hope to see a change - schools and chapels subscribing their pence, and the ministers taking for their text the urgency of the case at Gethin, and the claim the bereaved have on Christian charity. Now or never, also, is the time for the permanent fund to be raised, and towards this every one should give who has enjoyed the comforts of a fire-side." A week later the same newspaper gave details of more donations being diverted to the Gethin Fund: -

The Mayor of Devonport has forwarded to Merthyr, for the Gethin Relief Fund £72 10s. 3d. This was a collection originally intended for the Hartley Fund, but, as that had reached an amount greatly in excess of the estimated requirement, the Town Council of Devonport advised, and the contributors agreed, that it should be given to the Gethin Fund. Mr. J. A. Symonds, of Clifton House, Bristol, has desired his contribution to the Hartley Fund, to be transferred to the Gethin Fund. On Friday £220 was received from Bradford, Yorkshire, and £900 from the Bristol Committee of the Hartley Fund.

#### Mr. Elderton and the Gethin Fund.

The '*Merthyr Telegraph*' of 29th March 1862 gave news of a concert in London in aid of the above fund: - We had great pleasure last week in drawing the attention of our readers to the efforts of this gentleman on behalf of the Gethin sufferers. We continue to receive fresh proofs of his unflagging interest in the welfare of the people of this district, as also do we of that of his esteemed lady. Mrs. Elderton is a native of Glamorganshire, and was always popular with the poor of the district in which she formerly resided and as evidence of the deep sympathy which she entertains for the poorer classes of this county, we have only to

allude to the concert which is about to take place, under the most distinguished patronage, in London, in aid of the Relief fund. The idea of this scheme was hers, and she has laboured greatly as honorary secretary in the furtherance of her benevolent object. The music to be performed is first-class, and amongst the amateurs, who number upwards of sixty, are to be found such men as B. Frennd, Esq, nephew of the late Lord Gough, who will conduct the performances; Ellis Roberts, Esq., the famous harpist, well known to most of our readers; and many others of equal eminence in the musical world, so we may fairly presume that a concert got up on such a grand scale, and springing from a voluntary and generous motive, will produce a handsome offering to the Relief Committee. Should any of our readers have friends in London, we should strongly recommend them to call their attention to this concert, which will be worthy of their support as far as regards quality of music and the object for which it is to be given. (This concert eventually raised £80 for the Gethin Fund).

#### Aberdare do little for Gethin Fund

The fact that Aberdare has done little or nothing for the above benevolent cause has excited much surprise. (Wrote the *'Aberdare Times'* of 12<sup>th</sup> April 1862). "We have been told that a list which has been lying for some weeks at one off the banks in the town has attracted very little notice and there has been no public meeting held in the parish in relation to the fund if we except the meeting held in a chapel at Aberaman, a few days ago, nothing hardly has been said or done in the vicinity to indicate the existence of that liberal and sympathetic feeling, which so many neighbouring and distant towns have given such substantial proof of.

"Fiery Aberdare," dotted as it is with pits, levels, furnaces, forges, and mills, should be the last to turn the cold shoulder to the widows and orphans. The Collier, and everything that pertains to his existence and death, ought to be looked upon with a feeling of deeper interest in this valley than almost any portion of South Wales. Aberdare is predominantly a coal producing district, and the interests of the whole community are hinged upon the perilous labours of the collier. Why,

then, in the name of Charity - in the name of duty - has there not been an attempt made to get up a respectable subscription? We have heard it remarked that "Merthyr never made any effort to aid the sufferings of Aberdare, and why should the latter now help the former?" None but a selfish mind could entertain such an argument. Has Merthyr ever assisted Bristol or London, or any of the many towns of less importance, by whose liberal gifts the Gethin fund has swelled into its present magnitude? She has not, probably, but the hand of charity has been stretched out towards her in the hour of need notwithstanding.

The fact is, the cause is a national one. The duty of relieving the poor widows and orphans of the unfortunate colliers killed in the Gethin pit is as much a national duty as anything we can conceive. We subscribed handsomely, like good citizens of a good country, towards the relief of the widows and orphans of Crimean heroes, and why should a niggard spirit be shown towards the near ones and dear ones left behind by the heroes of the Gethin pit ?

The soldier guards our common country from the ruthless invader and, perchance, when duty calls, he offers up his life on some distant shrine for England, home, and beauty! But does not the collier every day of his monotonous life dare perils second only to the dangers of the battle field, and all because coal is a necessity, both in relation to our comfort as a people, and our prosperity as a nation? Moreover, the perils of the soldier are adventitious, but these of the collier are of a never-ceasing kind. Arouse you, then, wealthy proprietors of the Aberdare valley and bestir yourselves, good men of rich and busy Aberdare." However, help for the fund was on the way: -

#### Hartley contribute – Gethin Fund target met

The '*Aberdare Times*' of 5th April commented: - "We have great pleasure in stating that the Gethin Fund now amounts to £6000., the sum which is believed will about meet the necessities of the case. Up till the 27th ult. the prospects were not very sanguine, but on Friday £220 were received from Bradford, Yorkshire, and in the evening a telegram was received from Bristol to the effect that after a long discussion the Hartley Fund

Committee of that town had voted £900 of the fund to be given to Merthyr. Well done Bristol." Meanwhile, the '*Cardiff Times*,' of 4<sup>th</sup> April 1862 carried this sad story: -

### An episode of Gethin

Individual suffering has been lost sight of to a great extent in the contemplation of the whole saddening picture of horror at the Gethin Colliery, but now that the event is looming in the background of the past, and as fast as time can flee we are hurrying on, one by one come forth the details and incidents which collectively formed the great calamity. Amongst the sufferers there were few whose loss has been so deplored as that of Samuel Jones, the overman. He was a pattern young man, steady, sober, industrious. Step by step he had arisen to the trusted position he held, and by all, from Mr. Crawshay to Mr. Moody, and from the viewer to the men, he was held in high regard. He was emphatically a man to be trusted, a man that could be depended upon; always at his post, and his hand ever ready to help. He was the sole support of a widowed mother, and with her he lived. He had two little boys, but the wife who should have occupied the other side of the hearth, and have been the one to welcome him with a kind word and smile after the labours of the day, and assist him with the education of their children, was not there, neither was she dead.

Poor Samuel's married life had proved unhappy, and he turned away his face from the one who bore his name, to console and guard the poor old woman his mother. The description of his life, given to us this week, was most touching. He never spent his evenings in the public house, but at his fireside, teaching the little children to the best of his ability, striving to fit them, both by precept and example, for the life before them. The fatal night came, and he did not return home. One of his boys comforted the poor old woman, and said "He will be sure to come, he is helping them," but he never more came home, save on a plank - dead. "Ah, me," said the poor woman, as she related this, he was a good boy, a good son. I should scrape the earth from his face if it would only bring him back again."

## Colliers go to law

At the end of April 1862 some Gethin Colliery colliers applied to the Merthyr County Court for its opinion upon the following matter: - Gas having been discovered in the Yard vein of the Upper Gethin Colliery, the naked lights, which the colliers have been in the habit of using, were discontinued, and safety lamps introduced to this part of the workings yesterday. The wages earned by each man would be between 3s. and 4s. per week less with the lamp than with the naked light; what were they to do to counterbalance the loss they would sustain by the change? It was the opinion of the men that they ought to have received a month's notice of the change.

The Court said the men could do nothing more than give a month's notice and leave, or make fresh arrangements. The alteration, although sudden and without notice, was in conformity with the special regulations concerning safety lamps, which were part of the law which would be enforced by the Crown. If there had been the least advantage for the working men, the Court would gladly exert themselves to put the workmen in possession thereof, but in the present instance the law was wholly on the side of the master, and no other course remained open to the men than the one pointed out. The same week: -

### Another explosion at the Gethin Pit

The merest accident - a man working with a naked candle in the Yard seam, No. 2, Gethin Pit, on Tuesday, instead of using a lamp, and we should have been under the painful necessity of recording another dire catastrophe as terrible, if not more so, than the one which lately raised a nation's regret, and awakened their hearts generosity.

It would appear that on Tuesday morning a fall took place in the Yard seam, the rubbish falling to the four-foot vein. From the fissures expelled, in all probability by the fall, the gas issued to the workings; but happily, as the demon came on towards the one faint light burning by a toiling collier, it encountered, not pliant flame, but tangle wires, and thus the explosion was confined to a feeble flash, and neither man nor boy



was injured. A great many men were working in the pit at the time, but thanks to the foresight of using safety lamps, a catastrophe was prevented.

### **The Gethin Accident Fund - donations closed**

The *Times*, Saturday, 17<sup>th</sup> May 1862

To the editor of 'The *Times*.'

Sir, Large sums have passed through my hands to the credit of the above fund, and that entirely owing to your kindness. You will therefore greatly oblige me if you allow me to return my best thanks to all those who so kindly and trustingly with their donations. They will, I am sure, be glad to hear that the fund is now closed. It was so decided at our committee meeting last night. The sum contributed amounts to £7,300, and is sufficient to meet every want of the sufferers. It is another great instance of public sympathy and charity, being no less than £1,300 more than the sum I ventured to name in my first letter to you. Thank you very sincerely, I beg to remain your grateful servant. John Griffith, Rector of Merthyr Tydfil, Gwaelod y Garth, Merthyr Tydfil, May 15<sup>th</sup>, 1862.

With the Relief Fund now closed, the final act of the Gethin explosion of 1862 would take place in the court room when John Moody would face the charge of manslaughter: -

#### Distressing Case

For some working in the coal industry death was never-ending. The '*Merthyr Telegraph*' of 24th May 1862 carried the following story: -

An accident attended with fatal results occurred on Saturday last to a collier named Samuel Williams, 56, Heolgerrig. It appears that deceased worked in Jenkin Jenkins's level, at Gellydeg, and on the day in question had fired a blast and gone to see the effects of it when a large stone, supposed to have been loosened by the shock of the explosion, fell from the roof upon him, and so injured him that before it could be removed the unfortunate miner was dead.

An inquest was held on the body at the Six Bells, at which a son of deceased, aged 11 years, who beheld the sad mishap which deprived him of a father, deposed that he lost a brother, 32 years of age, at the Gethin explosion, and since the family had lost his support in consequence of his father being at times very unwell and unable to follow his labours they had got into difficulties, and an execution which was levied upon their small property, took away their cow and all their goods which were sold under a County Court warrant. The widow was now left with three children, the eldest being only 11 years old. The jury returned a verdict of Accidental death. [We think this is a case which recommends itself to the charity of the public. We think it a pity that there is no fund for the relief of distress caused by those sad misfortunes.]



**Mr. T. P. Moody General Manager (or viewer)  
of the Gethin Collieries in 1862 & 1865**

## Chapter five

### The Cardiff Summer Assizes 18<sup>th</sup> July 1862

(John Moody before the High Sheriff, Mr. Baron Channell and a Grand Jury)

Though there were many cases in the calendar, there was only one case which called for any instructions from the judge to the jury. That one case which he thought it necessary to pointedly call their attention was the case of John Moody, admitted to bail, charged with the manslaughter of Samuel Jones, at Merthyr. This case was connected with the lamentable accident at a coal mine which had attracted a great deal of public attention, viz., the Gethin Colliery. It appeared according to the evidence of miners, and the government inspector who was sent down after the accident, and who was also assisted by a gentleman of great intelligence and experience - that there were clear traces of an explosion in the mine, which began according to the judgment of the inspector, at a place which he would describe by and bye, and that that was quickly followed by several other explosions, but smaller in their character and probably as far as the latter were concerned they were attributable to the first violent explosion.

It would appear from the evidence before him that no less than 20 deaths arose from that explosion but beyond that there were 27 other persons whose lives were lost, and whose deaths were attributed not directly but consequently upon it — deaths from suffocation for want of proper ventilation in the case of accident. He did not gather from the evidence that the mine was considered not properly ventilated for ordinary purposes, but that it was not ventilated as sufficiently as it might have been to prevent any accident.

The prisoner was described as the viewer of this mine, and his duty seemed to be in many respects described and defined. It would be important if the indictment sent up to them should exactly tally in describing the offence as it was stated in the coroner's warrant, so as to distinguish between the deaths from the explosion and from suffocation. He was calling their attention to these circumstances, in order that they

might give them that weight they thought proper, because after all it might be possible that the petty jury would more especially have to deal with them when the whole case came to be fully investigated. It might be that they (the grand jury) would consider the prisoner was responsible for some breach of duty in respect of that want of ventilation which was said to have occasioned the death by suffocation of many others.

In this particular case the prisoner was charged with killing and slaying Samuel Jones; and according to the evidence he must have met his death by the direct consequences of the explosion, for he appeared to have been considerably burned. But whilst in considering this particular case, they would see that the deceased person met his death in consequence of the explosion, he was not sure whether bills would not be sent up in respect of those deaths which resulted from suffocation and therefore it might be desirable to take a wider view of the matter than if they were confined to the case of Samuel Jones. Now the government and management of mines of this description was placed under the provisions of an Act of Parliament the 23rd 24th Vic., c. 151, which statute contains certain regulations to be observed in the management of mines.

The important regulations in that statute would be contained in some rules that would be submitted to them for their consideration. Those rules that were taken from the Act of Parliament were described general rules. But besides those general rules, some special rules had been provided for the management of the particular mine in which this accident occurred, and the duties of the parties would, in the matter, have to be collected from the general and special rules and it would be found that in many instances the rules were provided with particular reference, to the special duties of officers belonging to this mine.

By the Act of Parliament it was provided that an adequate amount of ventilation should be supplied to all coal mines, so as to dilute and render harmless all noxious gases in the levels, working places, and travelling roads, so that under all ordinary circumstances - he called their attention to these words - they might be in a fit state for the working and passing therein.



**The present day site of the No.1 pit with the A470 slip road in the background (Photo courtesy of Philip Lewis)**

This kind of property was liable to accident, with all the care and attention which the most skilful might bestow. In the general rules it was provided that such and such things should be provided, in order to procure such a state of things in the working and travelling places of the mine as that, under ordinary circumstances, they should be in a fit state for the men working and passing therein. They now came to a series of special rules. The party who had to take his trial had been employed eight years in this mine. There were two rules which would require their especial attention - the first and fifth. By the first it was stipulated that the viewer should be responsible for and have the charge and direction of the mine, and for the persons employed in and about the same. By the fifth rule he is to lay out the ventilation of the mine, and make due provision for effecting ventilation in a proper manner. By the sixth rule he is to direct the place where and the manner in which lights are to be used.

The first and fifth rules would be found important, and the sixth not unimportant. Then there were rules which provided for the government of the overman and firemen, and also for the government of the master and other persons. He did not propose to read those rules at length, he was only about to call their attention to the fact that the Government Inspector, upon, an inspection of the mine, came to the conclusion that rules 16,18,24,34, and 37 had not been complied with. But it must be observed that these were not rules which dictated what should be the conduct of the viewer. Rules 16 and 18 related to the duties of overman, and if he neglected those rules, and thereby caused this accident, of course the prisoner would not be responsible.

Other rules related to the fire-men, and inasmuch as the neglect of those rules could not be attributable to the prisoner, though it might be attributable to another person, the prisoner would not be responsible. The 37th rule related to the masters. There was great reason to believe that those rules, if not properly attended to, might lead to an accident, and though they did not all together exculpate the prisoner, it might be he ought to have a general supervision, which might be held consistently with the idea that he was not responsible for the neglect of others, yet that he might be responsible for some amount of neglect.

However, these were all circumstances of great importance, which they would take into consideration in dealing with the whole of this case.

Now, according to the evidence of the firemen, and the government inspector, and the gentleman by whom he was assisted, it would appear that the explosion took place in the cross-heading, known as No. 19, and extended along the level between 12 and 13. The inspector believed there must have been other explosions in quick succession; and he afterwards removed the impression thrown out by some other parties, that the explosion had taken place in another heading than that which he had named. So much with regard to the origin of the explosion.

Then the government inspector went on to state that in his judgment the gas fired at some naked light, for naked lights were in general use. It would appear that safety lamps were used but there were naked lights also, and it would seem from some cause that gas in a larger quantity than should have been the case had been generated and in its passage along it came into contact with these naked lights, and that led to the explosion. With regard to the ventilation, the Government Inspector seemed to be of opinion that in order to meet casualties such as that which occurred, there was not a proper distribution of the air, or if so it was not well arranged. He said, he did not think the air was well arranged. It was too nearly balanced, and was not sufficient for the ordinary circumstances which might arise, and he thought the air used for ventilation in any part of the colliery ought not to pass the naked light of any man.

Then again the inspector referred to the ventilation of headings with a distinct current of air, and said he did not like the system of mixed lights, recommending that in future safety-lamps be used and the use of powder discontinued. The inspector was of opinion that a separate intake would not be necessary, but it was desirable that the return airway should be of larger dimensions in order to secure that ventilation which would ameliorate the condition of the mine. If a different system of ventilation had been adopted — but the witnesses did not all recommend the same alterations — they were of opinion that those

twenty-seven which were lost through suffocation might have been spared.

He (the learned Judge) thought it was well that such an inspection of this mine had taken place; but because a very skilful and a very intelligent person had had his attention called minutely to the matter, and had had his faculties and energies sharpened by what had occurred, might point out this and that method for the future, the fact that it had not been previously adopted was no proof of that culpable negligence; which involved a charge of manslaughter. It had been well said that it was very easy to be wise after the event. He would endeavour to explain the law as applicable to this case. At one time it was a matter of serious doubt whether or not the offence of manslaughter could be established by some omission of duty on the part of the individual charged. That point he conceived now to be clearly settled, that a case of manslaughter might be made out by showing neglect to do some act, as well as by neglect in the positive commission of some act.

But in the first place the offence must be attributed directly to either an act of omission or commission. In the next place, if negligence were imputed, there must be evidence to satisfy a jury that it was culpable negligence if not wilful neglect, there must be proof of gross and culpable negligence in the performance of duties in order to bring home the offence to the party charged. It was difficult to see that the explosion resulted directly from any personal neglect on the part of the prisoner. It might have been that there was a want of care and attention in the supervision of those duties which belonged to others as well as himself.

If there might have been culpable negligence on the part of others, they (the grand jury) would set whether or not it was such neglect as would make the prisoner responsible, though others had something to do with it. If the act had been the result of negligence on the part of the prisoner's subordinates, whose acts he could not be expected to control, and whose duties he was not called upon to superintend, he could not be responsible - it would be attributable to others.



But some doubt might arise as to the duty of the prisoner with respect to the lights. The lights might be considered as especially under the care of the firemen but there were duties put upon the viewer with respect to the lights, and the opinion of the government inspector seemed to be that when the gas generated it came into contact with one of the unprotected lights. If they were of the opinion that the explosion was the result of the prisoner's negligence and want of care, so as to involve him in culpable negligence, it would be their duty to find a bill against him.

If, on the other hand, they thought that from unavoidable and unaccountable circumstances, which did not involve him in the charge of negligence, this accident occurred, then they ought to throw out the bill. Another and more difficult question would arise when they came to deal with the deaths from suffocation. It might be a nice question whether the prisoner could be convicted for the deaths by suffocation, in not having ventilated the pit in a proper manner, as to meet the occasion. It might be that the ventilation was sufficient for the ordinary working of the mine, yet that there might have been a better method which would have obviated if not entirely prevented all the circumstances which led to the suffocation in this case. They would have to consider whether deaths were the result of any negligence on the part of the prisoner. He was not able to give them any more specific directions upon the point whether they should find a true bill or not. He had given them an outline of the duties of the prisoner, as far as he could recollect them, and such particulars of the way in which the accident arose as he could gather from the evidence. It was, indeed, a very lamentable thing that there should be such a loss of life.

### **The Gethin Colliery explosion - Acquittal of the manager**

The Bill of indictment against John Moody, the manager of the of the Cyfarthfa collieries, charging him with manslaughter in connection with the terrible explosion at the Gethin pit which took place a few months ago, was ignored by the grand jury, and on the accused being arraigned on the coroner's requisition, the learned judge intimated that it was usual for the court to follow the course of the grand jury in such cases,

and Mr. Moody was accordingly discharged. The verdict, however, was not universally agreed with. The '*Cardiff Times*,' of 25<sup>th</sup> July 1862 commented: -

### **Who is responsible for colliery explosions?**

Preventable causes are amongst the first things with which science now professes to deal. The researches of scientific men, in the several departments affecting the life and health of mankind, have been directed, and, we are told, with good effect too, to the prevention of disease and death. Hence it is that the laws of health have been elucidated for the benefit of those who live and move upon the surface of the earth, and more especially is this said to be the fact with regard to thousands of men who spend a large portion of their existence in underground labour. We are willing to allow that a great deal of what is said on behalf of science, in thus preventing disease and death, must be taken comparatively.

Still, we think it would be detracting greatly from the results which scientific investigations have produced, if it were to be insisted too strongly that the effects are only comparative. It seems to us that real advances have been made in the scientific knowledge of the day towards a substantial control of the laws of nature in respect of mining operations especially. It is that subject we have to deal with now, and therefore shall confine our remarks to that one topic. Assuming, then, for the purposes of our argument, that there are well-defined principles applicable to the healthy and safe ventilation of coal mines, how does it happen that in scarcely any instance is it possible to bring home a charge of negligence - either by acts of omission or commission when a fatal explosion occurs?

Last week we published in extensor the elaborate charge by Mr. Baron Channell to the grand jury on the recent calamity at the Gethin Colliery. His Lordship's observations were founded on the charge brought against Mr. John Moody, the manager of that colliery. It will be remembered that twenty poor fellows were killed by the explosion, and that twenty-seven more were suffocated in consequence of the explosion; making

forty-seven sufferers in all. The coroner's jury returned a verdict of Manslaughter against Mr. Moody, and two indictments were framed, and were the subject of inquiry by the grand jury at the assizes just held. We have no doubt that the learned Judge's observations have been carefully read by the public in this district, and perhaps there is a general feeling, as we have felt, how difficult it is, judging from the tenor of those remarks, to apply the law in respect of manslaughter to a person charged with having negligently caused the deaths of a number of men under circumstances so appalling as those which were recorded by us when the Gethin explosion occurred.

His Lordship was quite right when he said, "It is easy to be wise after the event." But even that trite remark must be taken with a qualification. We are dealing with a question about which the tutored mind professes a good deal of knowledge; and we remember that a day or two after the explosion, Mr. Crawshay wrote a letter in the Times, stating that he had spared no expense in rendering his collieries as safe as possible. Now, what are the leading topics which the coroner's inquiry suggested for consideration and elucidation, and which led Mr. Baron Channell to take such pains in presenting to the jury? The government inspector for this district, and the able gentleman who was sent down to assist at the investigation, brought out a variety of questions bearing upon the safe ventilation of this colliery - the whole of which, we assume, had their basis in those scientific results which have been arrived at by competent men, and to secure which Mr. Crawshay stated that he had paid large sums of money.

Prominent amongst those questions which were stated, and which were succinctly presented by the learned Judge in his charge to the grand jury, was that point, which we think is no longer a moot point, viz., whether Mr. Moody was justified in permitting mixed lights? It was proved at the inquest that there were some peculiarities in the atmosphere about the time of the explosion, which had an effect upon the ventilation of the mine. But it may be asked whether that was a novelty? Was it a condition that had never been observed before? Certainly not. Witness the Cymmer fatality in the summer of 1856, and the Risca in the winter of 1860. Without alluding to particular instances, we are clearly of

opinion that the science of ventilation has gone sufficiently far to warrant the non-scientific in expecting that such a contingency would be provided for by those who are supposed to be qualified for the onerous position of conducting mining operations.

Hence the question arises, was it a proof of good management that mixed lights should have been used in this mine? Who is so proper to look after a matter of that kind as the viewer? The learned Judge seemed to feel there was something in that suggestion, but perhaps he did not think it was sufficient in itself to sustain an indictment for manslaughter. There is, however, this obvious remark. If the question has to be decided whether the manager of a colliery should incur the responsibility of working with naked lights, we have very little difficulty in coming to the conclusion that the untutored fireman is not the individual to give the opinion. It is consonant with common sense, whether provided for in the special rules or not, that the man whose talent is paid for, in order that human life may be as safe as human knowledge and foresight can make it, is most reasonably responsible for such an omission or commission.

Far be it from us to press any argument unduly against individuals. We are now dealing with a serious question, and it is because of the position which Mr. Moody occupies in relation to the Gethin Colliery that we have used his name. We are dealing with the head man of the concern, and it is a question of the most serious import to the thousands of men who are employed in collieries, that there should be no failure of justice where a party really is culpable. We do not say that Mr. Moody is culpable but the question naturally arises, if he is not, who is? Is it true that circumstances which we believe were not special or extraordinary, could not be met by intellect which has been tutored and prepared for the purpose of dealing even with the subtle workings of gas in a coal mine? Some may be inclined to say we are pushing the doctrine of second causes too far. We have no desire to do so, because we have a strong opinion that divine providence does not effect what man is able to do for himself. Hence the skill which man possesses to apply his acquirements for the purpose of diluting and rendering harmless those noxious gases which are generated in coal mines.

That is the basis of legislation for the ventilation of coalmines and the basis has been taken because the legislature has a belief in the doctrine that God does not do that which man may do for himself. We join the learned Judge in the opinion which he expressed as to the benefit to be delved by survivors by investigations such as that which followed the Gethin Colliery. So far very good; but we question very much whether it is satisfactory to have a more legal inquiry stopped by gentlemen with closed doors. Would it not have been more satisfactory to the public if the real legal position of this question had been fully elucidated in open court? We give the grand jury credit for having gone fully into the matter, but we doubt very much whether they would not have acted more wisely by letting the whole case come out before the petty jury, that it might be seen where the defects of the system, so far as this colliery is concerned, really were. Before a judge that could have been sustained better than before a coroner, and therefore, in our judgment, a proper opportunity for arriving at the truth has been lost.

### **Recklessness of colliers**

It would seem that no calamity is sufficient to deter colliers from the dangerous habit of smoking underground. (Reported the *'Aberdare Times'* of 9<sup>th</sup> August 1862). The late terrible explosion at Gethin was supposed to have been caused by this practice, and notwithstanding the recent occurrence of that sad catastrophe the men have not been deterred from the dangerous habit. Mr. John Moody, the manager of the Cyfarthfa mines, preferred a charge before the magistrates at Merthyr on Saturday, against Thomas Evans, a collier, for infringing the special rules by smoking at his work in the Gethin pit. Had there been any accumulation of gas he might have occasioned another calamity as extensive as the last. He had drawn the light through the gauze of the safety-lamp, which had been locked at six o'clock in the morning, but was open when Mr. Moody saw him. Mr. Fowler, addressing Evans, said there was no excuse for as glaring an infringement of very necessary rules for the protection of works and workmen. As he had chosen to indulge himself at such risk, he must take the consequences, and be imprisoned in the Swansea House of Correction for ten days with hard

labour. The *'Merthyr Telegraph'* of 27<sup>th</sup> December 1862 brought the year and the story of the 1862 Gethin disaster to its finish with this review: -

### **A Merry Christmas and a happy New Year**

The whole of Christmas is not yet past, so we combine the partially past and future and say to one and all our readers, "A merry Christmas and a Happy New Year to you." Old Scrooge was not more earnest and hearty, after he had seen the ghost which converted him from a wretched miser into a kind and generous man, in wishing well at Christmas time to all human beings, than are we in pouring out our benedictions, especially upon the enlightened readers of the *'Merthyr Telegraph'*. We give you a hearty greeting as you sit in cosy companies at your bright firesides, discussing-not our merits, or the weak points in your neighbour's character - but the rich bounties with which your tables groan. Enjoy yourselves, dear friends, to the full, our entrance among you at this season is not that of a censor, but of a real well-wisher. Your firesides cannot be more inviting, your provisions more ample, your friends more numerous or true, "or your enjoyments more complete, than we desire them to be." Though the past year has been one of depressed trade and severe trial in our town, and throughout this populous district, we trust that all our neighbours will be able to enjoy, within the bounds of moderation every "good cheer."

Writing for the last number of the Telegraph, in 1862, reminds us of what the year has been to us in this district. We are sorry that the picture is such a sombre one. We would that there were more sunlight and less cloud about it. But, such as it is, we present it with the single reflection, that it is not well even in our moments of pleasure to be unmindful of the past, however sad the recollection. We commenced the year 1862 with depressed trade and low wages. The masters had to struggle with difficulties of no trivial character, and the men were forced to bear part of the burden. Poverty, already too near, was made to form a more intimate acquaintance with our vast and hard-worked population. Never shall we forget the sights and tales of poverty in Merthyr during the past year. We admire the intelligent patience with which, as a class, the

**THEATRE  ROYAL,  
SWANSEA.**

The GENTRY and INHABITANTS of SWANSEA are respectfully  
informed that the

**SWANSEA**

**Gentlemen Amateurs**

Have kindly consented to give their First Performance

**BENEFIT**

and in aid of the Funds for the relief of the

**WIDOWS, ORPHANS & AGED PARENTS**

Of the men who lost their lives in the late Explosion at

**GETHIN COLLIERY**

On **FRIDAY EVENING, MARCH 7,**

Advertisement of a charity night in Swansea to raise money for those left in distress from the 1862 Gethin disaster, scenes replicated in theatres throughout the country.

## GETHIN (MERTHYR TYDFIL) RELIEF FUND.

At a meeting of the Committee held on the 14<sup>th</sup> inst, the Secretary announced that the subscriptions amounted to £7,309. It was resolved unanimously, that the list be now closed. It was also resolved that should any further subscriptions be sent in they should go to form a Local Fund for the relief of accidents in mines and collieries. The subscriptions having reached an amount sufficient for the purpose intended, the Committee beg to tender their warmest thanks to the public for their ample and liberal contributions (Signed) J. D. THOMAS, chairman.

Those subscribers who have not already sent in their contributions are respectfully requested to remit them to the Hon. Sec., Mr. Thomas Stephens, as soon as possible. Subscriptions received since last Advertisement: -

|   | £      | s    | d    |
|---|--------|------|------|
| John Rawlinson “ “ “ “                                | £5     | 0    | 0    |
| Rev. Mr. Wall, Torquay “ “ “                          | £1     | 0    | 0    |
| National School, Alton, Hants. “ “ “                  | 0      | 7    | 0    |
| Ashby Primitive Methodist School “ “ “                | 0      | 11   | 0    |
| Miss Lewis, Llandilo “ “ “                            | 0      | 2    | 6    |
| Mr. W. Davies, sculptor, London “ “ “                 | 1      | 0    | 0    |
| Mr. D. Davies, Student “ “ “                          | 0      | 5    | 0    |
| A. Harris & Co; Newcastle “ “ “                       | 2      | 2    | 0    |
| Friends at Ryton, per Rev. Mr. Whinfield. “ “ “       | 16     | 6    |      |
| Town Council, Wrexham “ “ “                           | 31     | 18   | 8    |
| Mr. Nanson Walters, London “ “ “                      | 1      | 0    | 0    |
| Robert Henly, Brighton “ “ “                          | 2      | 0    | 0    |
| Mr. Henry Wilkins “ “ “                               | 1      | 0    | 0    |
| H. H. and S. Badgett, Bristol, per Mr. Thom. Phillips | 10     | 0    | 0    |
| Temple Boys Parish School, Bristol “ “ “              | 5      | 0    | 0    |
| Subscriptions received by local committee “ “ “       | £5,131 | 8    | 9    |
| <br>  |        |      |      |
| Subs. through Lord Mayor of London                    | £1,207 | 15   | 2    |
| Less expenses   | £69    | 17   | 7    |
| Total   | £1,137 | 17   | 7    |
| Nine-sixteenths of the Bristol Hartley Fund           | £861   | 17   | 10   |
| Amounts diverted to the Gethin Fund 53 17 7           | Total  | £915 | 17 4 |
| Subscriptions unpaid                                  | £124   | 5    | 6    |
| <br>  |        |      |      |
| Total amount of subscriptions                         | £7,309 | 8s   | 4d   |

When the relief Fund for the 1862 Gethin Colliery disaster closed in May 1862 a grand total of just over £7,300 had been raised, including £861 from the Hartley Disaster Fund raised at Bristol.



working-men of our town and the iron districts of South Wales generally have borne their sufferings. "Misfortunes never come singly," is an old and oft illustrated proverb - one that has been proved terribly true in Merthyr, since the beginning of 1862. In February, on a cold murky afternoon, there came tidings, from Gethin, of an explosion, and gradually the awful character of the calamity was revealed to us.

We have no wish to go into the details of this the most fearful accident which has ever occurred in this neighbourhood; but we cannot help alluding to the prompt and noble efforts by which the pecuniary need was amply met. From every side the most generous response was made to the appeal issued by the Relief Committee, so that there is abundant provision for every one bereft by the Gethin accident. We beg to tender our thanks to the Committee, the members of which deserve the warmest gratitude, not only of the sufferers and colliers of Merthyr, but of the general public, for their earnest, self-denying, and successful labours.

### **May 1863** **The Gethin Relief Fund - First Annual Meeting**

The first annual meeting of the committee who manage the fund was held last week (wrote the '*Cardiff Times*' of 23<sup>rd</sup> May 1863) when the Hon. Secretary, Mr. Stephens, read the following report: - The terrible explosion at the Gethin coal pit, the only great catastrophe that has occurred in the parish of Merthyr Tydfil, is probably too deeply impressed upon the public memory to render it necessary for us to do more than recall the facts, that it occurred on the 19th February, 1862, that it caused the death of 49 persons, and bereft of their natural protectors 28 widows and 60 children. A committee was formed to provide for the wants of those who were thus suddenly left destitute, and a generous public placed at their disposal a considerably larger amount than they had ventured to name. They asked for £5,000 or £6,000, and received £7,528 16s. 10d. Of that sum £6,000 has been invested in India 5 per cents (shares), bought at a premium of 8¼ per cent., and the remainder, lodged in the Merthyr Old Bank, was retained for current requirements.

In ministering to the wants of the widows and orphans whom they had thus taken under their care, the committee resolved to pay out the relief weekly. By the kind permission of the magistrates they were allowed the use of the Police-court every Thursday morning for this purpose, and the relief, as nearly as circumstances permitted, was distributed in the following proportions: - To the widows under 60 years of age, 6s. per week; to the widows above 60, 8s. per week; to widows with one child (under 14 years) 8s. per week; to widows with two children (under 14 years) 10s. per week; to widows with three children (under 14 years) 12s. per week; to widows with four children (under 14, years) 13s. 6d. per week. Smaller allowances of 1s. 6d., 2s. 6d., 3s., and 5s. a-week have been given to sickly and aged parents who had lost sons on whom they were partially dependent.

Donations of £1, £2, and £3 have been given for funeral expenses, and temporary allowances during illness were made to Thomas Thomas and his son, the two survivors of the explosion. There have been, in the course of the year, four deaths amongst the children, and one birth. The numbers now on the pay list are: - Five widows (having no children) under 60 years; five widows (having no children) above 60 years; five widows with one child under 14 years; three widows with two children; seven with three children; two with four; one orphan; and seven sickly or aged families.

The weekly payments have fluctuated considerably, but for the last four months they have been fixed at £14 0s. 6d. The payments in the first quarter amounted to £148 1s. 6d; in the second, to £178 2s. 6d; in the third, to £181 9s. 6d.; and in the fourth, ending Feb. 19th, 1863, to £183 8s. ; total, £691 11s 6d.

The donations in the course of the year amounted to £34; and both items amounted to £725 11s. 6d. In the current quarter also, eleven weekly payments have been made, amounting in the aggregate to £154 5s. 6d. The balance now in the hands of the treasurer is £232 19s. 1d. Another instalment of interest on the sum invested will become due July 5th, being in amount £144 7s. 6d., and with this addition, we shall be able to continue the weekly payment until the end of October. The committee

passed a resolution, awarding twenty guineas to the Hon. Secretary for his services during the past year, but he declined to accept the money. A cordial vote of thanks was then presented to Mr. Stephens, and also to Mr. Superintendent Wrenn for the efficient help he gave at the time of the sad accident at Gethin.

### **The Inspect of Mines report for 1862 – Published August 1863**

A good year?

The supervision of the Government Inspectors of Mines has been attended with results which were not looked for. Its main object was the protection of the lives and health of the men engaged in coal and iron mines, and it has accomplished that object to a very great extent, and in doing so it has led to a remarkable improvement in the working of collieries. This is perceptible to all who knew the mining districts of the country twenty years ago and who know them now. The underground workings and the approaches to them are properly done, affording security to the miner from accident, and at the same time giving him sufficient pure air to sustain the healthy action of the body, so that the once perilous occupation of coal mining is not attended with greater danger than the ordinary labour of men in factories, the workshop, or the field. It is true that many accidents do occur, but they are mostly traceable to carelessness or the neglect of common precaution.

And, besides, it must not be supposed that all has been done that is desirable. We rather regard the improvement which has taken place as an evidence of what can be done by strictly enforcing the regulations which every colliery proprietor is bound to carry out. The Inspectors' reports for 1862 are on the whole satisfactory, although they tell a sad tale of deaths, amounting to 1,133 against 943 in the preceding year. This, however, is accounted for by the terrible accidents at the Hartley New Pit; in January at Gethin; and at Edmund's Main Colliery in December.

The deaths at Hartley were 204, at Gethin 50, and at Edmund's 59. With the exception of these, the average deaths from each separate accident was 1.11, only 820 deaths having resulted from 735 accidents. The

explosions of fire damp were six less than the preceding year, but the deaths arising from them were 190 against 119. The accidents from falls were less than former years, both in number and fatality. There is no point of special interest in any of the reports, and we have only to hope that colliery proprietors will throw no obstacle in the way of any improvement for the security and the health of the men engaged in our coal mines.

### **The Gethin Fund**

For several years the Gethin Fund would support those in need from the 1862 explosion. The '*Merthyr Telegraph*,' of 17th March 1866 reported: - The annual meeting of the managers of the Gethin Fund took place on Wednesday evening last at the Police Station. The attendance of members was small. The following report sets forth the proceedings of the years Annual Report.

The Managers of this fund, in presenting their annual account, beg to recall the principal incidents which have affected it during the past year. In the early part of the year a woman, named Elizabeth Phillips, died, but as the husband is living and the allowance given her was only granted for a definite period, no payment was made for funeral expenses. In April a young widow, named Gwenny Evans having no children, was re-married, and a donation of £13, equal to her pay for 12 months, was given her to emigrate to America on her releasing the fund from all further claim. In May five cases of small weekly allowances, amounting in the aggregate to 14s. 6d., were ordered to be discontinued.

In August a widow, named Margaret Rees died and £2 was allowed for funeral expenses. About the same time an application was made by an old man at Laugharne, named John Rees, for some allowance on account of the loss of his son, Lewis Rees, who had been killed at Gethin. Donations amounting in all to £3 had been given previously, now another donation of £5 was given, with an intention that it was to be final. The money was sent to the clergyman of the parish, with instructions to invest it in the Post Office Savings' Bank, and to be payable in small sums as required. Two widows were re-married in July and November, and

both cases were treated in accordance with the same rate, i.e., the relief to the widows was discontinued, but the children were still kept on the list of recipients, and the pay, on their accounts, increased.

A few changes were made in the accounts of relief paid. In two cases they were reduced from 12s. a week to 10s.; and in one from 13s. 6d. to 12; in two other cases the relief was advanced from 6s. and 7s. to 8s. each and in one case, on account of a bad hand, a temporary advance was given of 2s. 6d. a week for two months. An estimate has been made of the probable duration of the fund. At the present rate of expenditure it will last ten years, or until the end of July, 1876.

The probability is that the weekly expenditure will yearly decrease, and that the fund will last still longer; but there is no existing data on which to found a more exact calculation. It will, however, be desirable to use as much economy as possible, as most of the widows will certainly survive to the end of that time, and be in still greater need of relief. It was arranged to have the annual inspection of the widows and orphans on the 29th inst., at the Police Station, at 5 p.m. The secretary reported that in the month of August it would be necessary to sell our stock to the amount of £250 to carry them through the later part of the year; but as this was not an immediate necessity no further steps were taken in the matter.

And so the 1862 Gethin Colliery explosion faded into history, payments to those left behind continued for years, though widows who remarried would have their payments stopped. After such a catastrophe surely things would improve, but three years later another terrible explosion would claim the lives of another 34 men and boys. But that, as they say, is another story.

**The**  
**Gethin Colliery Explosion**  
(Upper No. 2 Pit)  
**1865**

**Chapter one**  
**Frightful explosion of firedamp at Upper Gethin Colliery**  
34 men and boys killed and twenty injured

**Wednesday, December 20<sup>th</sup> 1865**

For the second time in its history Merthyr has been overtaken by a tremendous disaster – a disaster so overwhelming that we hardly know how to properly describe it. (Wrote the *'Merthyr Express'* of 23<sup>rd</sup> December 1865). The demon of the pit has broken loose again and a holocaust of victims has been swallowed up – by one murderous swoop 34 souls have been swept into eternity, and 20 other persons have been more or less seriously injured. Had these deaths been distributed over a period of half as many months probably they would excited very little notice and with the verdict of the coroner's jury would have glided peacefully into the oblivion of a thousand singular fatalities; but coming upon us in a mass we felt the weight of the blow and are staggered thereby.

Thirty-four men and boys killed do not represent simply the blotting of 34 independent existences. Not simply the loss of 34 valuable servants to an employer, or 34 subjects of the Queen, noble sons of toil by whose labours fortunes are created for a favoured few, and prosperity brought to the nation at large. It is not simply the muster role of the parish is some 34 less than it was on Tuesday last.

Thirty-four homes are rendered desolate and twice-thirty persons have been bereaved – most of them of the mainstay of the little world they loved to call their own; here a wife has lost a husband, children their father, here a mother's son, and in another place the equally tender relationship of sister and brother has been cruelly snapped asunder by the dreadful fire fiend of the pit.

In all these devastated homes there is misery, and the whole present a fearful aggregate of human suffering and woe, such as one cannot contemplate for a single moment without sharing the anguish of the friends of the hapless band, and feeling a deep sense of the awful void that has been created – the utterly irreparable loss that has been

sustained. A damaged pit can be repaired, lost capital recovered, but who can restore to their wonted places those brave hearts that died those horrible deaths in the mine? Who shall compensate the young widow for the loss of her husband? What recompense can be offered a mother for the loss of her darling boy? It would be only an insult to their feelings and add to their already too poignant grief to suggest that anything we can do will go further than to ameliorate their wretched condition.

We can sympathise with the bereaved – we do sympathise with them – and we dare say there is not a man or woman in this Kingdom who will not echo these sentiments when the grievous story of their distress is read. But to place them in the position they occupied a week ago is beyond mortal power. When the prospect before them as far as that which most people in their sphere of life can look out upon, and they look forward, no doubt, to a merry Christmas; for although times are not now what they have been, they are what we may fairly call prosperous, and Christmas in 1865 would find most of our workmen's houses with something in their cupboards wherewith to make merry, but now their hopes are blighted and their anticipations blown to the winds. To them it is the saddest time of the year – the bitterest moment of their lives – and we cannot help feeling that the deplorable calamity having come so near to Christmas renders it more intensely afflicting – it is a cup of woe that must smash the Christmas joys of all of us.

We had hoped to greet our thousands of readers with an old and familiar salutation, but to wish them a merry Christmas under these heartrending circumstances would be mere mockery. We cannot cry peace when there is no peace, nor can we say make merry when the whole time is filled with lamentations over the loss of so many precious lives. It too stupendous a catastrophe for the effects to be confined to those directly concerned – they are felt by the whole community of Merthyr, and the tale of death will be read with sympathetic emotions in nearly every home in the land. One cruel stroke of misfortune has deprived these poor people of their all – husband, father, son, brother – all are gone – one here and two there, with merciless rigour the hand of death has snatched them from the family circles which hung upon them.



We hardly know which to commiserate most – the hapless colliers, whose lives have been terminated with such awful suddenness and violence, or their relatives who have been almost paralysed by the heavy misfortune that has overtaken them. The former endured its brief but mortal agony, and then their suffering ended; but the others – ah! they have suffered the hope, and the fear, and the sorrow, all the aching of heart, the restless unsatisfied longing, all the deep pain and constant anguish may they have patience to endure, and we earnestly hope that God whose supreme power above all other condescends to notice the meanest things on earth, will give them strength to bear the burden of their sorrows. They have our sympathy, the sympathy of the whole town and district – for it is impossible that the people of Merthyr can forget that in their midst are nearly 60 persons, who, in one moment by an act over which they had not a shadow of control, have been robbed of their means of support, and thrown upon the charity of their fellow creatures for subsistence.

The scene of this appalling accident is the Upper (No.2) Gethin Colliery, near Abercanaid. This colliery belongs to William Crawshay, Esq; the proprietor of the Cyfarthfa Ironworks and it is comparatively speaking a new pit. The Gethin pit it should be explained is an extensive set of coal workings divided into two districts, called the Upper and Lower Gethin, the shafts being placed at different altitudes on the side of the mountain. These districts are connected by two drifts of air courses, and one up-cast shaft is used in common by both, so that to some extent they have the same system of ventilation. The Lower Gethin is the oldest pit, and in that mine are worked the three-foot and the four-foot veins of coal. The Upper Gethin, which is the highest on the side of the hill, is the deepest pit, being sunk down 200 yards to the nine-foot coal, which is somewhere about 70 yards deeper than the four-foot seam of the Lower Gethin.

It will be remembered by most people in this district that it was in this four-foot seam that the awful explosion occurred about four years ago, when as many as 47 men and boys lost their lives. The lower Gethin was represented to be an indifferent sort of a colliery, and the upper Gethin was constructed so as to provide an upcast for it, thereby rendering its ventilation perfect, and the working places of the pit secure. Since that

memorable fatal accident the works have progressed regularly in both pits, and with only such casualties as happen in the best regulated pits until Wednesday morning, when the first disastrous explosion was near upon being eclipsed by a similar mishap. The night turn men left their work on Wednesday morning at the usual time, and were relieved by the day turn. The workings were then apparently safe enough, and the colliers in all not far short of 100, proceeded to their different places.

In the East level about 60 men were employed, and of these nearly 40 worked in the heading where the gas was exploded. In this heading it is asserted by many colliers that there was a stall which had been temporarily abandoned in consequence of it being on fire, that is that gas had been discovered therein, and the fireman and overman had strictly enjoined the workmen against going into this stall. We believe it was called No. 11, and the ventilation had been turned off from it since last Saturday. Whether this was so or not we cannot declare positively, but we obtained it from several of the colliers working in the East level. At all events, the colliers worked on in perfect safety until Wednesday morning about 8 o'clock, when an explosion of fire-damp occurred in this level with the most terrific effect.

Of all the men working in the heading where the fatal gas was fired only two escaped unhurt, and these, strange to say, were working at the very face of the level, some 400 yards or so from the pit's mouth. These two were John Hall and Thomas Hall, his brother, both living as Pontmorlais. The statement of the older brother, John Hall, will now help give us some account of the beginning of the affair. He says he was working when he heard a loud "puff", which he knew in a moment was an explosion of fire-damp; so he at once hastened to where his brother was working close by, to warn him of their danger. He had hardly time to do this when he heard another "puff", and then the two brothers made the best of their way out. This, however, was no easy task.

Their lights were extinguished and the atmosphere had all of a sudden become so oppressively hot and so dense with carbonic acid and coal dust that they fainted, and must invariably have perished along with their less fortunate companions but for a happy circumstance to which they

owe their lives. John Hall happened to have a can of cold tea with him and, knowing the cold water was used in cases of fainting he had the presence of mind to dash his own and his brothers face with cold tea. This refreshed them, and rousing themselves to an effort they groped their way forward through blinding dust and suffocating heat, every now and then dashing their faces with the cold tea until it was expended, and they at last reached the mouth of the shaft in a state of great exhaustion.

On their way they stumbled over the bodies of their fallen comrades, and as they came up to them one after the other they spoke to them, but in no single instance obtained an answer, from which we infer that the poor fellows were then utterly prostrated by the carbonic acid. Could they have been brought out to the air at that moment? The probability is that many of them would have been saved, but on such occasions as this, when the race for life and every man's life is at stake the first and natural impulse is self-preservation. So these unfortunate men were left until the slightly injured and those not hurt at all, had seen to their own safety.

The brothers Hall were not first to convey the gloomy tidings to the bottom of the shaft – the force of the blast was so tremendous that it blew into the main east level, where many men were injured, and along that as far as the bottom of the shaft, where it expanded its fury in hurling two men violently into the sump. The intelligence was instantly communicated to the top of the pit and a few minutes afterwards the arrival of some of the wounded colliers at the surface confirmed the dreadful report. Messengers were instantly despatched to Cyfarthfa, and thence the news spread with all the rapidity of disastrous rumours over the town. The most exaggerated states were current and the number of deaths ranged from 20 to 50. In consequence great crowds of people flocked towards the scene.

With praiseworthy promptitude Mr. Robert T. Crawshay, the resident proprietor of the works, accompanied by Mr. William Jones, the manager; Mr. Bedlington Kirkhouse, mine agent; Dr. Thomas, chief of the medical staff at Cyfarthfa; Dr. Willis, Mr. Tracy Rees, mill manager; Mr. Hansard, furnace manager; and others, hastened down to the pit, where

they were immediately afterwards joined by Dr. Dyke of Merthyr and Dr. Probert of the Plymouth works, together with Mr. Curnew, head viewer of the Plymouth Collieries. Mr. Moody, the viewer of this pit had gone through the workings about a quarter of an hour before the accident and not long afterwards was down again in company with Mr. Kirkhouse, Mr. Curnew, Mr. Gabe, under-manager, and a number of brave-hearted workmen all of whom laboured with a will to recover their hapless companions. Mr. Wales, the Government Inspector of Mines, arrived some time afterwards as also did Dr. Miles, who exerted himself with the other professional gentlemen in their humane attempts to restore the men.

A space having been cleared on the roadway in front of the shaft the people gathered around and awaited in solemn silence the first arrival of the cage to the top with the victims of the disaster. A large quantity of straw was spread out and upon this the unfortunate fellows were laid as they came up. Water, of which the supply at hand appeared to be limited was then dashed in their faces and powerful restoratives administered, while at the same time the system recommended by Dr. Marshall Hall for the restoration of suspended respiration in cases of asphyxia was practiced upon them.

Patiently and anxiously did the doctors exert themselves in every case to restore animation until it became all too evident that the vital spark had fled, and the body under their treatment was a corpse. One after another they operated upon the victims without success until we could read despair in their countenances. Now and then a cry would be raised that the man breathed, and this would stimulate them in renewed efforts – but it was all to no purpose – the terrible gas had done its destructive work too well, and the bodies were removed to the truck and laid side by side with its comrades.

After eleven of them had been brought up dead it was believed that the last might have been saved had he been brought up with his face to the earth, and Dr. Thomas then descended into the workings to see that the others were brought up in that way; but it was found on applying the same restoratives and motion to the muscles, that these cases were

equally hopeless. Every minute brought fresh people to the pit's mouth and the multitude of men, women, and children began to press heavily upon the arena kept open for the surgeons to exercise their offices. Old men came to look for their sons, wives for their husbands, mothers for their children; but, except a sob here and there, there was a general absence of that demonstration of extreme grief which usually characterises such scenes.

The crowd conducted themselves with an order and quietude that we did not expect. But it must not be presumed that this was an indication of indifference to the fearful sights passing before them. Every face mirrored the emotions that were stirred up within the breast, and tears fell, though no sound was suffered to escape the lips. Never have we seen faces manifesting such anxiety, and no person among the hundreds there evinced a more painful concern than did Mr. Robert T. Crawshay, whose blank gaze told how keenly he felt the consequences of this disastrous explosion.

It was stated that there could not be more than twenty-three persons in the workings, and when the twenty-third body was brought up and laid upon the straw, only to be carried away a few minutes afterwards to the truck, there was a sigh of relief from the anxiety which had wearied and racked the mind for two long hours. But it was of a momentary duration – a signal is given for the cage to come up, the engine is in motion – and a few seconds afterwards another victim is brought to the surface. Is this the last? No; yet another, and so the computation goes on until the twenty-ninth body is brought up, and that is asserted positively to be the last.

Of course he is a corpse – the restoratives are administered, the system practised upon him, without avail, and then the corpse goes to swell the number on the trucks. Nothing more can be done – the men are all out of the pit – the worst is known, and those who have recognised their dear ones in the lifeless row give vent to their anguish and indulged in the luxury of tears. We have nothing further to learn here, and so we step upon the locomotive which a minute or so afterwards, steams away with its freight of living and dead towards Cyfarthfa Yard. But there was

one left behind, and after the train had started he was recovered, making the thirtieth brought out dead from that pit of death. At the upper yard at Cyfarthfa, where the railway from Gethin crossed the Swansea road, several numbers of persons, chiefly women, awaited the train, and the outbursts of lamentation, here they were far more numerous and general than at the pit's mouth.

Stretchers were supplied, and on these the bodies were conveyed to their homes which they had left this morning in all the pride of robust health, little dreaming what a horrible fate awaited them in the caverns of that grim and darksome mine. A woman, named Stevens, a widow, came up amongst the crowd to ascertain whether her boy, 16 years old, had been hurt. The first corpse she met was that of her son, and the dreadful tidings threw her into a fit. In all the homes of the dead the most desolate and harrowing scenes were witnessed. It was a repetition of the bitter anguish of former agonising trials in other homes – but some of the houses had received a corpse from the works before now, and theirs was the misery of despair.

A most touching incident occurred at this stage of the terrible tragedy. The body of one of the men was taken by some mischance to the wrong house. The wife received the corpse as the one of her husband and wept agonising tears over it, kissed it, and by a hundred acts of endearment manifested her overwhelming distress. She had been confined only three days before. After the first transport of grief had passed away, she discovered it was not the body of her husband. How great a joy flooded the poor wife's bosom cannot be described, but may possibly be imagined.

Unhappily, however, she had hardly time to congratulate herself upon the discovery of the mistake before another corpse was brought into the house and there was no such mistake about that. That was indeed her husband. The effect of this melancholy little drama was further increased when we add that the "wrong" man lived in a house on the opposite side of the street, and the bitterness which had come to the first was then transferred to the second cottage. We never remember of a parallel case to this, though incidents of the most painful interest

abound at such a time as this. Every house is filled with lamentation, every head bowed down with sorrow.

### The cause of the explosion

The cause of this disastrous explosion is not yet known and it would be unwise to hazard an opinion upon a point about which people differ so much. It will be for the coroner's jury to determine this when they have heard what evidence might be forthcoming upon the subject. In the meantime it may be said without prejudice to the case of anybody, that there was a part of the workings in the east level, a stall as we have already stated, in which a quantity of gas was discovered last week. The workmen were warned by the usual signal against entering this stall, and on Saturday the ventilation was diverted from it, so that it may be termed an abandoned working – whether temporary or otherwise is not known to us.

The overman of the pit on actual duty was David Beddoe, who was killed, and fireman of the night turn was Benjamin Lewis, who left the pit in all appearances in perfect safety when the night men left off. The day turn had not been working more than an hour or so before the gas exploded. The regular overman of this pit is Rees Price, but by a providential dispensation he was laid up at the time of the mishap through an accident received a few weeks ago. He, therefore, escaped, but poor Beddoe who was temporarily filling his place perished by a terrible death. He was scorched in the most dreadful manner. His brother, Mr. Evan Beddoe, who happened to be on the spot when he was brought up, though ignorant that he was working in this pit, recognised him by his clothing and the watch which was suspended by a chain around his neck.

Very few of the deceased were destroyed by the fire, the majority having perished by the no-less fatal after-damp. Indeed, the bodies of the suffocated were recovered in an almost perfect state; some of them even had a faint glow on the cheek, and, but for the utter helplessness of the limbs, and the glaze over their eyes, they might have been taken for sleeping men. Not so the burnt, though two or three of them were

charred frightfully, their heads being reduced almost to a cinder, and the features entirely obliterated.

The limited number of the burnt and the degree of injuries sustained from the fire, will enable the jury to localise the focus of the explosion, which could not have been above a couple of hundred yards from the bottom of the shaft, considering the workings extend only about 500 yards from the shaft in this direction, and John Hall who worked at the face at the extremity of the level, was not reached by the blast, although its force was strong enough in the other direction to blow two men into the sump. The effects of the accident were confined to the east level, in which about 60 men were working at the time, and of these 34 were killed outright, and about 20 others were more or less severely injured, principally from fractures, cuts, and bruises.

How far negligence may have to do with this disaster we do not know, but we may be permitted to notice the fact that last week two colliers from this very pit were charged before Mr. Fowler with tampering with their lamps. The evidence did not reach them, and they were dismissed, and it is a remarkable fact that on nearly all the dead men matches were found! Whilst on one – whose names we forebear to give – a piece of hardened cheese was formed as to enable the owner to open his safety-lamp. There were also no less than four safety lamps found open in the heading where the gas exploded.

These facts, of course will be given in evidence before the jury at the inquest, and will then be considered in connection with the other evidence. We know little or nothing about the ventilation of the pit; but we heard many colliers say that the workings were well supplied with air – one of them stated that the upcast ventilating shaft “roared louder than the biggest blast engine in the place.”

### **List of the killed and injured**

The following is a correct list of the persons killed and injured by this accident: -



1. **Alexander Richards** (23), No. 2 Back of Waterloo Street, suffocated. Single – leaves a blind father and two sisters – one working.
2. **John Lewis** (16), 20 Brecon Road, suffocated. Seven brothers and two sisters, father killed three years ago in the Rolling's Pit.
3. **Vavasour Rees** (51), 14 Well Street, Grawen Terrace, suffocated. Wife and two daughters, one working.
4. **William Rees** (15), suffocated, son of the above.
5. **Griffith Morgan** (12) 2 Sunnybank, Brecon Road, badly burnt; wife and two girls.
6. **David Thomas** (24) 3 Tabernacle Row, suffocated, widowed mother dependent upon two sons.
7. **Roderick Thomas** (20), 3 Tabernacle Row, suffocated, brother of the above.
8. **John James** (22), Parrot Public House, Quarry Row, burnt; single.
9. **Thomas Bowen** (42), Temperance Street, suffocated, wife and two boys – one working.
10. **Thomas Morgan** (46), 23 Garden Street, suffocated; wife, three boys and two girls – one boy working.
11. **Joseph Morgan** (16), son of the above; suffocated, 23 Garden Street, doorboy, suffocated.
12. **John Phelps** (13), 23 Garden Street, doorboy, suffocated.
13. **John Luke** (34), 26 Tramroad side, suffocated, wife and one child.
14. **David Luke** (11½), son of the above, fearfully scorched.

15. **Harding Lewis**, (34) collier, suffocated, 7 George Street. Wife and mother (72) dependent upon him.
16. **Samuel Harris** (28), 11 George Street, suffocated; wife near confinement and one daughter.
17. **Ayliffe Stevens** (15), 75 John Street, Georgetown, suffocated; mother and *three* sisters – one brother working.
18. **Rees Davies** (11), 5, Aberdare Street, suffocated; widowed mother and three sisters working.
19. **Rees Davies** (75), 31, Ynysfach, burnt; single.
20. **John Morgan**, (21), 24 Ynysfach, suffocated single.
21. **Morgan Thomas** (17) 72 Cyfarthfa Lane, suffocated, single.
22. **David Beddoe** (49), overman, 14 Nantygwenith Street, burnt; wife, two daughters and father-in-law.
23. **John Morgan** (33) 18 Cyfarthfa Road, suffocated, wife, four girls, and one boy – two girls working.
24. **Lewis Price Thomas** (25), Cefn Isaf, suffocated, single.
25. **Daniel Thomas** (20), brother of above, suffocated, wife and baby.
26. **James Thomas** (23), back of Heolgerrig, suffocated; single.
27. **Griffith Ellis** (48), 3 Newton Street, Abercanaid, suffocated; single.
28. **David Ellis** (41), brother of the above; single.
29. **Thomas Morris** (35), Cwmglo, burnt.

30. **John Daniel** (47), 10 David Street, Morgan's town, suffocated, wife and five children.
31. **Joseph Rees** (29), 21 Yew Street, suffocated.
32. **David Davies** (18), 79, Ynysgau, suffocated.
33. **Henry Lewis** (18), Pond Row, Abercanaid, suffocated.
34. **William Morris** (42), 26 Brewery Street, suffocated, wife.

#### Injured

1. George Price Thomas (lad), Cefn, dislocation of the hip, likely to do well.
2. Evan Griffith (lad), George Town, fracture of both thighs (one compounded), injury to knee and cut on the head, critical.
3. William Jones, 15 Nantygwenith Lane, burnt severely over head, face, shoulders and body; condition critical.
4. William Williams, Rhydycar, burnt all over, face, hands, and chest; likely to do well.
5. David Hughes, New Duke (public house), Bridge St. Head cut.

The following will need no further medical attendance their injuries being comparatively slight: -

6. Joseph Rees, Fynon Pistill, Cefn.
7. John Davies, Bethel Street, burnt on face, chest and leg.
8. John Jones, John Street.
9. John Jones (another), John Street.

10. David Edwards, John Street.
11. Samuel Bishop, Iron Lane.
12. Daniel Rees, Iron Lane.
13. David Davies, Rhydycar, injury to knee.
14. Thomas Llewellyn, Rhydycar, injury to head.
15. William Davies, Canal Side.
16. David Jones, Twynyrodyn.
17. John Morris, Brecon Road.
18. George Lewis, Drysiog Street, bruised.
19. William Williams, Garden Houses.

Thomas Morris (No. 29 in the killed) was very severely burnt. After he was brought up he walked all the way to Cwmglo without help, but when he got home he went to bed, had his wounds dressed, and died at 1 a.m. on Thursday. It is astonishing how he had the strength to walk the distance in such an awful state. The poor little door-boy David Luke of Pontmorlais was taken home alive, but horribly burnt, together with his dead father. He succumbed himself on Thursday morning. An analysis of the foregoing list shows that there have been 34 killed and 19 injured. Of the former 12 were married, and 22 single; there were three instances of father and son perishing together.

This terrible sacrifice of life has, moreover, thrown upon the world 13 widows, 27 fatherless children and 28 other persons who were dependent upon many of the deceased, wholly or partly for their livelihood. How are they to be provided for? We believe there would be no need of public subscription, as on the former occasion, but the

generosity of Mr. Crawshay will display itself in the same noble manner as the Tredegar Iron Company manifested their benevolence on the occasion of the Bedwellty explosion (26 lives lost at Bedwellty July 1865).

### The inquest

The inquest was opened at the Bush Hotel, before Mr. T. Williams, Esq; deputy-coroner, on Thursday morning at 12 o'clock. The following gentlemen comprised the jury: - Messrs. J. C. Wolrige (foreman), E. Jones, A. Chisholm, F. Davies, Timothy Evans, W. L. Daniel, R. Lloyd, J. T. Davies, John Edwards, John Owens, Giles Williams, Thomas E. Jones, John Williams, John Watkins, Joseph Hopkins, William Rees, and Evan Williams.

The coroner having briefly addressed the jury upon the sad duty which devolved upon them, the latter proceeded to view the bodies. The first house they arrived at was that of Joseph Rees, who lived at 21, Yew Street. On entering this house, women and children were bitterly lamenting the loss of one who had been their support the day before.

This unfortunate young man, only 21 years of age, has left to lament his loss a fond wife and one child. Thomas Bowen in Temperance Street, who exhibited all the appearance of sleep, leaves a wife and two children.

Thomas Morgan with his son were next visited. This was a somewhat painful scene. Side by side in separate coffins were the two bodies, whilst in an adjoining room the wife who only a week since was confined. This unfortunate man leaves an affectionate wife and six children.

The bodies of John Phelps, a lad at Garden Street, and David Davies of Ynysgau, were the next viewed. The latter although he died from choke-damp bore scars upon his face which were doubtless caused by the explosion. The jury then proceeded to the residence of a lad named Rees Davies, after which they viewed the body of an old man of the same name, 76 years of age. He leaves a wife, and has been engaged in collier work from his youngest days.

The case of Thomas Thomas, to which the jury next directed their steps, was a very frightful one, his face and body exhibiting burns of the most dreadful character. In fact so great were the effects of the explosion upon the face that it was necessary to cover the features with wool for the purpose of preserving the remains. This poor fellow was brought from the pit alive, but was heard to explain on reaching the top, that in consequence of his agonies he wished himself dead. The coroner then proceeded to visit the deceased residents until they came to Samuel Harris, who was found much scorched, and we were told that his wife, who was at Carmarthen, was confined on the day on which her husband was deprived of life. He leaves in addition, two children.

Harding Lewis, in George Street, leaves a wife and mother. This man was recognised amongst his companions as one possessing great muscular power, and his pugilistic abilities were frequently the means of placing him in the position of a king amongst the quarrelsome, whose passions he curbed more than any other man. The next visited was that of David Beddoe, the overman. This unfortunate man was not so badly burnt as from reports we expected to find him. His face and neck, however, exhibited the effects of the fire. He leaves a wife and two daughters.

A fearful scene was next witnessed at the house of John Morgan. In going into the room where the body was lying we passed his bereaved wife and five children. Their suffering seemed most intense and both the mother (who was near her confinement) and her children who were surrounding her were moaning pitifully. The next house visited was the Parrot Beerhouse in Quarry Road, kept by a sister of John James, another victim in this awful calamity. The corpse presented an aspect very different to the rest. The face not having been washed, the appearance presented in the dim light of the room was more that of a cinder than a human being. However, he did not appear to be so severely burnt as some of the others.

On reaching the house of John Lewis, a lad of only 15 years of age, although from his appearance we should have presumed him to be more, another affecting scene met our view. This young fellow leaves a widowed mother and seven children, all of whom were dependent upon

him for their support. There is, it appears, a lad older than the deceased, but he is so afflicted with 'King's evil' (tuberculosis), that he is capable of doing but very little. The only means of existence, therefore, of this poor woman and her children is cut off unless she should meet with friends to aid her in her present painful position.

The house next visited was where the subject of the inquiry lay – viz; Vavasour Rees, with his son William. Both these unfortunate men were very badly burned. Griffith Morgan, who also lay perfectly black, was very badly burnt, and his features were scorched to a cinder. He leaves two children and a widow near her confinement. The house of Roderick and David Thomas in Tabernacle Row was next visited. Here again was another painful scene. In bed in a back room were the bodies of the two unfortunate brothers. Their appearances showed great strength and health during life, and it was almost difficult to imagine that life was extinct.

William Morris was also very badly burnt, and so great was the effect upon his unfortunate wife that when the jury entered the house she fell into a fit. Dr. Thomas, however, was there and prescribed the proper remedies. One of the most frightful effects of the explosion was witnessed in the case of a lad name Luke, only 11 years of age. This boy was working with his father, who apparently escaped some of the effects of the explosion, and both were got out of the pit alive. The boy's face, chest, stomach and the lower parts of the abdomen down to the knees were scorched in a shocking manner. He lingered until Thursday morning, when death ended his suffering. The other cases were those of suffocation, and the jury then proceeded to Abercanaid to view the bodies there.

The melancholy duty having been accomplished, the inquiry was adjourned till the 3<sup>rd</sup> of January. Dr. Thomas accompanied the jury. Since the accident he and the whole of Cyfarthfa surgeons have been indefatigable in rendering assistance whenever it was needed. The funerals are expected to take place on Saturday. Each corpse will be decently interred and no doubt many thousands of people will follow





## Chapter two

### Awful explosion at the Gethin Colliery - Thirty-four lives lost!

Other newspapers carried reports of the explosion that carried different details. The '*Merthyr Telegraph*' of the same date carried their version: -

While the sad calamity that took place at Bedwellty New Pit in June last, when 27 lost their lives, and is yet green in our memory, it is our painful duty to convey the tidings of an explosion at Gethin, which has exceeded that in magnitude. Aye, and when from one end of our town to the other ran the ominous rumour, we were ready to regard it as the fiction of a heated imagination, and refused, till the unwelcome and awful truth was forced upon us, to believe that Gethin - the Gethin which revealed such scenes of horror not four years ago - had again become the theatre of operations of the collier's foe.

That Wednesday morning of February 19th, 1862, and all its concomitant woes, was again thrust before us by busy meddling memory on Wednesday morning, December 20th, 1865. But while lower No. 1 Pit witnessed the great explosion of '62, upper No. 2 Pit was this time ravaged by Death, as if he had been intent upon a grim diversity in his work. Did he give warning? We are told so. We are assured by many that some of the men had a strange presentiment that something terrible was going to happen but little could they have thought - so near to the festivities of a season, which were not to be theirs - toiling and sweating in the dust and "ropy slime" for those whom they loved so dear and hoped to make happy - that when they started off that Wednesday morning, and looked up to the starlit heavens, they would have "another morn than ours."

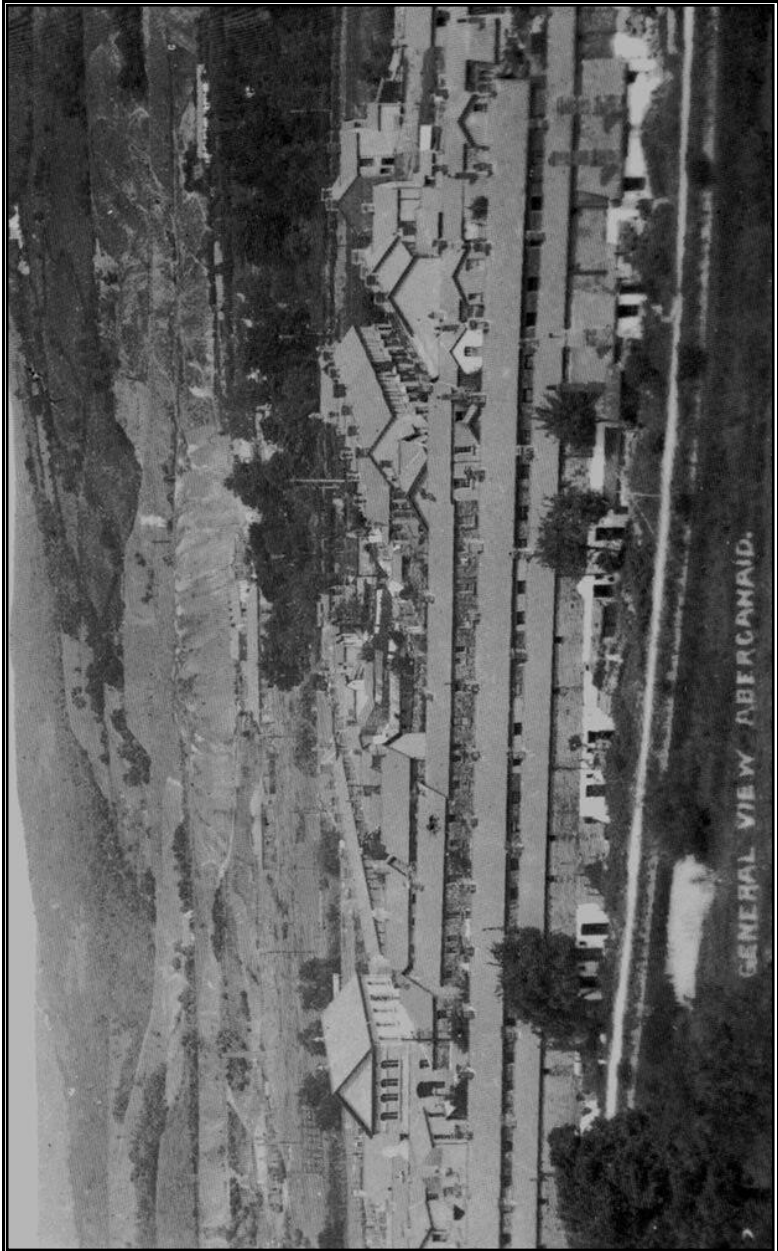
Not to them was it given to see the first sunbeam calling night away, for ere Sol had bathed with his refulgent rays, the embrowned face of nature, upwards of thirty men and boys, rejoicing in their manhood and the pride of many a mother, had been summoned to eternity - were immolated on the altar which has now had its hecatomb of victims. It was pointed out to us - for we have not forgotten the remark of our Coroner at a previous investigation - that the loss of life in the South

Wales colliery districts is appalling, and exceeds that of other coal mining localities. And neither have we forgotten that at a recent investigation at Tredegar, emphasis was given to the fact, and it remained uncontroverted, that the county of Monmouth, as compared with that of Glamorgan, did not exhibit so high a death rate from explosions.

We don't here for a moment question the abilities of colliery managers, it is not our province to do so, but it is an awkward circumstance, and one that we cannot think that two collieries under one person should, within four years, be subjected to two such frightful disasters. But, as Welshmen, generous as the brave men who reckoned so little the danger of scouring those gloomy passages - as Englishmen, with a stern sense of duty and justice, let us await an investigation into this second catastrophe; and whoever may be empanelled as a jury, or juries, let us hope there will be some men thoroughly conversant with details of underground work, who will give an impartial verdict and stand by what they believe to be right and true.

Having digressed in anticipation of what will follow, but not exceeded as we think the province of journalism, let us now attempt to depict as far as possible what we have seen and heard of this fatality. The western side of the valley of the Taff River is covered at different spots for miles by the extensive iron works, mines, and coal pits, connected by a network of railroads and tramways, the property of the great ironmaster, William Crawshay, Esq., of Cyfarthfa Castle.

The colliery manager is Mr. John Moody, who has occupied this post prior to, and since the explosion of 1862. That took place in the lower No. 1 Gethin pit, where the four-foot vein is worked; this of Wednesday last occurred in the nine-foot vein of No. 2 upper pit, near Abercanaid. The latter pit is about 200 yards deep, with a double shaft, the difference from the four-foot to the nine-foot being about 67 yards; the four-foot is not now in actual course of working, and is simply used for stabling horses. In the heading in the eastern level of the nine-foot which lies towards the river, about 40 men and boys had commenced work; and out of that number 30 were killed. Three bodies were recovered burnt and charred by the fire so as to be hardly recognizable.



**Abercanaid 1915 with the Gethin Pit tips in the background and only smoke visible from the colliery itself.**

The day men had not been at work more than an hour when it seems that one of two brothers at the extremity of the level heard a report, followed by another and a louder one and then the air became dense and oppressive. He at once warned his brother, and the two made their way in haste to the bottom of the shaft, over the bodies of their fallen comrades. The force of the explosion can be best known by the fact that one youth, Thomas Llewellyn, (Rhydycar) was knocked violently into the sump, and his head cut in several places. Directly the banksman was made aware of the awful disaster below, relays of men were quickly on the spot, and the injured were brought up with all possible dispatch. Then as one corpse after another came up, revealing to some extent the truth that but few would be brought up alive, Dr. J. H. Thomas, the head medical officer at Cyfarthfa, determined on going down the shaft to see if a timely assistance would prove effectual in saving life. There was many a prayer that he might return in safety, and that his indomitable courage would not forsake him. How he laboured we know full well from the lips of those fearless men who assisted him amid the noxious fumes, the dangerous nature of which was evidenced by their muffled faces.

#### At the pit's mouth

Before starting for the scene of the disaster, we heard various reports concerning the number killed, some said 60, others 16. Knowing the exaggeration that prevails amid excitement, we considered putting the various statements together, that some ten or twelve persons, at least, might have been fatally injured and at once hastened forward to the village of Abercanaid. Sorrow was depicted upon the countenances of all those whom we met and questioned. One man assured us that eleven had been brought up dead; but added, "they are still bringing them up." Look at that crowd assembled there on the pit bank. See men, women, and children, hurrying to and fro. Surely we have much yet to learn of the fearful sacrifice that has taken place in the bowels of the earth below that ponderous machinery. We hasten forward eagerly up the side of the bank, and hurry up to the centre of this commotion, but the intense excitement that prevails makes our heart sink within us. Above the whirl and clatter of the ascending and descending cages are heard the shrieks and the groans of disconsolate relatives and friends. With but little effort

we make our way through an orderly crowd of sturdy colliers with their wives and children, just in time to see a cage come to bank, in which are a party of brave men bearing two bodies, which are at once stretched on straw, and receive every assistance from Drs. J. Probert, T. J. Dyke, Willis, and Rees Miles.

The two corpses we now see swell the sad catalogue of the dead to twelve. A thirteenth is carried past these two, a charred and shapeless mass, the features being scarcely recognisable. Down again goes the cage and the ascent of another group bear before us another body. A fifteenth is brought up, and a loud wail bursts forth from a woman, who runs frantically by us and cries out, "Oh, let me look! My child, my child!" and follows the body as it is borne away without a sign of animation. One poor fellow, Griffith Ellis, with a wooden leg, looked as if he had died after a severe struggle. Another corpse presented a sickening spectacle; the face and chest were shrivelled up and the arms were almost denuded of the flesh while the head barely kept to the trunk.

The overman, David Beddoe, was at once recognised by his brother, who took the watch from his pocket still going. Some four or five bodies that we noticed had been seriously burnt, but the greater part were suffocated from the after-damp, and when brought to the surface, presenting a sight that imagination can conceive better than we can portray. The features of many were but little contorted, but the rigidity of death was plain, the teeth were clenched; the eyes suffused with blood; and the limbs dangling in piteous helplessness. One man was thought to show signs of vitality, and the crowd opened to let the morning breeze play upon him and cordials and restoratives were applied as in the other cases, but the poor fellow lay stiff and cold in the sunlight of heaven. The labours of the heroic relays of men, who went into the very jaws of death to the rescue of their fellow workmen can scarcely be over-esteemed, for in little over three hours after the accident the whole of the bodies were recovered.

The twenty-ninth was brought up while we stood there, and then the last relay of men, with Dr. Thomas in their midst, who, fearless of danger, had descended to render aid where the faintest glimmer of the spark of

life was discernible. The conduct of this gentleman was truly courageous, and will fully redeem the Cyfarthfa medical staff in the opinion of the public who were not slow to comment upon its conduct on a former occasion. As fast as the men were brought up the Marshall Hall method was pursued with each body, usual in cases of asphyxia, but with no chance of success while we were present. Prominent among the gentlemen, and near the shaft, was Robert T. Crawshay, Esq., who looked anxiously round at each lifeless burden as it was borne before him. He spoke but little, but gave orders decisively, and fully entered into the distressing character of the lamentable occurrence. Close to him was his agent Mr. Jones, whose harrowed feelings were indicated in his solicitude for the unfortunate men.

Mr. Bedlington Kirkhouse, mineral agent, and Mr. H. Hansard, furnace manager, were equally alive to the sad day's work. We also noticed amongst the bystanders the Rev. T. Howells, incumbent of Cyfarthfa; the Rev. Charles White; Mr. T. Lewis, Abercanaid House; Lewis Lewis, Esq., Glan Taff; Thomas Williams, Esq.; David Rosser, Esq., Merthyr; Mr. Thomas Curnew, of Plymouth, and other gentlemen. Some four or five hundred were on the bank, and we are informed that hundreds went from Merthyr and the suburbs. A force of police, under Police-sergeant Evan Rees was sent from Merthyr to restrain the crowd who pressed anxiously round to look at the mangled corpses, which were placed in trucks and conveyed down the line to Ynysfach.

#### At the Upper Yard, Ynysfach

It was about twelve o'clock when the last load of the dead was brought by the locomotive to the gates of the Upper Yard. It would be hopeless to describe the scenes witnessed here at each arrival of the bodies. One or two incidents we note; crouched at the side of the boiler of the engine which brought up one train was a poor woman, who, after paroxysms of grief, seemed to have got beyond giving expression to her poignant anguish in tears. She had lost her son, a lad of 15, and after being removed from the engine was met by another son crying bitterly for the loss of his elder brother. This sight seemed to add fresh sorrow to her heart, and she swooned away.

The corpses as they arrived were taken from the trucks and placed upon boards on which was spread a little straw, and, let us step aside as we see those brawny arms cover the features of the dead, with a handkerchief, or throw a jacket lightly across a body, for though the Welsh collier has a black and rough outside, he has a heart to sympathize with the bereaved. In this he yields to no man, his charity is readily extended to a suffering brother. One corpse was borne down Nantygwenith Street and the men with measured tread were about to cross the Pontstorehouse bridge, when a woman almost frantic, came running forward. Had they seen anything of her husband? She looked to the plank on the men's shoulders and with a shriek sank to the ground, and was carried home apparently as lifeless as him who had left her side that morning in the full vigour of health.

The '*Cardiff and Merthyr Guardian*' added: - On proceeding to the scene immediately after the occurrence, we found the old picture. First the great cover over the pit's mouth, then a dense crowd of people, and in the midst, close by the shaft, the heap of straw for the dead bodies, and, near, the medical gentlemen, and agents of the works. As each body was brought up it was taken to the heap of straw, and every possible means used to restore life. Unhappily these efforts were fruitless. Yet few would have thought that either of them was dead. The body was supple, warm, the very glow of health could be traced on the coal-stained face and lips, but water, brandy, all failed, and in every case, after five or ten minutes' effort, the signal was given by one of the doctors, "Take away the body."

The signal for lowering the carriage is made by striking an iron bar, and this sound came sharply, fiercely, and, towards the end, angrily. The storm of death seemed at the close to be more violent, and the dead bodies came up now by ones and twos incessantly, and so great was the crush to see who the sufferers were, that only by dint of the strongest measures could a space be maintained around the shaft. We have never seen such a spectacle — such a scene of horror. Those burnt were so charred about the face that any feature might have been broken off as one breaks a piece of charcoal. Their hair was burnt away and hands clotted like a jelly. About twelve o'clock the whole of the poor sufferers

were placed on trams, and taken up by rail to Cyfarthfa Yard, where the friends and relatives were found awaiting them.

This was the saddest scene of the whole — the screams and sobs of the women being awful to hear. As the melancholy procession of the dead passed through the streets, the most stolid were affected, and the spectacle of robust men unused to soft emotions sobbing violently, touched every looker-on. And what a procession! Not soldiers struck down in the field, amidst the roar of guns and thrilling music of the band; but a procession of poor hard-working colliers, whose life had been a toil, whose death was a tragedy. There they were sable in hue like their own blocks of coal; and many amongst them wives, wives no longer; children orphans were weeping and wailing till the little tenement received its dead master, and the door closed on the scene of honest pathos from sight.

#### Incidents connected with the explosion

To collate even a few reliable facts was a difficulty, as colliers are somewhat reticent, unless they feel themselves confident of what they are giving utterance too. We select a few which we came across on the day of the accident. Morgan, the son of Thomas Thomas, a lad of 16, worked with one of the men who is much injured, but living, Daniel James. The father did not know his son was from home, and after searching in the town, he went to the pit and recovered him, a corpse. John Smith, of Coffins Row, George Town, brought out two lads showing signs of life, and David Edwards, also of George Town, brought out another all but dead.

William Williams, George Town, brought up another man alive, but the sulphurous fumes were so strong that powerful men almost succumbed to them, and the last named man is ill in bed from his noble efforts, at the time at which we write. The brother of John Lewis survived, although much weakened by the noxious choke-damp. It was a sight to make the heart bleed to enter this home. The mother was wringing her hands and crying in agonizing tones, "My child, my John, what have they done?" While the brother of the dead boy strove in vain to comfort his mother,



who was dependent, to a great extent, upon the manly exertions of her industrious sons.

### Conjectures concerning the explosion

After the most rigid enquiries, we have ascertained nothing which can be really assigned as a probable cause of the explosion. As nearly the whole of the men were either burnt to death or suffocated it is to be feared that as in the case of the calamity at Tredegar, no survivor is left to tell how it happened. The morning was bright, somewhat frosty, with a cool breeze playing across the hills, and there was little, according to experienced men, in the atmosphere to favour the accumulation of the deadly gas. The fireman, who had been in during the night turn, Benjamin Lewis, presumed that the pit was safe, and left as usual at six in the morning. At seven o'clock, David Beddoe, the overman, a man of considerable experience, who had taken the place of the regular overman, descended the shaft with other men, of whom about 40 proceeded to the eastern part of the level, and Beddoe himself was also there.

Then let one of the men who is badly burnt give his own opinion of "the blow." He says, "I can't tell you how it happened. All I know is that I had felt a slip of coal, and had commenced filling my tram when my father-in-law fired a hole and as I was putting a lump of coal into the tram, I was knocked into the hole, and the fire came on me." It was but too true that the fire came on the poor fellow. His shirt was scorched from his back like brown paper, and he now lies in a precarious state. It is also rumoured that on Saturday last the air was turned from this portion of the workings. If that is correct, the explosive compound might have formed in proportion to any deficiency of ventilation, and only needed an open lamp, or the careless application of the light to the fuses to produce an explosion.

Again, on the other hand, a conjecture is current that some collier had strayed into an old working and incautiously opened his lamp. However this may be, it is significant that only a week ago two men stood charged at our Police-court with the offence of opening their lamps in this very

pit; but no conviction is recorded, as the evidence was insufficient. Mr. W. Jones, on behalf of William Crawshay, Esq., then said that Mr. Moody considered it an imperative duty to bring such a case before the magistrates. And while we would not in any degree impugn the testimony of those men, still it is not a secret that by means of a costrel, a little instrument easily made by a collier - a man can tamper with his light without being suspected. At noon on Wednesday, Mr. T. Wales, Esq. H.M. Inspector of Mines arrived in town, and at once descended, the pit. On Thursday he resumed his observations, which in due time will be made public.

The '*Merthyr Express*' later reported: - As far as incident is concerned this unfortunate accident appears to be exceptionally barren. It may be, however, that this is only an appearance and there would be no dearth of stories if every man's tale could be told. About 30 hours after one of the bodies had been brought home, a profuse perspiration broke out all over the face, and the people who were sitting by were intensely alarmed. Some of them, however, indulged the faint hope that it might be a sign of latent vitality, and sent off for the doctor. He went to the house at once and dispelled both hope and fear, by stating that it was a result of the horrible fright which the poor fellow had taken before he died. Still more remarkable story was told as a fact, our informant was walking the street on Sunday, when his attention was arrested by an acquaintance, who directed it to two men who were approaching, one of them having a scar on his face. "That man," added his interrogator, "was one of the Gethin colliers; he was taken home as a dead man, he was in the house an hour and a half to all appearances dead, when he suddenly gave signs of life, and revived so well that he is now as you are able to see him able to take his walks." This was told us by a person in whose veracity we have great confidence.

#### The Gethin calamity

The '*Merthyr Telegraph*,' Editorial of 23<sup>rd</sup> December 1865 commented: - Nearly four years have passed away since this district has been the scene of a calamitous explosion, and now again it is our duty to give the details of one of those tragedies of our coal fields, which in their blighting effect,

or the amount of wretchedness caused, in the extent of the destruction of human life, takes high and gloomy rank with the disasters of the country, with the Hartley's, the Gethin's, the Duffryn's, and the Risca's of the past. A few hours before the sad event, fifty men and boys of our hard working population were looking forward hopefully to the coming Christmas. Notes and signs of preparation, in which even some of them were engaged, made the event most pleasant in anticipation. At tea parties, at eisteddfodau they would enjoy some of the brief and fleeting happiness which falls to their lot. Alas that all these descended to their work in the Gethin Pit without a foreboding is not true. We know that several of the men openly expressed their fears. One looked moodily at the fire on Wednesday morning, and being asked what he was thinking about, said "You don't know the dangerous place I am going to." He was one of the dead.

Others are stated to have expressed their fears of an explosion. Over many a mind the shadows of the forthcoming disaster were known to have been cast. Yet the morning was a fine one. At daybreak, when the men were descending, many having gone down before, there was every indication of a fine day, and when we visited the spot shortly after the accident, the mists had been swept away from the valley and the mountains, and the sun shone down with summer-like warmth. But on what a sad picture did the beams of sunshine fall at Upper Gethin, a crowd had gathered around pressing forward so eagerly in their excitement that men below complained of an insufficiency of air, and the policemen were obliged incessantly to force the crowd back. One poor woman however was not to be pressed back. As a boy was brought up and placed on the heap of straw she forced herself through, screaming out "I will see my boy." It was not hers, but in a short half hour the poor boy was brought up, and then fainting, terrified, the poor Englishwoman, for such she was, fell down, and was carried away.

The overman, David Beddoe, could scarcely be recognised. He was one of the few who were burnt, the greater number of the sufferers having been killed by the after-damp. This terrible foe had three hours' reign in the pit before many of the bodies could be reached, so from ten until twelve o'clock every signal for the engine to use the carriage was the

signal to expect the dead. At the pit's mouth there was little outcry. All wore a serious saddened look, but the blow was too heavy and overwhelming to permit of questions being asked either as to cause or result. A few of the men were much charred, but twenty-five of the sufferers looked as placid as if asleep. The colour was still on the face, their bodies were warm and supple, and one could but deplore that science had not attained such a height as to restart the pulseless heart, and make the breast heave again with life.

Such a scene of horror we have never before witnessed, man after man, boy after boy, now old men, now stalwart youth, were laid side by side, and each one represented an agony, a bitterness, and a wretchedness to be awakened in some humble home, which we simple spectators could barely imagine, and still less picture.

Like a loud report which has its echoes, like a dark cloud which has its shadows, this accident at Gethin ends not with the rescue and the burial of the dead. Our list will show the extent of the suffering wives, children, and friends left bereaved and destitute, families swept away at a blow. As to the cause of this sad disaster various conjectures are made, most of which lean to one direction. It would be unfair at present to publish these conjectures, when we know that in the course of a few days a full and exhaustive enquiry will be instituted by our experienced Coroner, who will probably be aided in the investigation by several of Her Majesty's Inspectors of Mines, and it is quite possible by some distinguished Mining Engineer, appointed by the Home Office.

The result of this enquiry may be that this tragic occurrence was beyond human forethought or control, and that all that skill and experience could devise had been adopted; but should it prove otherwise - that negligence, incapacity, or false economy had brought about this second calamity at Gethin Pit, then let the widows, orphans, and relatives of those who have perished let those now suffering, maimed, and bruised, and the public in general feel assured, that the guilty, whether of high or low station, shall not escape that punishment - more severe than the law can administer - the righteous indignation of an offended public.

**Friday, 22<sup>nd</sup> December 1865**

A separate inquest

According to custom, when one of the sufferers in these calamities had been a resident in another county, a separate inquest is held on his body. In the present case two of the sufferers, Price and Thomas, lived at the village of Cefn, a few miles from Merthyr and in the district of another coroner. (Reported the '*Cardiff Times*' of 29<sup>th</sup> December). On Friday an inquest was held, at which important and interesting depositions were made by one who escaped. This witness is named Selah Thomas. He is a collier working in Gethin all the week with the exception of Saturday, when he puts aside the mandrill, and takes to the razor and profession of a barber. He is a young man, sharp and intelligent, and his statement is as follows: — On Wednesday morning, the day of the explosion, he descended the pit with many others, and saw Daniel Price Thomas, one of the killed, in the lamproom, as they were getting their lamps ready. He worked in the same vein as Thomas, but further away. Thomas remarked that his old stall, a disused one, called No. 11, was full of gas and so was his brother Tom's. The gas was so abundant that it came out of the stall to the partings, a place where there is a considerable thoroughfare. They discussed this subject for a time, the witness remarking that there was enough gas in the stall to "blow the whole pit up," to which the deceased assented.

They, however, went into work, hardy, rash, and reckless, and witness never saw Thomas alive again. In about an hour he felt a ringing pain in his ears. He started up, and a companion shouted out, "The damp is off," meaning there had been an explosion. He rushed away, and met a man who ran in the same direction but suddenly the man stopped, and retracing his steps into the gloom of death they had left, said, "I must go for the boy" (a lad worked with him), and he went back and fell among the list of the dead in his calm, quiet heroism. The next thing he saw was an upturned tram, and a lad underneath — the horse, too, was down. By this time the place was full of coal dust and suffocating fumes. Another minute and he came amongst a terrified group, a horse had broken violently from its shafts, and was plunging wildly. Near it stood many door-boys, little fellows from 12 to 14, some without a light, and all

ignorant of the way, and terrified at the danger. "These were saved to," told the witness, "by great exertion, and reached the bottom of the shaft and escaped." The last man that met his eye was blown into the sump, the lower end of the shaft; stones, too, were whirled up the shaft, and there the noise was so loud as to be heard at the Cyfarthfa railway.

It will be seen by this man's evidence that a great quantity of gas was in the pit, and that the fireman or the man to whom it had fallen had neglected to take serious precautions. By closing a door for half an hour, the witness said, enough gas could be collected to be exceedingly dangerous. Thus, so far as evidence yet goes, Gethin coal measures are so gaseous that an hour's neglect by an official and a momentary rashness of a collier will at any time conduce to one of these appalling tragedies. The inquest will be held before Mr. George Overton, Esq., at Merthyr, on the 3rd of January. Mr. Wales, the Government Inspector, is understood to report favourably of the condition of the colliery, and fortunately he is in a position to give material evidence, having reached the pit a few hours after the occurrence. This was the substance of the survivor's evidence, after which the inquiry was adjourned until after the main inquest concluded.

### **The explosion at the Gethin Colliery – The funerals**

We all looked forward to Christmas Day (reported the '*Merthyr Telegraph*' 30th December 1865). Turn in what-ever direction we might we could see preparations to celebrate the advent of him whose mission was goodwill to man. But mingling with the prickly holly, with its shining scarlet or golden berries, the pearly drops on the mistletoe and the stately laurel, were the subtle trappings of woe. At the time we were thinking of decorations, of wreaths of evergreens, of festoons of flowers, and while fair fingers were engaged in cunning devices that were to delight our eyes on the auspicious occasion, there were other hands engaged in preparing the shrouds for those who had perished by that calamitous explosion of which we heard last week. It was a cold, gloomy, wet day, nearly four years ago, when we were called to witness the entombment of the victims of a dire accident of a similar nature. The day then seemed to be in unison with the dirge of lamentation that was sung,

but on Friday last the indications of the festivities near us only seemed to be there to contrast with the intensity of the sorrows of the bereaved.

As the bodies were borne from the fatal pit and received by relatives who fondly hoped that the destroyer had spared those dear to them, but who learned with pangs of extreme anguish the extent of their loss, we gazed on sights that are not easily to be effaced from the memory and ere the sorrowing had dried their tears they were asked to stand at the side of the graves which would enclose the remains of those who had been hurriedly ushered into another world. On Friday thirteen of the unfortunate sufferers were interred in their last resting places. About half-past two at noon the corpses of Thomas Morgan and son, the boy Phelps, and that of Thomas Bowen were borne from Temperance Street to the Iron Bridge, where they were joined by those of Rhys Davies and John Morgan of Ynysfach; near the Cyfarthfa surgery the procession was swelled by that of Rhys Davies (Aberdare Road), and after proceeding through Dynevor Street, had extended from the Dynevor Arms to Nantygwenith gate, and it was estimated that 2,000 workmen with their wives and families were present.

The mournful cavalcade moved slowly forward by way of the Cyfarthfa offices to the Cefn, the blinds being drawn and shutters up along the route, out of respect to the deceased. On reaching Cefn Bridge the approach of the funerals of Benjamin Lewis, Abercanaid, and David Lewis, Grawen Terrace, was the signal for a fresh outburst, of weeping. As the mourners met each other they felt the extent of the calamity that had entered so many households, and rent asunder the tenderest family ties and at times their inconsolable grief moved the spectators to tears. Slowly onward to Cefn marched the procession, and there it divided.

The funeral obsequies were conducted impressively at Ebenezer Chapel by the Revs. James Evans, and John Jones, of Penrheolgerrig, over the bodies of John Morgan, Ynysfach; Rhys Davies, Aberdare Road; David Lewis, Grawen Terrace, and the corpses of Daniel and Lewis Price Thomas, which had already arrived. At Tabor Chapel a service, during which both the minister Rev. R. Griffiths and the people were deeply

affected, was gone through, the bodies resting here being those of Thomas Morgan and son and Benjamin Lewis.

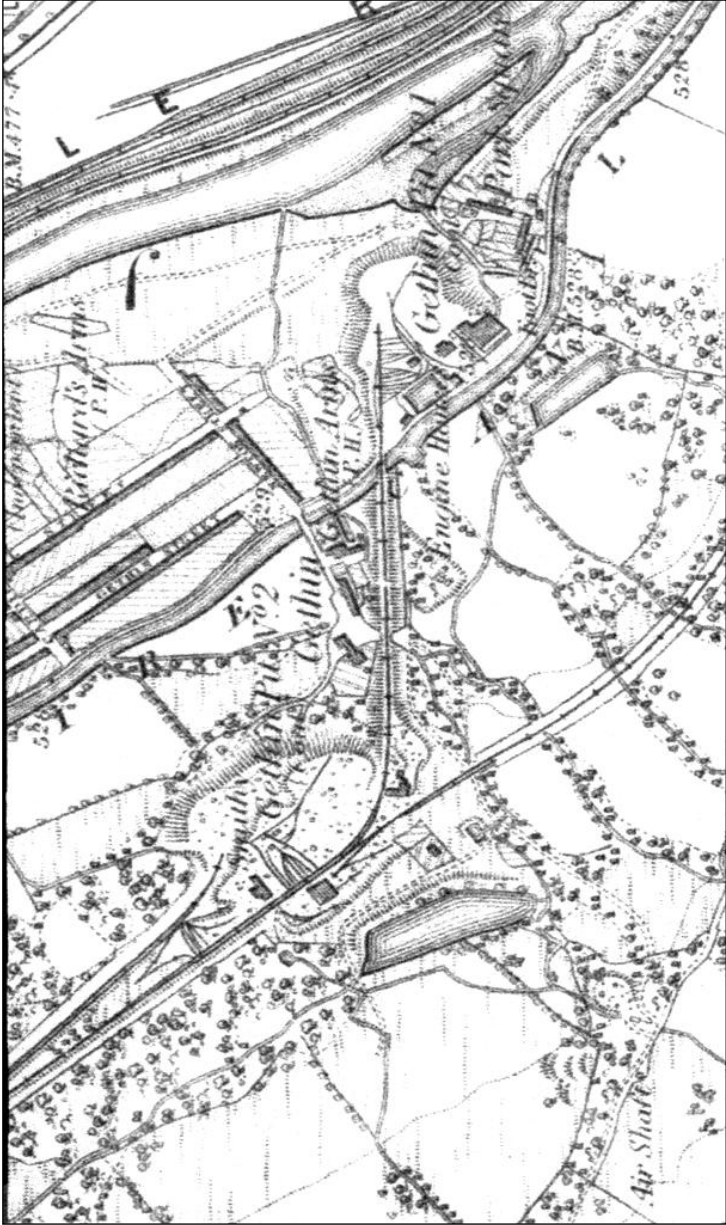
At the cemetery the Rev. C. Griffiths (of Zion) officiated, and the same painful scenes took place among the relatives and friends of Thomas Bowen, Rhys Davies, Aberdare Road, and the little boy Phelps. The chapels were filled by crowds of persons who had come to the Cefn to view the melancholy spectacle. At the burial ground the agony of the relatives of the dead seemed to have reached its culmination; mothers and wives were borne from the graves insensible, there was scarcely a dry eye in the assembly as the last words were pronounced over the departed.

On the same day the interment of the overman, David Beddoe, took place at the Tabernacle, with every outward sign of respect. An eloquent funeral address was delivered to the mourners and their friends by Dr. Emlyn Jones. Among those attending the funeral were Mr. W. Jones, manager, Mr. Tracy Rees, and other agents from the Cyfarthfa Works. The whole of the blinds were drawn at Cyfarthfa Castle, and a cloud seemed to hang over its turrets that dull afternoon. The corpse of the unfortunate man Samuel Harris, George Street, was removed the same day, we believe, to Aberystwyth, Carmarthenshire.

### **Saturday, 23rd December 1865**

On Saturday the remaining deceased were buried. At noon workmen from Plymouth and elsewhere, in addition to those of Cyfarthfa, began to assemble in different parts of the town. The vast procession, which was said to have been composed of between 6,000 and 7,000 persons, had its full complement of the dead under the walls of Cyfarthfa Castle, where the blinds were closely drawn as they had been the day before. By way of Brecon Road came the funerals of Joseph Rees, of Yew Street; John and David Luke, Pontmorlais (father and son), William Morris, Brewery Street, and Alexander Richards, Caepentywyll. These were met by the following from Cyfarthfa: - Harding Lewis, George Town; James Thomas, Heolgerrig; Thomas Morris, Cwmglo; Morgan Thomas, Cyfarthfa Castle;





Location of No. 1 & No. 2 Gethin Pits O.S. 1875

Ayliffe William Stephens, George Town; John Morgan, Cyfarthfa Row and David Davies, Ynysgau.

With this procession were many underground workmen, and the Cyfarthfa club who, walked four a-breast, headed by the Rev. J. Howells, incumbent, and the Rev. Mr. Price, curate of Cyfarthfa; also Bedlington Kirkhouse, Esq., (mineral agent); Messrs. W. J. Gabe, (underviewer) Jnr. Eynon, William Davies, Thomas Jones, (overman,) Tracy Rees, (mill manager), Henry Jones, and several of the agents and officials at the works.

Following this already long line of funerals came those of Griffith Morgan, Sunny Bank, Brecon Road; Vavasour and William Rees, Grawen Terrace (father & son); David and Roderick Thomas, 3 Tabernacle Row (two brothers); John Daniel, David Street, Morgan Town, and John James, Quarry Row.

Among the clubs and the benefit societies represented, in which some of the deceased were members, we noted the Cyfarthfa Castle, Sons of Llewellyn (Cefn), and Prince Llewellyn (Grawen Arms), lodges of Oddfellows, the Ivorites, Prince Llewellyn (Penydarren), Welsh Lovers' society, and others. At different points where a good view of the whole could be obtained, the spectators gathered in large groups; and although we saw Market Street, of Tredegar, when twelve funerals of the men killed by the June explosion, passed up it, and a dense throng of people closed in upon the melancholy cortege as it entered the cemetery there, we are inclined to think that the immense concourse at the Cefn on Saturday was much greater. Some idea may be formed of it when we state that the first funeral had passed Cefn Bridge some distance when the last had reached the Pandy.

As on the previous day, some of the corpses were taken to each chapel. Vavasour Rees and son were taken to Ebenezer, the Minister being the Rev. R. Griffiths of Tabor. John Morgan was followed by relatives and friends to Carmel Baptist Chapel, where the last sad rites were performed by the Rev. J. Morris.



**Gethin Pit No2 – Remains of the Engine Winding House,  
long since demolished**

At the Cefn Old Chapel, John Rees of Quarry Street was buried, and the service was conducted by the Rev. R Price. John Daniel of Morgan Town was buried at Tabor Chapel, the Rev Lewis Williams, of Merthyr, having been selected to officiate. Fourteen of the funerals proceeded to the Cefn Cemetery, and were received at the entrance by W. R. Smith, Esq. (Clerk to the Burial Board,) and Mr. W. Lewis Johns, (Inspector of Graveyards) who directed the arrangements for the interment of the dead, which secured order, and the commendation of all present.

The clergy and ministers who went through the burial service for the dead were, at the Episcopal Chapel, Rev. J. Howells and Rev. W. Davies, curate of Tydfil's Well church at the Dissenting chapel; Rev. Dr. Emlyn Jones, Tabernacle, and Rev. P. Howells, Ynysgau, Merthyr. During the mournful progress to the cemetery we observed Dr. H. J. Thomas, William Jones, Esq., Thomas Curnew, of Plymouth works, C. H. Smith, Esq., Rev. E. Rowland, curate of St. Tydfil's parish church; Rev. N. R. Williams, Twynrodyn chapel, Revs. J. G. Phillips, Aion, &c.

The brothers Griffith and Thomas Ellis were buried on the same day at the Graig Chapel, Abercanaid. In different parts of the town shops were partially closed and blinds drawn down, while at Cefn many a strong railway navvy came to look on at the interment of those hardy sons of toil, who had been smitten down in a dangerous employment; and some of the bluff, open-hearted workmen, were to be seen brushing away the tears as they saw the deeply-afflicted bereaved ones take a last look into the grave, which had received those on whom their affections had been set.

We draw the veil over the heart-sorrow then experienced, which could only be faintly guessed at by the distress at the brink of the grave and, as the prayers of the sympathising and the plaintive hymns of Old Cambria's children rise to heaven, let us be prepared, each and all, to see that the widow and the fatherless, though cared for by Him who regardeth the cry of the orphan and the widow, are not neglected by us.

At the Police Court on Wednesday, at the conclusion of the business, J. C. Fowler, Esq., the stipendiary magistrate, said with reference to the relief

of the sufferers by the Gethin explosion, "I believe that next week I shall be able to state more particularly the decision of Mr. Crawshay, of Caversham Park. In the meantime I am happy to be able to state that relief will be given to all those persons by Mr. Crawshay to the same amount as was given out of the first Gethin fund. For the present, therefore, no further statement is necessary."

Conspicuous by his absence from the Gethin funerals was Robert Crawshay who went to spend Christmas at St. Leonard's very soon after the catastrophe. "I am quite ashamed that any son of mine should leave his post in a time of difficulty or distress . . . get home to your duty as fast as you can," wrote William Crawshay to his son. These were stern words made by a father who was usually patient and indulgent with "Roy", but his own health was deteriorating and he quite failed to appreciate the effect of this second disaster upon Robert.

An eye-witness describes Robert standing close to the shaft and watching the dead bodies brought up from the pit bottom, and the emotion shown by him. Another explosion in a few years was a shocking thing and, in addition to his grief for the victims, Robert felt the shame of this second accident even more than the first. It made him quite ill and it was ill-health, not indifference that made him seek a change of scene. He came back immediately on receipt of his father's letter and went at once to Gethin to inspect the workings. There he had proof of the necessity of "the Master's Eye" being everywhere, for, on reaching the shaft bottom, he found a group of miners smoking in defiance of all safety precaution rules.

The '*Cardiff Times*' reported: - On Saturday most of the sufferers were buried. Nineteen funeral processions followed each other through the streets to the Cefn Cemetery, a great crowd attending. The contrast to the formality of English funerals was strikingly shown. Behind the coffin followed the nearest mourner, widow or child, and the long succeeding train was arranged according to the degree of relationship existing. Thus behind some followed widow, children, brothers, sisters, and cousins, and all looked mourning in reality. The tottering widow was in some cases between two friends, and at the grave, grief, loud and passionate,

had its vent, unaffected by the crowds of lookers-on. But for restraining hands, many would have fallen on the wet old earth, and clasped that which hid a near and dear one from the sight. It was in truth a sad and sorry scene, and as we looked into the deserted houses, after the funeral, the sorrowful feelings were deepened and increased.

There, in the little white-washed cottage, with its lowered blinds and sanded floor, had hung a few short days ago the holly and the laurel, and a stalwart man had sat by the hearth, a child on his knee, chatting with the good wife as she busied herself about the house. The holly is gone! Where hung the holly cypress should hang. The gleeful man, full of life and humour, is brushed away, and the smiling wife is a heart-broken widow and a pauper. Thirteen widows, 27 fatherless children, and 30 dependent friends were the immediate result of this tragedy, but the long shadow seems to lengthen as we examine it more closely.

### Chapter three

#### Gethin - Its tragedy and its teachings

The '*Merthyr Telegraph*' of 30<sup>th</sup> December 1865 carried the following item in its editorial column: - Wednesday, the 20th of December, 1865, will be long memorable for its tragedy, and the fatal pit be ever associated with the most terrible events that have ever desolated the valley. It was our lot to stand by the shaft early in the morning and watch the bringing up of the dead to see those who had gone down in health and vigour brought up in many cases frightfully disfigured, and in all cases dead, and beyond the power of the medical gentlemen around to restore. It occurred to others beside ourselves that some of the cases were those of suspended animation. The face looked healthy; there was a good colour on the skin, and a pliable character of the body. In these cases, and these were the majority, there was nothing of the pallid hue of death. This was due to the suddenness of the attack. The heart was checked so violently by the action of the gas that the blood had not time to flow back, and so remained, giving a fresh appearance to the skin, which made the dead look as simply sleeping.

The method adopted to restore them was one of the best known, namely, placing the body on the right side so as to allow the fullest action and scope from the heart, and then to gently move it from its back to its side. The system is of course loaded with carbonic acid gas, and what is required is that oxygen should be introduced into the lungs in place thereof. Breathing into the mouth would naturally strike one as a simple method but as we inhale oxygen and breathe forth carbon, it would follow that by breathing into the poor collier's mouth and attempting an artificial respiration, we should still further close the system with the gas that already abounds.

The power that did the mischief must be first got rid of by Dr. Marshall Hall's method, if possible, and then if pure oxygen can be introduced there will be hope. All that was needed at Gethin was to get the slightest possible action of the heart, that done, as there was no vital injury of any portion of the frame, restoration would have followed. We believe that

science will be enabled to restore a large proportion of similar cases should any unfortunately occur in future years. Formerly the simplest and mildest methods for restoration were tried, now we are advancing. Galvanism, or its nearest resemblance, we have by the action of water artificial respirators, by Dr. Marshall Hall's system, and the next will be a supply of materials at hand in all cases of emergency by which the gas may be extracted and pure oxygen first introduced in combination with other matters, and then necessarily be disengaged, and the vital element fan the drooping embers of life.

It seems a slur on our professional power that a suffocated or a drowned man cannot be restored. One is apt to controlling the mechanism of a clock with that of man. The pendulum, or the heart, is stopped, and if no injury be inflicted to any portion, a slight movement and the clock is set a going. But with man four minutes complete submersion under water, or a little longer under the influence of the gas, and no human power can re-start the movements of the human frame. The difficulty of acting upon the internal machinery is great, and even if reached we must believe that the animating power, the mysterious ruler, is severed from its old home of clay.

Let us hope that experiments will be made with the noble object of lessening the terrible character of these tragedies. We are sinking lower into the coal measures, and there are two reasons why we may apprehend more accidents, and accidents of a fearful character. The first reason is that it will be more difficult to ventilate a coal pit, and the second reason that it will be more costly. Viewers will be more apt to err either through ignorance or neglect, and colliery proprietors to begrudge the cost of rendering ventilation perfect. Of course it would be absurd to maintain that a colliery proprietor would prefer an accident to incurring more expense, for an accident such as this of Gethin will, in the enlightened face of public opinion, cost a great deal. Seventy people are destitute — 10s. a week will be required for each, £35 per week for all, £140 a month, £1,680 a year! It is impossible with such a fact to think for a moment that any colliery manager or proprietor would incur such an outlay — assuming of course that it will be incurred by saving a few pounds. But then colliery proprietors don't drive their own coal trams!



They don't know how near the edge of danger a pit is worked. They leave these details again to men who, in the event of accident, escape the penalty, but who are liable every day to reprimand if not enough coal be got out of the pit. We would have it understood that we make no special reference to any pit or manager, but view the subject generally. It would be unfair to prejudge before the necessary facts are placed before us.

The only remedy that strikes us as feasible is the appointment of a sufficient number of Government sub-inspectors, so that each pit may be examined frequently, and especially to allow workmen to appoint their own firemen. This fireman will be as much responsible to the men as to the master. The men would know that their life depended on the fireman and would only select a man they could depend upon. This man should not be discharged without due investigation into a complaint brought against him. Some firemen who constantly report "danger" to the viewer may be apt to be considered timorous and unfit for their place, as that timorousness will be likely to affect the get of coal, and make the men dislike working. Such firemen in consequence would most likely be discharged, and another put in their place, whereas this same timidity on due investigation, and further confirmed by the men, would lead to an inquiry and correction. Then, further, accidents may be prevented in the coal pits by the continuance of the fireman at his post. The custom, we believe is for the fireman to make his rounds in the morning before any men go to work. They examine for gas, falls, and then leave. Now we would suggest that the fireman should be on the patrol of the mine, one fireman for each set of men, whose duty it would be to see that none of the rules were violated that the men did not open lamps, or smoke in prohibited places. A patrol in the coal pit might save many men, or at all events their presence and vigilance would conduce to the safety of men who pay little regard to their own lives, and preserve this country from these frightful tragedies.

### **The rector of Merthyr on the relief of the widows and orphans**

The Rector's sermon on Christmas Eve was specially appropriate to the season. Blended with much good advice as to the manner in which

Christmas should be spent, were earnest and eloquent remarks on the sad calamity at Gethin, and the only course open to Mr. Crawshay, now that the grave has closed over the thirty-four dead hewers of coal, the bread earners of the widow and the orphan. We give the concluding portion of the able sermon in full:—

He dwelt on the propriety of keeping Christmas as Christians ought to keep it. There were some who spent their Christmas day in a manner that was neither creditable to man or beast. They went by train sober in the morning, they returned by train in a way he would not describe in the evening. May God grant that none of them would be so. Innocent and cheerful recreation there could be no possible harm on Christmas day. At the same time, let their moderation be known unto all men. For there was a cause and a terrible cause why he should impress this at any rate in that parish.

For again, after an interval of four years, they had been visited by one of those terrible explosions which shook the nation literally from one end to the other. Thirty-four men and boys were lying dead as if they had been shot on the battlefield, aye, and many a battle too had been lost and won with less numbers killed. Then let them think of the poor widows and orphans whose sons, and fathers, and husbands, and brothers they were. Could there be a more touching picture at this Christmas tide?

And yet something similar might have happened to any one of them, for God deals out death in a variety of ways, but a good providence had thought otherwise, and blessed be his name for it. No doubt these dead fathers and wailing brothers, and poor orphans had their plans for Christmas day just as they themselves had. They bethought them of the pleasure they should have from the trip by train, the visit to father and brother, the welcome given to Tom and Will, and Nancy's first leave from her new place, or any of those few joys which the poor working man has. But, oh, what a terrible contrast the reality is to all this now. Here is a dead husband; there is a dead father side by side with a dead son. Was there ever anything more sad? Let them realize that thoroughly, and he would not believe that any of them in that parish, at least, would spend their Christmas unseemly.

Ah, had they been with him the last week visiting the widow, and saying a word of kindness to her - for consolation in such cases of this kind is out of the question - and going from house to house and witnessing the sorrow there, there would have been no need then of telling any of them to moderate their joys at Christmas. Seven times in his life had he gone through this terrible duty, — twice here and five times at Aberdare and he prayed God he might never be called upon to do it again. Nothing could be more heartrending. He had assisted in getting more than a hundred bodies out of the pit, and a trying scene it was. But it was in no way so heart-rending or trying as visiting the widows and orphans the next day. At the top of the pit there is an excitement to get the dead out, and to save the living, which buoys you up as long as it lasts but in the cottage of the widow you have nothing save lamentation and murmuring, and woe. Oh, it is sad to see the neatness around you, the children so well cared for, the cupboard apparently so full, and to think that in a little time all this may be exchanged for the poverty of the widow and the want of the orphan. God forbid, however, that it should be so. It would be hard indeed if those who had lost their sons, their fathers, their husbands, and their brothers, should lose their bread too. Rather let them pray God to melt the heart of him who had it so much in his power to assist, — whose riches had been so multiplied — whose palaces and gardens and domains had become so splendid — and all through the sweat of the working man's brow. Let them pray that he may remember the orphan, the widow, and the aged, who have in a manner become so through building up his grandeur for him. Added to being one of the richest commoners in England, let him go down to his grave as also one of the most charitable. There is an opportunity. May God of his mercy inspire him with a will to seize it. **Amen.**

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**Sunday, December 31<sup>st</sup> 1865**

A melancholy Christmas

A sermon on the Gethin explosion by the Rev. Charles White

On Sunday evening, New Years Eve, an eloquent sermon was preached in High Street (Merthyr) Baptist Chapel, by the Rev. Charles White,

occasioned by the recent calamity at Gethin. We believe that the same will be read with great interest, and the more so, because the Rev. Gentleman was at the scene of the sad accident shortly after its occurrence. As was expected the chapel was densely filled by a congregation that paid the most marked attention. The preacher selected as his text Lamentations 5, ix., "We get our bread with the peril of our lives," which was most appropriate as the basis for the following remarks:—

This is the last day of the year 1865. Many of us have during the year that is now ending, passed through various changes, and have endured much sorrow. Relations and companions that were alive at the commencement of this year, and who cheered us with their sympathy, kindness, and love, have been by death separated from us forever so far as this life is concerned. But I am not here tonight to talk about those sorrows and bereavements, which we all in turn have to submit to in the regular course of nature but of that melancholy event which happened last Wednesday week at the Gethin Pit, and which has cast such a gloom over the whole of Merthyr. Some things, sad enough in themselves, are made still more so by circumstances and contrasts that surround them. A funeral procession is always a melancholy sight but it looks gloomy indeed as it passes along through fields in the month of May when nature is smiling and beautiful, and full of life and flowers. The funeral knell sounds very solemn just after the jingling of the marriage bell; so this sad calamity is all the more sad because it occurred just before Christmas, when people of every degree were preparing for the usual festivities of the season, and looking forward with joy to the pleasure of "meeting old friends and companions around the family fire-side." What a bad, sad Christmas this has been for the poor weeping ones who so suddenly, and in such a terrible manner, lost husbands, and fathers and sons, and brothers.

We sometimes almost forget that the poor miners and colliers have tender feelings and some hardly believe that the emotions and susceptibilities of the poor are as fine and tender as those of the rich. When the great and the wealthy endure 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 witnessed the sad 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 Gethin 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, and religious sect or denomination, and that makes 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.

It is impossible to throw any light upon an event of this kind. We can no more explain it than we can tell why ships are wrecked at sea, cities destroyed by earthquakes and towns by fire; or make clear the great problem of the existence of evil, of which the things mentioned are simply small parts. When we cannot understand God's doings, or make events clear to our minds for want of light, let us, at all events, be modest and silent, and not presume to judge God as if we were his equals or superiors. We must guard against the vulgar error of supposing that special calamities happen as special judgments for special sins. In the time of Jesus, some thought that those people who met with a sudden death by an accident were "sinners more than others," but Christ said to them distinctly that such was not the case. We often read in some of our superficial religious literature, that have more zeal than knowledge, that people are drowned because they go in a boat on Sunday, or killed because they go by train on the first day of the week. People often say that special judgments happen to those who differ from them in faith or practice, simply because they wish such to be the case. But if some men, for their sins are visited here with special judgments, why is it that worse sinners are spared? If boat accidents occur on Sunday they also happen on Saturday, and if men are killed in a train one day they are also killed on every other day of the week.

We know from experience and the Bible that retribution does not take place in this world, because often the wicked prosper, and dishonesty is

the best policy, and the noble and the good have often, alas have very often, to fight against poverty, and injustice, and terrible trials. God says the wicked and the good — the tares and the wheat — shall grow together till the final harvest. The judgment will take place hereafter, but not now. Nor must we think that great calamities occur, and many deaths take place, simply for our individual benefit or training. Men talk sometimes as if God altered the laws of heaven and earth, and caused the death of many people simply as a part of the education of one person, and that person may not be so noble as many of those who are said to be sacrificed for his sake. Such ideas, to say the least, prove that those who utter them must think themselves of great importance in the universe — in fact, prove that they have attained to the very ultimatum of egotism. Do not think because we speak this that we do not believe that it is very possible and desirable to learn lessons, and make ourselves heroes by having to endure great calamities. The next best thing to having circumstances to suit us is to suit ourselves to our circumstances. Happy then are we if we can turn even evil into good, and find in loss a gain to match, and rise as upon stepping stones of our dead selves to higher things. Thus, though our friends die because their appointed time is come, still we may — and if we be heroes we will make such good use of an event, in itself sad, as will make the bereavement as much a blessing as if it took place specially for our benefit.

This sad Gethin disaster may be turned to good account if it will lead to the appointment of more able and experienced men to superintend the underground workings — or better still, if after this, men will be no longer required to work in places where the air is so foul as to require a safety lamp. Safety lamps should only be used by men whose office is to do the work of explorers in various parts of the pit; but the men who work regularly should not be required to work in a place where their lives are always in great danger, and where the chance falling of a spark of fire, or the careless opening of a lamp will cause the instant death of scores, or even hundreds of people.

This sad occurrence should teach us many lessons. We may learn from it first, how very uncertain is human life and happiness. "Thou knowest not what a day may bring forth," is a truth that we often see illustrated.

The inhabitants of ancient kingdoms never thought when the sun rose as usual, and things appeared as before, that ere night would set in, fire would consume all their dwellings. The people who lived in Herculaneum, and Lisbon, and Pompeii were swallowed up by an earthquake, whilst they were buying and selling, and eating and drinking. The thirty-four men that were killed in the Gethin pit went down to their work as usual, and parted from their wives and little ones with the intention of meeting them again at night, as they had done hundreds of times before but scarcely had they commenced their day's work, when the sad explosion took place, and men who went down to the pit to "get their bread" at the peril of their lives, were brought up sleeping the long sleep of death.

As we are surrounded by so many dangers, and cannot tell the day or even the hour when we have to pass away from this world, what manner of men ought we to be? We should live while we live, fight life's battle like men, and like Christians, and then if the cry should be made at midnight that the bridegroom cometh, we shall meet him gladly. Death is not terrible if we are prepared for it. The reason why we fear death is because we do not live up to the height of our Christian philosophy - we do not believe that it is a "gain." The thought that we must die some time, and in some way, and therefore it matters not much when or how, should make us look at death much more calmly than we do. If death is really a gain — if it places us in a better world than this, where we shall again meet with loving and loved ones, we should rather greet it than fear it. To the good sudden death is sudden joy, and if those poor men and boys in the Gethin Pit were prepared for the sudden change — and we have no right to think they were not — what a sublime change was theirs - in a coal-pit one moment, and in heaven the next!

If we only walked by faith rather than by sight — if we but believed firmly the great truths of our religion, how different we should be from what we are! What is this world to another — its duration to eternity? He who knows that he is a child of Heaven, an heir of immortality, can meet with patience the disappointments and trials of life as by faith he looks onward to the time when he shall bear a crown more weighty and dazzling than all the diadems of this world. To the Christian's faith,

centuries appear but as moments; ages, but as hours; in the midst of this world's darkness, it gives him a view of the consummation of all things, when wrongs shall be redressed, apparent contradictions harmonised, and difficult problems solved - it is the evidence of things not seen, and the substance of those things which are hoped for.

But after all, looked at from a mere human stand point, sudden death is very sad, and we can only see the sad part of it and not the sudden glory of the departed. Sudden death in the darkness underground, deep down in the bowels of the earth is very gloomy. Sudden death, in some circumstances, does not appear so gloomy. Thus hundreds die suddenly on the battle-field, but it is amid excitement, the strains of martial music, the sound of the drum, and the waving and floating of banners streaming with purple and gold but there is a gloomy solemnity about the death of those who suddenly, and without warning perish in the mines, there is, however, this consolation — that except in the cases of the few who are burnt, there is no pain in such a death they simply sink calmly into a deep sleep, from which they shall not awake till the blast of the archangel's trump echo through creation's utmost limits.

But we learn from this not only that life, but also our happiness, is very uncertain. Sudden death causes sudden bereavement, and sudden misery and lamentation. Little did those poor desolate ones, who are now wailing in our town, think that when their husbands, sons, fathers, brothers, or lovers left them in the morning as usual, to go to their work, that before night they would be brought home dead to their houses. We cannot tell how soon those blessings that we most prize may be taken away from us.

Fever, or cholera, or accident, may at any time remove from this world those whom we love as much or more than life itself. It is so with other blessings men often have wealth in the morning, and before night are beggars. At one moment we are happy and joyous, but the mere arrival of a letter by post, or a message by telegraph, will make us utterly miserable. The most beautiful things in nature fade most quickly; the rainbow, the glorious sunset, the flowers of May, all pass from us even whilst we are gazing at them.



We lose our enjoyments and blessings, and comforts often before we can scarcely say that we really possess them. We have to part with our friends when we are only beginning to understand and appreciate them, and to know that we really love them. Let us then treat our friends kindly whilst we possess them, and behave justly to them while we can call them our own, that thus, after they are gone from us we may not feel sad at remembering that we have been unkind and unjust to those to whom we cannot any more make reparation and atonement. We should learn, also, to hold all earthly joys and pleasures with a light grasp, and to set our affections more upon heavenly than earthly things. Love your friends and love them dearly, but remember that they may be taken away at any time. Do not lean entirely and solely upon earthly supports, lest they should be removed, and then you will sink down into utter despair. It is a terrible thing to stake all upon one throw, and then lose!

But what is to be done to relieve the wants of the widows and orphans of the Gethin. This, friends, is the time to show practical Christianity, to visit the widow and fatherless in their affliction. It is nonsense to talk to people about religious dogmas and doctrines, and to endeavour to convert to this or that sect., when they want bread to eat, and clothes to wear, and fire to warm them. Feed the hungry and clothe 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 of our town do so. But I hope and believe that our ironmasters will, at this time, care for all those who have been reduced to want by the explosion in their works. The owners of our works have much wealth and fine houses, and many fields, and large estates but they should sometimes remember that it is the men who work hard in dangerous pits, and who "get their bread at the peril of their lives," that get all these things for them they spend the sinews of their strength — aye, even life itself, in getting the wealth for the wealthy.

Surely the least that the masters can do at this time is to provide for the wants of those poor women and children whose fathers and husbands have met with their death whilst engaged in their works. It is a sad thing

that in many cases, the masters in this country treat their servants very little better than planters treat their slaves. I do not wish to say bitter or unjust things of any class, but my God and my conscience forbid me to fall down and worship the wealthy man simply because he is wealthy and nothing more. I dare not, as a minister of Christ, who is no respecter of persons "frame unequal laws for rich and poor," or preach against the sins of the common people and say nothing against the vices of the lordly and the wealthy.

It is no use for us to be too delicate in this matter. We know very well that our ironmasters have done nothing for our town. What have we in Merthyr as a monument of their generosity? Their motto seems to be, "get all and give none." Let us hope that the owner of the Gethin pits will now redeem his character as he has not much time in which to do so, but a splendid opportunity has occurred. We hope he will avail himself of it, and so make his "last days his best days."

We do not ask our ironmasters at this time to give us free schools and free libraries, to give us a town hall or public baths, we do not ask them to widen our streets, or incorporate our town, and build more churches and chapels, and pay evangelists and missionaries to go among the people and convert them - though all these are needed. But we do ask them respectfully yet urgently and earnestly — to give bread to those poor fatherless children and weeping widows, who have been thrown upon charity for a living, because their protectors and supporters were killed in the Gethin pit whilst getting wealth for their masters. Yes, we ask them to do this — we pray them to do this, and we cannot believe they will refuse to listen to our petition.

But after all, we can do but little to lessen the real sorrow of these poor mourners. Our gifts of charity — our silver and gold cannot bring back to them their dead fathers and sons, and brothers and husbands. 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, and 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, tribulation, and accord to you who are now doing so our warmest sympathy and most fervent prayers. We would not bid you cease weeping, for that is a mistaken manner of consoling, but rather say weep on, and let your grief exhaust itself in tears, as clouds lose their blackness and heaviness in rain showers. For a time your tears must be your "meat day and night," and your sorrow must go on unchecked.

But do not sorrow as those who have no hope; do not think that the soul as well as the body of those you love is in the grave; do not suppose you have said farewell to your friends for ever — that would indeed be sad — but ever remember that the time is fast approaching when we shall all meet in that country where there is no death. We feel that we can say with confidence to God: -

Thou wilt not leave us in the dust;  
Thou madest man, he knows not why;  
He thinks he was not made to die;  
And thou hast made him; thou art just."

After we have lost friends we soon discover that they have more influence over us when dead than while they were living. Either because we deify friends when dead, and think more of blessings when lost or because the spirits of the departed are still near us, and influencing us for good, like guardian angels; but so it is, people when dead still speak, and speak more eloquently than when they lived. The loss of friends may be made a blessing if it leads us to think more about the world where they are. As we have some of our best possessions in Heaven, we should think often about it - our friends there should be so many attractions to the spirit world. Bereavement will also be made a blessing if we use sorrows as a means to discipline our hearts and minds.

None of us are perfect men and women till we have passed some severe trials and cruel disappointments. Some of us have our schooling in that

way early in life - too early we think sometimes - others late, but we all have the trial by fire, and noble is he that can stand the test bravely. It is only the small men who are crushed and killed under calamities; the great ones rise above them, and conquer them. The same drop of water that would drown the small insect would but sparkle on the wing of the eagle as he soars aloft in the sunshine of heaven. Let us not then sink under trials, but be the nobler for them. From the ruins of the past let us build up a grand present, and a bright and promising future. Let us all think kindly and pray for those poor colliers and miners who work underground at the "peril of their lives" to keep us in comfort and happiness.

When we sit down by the warm fire at this winter season, let us sometimes bear in mind that the men who get up the coal for us from the bowels of the earth expose themselves to great dangers in doing so. The very men whom some people in their nonsense affect to despise are just the people with whom we could least afford to dispense - the miner, collier, labourer, artisan — all such are among 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 common sense 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.

I pray that God will bless to us all in this terrible calamity, and make it the means of bringing us nearer to himself and the invisible world. Many lives have been taken away during the past year, and we are still alive. It may be our turn next to cross death's river; whenever that time shall come to us God grant that it may find us prepared for the solemn change. I said on the first Sunday of this year that I then doubtless addressed some who would not see the end of it, and you know that I spoke the truth.

From a congregation of this size some must die every year, and I doubt not that I address some tonight who will be in another world before another year shall end - I may be there myself. Then, friends, let us all prepare for the future, and "set our houses in order, for we shall die and not live." Many of us have had much sorrow this year perhaps God, who mingles smiles with tears and laughter with mourning, will give us much joy during the ensuing year. I do not know that I can finish this address in a better way than by expressing a wish that you may all — especially those who have suffered so much this year—enjoy a "HAPPY NEW YEAR,"

**Wednesday, 3<sup>rd</sup> January**  
Adjournment of the inquest

On the forenoon of Wednesday, 3<sup>rd</sup> January, 1866, the deputy-coroner, Thomas Williams, Esq., met the jury at the Bush Hotel, who had been empanelled to inquire into the causes which led to the deaths of 34 men and boys on the 20th of December last. The jury, of which Mr. J. C. Wolridge is the foreman, answered to their names with the exception of one. After waiting some ten minutes he arrived, and the deputy-coroner reminded him of his unpunctuality, and the loss of time to the whole of the jury as a consequence. The deputy-coroner then said: - "Gentlemen of the jury, this was the day appointed for resuming our enquiry into the Gethin explosion.

There are several matters which have yet to be gone into more fully in order to bring the evidence before you properly; and also there is the fact that Mr. Brough, Inspector of Mines for Monmouthshire, who has been deputed by the Government to attend this inquiry, is ill. Our meeting, therefore, is simply to adjourn again, and I suggest Tuesday next at ten o'clock as the most convenient day on which to open the inquiry.

In answer to a juryman, the deputy-coroner said the enquiry might terminate in one week, but of that he could not speak positively. This day was ultimately agreed upon by the jury, who were dismissed till then, when George Overton, Esq., is expected to open the proceedings.

## **Stern words to the son of William Crawshay**

William Crawshay also became very angry with Robert who went to spend Christmas at St. Leonard's very soon after the catastrophe. "I am quite ashamed that any son of mine should leave his post in a time of difficulty or distress . . . get home to your duty as fast as you can," he wrote: -

These were stern words made by a father who was usually patient and indulgent with "Roy", but his own health was deteriorating and he quite failed to appreciate the effect of this second disaster upon Robert. An eye-witness describes Robert standing close to the shaft and watching the dead bodies brought up from the pit bottom, and the emotion shown by him. Another explosion in a few years was a shocking thing and, in addition to his grief for the victims, Robert felt the shame of this second accident even more than the first. It made him quite ill and it was because of ill-health, not indifference that made him seek change of scene. He came back immediately on receipt of his father's letter and went at once to Gethin to inspect the workings. There he had proof of the necessity of "the Master's Eye" being everywhere, for, on reaching the shaft bottom, he found a group of miners smoking in defiance of all safety precaution rules.

## **Relief of the relatives of the deceased**

The '*Merthyr Telegraph*' of 13<sup>th</sup> January reported: - At the Police Court on Saturday, J C. Fowler, Esq. said: - "I stated in this court on a former day, that Mr. Crawshay had the question of the relief of the sufferers of the Gethin explosion under consideration, and that they were in receipt of relief in the meantime.

I take the earliest opportunity of announcing that Mr. Crawshay has taken upon himself the relief and support of the widows, orphans, and others, who have lost their supporters by the calamity, on the scale of the relief given out of the first Gethin fund. I feel sure that the public will join with me in feeling and expressing great satisfaction, that this generous course has been taken. It is highly honourable to Mr.

Crawshay's feelings, and must involve a very considerable expenditure for many years." The same newspaper the previous week had reported: -

Letter from Her Majesty the Queen with respect to the Gethin sufferers

It may be that some of our readers will feel that Mr. Simmonds, jeweller, of Aberdare, holding no public office was not the most fitted to bring the case of the sufferers by the recent Gethin calamity before the attention of Her Majesty. It must, however, be remembered that Mr. Simmonds first applied to Mr. Fowler, our local presiding magistrate, for information as to whether anything had been done, either by the proprietor of the works or the public, for the sufferers, and that not until an unsatisfactory answer, or at least no positive information, was given, did he venture on the unusual course of laying the whole case before Her Majesty. We certainly commend him for the tact he has displayed in this matter, and especially for the kind and compassionate feeling he has thus practically shown for the sufferers. The following is the first letter to Her Majesty: -

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Aberdare, South Wales, 29th Dec., 1865.

**To the Queen's Most Gracious Majesty.**

May it please your Majesty, - We have once more been visited with one of those dreadful explosions at the Gethin Colliery whereby thirty-four poor colliers have been suddenly deprived of life, and numerous others injured, throwing about seventy families into extreme privation. The wants of these poor families are considerably increased from the fact that we have neither Hospital nor Infirmary for their reception in the district.

A committee is forming for the purpose of raising a fund to supply their immediate wants, but at present little relief has been afforded. It is with the view of exciting the sympathy of those in our own immediate district that I humbly address your Majesty, in the hope that your Majesty, with that characteristic benevolence which your Majesty has always at heart,

may be induced to respond to the appeal, having for its object the relief of the poor families who are thus thrown into the deepest distress by this very serious calamity. I am, Your Majesty's Humble and Loyal Subject, **H. Simmonds.**"

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To the foregoing Mr. Simmonds has had the honour of receiving the following reply: -

**Osborne, 1st January, 1866.**

"Sir, I have received the commands of the Queen to inform you, in reply to your application dated 29th ult. that Her Majesty would wish in the first instance to ascertain what local exertions have been made to relieve the families thrown into unexpected distress by the accident at the Gethin Colliery. Her Majesty does not doubt that the proprietors of that establishment, and those in the neighbourhood who are engaged also in mining business, will have assisted the sufferers by this lamentable occurrence, but your letter does not enable Her Majesty to judge to what extent this aid has been afforded. It appears to the Queen that the first claims of these poor families are upon those with whom they are locally connected, and I am directed to request that you send me, for Her Majesty's information, a list of the contributions already received. I have the honour to be, Sir, Your most obedient, humble Servant, H. Simmonds, Esq., (Signed, **C. B. PHIPPS.**) Aberdare.

Immediately on receipt of the above letter, Mr. Simmonds addressed the following to W. Crawshay, Esq., the proprietor of the Gethin Colliery

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**Aberdare, 2nd January, 1866.**

Sir,—Enclosed I send you copy of letter forwarded by me to Her Majesty, in reference to the accident at the Gethin Colliery, together with the reply received this day. You will perceive that Her Majesty desires information of the contributions already received and also anticipates



that the proprietor of the colliery, as well as others engaged in mining operations, have already assisted the sufferers. I regret to say my effort to promote a subscription for their relief has not yet met with that success I could have wished. I urge that it is our duty morally, who live by the toil of the poor colliers, to succour them in the hour of adversity, and I trust my appeal to the public will not be without effect.

At present I am not able to answer the Queen's request respecting the list of contributions. Will you kindly favour me, for the information of Her Majesty, with the determination you have arrived at, as regards the assistance you purpose rendering to the sufferers. It would also afford me much pleasure to assure Her Majesty of the determination of the great employers of labour to provide in the district hospital or Infirmary. I am, Sir, Your obedient, humble Servant,

**"W. Crawshay, Esq."**

**"H. Simmonds."**

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On the same day that the above letter was written, Mr. Simmonds waited on R. T. Crawshay, Esq., at Cyfarthfa, and he informs us that he also left this gentleman copies of the above letters, and also showed him the original letter from Osborne. He wishes us to state that Mr. Crawshay, after reading these letters, treated him courteously, and promised to inform him, for the information of Her Majesty, at the earliest opportunity, of the intention of the proprietor with respect to the aid he intended affording these sufferers.

Mr. Simmonds afterwards was engaged throughout the day in investigating the special particulars of each case, ascertaining the extent of relief the sufferers had already received, and the sources from which this relief was obtained, in order to place before Her Majesty, and afterwards to publish, a complete report on the subject.



The pumping house at Gethin No.1 pit shortly before demolition. (Photo by Mr. Clive Thomas)

## Chapter four

### Tuesday, 9th January 1866

#### The great explosion at the Gethin Colliery – The Coroner’s inquest

On Tuesday, 9<sup>th</sup> January 1866 the adjourned inquest on the unfortunate men and boys killed by the Gethin explosion on the 20th of December, was opened by the coroner, George Overton, Esq at the Bush Hotel, High Street. About ten o'clock in the forenoon the jury (with their foreman, Mr. J. C. Wolrige) took their seats at a long table in the Assembly Room, and answered to their names when called upon. Mr. Charles H. James attended on behalf of William Crawshay, Esq., to watch the proceedings and Mr. John Moody had the professional assistance of Mr. J. Plews. There were three rows of seats on each side of the table at which the coroner sat, and these were barely sufficient to accommodate colliery proprietors and managers, mining officials, underground agents, and others, exclusive of those not directly connected with iron works or collieries, and a large body of hardy-looking colliers who crowded round the table, which was covered with coloured plans and tracings of the colliery where the disaster occurred.

In addressing the jury, the coroner said: - “Gentlemen, We are assembled again together to-day to investigate the sad and melancholy occurrence that took place at the Gethin Colliery, on Wednesday, the 20th of December last, by which thirty-five lives were lost. I cannot refrain from expressing my deep feeling of regret, in which I know you all fully sympathize, that another so serious and melancholy a catastrophe should have occurred in this district. All mining operations must necessarily be attended, I fear, with more or less peril, and the lives of the poor miners be continually involved in uncertainty and danger and it therefore behoves all who have any control or influence over those perils, to use their best endeavours to ward off and prevent all those elements of mischief that are calculated to produce such serious consequences. There are certain classes of accidents to which the miner is liable, such as falls of coal, of roof, imperfections in the machinery, and other miscellaneous causes, which, I fear, as far as our present mining and engineering knowledge extends may be considered almost

unavoidable. There are though other perils which are supposed to be more under control, and which may, and ought, by the exercise of proper judgment and skill, to be anticipated and prevented in a great measure, if not altogether.

I apprehend the case to which your attention will be directed will be one of that class and arose from an explosion that took place at the Gethin Colliery on the day I before alluded to. I need not therefore apologize for entreating your most serious attention to the evidence that will be adduced before you, to enable you to arrive at a just and proper conclusion. The period that has elapsed since the commencement of the inquiry has enabled me to take some preliminary steps with the view of shortening and facilitating your inquiry. I have directed plans to be prepared of the workings of the colliery, showing the places where the bodies were found, for your assistance and the Secretary of State has also kindly sent down Mr. Brough, one of the Inspectors for the Monmouthshire district, to assist Mr. Wales, the Inspector for this district, in prosecuting the inquiry, and I have no doubt, with their assistance, we shall be enabled to come to a correct conclusion as to the cause of this melancholy occurrence.

There is one circumstance which I think I ought here to mention, and I scarcely think I should be doing my duty if I neglected to allude to it, as it will surely be deeply engraved on the memory of you all. You will no doubt remember, that but a few years ago, in the month of February, 1862, a similar occurrence, attended with still more fatal results, took place in this same colliery (the Gethin Colliery), but not in the same seam of coal, and was attended with a great loss of life. On that occasion, after a protracted and careful investigation, assisted by two of the Government Inspectors, Messrs. Brough and Evans, and a most experienced mining engineer, Mr. Blackwell, the jury condemned the management and system of ventilation adopted in that part of the colliery and it will, I think, be an important and necessary part of your inquiry to ascertain whether there was any connection between that part of the colliery and the present, and if so, whether the same system of ventilation and state of affairs was permitted to continue and did exist at

the time of the last occurrence, and may or may not have tended to influence the present occurrence.

Since the unfortunate event I have just alluded to, I am happy to say there has been no very serious calamity of the kind in my division, or in the whole of the South Wales district, with the exception of that one case at Morfa Colliery, near Bridgend, which called forth that noble and generous act of benevolence on the part of the proprietors, that not only did them great honour and credit, but will, I trust, be adopted by others in future as a precedent on all similar occasions. But although there have not been any very appalling occurrences lately, I am sorry to say that according to the return for the year 1864 there were no less than 101 separate accidents, involving the loss of no less than 105 lives in the South Wales district during that year in the coal mines alone, exclusive of the ironstone mines, which were more in number than any one of the ten districts into which England is divided, and which, when compared with the quantity of coal produced, is far more than any of them and more than double the average of the three principal districts, viz., Northumberland, Cumberland, and Yorkshire and the returns from Scotland are far more favourable even than the best of our districts.

I fear, gentlemen, the returns for the year just past will present a still more gloomy aspect. They have not yet been made up, but from my own knowledge I can safely say that the numbers in this district will be fearfully augmented, as I have already held in my division alone during the past year, nearly 100 colliery cases, exclusive of the one upon which we are now engaged, and the deaths in the ironstone mines. These facts are very melancholy to contemplate, and appear to indicate the necessity of some Parliamentary inquiry, with the view of ascertaining whether some more effectual measures could not be adopted and some improvement effected. I sincerely hope and trust that the legislature will be induced to take up the matter, and institute some inquiry. It would not be decorous of me, on an occasion like the present, to dilate upon that subject, so I will confine myself strictly to the present case, and entreat your attention while I explain to you the course I intend to pursue, and the several points to which your attention must be directed.

The course I intend to adopt is this - I shall call witnesses, first of all to identify the bodies, show what were the several causes of death, and where they were severally found. In all these cases we invariably find that there are three separate causes. Some, comparatively few are killed by the violence or concussion of the explosion, others again, by the direct influence of the fire or burning, but by far the greater portion suffer from the consequential effects of the explosion, and die of suffocation or after-damp. It will be necessary to ascertain these facts, and when the bodies were discovered, as you will by that means be able to form an opinion as to where the explosion originated and, having satisfied yourselves upon that point, you will then have two important questions to decide, viz. First - What was the cause of the explosion, and secondly, whether it arose from accident or culpable neglect? These are the questions which you will have to decide. To enable you to do so, I have summoned all the officers of the pit, and such of the men who were engaged therein at the time, as appeared to me to be able to throw any light upon the subject; and if there are any other witnesses that you may deem important, I will immediately summon them also. You will have the plan and the rules of the colliery laid before you, and you will be able to ascertain from them what are the duties imposed upon the different officers and men employed in the colliery and it will be your duty to ascertain whether they have been properly and honestly discharged.

You will also have to inquire into the conduct of all other parties who you consider implicated in any way so as to ascertain whether their duties and obligations have been properly discharged and fulfilled, and that there has been no gross neglect or carelessness on the part of any one as to the present catastrophe. I shall have an opportunity after the close of the evidence, of defining the law applicable to the facts, if necessary, so I will not detain you at present on that head. There is one point, though, to which I would wish to direct your attention, as it is one that is apt to be overlooked in inquiries of this kind. To produce an explosion there are two things necessary - there must be first of all an accumulation of gas, and then naked light to ignite it.

I fear that the public are too apt to lay too much stress upon the latter and overlook the former offence whereas in fact the one is equally as

bad as the other if not worse because if there had been no accumulation of gas there could be no explosion. There is always, no doubt, more or less a discharge of gas from some seams of coal, but it is generally so slow and so gradual that it would be innocuous, provided there was sufficient air to dilute it, and it was not allowed to accumulate to such an extent as to render it dangerous. It is only when it is allowed by bad or insufficient ventilation to accumulate that it becomes dangerous. It therefore behoves you to inquire into the ventilation of the pit how the gas was allowed to accumulate to such an extent as well as to ascertain how it became ignited and if there is any further information you may require, you have only to intimate it and I will endeavour to procure it for you. Your experience in these matters will render any further remarks unnecessary, so we will, if you please, proceed with the inquiry.”

#### Evidence of Police-Sergeant Evan Rees

**Police-Sergeant Evan Rees** deposed: - “There was an explosion at the Gethin colliery on Wednesday morning, the 20th of December last, by which 34 lives were lost. The list I now produce is correct. I accompanied the coroner and jury afterwards to view the bodies of thirty-two, who resided in the town of Merthyr and neighbourhood. Vavasour Rees was one of them. There were thirty in this district who died on the Wednesday, and two, Thomas Morris and David Luke, died next day.” The Coroner reminded the jury that the verdict arrived at in the case of Vavasour Rees would apply to the others killed at the same time who died from the effects of the explosion.

#### Mineral surveyor testifies

**Charles Henry James:** - “I am the mineral surveyor at the Cyfarthfa Works. The Gethin colliery is a part of these works which belong to William Crawshay, Esq., of Caversham Park, in the county of Oxford. The plan (produced) is a correct plan of the workings in the portion of the Gethin colliery where the explosion took place on the 20th of last month. I have been assisted in preparing the plan by John Moody, Esq., John Eynon, William Davies, and other agents, who were present when the bodies were discovered. I produce a copy of the rules used in the

colliery. Mr. Moody is the general manager or viewer, and has several officers under him. William Davies is under-viewer of the whole of the Gethin colliery, and Rees Price was the regular overman of No. 2 pit but he had been injured about ten days previous to the accident, and was unable to attend to his work. David Beddoe acted in his stead. Benjamin Griffiths and Rees Rees were the firemen, and David Beddoe was the proper "wasteman," and was only overman for the time being. Thomas Thomas, Abercanaid, and David Evans, Troedyrhiw, were the fluemen. David Davies was lampman at the top of No. 2 pit, and John Davies was lampman at the bottom of the same pit.

The Gethin colliery is an extensive colliery, comprising several pits, which are connected together, and there are different seams of coal worked. It was opened about fourteen or fifteen years ago. There are two winding pits, which are used as downcasts for supplying the workings with air, and they have one upcast flue to both of them. One of the downcast pits, called No. 1 or the lower pit, is sunk to the four foot vein, and is used for the four foot seam, upper yard coal, and six foot working seams, and not for the nine foot. The No. 2, or the upper pit, is sunk to the nine foot vein, and is used entirely for that vein.

The explosion took place in the nine foot seam and the air used for the ventilation of the workings was, at the time of the explosion, all taken down the No. 2 pit and split into different portions, and conveyed as described on the plan. The dimensions of No. 2 are 17 ft. by 10 ft., giving an area of 133.6 square feet and the depth 188 yards to the nine foot vein. The depth of the No. 1 pit is 126 yards, which is sunk to the upper four foot vein. The upcast for the two pits is 78 yards deep, with a stack in addition 40 feet high. It is 10 ft. in diameter, with an area of 78.5 square feet. It was not a part of my duty to take the quantity of air passing through the workings.

The workings in the No. 2 pit, or nine foot vein, comprise one level on the west side, upon which there are very few workings three levels on the east side - the upper the middle, and the lower. The upper level extends about 420 yards, and has four cross-headings to the rise, and another has been just commenced. The lower level begins about 25 yards from the



pit, and extends about 480 yards this has five cross-headings branching out to the north only one of them is now worked, Joseph Rees's, where the bodies were chiefly found and two headings on the south, or dip. The upper and lower levels meet about 20 yards from the pit, and gradually separate to the extreme end (Joseph Rees' heading), where they are about 150 yards apart. The ventilation is carried on by means of two furnaces (tracings of which were given), situated near the bottom of the flue pit, which is the upcast of the Gethin. The area over the bars of each is 62·26 feet, the two side openings giving an area of 13·46 ft., the total area being 151·44 feet. No. 2 is used as a winding pit for all the nine foot coal; as well as a downcast.

The air passing down the pit is split at the bottom - one portion is taken to the western part, where there is a drift or hard heading, which is being driven to the 6-foot vein, and then passes, after supplying the workings, into the Four foot vein, and joins the return air from that seam, and thence a distance of 300 yards, to the flue. The length of the current is 52 chains, rather less than three-quarters of a mile. The other portion of the air passes along the main level to the east of the pit, about 25 yards and is split to supply the upper and lower levels.

The quantity entering the upper level is carried on about 350 yards to a small windway, between Nos. 4 and 5 rise headings, where it is again split, and a part is taken through a windway into No. 4 rise heading to the face and back through the two stalls that are in work in that heading, and then through a windway into No. 3 rise heading and up to the face, and back in like manner through three stalls there also, and then through a windway in a like manner into the lower stall of No. 1 heading, and five stalls in that heading, and through the stalls to the face and back. And after passing through these for several headings it passes through a windway for about 60 yards to the pit mentioned before, where the return air from the west side passes up into the four foot vein, and joins the return air from the other pit.

The length of this current is about one mile and a quarter. The remainder of the air not taken into the last mentioned heading to the rise, passes on to the end of the level, where a new heading No. 5 has

been lately commenced, to the north of the rise and from the face of the level it is then taken down a dip heading, called Joseph Rees's, to a distance of about 50 yards, when it is divided into two currents, one current passing through a back stall to the east, and then into the face of the middle level, thence through five back stalls of Rees's heading to the lower level; and the other portion passes through a face stall to the west, and through four stalls to the eastern side of the said No. 5 dip heading into the lower level, where it joins the air from the western side of the same heading, and after returning a short distance through the lower level, it passes up an air shaft, 32 yards deep, into the left vein then for about 120 yards along an old airway in that seam and up through a second shaft, 15 yards deep up to the 2 ft. 9 in. vein, and through an old airway in that vein for about 70 yards more, and then up a third air-shaft 14 yards deep, into the said four foot vein, which it travels for about 950 yards to the flue or upcast. This current is about 109 chains long.

The air passing into the lower level, passes along that level for a short distance, then into a dip heading, where there are a few stalls at work, and afterwards returns to the level and passes along it to a place where it is reduced by a stopping, and all that "scales" over the stopping joins the other air returning from the upper level."

#### Evidence of John Moody, viewer

**Mr. John Moody** said: - "I am colliery viewer of Cyfarthfa Works, of which Gethin is a part. I have held that appointment nearly twelve years. There are between eleven and twelve hundred men and boys employed at the collieries, and we raise from 16,000 to 18,000 tons of coal per month. It is my duty to superintend the ventilation of the Gethin pit. The plan put in by Mr. James I believe to be a correct representation of it, as it was carried on the day of the explosion. It had been so from the previous Saturday night till the morning of the explosion. There was a change made then (Saturday night). It is a part of my duty to regulate the ventilation. On the 15th of December (Friday) I measured the air passing into the pit. On the west side of the shaft, No. 1 split, there was 9,300 cubic feet per minute on the east dip, No. 2 split, 5,460 cubic feet.

I also took the quantity of air returning from the four cross-headings, about fifty yards from the pit sunk to the four-foot, and there was 12,600 cubic feet. I did not measure it after Friday. The ventilation was changed next day, and was totally different. On the Friday the rest of the workings (Rees's heading) were supplied by air from No. 1 pit, by a drift from the four-foot to the lower level of the nine-foot. It was then taken along the lower level to Joseph Rees's cross-heading, where it was split, one current ventilating the stalls on the west side and the other those on the east side, with the exception of a small scale that was taken off to ventilate the old stalls between the lower and middle levels. The two currents met near the middle level, in Joseph Rees's heading, went along the level to the face, and came back on the upper side of the middle level and up through the "thurling pits" to the top and at the back of Joseph Rees's heading, then through the heading and the stalls into the middle level back to a horseway and down to the lower level to the six-foot vein.

I measured the air at the intake and found that there was 7,260 cubic feet passing per minute from the four-foot through the drift into these workings. This was the state of ventilation on the 15th of December. On the 16th of December a change was made as I directed, the reason of it being this, that the air coming from No. 1 pit along the level, and then through these old stalls, became heated, and I thought I should not be justified in allowing the men at the top of that heading to fire shots if I could give them fresh air while blasting.

We use safety lamps in this pit, and one man is allowed to blast in certain places. I altered the ventilation at the upper part of Joseph Rees's heading to give the men fresh air. On the 19th December (Tuesday morning) I measured the air again on the lower level, and found 5,100 cubic feet in the return air course. There are three scales from the upper level, which passed into the middle level and down the horse road to the same pit as the other. There was about 2,000 feet passing through each, the opening of the door in the horse road being about three-feet in area, through which the air had to return." By Mr. Brough: - "I should calculate by the size of the hole, and not by the velocity with which the air was passing. I did not calculate the quantity of air passing through the other splits."

## Evidence of Dr. Thomas

**John Henry Thomas**, Doctor of Medicine, member of the Royal College of Physicians, Edinburgh, and Member of the Royal College of Surgeons, said: - "I am the surgeon of the Cyfarthfa works, and was summoned to the Gethin pit on Wednesday morning, the 20th ult., where an explosion had taken place. On my way thither, I saw four bodies being conveyed home, whom I examined, and found to be quite dead, and on arriving at the pit, I saw five more in the same condition. I attended at the mouth of the pit while several other corpses were brought out and then descended into the workings, where I saw fifteen more bodies, all dead. Every endeavour was made, nevertheless, to resuscitate the suffocated.

I again, on the next day, examined the whole of the bodies with the view of ascertaining more fully the respective causes of death. The calm expression of the countenance, the somewhat swollen face, the livid lips, the prominent eyeballs, the swollen tongue, the fullness of the veins in the neck, and the violet patches here and there on the skin, I observed in different degree in the twenty-five following, viz. Joseph Rees, Thomas Bowen, John Phelps, Thomas Morgan, Joseph Morgan, David Davies, John Morgan, Rees Davies (door-boy), James Thomas, Harding Lewis, Samuel Harris, Ayliffe William Stephens, Morgan Thomas, John Morgan, Alexander Richards, John Lewis, Vavasour Rees, William Rees, Roderick Thomas, David Thomas, John Daniel, John Luke, David Ellis, Griffith Ellis, and Henry Lewis, give evidence of death from breathing the choke damp.

Of the above twenty-five, Vavasour Rees, William Rees, and John Luke, were slightly burnt on the face and hands; Roderick Thomas and David Thomas had some bruises on the face. Ayliffe William Stephens' left hand was injured, and Morgan Thomas had a front tooth knocked out. The violence necessary to produce the external injuries observed on the bodies of the following five, viz: - David Beddoe, Rees Davies (Ynysfach), John James, Griffith Morgan, and William Morris would lead to the conclusion that they were instantaneously killed by the concussion of the explosion. The three former were severely burnt about the face and hands, and the two latter less severely so. David Beddoe had a deep wound on the right temple, and was otherwise injured about the head.

Rees Davies's left eye was destroyed, and left side and thigh much injured.

John James was severely cut about the head, neck, and right shoulder, and Griffith Morgan much injured about the head, left arm, side and thigh. Of the injured two, namely Thomas Morris and David Luke, died on the following morning from the effects of deep and external burns over the head, face, arms, and abdomen of the former, and the head, face, arms, chest, abdomen, back, and thighs of the latter. For the foregoing reasons, I am of opinion that the cause of death in the twenty-five first named was suffocation. In the five next named, the united effects of concussion and burns (the former being most probably the more immediate cause of death), and in the last two named, burns. There were also two other persons killed who resided in the county of Brecon. They were not burnt or had any marks of external violence. I consider they died of suffocation. I was assisted by all the medical men in the district. We were not able to restore any of those who were suffocated. I was there within an hour after the occurrence."

#### John Moody recalled

After the examination of Dr. Thomas the coroner decided to adjourn for half an hour to facilitate the labours of professional men, and give those who had come some distance an opportunity of obtaining refreshment. At two o'clock the jury again assembled. The Coroner: - "I have one or two questions to ask Mr. Moody." "Did you give those figures from a book?" - Mr. Moody: - "Yes sir." - Coroner: - "What is that book?" - Witness: - "Not a regular book." - Coroner: - "I believe it is common in most collieries to keep a book showing the state of the ventilation?" - Witness: - "I have not kept one because the overmen keep the quantities, and I keep a check on them." - Coroner: - "Did you keep a register?" - Witness: - "I did not." Coroner: - "I think on a previous occasion you showed us a book." - "Witness: - "That was one belonging to my son." - Coroner: - "Then if I understand you, you did not keep a regular register of the quantities of air conveyed to the workings?" - Witness: - "When I measured it I made an entry in a memorandum book." Coroner: - "Did you keep that for reference?" - Witness: - "Yes."

By Mr. Plews: - "The overmen keep a register and I check it from time to time." – Coroner: - "Who is your overman?" – Witness: - "Rees Price, I see his book nearly every day to check it." - Coroner: - "And you put it down in your memorandum book daily?" - Witness: - "No I don't do that not in the shape of a regular return."

#### Evidence of John Eynon – Colliery manager

**John Eynon** said: - "I am colliery manager over a certain portion of the Cyfarthfa collieries, but have no part in the management of Gethin. I was at the pit at the time of the explosion, and am authorized by Mr. Crawshay to go with his son, or by myself, to any part of the collieries whenever I wish. On the 20th ult. I went into No. 1 pit at my own discretion, and from there to the east side of No. 2, and was standing in the face of No. 1 heading at the time of the explosion. I heard it, but it did not put my light out, as I was in a cross hole not connected with the other part of the workings. There were four others with me, but none of us were injured. We all came out then, and walked down to the pits. The "black damp" was very strong. Two doors of that heading were shattered to pieces. When we got to the place where the two levels separate, we found a horse jammed between two trams. We left the horse, which was on the ground groaning, and passed with some difficulty towards the pit.

At the pit there was a terrible noise many had collected together and boys were crying and it was all confusion. I next saw a man, part of his body being under the carriage and the other part on the landing. I assisted to remove him, and he is present today. His name is John Davies. This was on the south side of the pit. On the north side a horse was blown into the tram, and a boy was under the tram. I assisted to remove the horse, and pulled the boy from under the tram. I then heard some boys crying from the sump of the pit. A haulier went down, and with his assistance, I pulled two up. They are alive, and not much injured. About this time two colliers, William Lewis and William Dyer, came to me and said they had left their boy in the second cross-heading. I went with them to look for the boy. Between the first and second cross-heading I met many colliers coming from the east side, some of

whom were burnt. Thomas Morris, one of the deceased, and William Williams, now alive, were among them.

At the second cross-heading, I turned up ten or fifteen yards, and heard some one groaning up the heading. I went up about thirty or forty yards, and found a boy on the left hand, or west side of the heading, who was insensible, and I carried him back to the level, and some other men then took him from my hands, and took him to the bottom of the pit. He recovered. I returned to see if the "bays," or "stoppings," were blown out or not. I found that two "bays" had been blown out. As the doors of the first heading I went down were blown away, all the air entering the pit would return that way, and be diverted from the workings, allowing not much, if any to enter them. I thought if I could get down to the bottom of the horseway I could put fresh air into the bottom of the drift, where a great many persons were working, but the after-damp was so excessive that I could not get further than the third cross-heading.

It then occurred to me, finding it would take so much time to put up the stoppings in the upper level that if I could get round to the bottom of the horse-way I could introduce the air from the No. 1 pit through which the air used to pass before any alteration was made. It had only been closed by means of a door. I had great difficulty in getting down in consequence of the after-damp, but I succeeded. Jeremiah Davies went with me. I opened the door when I reached the drift, and shut another on the west side of the drift to turn the air to the east level and up to Joseph Rees's heading. The effect of turning the air in that direction would be to sweep away the after-damp and enable us to follow it slowly.

We went along the east side till we reached the heading, and there we saw some of the bodies. Opposite the fourth stall in the heading we found the body of John Daniel, and a little higher up we saw William Rees, and then his father Vavasour Rees. At the parting of the middle level I found that both of the doors had been blown upwards. There was an old doorway where the bricks had been blown downwards. The body I found at the parting of the middle level was that of David Ellis. We turned to the west along the middle level and found first the body of

David Beddoe, the overman, about 10 to 15 yards west of Rees's heading.

Passing along I came upon the bodies of Samuel Harris, William Morris, Ayliffe William Stephens, Lewis Price, and John Luke. I then returned to the cross-heading and found Griffith Ellis a little above the parting. I went up the cross-heading and turned into the first stall to the west, where there were three bodies together. They were the two Morgans and Thomas Bowen. There was another body in the cross-hole between the two stalls, I believe Daniel Price Thomas, all of whom I think were suffocated.

I afterwards went up the cross-heading to the face of the upper level, and saw two more bodies, one of which was burnt badly, I believe, Griffith Morgan. Many came along this level from No. 2 pit to meet us, who assisted to get the bodies out. I afterwards returned to the pit through the upper level, thinking that all the bodies had been taken out, and went up the pit to go home. There were some bodies discovered on the upper side of the pit.

#### Evidence of under-viewer William Davies

**William Davies** said: "I am under-viewer at the Gethin pits, and Castle levels. I was in the No. 1 pit at the time of the explosion. I am under Mr. Moody, and act for him when he is not present. I superintend the workings and look after the ventilation. I have measured the air sometimes with Mr. Moody and the overman with an anemometer. I have assisted Watkin Williams and Rees Price in taking the measurement of the air. We take the height and width of the windways, and then see how many times the hand of the instrument goes round in a minute. I keep no book to register it, but an account is given in by the overman every night to Mr. Moody. A man ran down and told us that an explosion had occurred in No. 2 pit. I went down the four-foot till I came to No. 2 pit, and then took the carriage into the nine-foot. When I got to the bottom I saw a horse, and jumped over it, and proceeded along the east level. I had got nearly to the middle level, when I met Mr. Moody. I went back, taking some men with me to close the stoppings near No. 1 cross-



heading, to turn the air on to the levels. I put up the stoppings, and after that a brattice at the commencement of the middle level, and another lower down in the horse road.

Then I came back to the upper level, and went on beyond Nos. 3 and 4 cross-headings, through the cross-hole, and into the back level, where I found Thomas Morgan and his son Joseph. I took them down to the level, and some other men took charge of them. I went back through the windway to No. 4 cross-heading, and followed the windway to No. 3 cross-heading, and in the first stall on the west side I found Harding Lewis and a boy who was working with him and these were the last found in that heading. I went along the upper level to the face, and found the last witness had been there before me, and had removed the bodies. I then proceeded to Joseph Rees's heading and met last witness and others. I saw the doors had been shattered in that heading. The first below the middle level was blown upwards, and the next below it was blown downwards. There was a stopping in the mouth of a stall between those two doors, which appeared to have been blown in to the east. There was none there on the Monday previous and it was put up without my knowledge.

On Monday, after I had heard that there was gas in Vavasour Rees's stall, Mr. Moody, David Beddoe, and myself went there together, and I saw the fire mark was not fixed firmly there. I told Beddoe to hold the light while I nailed it fast. He did so, and I put on "tan" and "fire" with chalk, (sketch produced). I gave directions to Beddoe, in the presence of Mr. Moody, to contract the windway between the two stalls on the opposite side of the heading, so as to admit of more air being sent into Vavasour Rees's stall. This was the Monday previous to the explosion. Beddoe did not follow my directions, which I gave to move the gas on Monday night when the colliers were out. He promised to do it but did not. On Tuesday about two o'clock I went there and found that the gas was still in the stall. Beddoe was not there, and I went to the top of the pit to look for him. Found that he had gone by the engine to Cyfarthfa. I did not notice on the Tuesday whether the stopping was up in the stall, but the fire mark was."

The Foreman: - "Were any of the men firing shots on Monday or Tuesday after that notice was put up?" - Witness: - "Yes, sir." - By the Coroner: - "I stopped Rees from working on Monday. He left off working at the end of the week but I can't say on what day. The fire mark was there on the Tuesday, but I did not notice the stopping. I can't say in what part the men were blasting on Monday and Tuesday. It is not my duty to direct the men who are to use shot and those who are not.

I took no proceedings myself on Tuesday but on Wednesday when I saw Beddoe in the lamp-room about seven o'clock in the morning, I asked him if he had seen the fireman, and how things were in the pit. He said every place is all right except Vavasour Rees's stall, and that is as bad as it was on Monday. I asked him when he was going to get the gas from that stall. He said: - "I settled with Rees Price last night to head down from the double parting to Vavvy's stall.' I said "You shan't head down from the middle parting, because there is a month's work for the best man in the pit to do it even if he had a boy to help him."

I told David he should not do it, and he must have the gas from there that night. He gave no answer, and after he went out of the lamp-room, he returned and told me he had to meet Mr. Moody concerning Thomas Morgans' windway, and if I would convey the message he (Beddoe) could go about his work."

The Foreman: - "Did you report to Mr. Moody that Beddoe had neglected to clear the gas out from Rees's stall?" - Witness: - "I didn't see him on Tuesday night, and did not know whether it had been removed or not on Wednesday morning. I forgot to tell Mr. Moody." - By the Coroner: - "I met Mr. Moody on Wednesday morning before I saw Beddoe. I did not take any steps myself to get the men out of the pit." The Foreman: - "Did you not think there was danger?" - Witness: - "There was no danger at all in blasting in any of the working places, with gas in that stall, because there was fresh air going into that district before it approached Rees's stall!" This was the whole of the evidence taken on Tuesday, and the Coroner, after consulting the interests of the jury and professional gentlemen present, deemed it advisable to adjourn till ten o'clock on Wednesday morning. The proceedings today lasted about six hours.

## Second day — Wednesday, 10th January 1866

William Davies recalled

The inquiry was resumed this morning before the Coroner soon after ten o'clock. William Davies re-called: - "I know where the deceased colliers were employed at the time of the explosion. (The witness then spoke to the different places where the bodies were found). We have two systems at the Gethin pit for the management of doors. In some cases the door boy follows the haulier, as David Luke did, in others they are stationed, as Rees Davies the elder was at No. 3 heading of the middle level.

About eight or nine of the deceased were burnt, more or less, the others were suffocated. There were two men, named Hall, working in a dip heading at the end of the middle level who managed to escape without any injury. Three or four men found in one of the stalls on the west side of the level were suffocated. I believe the explosion took place in Vavasour Rees's stall, and the fire went out from there down and up Joseph Rees's heading, without affecting the stalls between where five men were working but when the men came out from them, it is my impression that they met the after-damp and were suffocated."

By Foreman: - "Vavasour Rees, at the time of the explosion, was at the bottom of the heading taking up rails, not above twenty-five yards from his own stall." - By Coroner: - "There were two persons working in the windway of the upper level whose bodies were found about thirty yards from the place. Two were found, a haulier and door boy in a stall in No. 4 heading, where they had been at work. Their names were James Thomas, haulier and Rees Davies, door boy; a horse was killed near them. They were going with a horse and tram up the heading. There were two men also found in No. 3 heading, in the stall adjoining Vavasour Rees's. One man was found at the face of No. 3 heading, who had been at work in an adjacent stall. His name was Morgan Thomas. There were 60 men in the east workings, and of those 35 were killed, and ten or eleven injured - some but slightly. The men who escaped were those working in the dip heading at the lower level, and in the headings to the rise of the upper level.

Those who suffered above the upper level were suffocated in consequence of the stoppings being knocked down which obstructed the current of air to Nos. 1 and 2 cross-headings. I have held my situation for eight months, and was overman previously for five months in the same colliery. I have not been educated in any mining school, but could read and write and understand accounts. I still adhere to what I said yesterday. I was in the pit on Monday, and saw no stopping at the opening into the stall of the east side of Joseph Rees's heading but I am not sure about Tuesday. I was able to walk through it then. The remains of the stoppings blown in might have been rubbish. It appeared on Wednesday as if it had been put up and blown down. I can't say who put it up. It must have been put up by Beddoe's orders. I can't say that the air was measured on Tuesday, and I have not seen it measured since the change occurred. David Beddoe, Mr. Moody, the fireman, Rees Rees, Benjamin Griffiths, and myself were present, about half-past four o'clock on Saturday, when the air was changed. It was changed to give fresh air to the colliers, who were blasting."

By the Foreman: - "The object was to render the blasting less dangerous." - By the Coroner: - "I have read a good deal on mining. I have never seen collieries in other parts of England." - Coroner: - "Are you aware that blasting is not allowed in other collieries?" - Witness: "No, I am not." - "Can you say if it should be allowed?" - "I cannot." - "Have you seen any other collieries in this neighbourhood?" - "Yes, Aberdare." Mr. Brough: - "That's out of the frying pan into the fire." Mr. Wales: - "Do you know that the men were firing on Friday?" - Witness: - "No." - Coroner: - "Can a man fire a shot when he likes?" Witness: - "No." - "What is the rule now; you are the man to tell us?" - "Can any man to save himself trouble to have a shot?" Mr. Plews: - "You have it in evidence that only one man was allowed to do it." - Coroner: - "I apprehend that he simply applies the light to the fuse." - Mr. Plews: - "But nothing can be done without his sanction." Coroner: - "I have not got it so. What does a man do when he wants to fire a shot? Does he put the shot ready?" - Witness: - "The collier gets it ready before he fetches the man to fire it." - Coroner: - "What are the duties of Peters?" - Witness: - "He goes there to examine the place before the hole is fired." - "Do they consult him before they fire the hole?" A Juror: - "Can

he refuse to fire it?" — Coroner: - "I don't like to put a leading question. The witness has given his evidence in a very straightforward manner. Now if I was a collier and wanted a shot what should I have to do?" — Witness: - "You must get it ready, and then call the man to examine it, and if he thinks the place is right he will fire it, and if not he won't." — By Mr. Brough : - "If a collier has a shot to fire he must leave his stall, as he cannot fire it without Peters." - Mr. Wales: - "Do the colliers fire shot for fetching back the pillars?" — Witness: - "No, sir."

The witness then continued: - "I was not aware till David Beddoe told me on Sunday that there was fire in Vavasour Rees's stall. After that I told him to go to Mr. Moody's house; but he came back without any message. Mr. Moody came down on Monday morning, and we examined Vavasour's stall for gas. I found a little at the top of the stall on trying with my lamp, which increased to about two feet as I went in. I went in about 22 yards from the parting. I didn't go farther, because I thought that was far enough. The stall is 8 yards wide, and the gas extended about 21 yards from the face of the stall which is about eight feet high and 28 yards long.

The gas came from the coal and accumulated in consequence of a "fall" between Vavasour Rees's stall and the one adjoining Thomas Price's. There was a cross-hole between these stalls, through which the air passed. I asked Beddoe once if the cross-hole was open, and he said it was not. I could get to the windway, but not through it, as there was too much gas. I had been in the stall a week before the explosion took place. There was no indication of gas, no blowers, and no "fall" from the roof. This was not the first time I had stopped Vavasour, as I had stopped him twice before, owing to falls in the cross-hole, which produced gas.

The nine-foot is divided into two parts, top and bottom. We work both at once. It was Beddoe's duty to look after the fluemen at the furnaces. He would go from the nine-foot to the four-foot to look after them. Beddoe went every day to see them. On the morning of the explosion he visited the three fluemen. Where I was at work the air was passing as usual. Thomas Thomas was then on duty." — By the Foreman: - "The gas was the same on Tuesday in the stall when I examined it." — Foreman: -

"The jury want to know whether, according to general rule No. 2, it was not a breach of duty not to report to the viewer that the gas was not cleared out from Vavasour Rees's stall by David Beddoe?" — Witness was silent. Foreman: - "Ought you not to have seen Mr. Moody on Tuesday night?" — Witness: - "Mr. Moody was there himself on Tuesday. If I had seen him on Tuesday night I should have had to walk about three miles. I arranged for men to go there and clear out the gas from the stall, but it was not done on Tuesday morning." — Foreman: - "Ought you not to have cleared the fall when Beddoe told you of it?" — Witness: - "I had no business to put men there, I had given orders that the gas should be cleared away in the cross-hole." — Foreman: - "Who appointed Beddoe?" — Witness: - "Mr. Moody or Mr. Crawshay I can't say." — "How do you think the gas was fired in Vavasour Rees's stall? — "I think Beddoe went in and fired the gas himself." — Mr. Wales: - "Did you know of any gas in an old stall in the north side of the middle level? — "No, not before the explosion." - Mr. Wales: - "Did you see it afterwards?" — Witness: - "I did, three days after the explosion." — Mr. Wales: - "Do you think that gas was fired by the explosion?" — Witness: - "No, I do not."

The Coroner said there was a general impression with the public that the gas was fired in this stall, and on that account he had spent more time in examining the witness at length. Witness continued: - "After the change in the ventilation on Saturday, that stall (Vavasour's) was ventilated by a scale from the top of the level till Monday, when a thurling was made from the top by Vavasour Rees and his son from the top of the upper level into his stall, till it could be ventilated from No. 2 pit." — By Mr. Plews: - "There was another man, David Jones, working in the stall next to the one alluded to, who escaped without injury."

David Beddoe's lamp was found by John Eynon on Sunday morning about ten o'clock. I saw him hold up the lamp, and he said, 'What is the number of Beddoe's lamp?' I said "79 W. C." He said: - "Here it is then I found it four yards inside the danger signal at Vavasour Rees's stall. I went into the level on Sunday because there were men working there. I picked up the danger signal in Vavasour Rees's stall after the explosion, on the opposite side of the heading. I put up the pieces to show Mr. Wales how it was fixed. That stall is the only one in which there have

been any falls since the accident.” The Coroner suggested an adjournment for half-an-hour as it was now two o'clock.

On re-assembling, the examination of the witness Davies was continued by Mr. Plews (Representing Mr. Moody): - “Beddoe was the overman for the time being when this accident happened. The overman's duties are defined in the rule, 11 and 12. Benjamin Griffith was the fireman the night before the explosion, and Rees Rees was in at the time of the explosion. It was the duty of Griffith to see the place was safe for the men to go in on the morning of Wednesday, and to give a report to the overman before the men were allowed to go down. I heard of the explosion at half-past eight. The workmen went in that morning from half-past six to seven.

The air that came in from No. 1 pit before the alteration took place passed through several dead headings, and then up a shaft into the six-foot vein, where twenty-two men were working. After the change of fresh air from No 1 pit, which was diverted from the six-foot, previously supplied by the return air from the nine-foot workings, the men said the air was purer, and they must either work or catch cold. I found two lamps, after the accident, at the bottom of Joseph Rees's heading, one (208) belonged to William Rees, was unlocked, and the other was locked, but I did not know to whom it belonged. I found one unlocked lamp (301) in No. 2 cross-heading.” This witness had undergone about seven hours' examination, and seemed quite wearied.

#### Examination of Rees Price, overman

**Rees Price**, the regular overman of No. 2 Gethin pit, was examined, and said: - “I have charge of the workings in the six-foot seam at the No. 1 pit, and have held my situation since September, 1864. I met with an accident in the six-foot seam, nine days before the explosion, and was unable to follow my employment. In consequence of this, David Beddoe was appointed in my stead. Beddoe did come to see me twice - once about the big draw, and again on the Tuesday night before the explosion. We were talking over the condition of the pit and how things were going on since the change of the air. He told me there was gas in Vavasour

Rees's stall, and also in Thomas Price's stall, lower down. Beddoe was a fireman in Colliers Row pit, about a mile and a quarter from Gethin, and was a master wasteman about two months in this pit (No. 2). He was a steady man, and had worked for about 20 years at Cyfarthfa. I asked him what he intended to do with the gas in Vavasour's stall, and he said. 'I really don't know I wish you were in the work, as I have very much trouble.' I asked him if he could not move the gas away, and he said, 'I think the windway into the next stall is choked up.' I said: - "Could you not get a communication by clearing it out," and he said he was afraid to go in, as the place was so dangerous, there being much gas there. I then said, "As you are afraid, don't go in for your life. I would recommend you," I said, "to stop Thomas Price working in a stall on the opposite side of the heading till you can get that gas away." He said, "I quite agree with you, and will speak to Mr. Moody and Mr. Davies." I said it was the best plan to get the gas away as soon as he could. Thomas Price, who was working in that stall opposite, was killed.

Mr. Brough: - "There is a serious thing, Mr. Coroner — the man working in the stall contrary to that advice was killed." - Coroner: - "Did you ask Beddoe on the Tuesday night if he had communicated to Mr. Davies and Mr. Moody the existence of this gas in Vavasour Rees's stall?" —Witness: - "Beddoe said they knew as well as him about the gas." By Mr. Wales: - "I did find gas about two months ago in Vavvy's stall, and allowed him to work there. He was not cutting coal, but carrying rubbish to the goaf. I found gas the same day in an old stall (John Hall's) on the north side of the middle level, a yard or two back from the face, but only a small quantity. That was got out in a short time on the same morning by filling it up with rubbish. The man was not allowed to work in that stall, but men were allowed to work in other parts of the pit." - "Mr. Moody and Mr. Davies were there?" - "I am not sure Mr. Moody was there, but I know Mr. Davies was there. I never saw gas in the stall before or after that. The stall was stopped four or six days before I was hurt, because another stall was meeting it" — Coroner: - "Shots were allowed in blasting in every part of the pit?" Witness: - "Vavasour Rees has been blasting himself in his stall, and so has Thomas Price. Beddoe did not say he had been requested to get the gas out by Mr. Moody or Mr. Davies.



The reason I told him to head down from the double parting was because a stopping had been put in opposite Vavasour Rees's stall. Beddoe said he didn't approve of it. I asked him the reason why it had been put up, and he could give me no reason." By Coroner: - "I did not approve of the change in the ventilation" — Witness then hesitated, and after a question from Mr. Plews, said he thought it was better than the old plan if everything else had been put right. The Coroner again put the question if witness approved of it, and he answered that he did not approve of it at the time, but on due consideration, if everything was right, it might be an improvement.

Witness continued: - "By the change there were three stalls on the west side, between the upper and middle levels which would be destitute of air. The thurling made in the windway of Vavasour Rees's stall on Monday should have been made before the change took place in the ventilation. I have been in the pit since the accident and found the three stalls alluded to quite right. I have not seen any change to secure ventilation since the explosion. I have only found gas once in one of those stalls. We have tried to turn the air once before, when we saw gas in one of the old stalls. That was about the 20th of October.

I went down on Sunday morning with William Davies, and he asked the fireman how it was, and he said the place was not very good. We went down the pit, and found gas in several places on the middle level and in some of the stalls between that and the upper level. As we found gas there, we knew there was some further on. We consulted together, Davies and I and turned the air to the old course, as we thought the change would not answer. He did not tell Mr. Moody of this, as he knew of it. William Davies went home to dinner, and I remained till the gas had cleared away.

By Mr. Wales: - "It was quite clear after that and we have had no trouble since. We have had nearly double the quantity of air since the pit has been sunk from the four-foot to the nine-foot, by which more air is sent to the north and west workings. We allowed the blasting to go on. I have measured the air four times a week at least, and keep a register, which I now produce. (This proved to be a copy, and the witness then

produced a very different specimen). On the 20th of October, 1865 the quantity of air coming to the No. 2 pit was 8,400 cubic feet per minute, and the quantity coming from the No. 1 pit on the same day was 5,890 cubic feet per minute. On the 20th of October the shaft was sunk from the four-foot to the nine-foot. On the 11th of September, the last day I was at work, I took the quantity again. There was going into the west workings 9,100 from the No. 1 pit; and from the No. 2 pit 15,000 cubic feet going east, exclusive of 5,000 cubic feet which went west; so that there was 24,000 cubic feet of air instead of 14,000 cubic feet."

Evidence of Thomas Thomas, fireman

**Thomas Thomas:** - "I am a fireman at the Gethin pit. I was on duty on the day of the explosion. I found the air changed all at once and then it came on stronger again. There was a good fire when I went into the workings, and that was continued up to the time of the explosion. David Beddoe came to me about eight o'clock and told me the brattices were drawing well. There are about eight tons of coal used per day at the furnaces, and three men are employed, who each work a turn of eight hours." About half-past five the coroner adjourned till ten o'clock next morning.

### **Third Day, Thursday, 11th January 1866**

Rees Price, overman, recalled

The Coroner took his seat with the jury shortly after ten o'clock. **Rees Price** recalled by jury. "There were two men employed in cutting coal for the furnace from the pillar!" By Mr. Plews: - "I believe Mr. Crawshay appointed me as overman. Mr. Moody sent to me. I was told another man named John Williams was appointed. I don't remember having any conversation with Mr. Moody about my knowledge of ventilation nor do I remember that at any time he spoke to me about it.

Before my appointment I was working in clay, as a miner. That was in a fire clay level where a small vein of coal was worked. The pit, as regards the headings and brattices, was the same on the 11th of December as on the 20th of October, when the former alteration was made but the levels

were not driven so far. The upper stopping in No. 1 cross-heading was there on the latter date, but the lower was not."

Witness corrected himself and said: - "The two stoppings between 1 and 2 cross-headings, from the upper part to the lower levels, were there on both the days named. The stopping on the stall driven from the level to No. 2 heading was also closed up and that at the top of No 2 cross-heading was also up; that at the top of No, 3 heading was also there. The upper level on the 20th of October had only been driven a little beyond No. 4 heading. At the time I left my work, before the accident, it had been driven till it met Joseph Rees's. The upper level had been driven about 90 yards, and Rees's heading 66 yards since October, to produce the intersection on the 11th of December. I don't remember having said to Davies that it would not do till the heading intersected the level; nor do I remember saying that the ventilation should not be altered till the holes met. I never said to Davies that it would do to alter the ventilation when the holes met.

Men were not employed day and night to push them on till they met. I don't remember that we lost the air in the old workings on the first attempt to change it. (Mr. Plews then proceeded to examine the witness as to the change in the ventilation made by Mr. Moody, and he adhered to the same statements as on the previous day.) I didn't see the alteration on December 12th can't tell whether the new plan worked well. I saw, after the explosion, places where doors had been put up."

There was a hitch in the proceedings here owing to the hesitancy of the witness upon one question put by Mr. Plews. It was: - "Do you think that after the change took place, at the direction of Moody, in December, the system of ventilation was better than when the experiment was made on the 20th of October?" — After much pressing from Mr. Plews, the witness said, "I don't like to say anything I don't understand, because I had not had an opportunity of seeing the changes that were made in the levels and headings. If I had been there it would have been my duty to get the gas out of Vavasour Rees's stall, and to see that the airways were kept clear." - Foreman: - "If you had been the overman, what steps would you have taken to get the gas out of that stall?"

Witness: - "In the then state of ventilation I should have driven a heading down from the middle level to the stall." - By Mr. Plews: - "The distance would be from fourteen to fifteen yards it may be twenty. It would take about five days, both turns, to drive a heading down. While that was being done the gas would have gone out of the stall into the return air-course. Mr. Moody ordered me to take away the men from all places. I have heard him caution the colliers myself not to work in places where danger existed. Two men named Ellis were working at the face of the middle level."

Mr. Plews: - "Did you hear before the explosion that these men ever lost their lights, and say you did not know how they got them again?" — Witness: - "I have said since the accident, when I heard David Ellis's lamp was found open, that I had been surprised how they got their lights, because they did not come back to the lamp station like the others and all men are liable to lose their light sometimes." — Jury: - "Have the changes made in the air during your absence had anything to do with the accumulation of gas in Vavasour Rees's stall?" — Witness: - "You can guess yourselves, as Vavasour was working there on Saturday, and could not work there on Monday after the change took place."

Coroner: - "Do you think the crushing of the windway between the stalls would have anything to do with the accumulation of the gas? — Witness: - "It may; I have seen things of that kind before. I don't know anything of No. 11 stall."— The Coroner said they always got hold of some strange evidence in the newspaper (a laugh) — Mr. Crawshay finds lamps for the overmen, wastemen, roadmen, hauliers, and doorboys, but not for the colliers!

By Mr. Wales: - "They are left in the lamp room to be cleaned by the lamp man, except once a week, when they are allowed to take them home to scour them." — Coroner: - "Is there any restriction as to the kind of lamp?" — Mr. Wales: - "Can he get any lamp he likes — a Clanny, Davy, or Stephenson?" — Witness: - "They are allowed to buy them where they choose. Most of them use Clanny's if they try the others they soon change them for the glass lamp." The Coroner said he had had a note requesting that the evidence of some of the men might be taken

first, as they had wives and families were dependent upon them, and this loss of time would be felt.

#### Evidence of Selah Phillips, collier

**Selah Phillips** said: - "I am a collier at No. 2 pit, and work in the lower level. I was at work in a stall, but did not see any fire as my stall is some distance from Joseph Rees's heading. I heard the report, but my light was not put out. I took up my lamp and went towards the pit." The Coroner said hearsay evidence was not a rule admitted, but there were occasions when an exception could be made. — Witness said: - "I had a conversation at the lamp room at the bottom of the pit, with Evan Powell, Joseph Rees, Thomas Phillips, Daniel Thomas, and George Thomas — a boy who had a glass lamp.

Daniel asked him what he wanted with a glass lamp as he usually had a gauze one. He said Moody had ordered him to have it. One of the colliers asked the reason, and Daniel said he was in Joseph Rees's heading, and there was fire there and Daniel's old stall was full of fire. I am not quite sure what he said about Thomas Powell's stall, but think he said that it was full but I am sure he said Daniel's was full and also Vavasour's. I said I thought there was enough "fire" to blow the pit to pieces. It would be better for us to go out, I said, but I don't recollect what answer they gave, and they went in to their work, and I went to mine."

By Mr. Plews: - "I did see the overman but not the fireman. I left the overman at the top of the pit. It was not my business to go back to him. I did not think of it then. I know no workmen are allowed to go in till the fireman makes his report." — Coroner: - "George Thomas is now alive, but his hip is out of place."

By Mr. Wales: - "That was the first time I had heard any complaints of the air in the pit. I have worked there fifteen months and never saw much gas there. Was stopped once till we had air. Price stopped me from working once in the top of Vavasour's heading." After the examination

of this witness the coroner adjourned, upon the intimation of the jury, for three-quarters of an hour.

#### Evidence of Evan Powell and John Hall, colliers

On re-assembling, the Coroner called **Evan Powell** who, on being sworn, said: - "I am a collier, and worked in the lower level of the Gethin pit. Was driving a heading fifty or sixty yards from the pit at the time of the explosion. I had been working in the pit five months." Witness then confirmed the testimony of the last witness as to the conversation on the state of the pit, and said he advised Daniel Thomas to tell Mr. Moody of the gas in the pit. Witness had seen no fire in the parts where he had been working. — By Mr. Wales: - "Selah Phillips was not at the bottom of the pit during the whole of the conversation." — By the Foreman: - "I did not see the fireman that morning." By a Juror: - "My place was cold enough. I always saw the mark of the fireman to show that he had been into my stall every day."

**John Hall** deposed: - "I am a collier, and worked in the middle level of the Gethin Colliery at the time of the explosion. I was with my brother in a dip heading, about two yards from the face of the middle level. I heard the report while at work about half-past eight and it put out the lights of three others besides my own and my brother's. The others were David Ellis, Griffith Ellis, and John Morgan. After we heard the explosion John Morgan and I went back about 60 yards in the dark to Joseph Rees's heading. Lost Morgan there, called to him, but received no answer.

I then went back to see where my brother was, and found him sitting down in the heading where we had been working. I asked him for his tea jack and took my handkerchief and tore it into two, and gave part to my brother. We then wetted the handkerchief with the tea and put it to our mouths. I then called on David Ellis and his brother, and asked them to come with us. I said if they did not come they would be sure to be smothered. All four of us began to make our way out. Davy went before his brother, and Griffith begged his brother to come back and help him, as he had a wooden leg. Davy turned back, and that was the last I heard of him. My brother and I then tried to make our way out. We got along

pretty well by keeping the wet handkerchiefs to our mouths; and so we were enabled to get to the bottom of the pit without much difficulty. I fell over one body, but going along in a hurry I could not tell how many more I stumbled over. I met Lewis Price Thomas, and his boy, Ayliffe Stephens, at the dip of Joseph Rees's heading. He asked the way to the pit. I caught hold of him and pulled him along about ten yards, when the boy called out for him to go back. He went back to assist him and they were found afterwards suffocated in the middle level. The Ellis's were both got out dead in Rees's heading, near to where I parted with them. I saw nothing of David Beddoe in going along." By Mr. Wales: - "I never saw Beddoe down the pit on the day of the explosion. He might have been there. I saw him at the top." — By the Coroner: - "There was no gas in the place where I was working that day, but there was in my old stall, further back, next the middle level. I saw the mark there. The firemen told me that morning that I was to mind and not go into it. I had been in it when it was safe on the previous Saturday. I had been working there till fifteen days before the explosion, and was stopped to drive another at the other side to meet it. There was gas there at one time, when I was stopped till it had been 'gobbed' up."

By Mr. Wales: - "I have been down Joseph Rees's heading once or twice, that was five weeks before the accident; I heard there was fire in Vavvy Rees's stall on Monday. On Tuesday, I heard there was fire in Vavasour's and Price's stalls. I was not down the heading any of those days. I have never seen any gas on the parting of Joseph Rees's heading, or on the face of the dip." — By Coroner: - "The air in my dip was better on the Saturday than on the Monday and Tuesday before the explosion. Davies did not come to me about half-past three Tuesday afternoon and ask about the air. Davies did ask me who told me to turn the point heading and I said Mr. Moody, and he laughed. Mr. Moody and Mr. Davies were both there in the morning. Nothing was said by them about the air."

Evidence of William John and Lewis Edmonds, colliers

**William John** said: - "I am a collier and work in No. 4 cross heading (Vavasour's). At the time of the explosion I was in one of the stalls in that heading, and I saw the fire coming up the heading. When I saw it I fell

down, and it passed over me, and I arose unhurt, and walked down the heading. John Lewis and several others came up to me. Our lights were put out, and I was knocked against the side of the heading. I had great difficulty in getting to the pit in consequence of the after-damp. I can't say if I was up at the top of the pit first, or the stalls. There I met William Davies and went down with him to the beginning of the middle level after I had seen Mr. Moody. I accompanied Mr. Moody to the middle level and found the body of Rees Davies, an old man, and then I went home." — By Mr. Wales: - "I have seen 'fire' several times from ten to fifteen yards from the face of the heading, before the change of air in October, before the pit was sunk to the nine-foot; but that was of little consequence. Since the pit has been sunk the air has been very good." — By the Foreman: - "I said nothing to John Lewis in reference to the work." — By a Juror: - "I found no change in the ventilation of my stall."

**Lewis Edmonds**, collier, said: - "I was driving up Joseph Rees's heading, at the top of it; I was not in the pit at the time of the explosion but left my work after a night turn, on Wednesday morning. When I left I should say the air was very good. I have seen a little gas in the stall in which I worked previously at the bottom of the heading. I was stopped there because of a crush in the top. The air was fresher at the top of Joseph's heading than where I had worked at the bottom. The air that passed me supplied the working place of John Hall."

**John Eynon** recalled: - "I found two lamps. David Beddoe's I found on the Sunday after the explosion. I was then assisting to put the pit right. William Davies and others were with me. We were trying to get the air through Vavasour's stall. I went into the mouth of the stall, and was looking to see the effect of a door being put up which we thought would turn the air. I had been looking for that lamp several times as I was told that it had not been found. As I was looking on the ground I saw a Clanny lamp lying on a tram plate. I picked the lamp up and looked at the number. I saw it was No. 79, W C and I tried to see if it was locked or not. It was locked but the screw was loose (lamp produced), I kept the lamp myself; and in about five minutes William Davies came to me and he identified the lamp as Beddoe's. Then some of the other colliers came up, and I told them. It was passed from one to another, and the last,



William Lewis, who shook it, said it was loose and could be opened without a key." — Mr. Brough: - "Then I should say it was unlocked." — Witness: - "It does not appear to have had the least injury. The lamp (produced) I found on the day of the explosion on the horse road. It belonged to Rees Davies." (The lamp was much battered).

By Mr. Wales: - "The lamp (Beddoe's) was not covered when I found it. I can't say if anyone else had been looking for it. I can't say that I recollected the number. I was not present looking for that lamp." By the Coroner: - "I don't know how Davies came to say, 'I feel that you are lucky,' (alluding to the finding of the lamp). There was a rumour that David Beddoe had been in the stall that is the reason I looked." — Coroner: - "Do you tell me they were not searching for it in that very stall?" — Witness: "I know they were searching everywhere." Coroner: - "And very possibly they might have heard the remark as well as you?" — "Yes." — "Did they go there?" — "I saw no one there." — "And you don't know that any other lamps were missing at that time?" — "I am not sure because I don't know if they were found before or after Sunday". —

Mr. Wales: - "You looked particularly for David Beddoe's lamp?" — Witness: - "Yes, I did!" By the Coroner: - "On the morning of the explosion I went down the drift from No. 1 into No. 2 pit. I proceeded along the east level until I was inside of Joseph Rees's heading. I turned up to the cross-heading, on the east side from that heading, with John Daniel David, till I got up to the fourth stall. I afterwards went up Joseph Rees's heading to the middle level. I saw a bar-off signal on Vavasour's stall, and understood the place was finished on the morning of the explosion. That barring-off was different to the usual danger signals."

(Witness proceeded to describe the state of the pit on the morning of the explosion, and matters were given, which are already in evidence.) The witness believed that the gas was fired by a naked light in "Vavvy's" stall. By the Jury: - "I think it was possible for a person to have crawled from the spot where the lamp was found to where the body of David Beddoe was found." — By the foreman: - "I don't believe the explosion was caused by the lamp, 79 W. C." - By Coroner: - "I don't think it would explode the gas if it was held up loose in the stall.

I found in the clothes of the deceased left in the level an artificial key (produced) which would open a lamp and nails which put crossways would answer the purpose of a key." Coroner: - (jocularly) "I am afraid, Eynon, you are up to those things." — Witness: - "The whole of the things are an artificial key (found in the middle level), two fuses, a packet of lucifer matches, and three nails also some tobacco, about a dozen pipes, and about five boxes. The Lucifer matches were in Vavasour Rees's pocket, but I can't speak to any of the rest." - By a Juror: - "There is a station not far from the pit where the men are allowed to smoke, but they are not permitted to smoke at their work." — By another Juror: - "The men use nails to hang up their lamps" - Mr. Plews handed the rules; 51 stated: - *'that no person shall takedown the pit, or have in his possession, a tobacco pipe, without the permission of the overman.'* — Witness: - "There is a bye rule which allows the men to smoke at a certain place near the bottom of the shaft."

As it was now half-past six, and the inquiry was adjourned till ten a.m. on Friday. There are still a number of witnesses to be examined, but it was expected that the inquiry would terminate on Saturday. The Government Inspectors — Lionel Brough and T. Wales, Esq. are among the skilled witnesses who will be called upon to give evidence. On the first day R. T. Crawshay, Esq., and W. Jones, Esq., manager, were present, and numerous other gentlemen of the neighbourhood attended each day, who have been watching the progress of the case with interest. The same newspaper reported: -

#### The Gethin sufferers

Having somewhat recovered the shock which the late fearful accident at Gethin caused, we now turn to the humane side, and inquire what is to be done with the families who mourn the loss of their departed friends and supporters? It is now generally understood that Mr. Crawshay has undertaken the relief of those who have suffered by the late accident and without wishing unnecessarily to interfere in Mr. Crawshay's private affairs, we would, on the score of humanity, and with great deference, throw out a few hints as to the management of the relief fund, and which appear to us desirable to be adopted in order that the public might be

satisfied that justice is done to the bereaved families. We would not for a moment hint that Mr. Crawshay has been guilty of partiality in the matter, though we must say that his movements have been somewhat tardy. But we do feel that the manner in which some of the families have been treated proves that a thorough investigation has not been made into their circumstances. Mr. Crawshay is doubtless ignorant of this, or we think he would act otherwise than he has done.

One case has come particularly under our notice, which we give our readers as it was stated to us by some working men well acquainted with the facts. A poor widow lost two sons in the late accident; they were her only support and comfort. They were steady, and doubtless made a comfortable home for their widowed mother out of their hard-earned wages. In addition to this they belonged to a club.

This belonging to a club is the source of complaint. When a member of a family dies, if he belonged to a club, his friends receive a certain amount of money towards funeral expenses, etc., and perhaps a few pounds over. Such was the case with the poor widow in question. Her sons were snatched away from her, and to save her from immediate want the money from the club comes to her very opportunely. Poor consolation this for the loss of two affectionate sons as dear to her doubtless as the son of the rich man to his parents.

What say our philanthropy and Christianity in such a case as this? Surely they command us to assist this poor widow at once, and do what we can to keep her in the same respectable position as when her poor sons were alive. But what does Mr. Crawshay do when this woman applies with the rest for relief? He declines, we are informed, doing anything substantially for her at present. He tells her, spend the money you have had from the club and then I will see what can be done for you. Now we do not think it kind to act towards this poor woman in such a way. Instead of being encouraged for her economy when her sons were living, she has now to pay for the self-sacrifice which she and her sons made, when out of their hard-earned wages they strove to subscribe weekly or monthly to a club fund, to prepare for a rainy day.

We say this is unwise, and no encouragement whatever to frugal and industrious working people. Is this poor woman to be brought down to the level of those families who, through intemperance or extravagance, have become thoroughly destitute? Assuredly not. Rather let industry and economy be encouraged among the working classes, by keeping her in as respectable a position as she was in when her sons were with her and if she has a few pounds from the club, who can be so unfeeling as to deny her the use of such a small sum in her present trying circumstances? We cannot believe that Mr. Crawshay, a gentleman possessed of so much wealth, and who in this accident has shown such a kindly feeling towards the sufferers, is disposed to deny this poor widow present and substantial relief simply because she has, by the sudden death of her two sons, become possessed of a few pounds from the club. We are rather led to believe that he has been misled by the misrepresentations of persons who are always too anxious to show a good balance sheet in favour of their employers. We suggest therefore, that as Mr. Crawshay has very generously taken in hand the relief of the suffering families, he should do it in such a manner as would give satisfaction to the public, as well as to the bereaved families. This he could best do, we think, by stating in writing what he intends to do in each particular case, or by forming a committee consisting of a few gentlemen of the town, who could examine thoroughly into the circumstances of each family, and report thereon to Mr. Crawshay, when an arrangement could be made as to what each of the sufferers should receive, and when and how they are to be paid.

We suggest also that this committee should not consist of Cyfarthfa Agents, but chiefly of the trade of Merthyr. For the satisfaction of the public, and on behalf of the bereaved families, we throw out these hints. The fact of a committee being already formed would relieve Mr. Crawshay and his agents of a great deal of unnecessary trouble, and we doubt not that a number of philanthropic gentlemen could easily be found who would also aid in this matter. The committee of the former accident fund, with the invaluable assistance of their secretary have well and satisfactorily managed their relief fund for nearly four years, and, we doubt not, that they would again undertake similar duties, and fulfil

them as satisfactorily, in connection with the sufferers by the more recent Gethin accident.

The following week the same newspaper reported: - It is with much pleasure that we inform our readers that Margaret. Williams, of Tabernacle Row, the poor woman alluded to in our article of last week, is to receive 5s. weekly without respect to the club money to which she was entitled. We are glad to find that Mr. Crawshay has decided so justly upon this case, believing, as we did at the time, that it was one calling for his attention.

### **Friday, 12th January 1866**

The Gethin explosion inquest – Fourth day  
Examination of the witnesses resumed

**John Davies**, formerly collier, now lampman at No. 2 pit, said he held the latter situation nine months, and was now 62 years of age. “Can read a little in Welsh, but none in English. My duty is to lock the lamps at the lamp station. I lock for all the colliers, labourers and door-boys. The officers carry keys to open their own lamps. My room or hole is 3 yards long by 4 feet wide. That is the station where the men are allowed to smoke and it is five yards from the bottom of the pit. The notice is 15 yards beyond that. There is a rule in Welsh and English put up on that notice, forbidding the men smoke or carry pipes into the workings. On the morning of the explosion I was in my cabin. It was about half-past 8. I was down the pit at half-past six in the morning and locked all the lamps of the men except David Beddoe’s. I look at the lamps when I lock them, and if I see anything the matter with them, I tell them to take them back. They all stand by me when I lock them. I have never seen anyone rush by me. I have never known of anyone bringing an open lamp back.” By Mr. Wales: - “I did know of one little boy whose lamp had been opened by Mr. Wales” (a laugh).” Mr. Wales said: - “I suppose this man does not know that I am not allowed to carry a key with me.” Witness continued: - “I open the lamp when they are brought back after they have lost their fire. If the men lose their lights they must come back to me with their lamps. Never knew an instance when they brought their lamps back. I called to David Beddoe that morning from the cabin as I had a strange

person with me then. David Beddoe came down quarter-past seven. I believe it was a person called Morris – William Morris – I think. He said he was waiting for David Beddoe, and had been working with him the day before. Morris went out to Beddoe and they both went away together towards the workings. My cabin was on the east side, and Beddoe went into the workings on that side. The stranger brought his lamp with him, and I am sure it was locked.” By Mr. Wales: - “I remember Mr. Wales down the pit that day. I can’t say how that boy’s lamp was unlocked. I had locked the boy’s twice that day before. They came to me several times a day to have their lamps opened and brushed. I locked it fast enough that morning when it came back from Mr. Wales. Mr. Peters, who was also with me when I locked it and it was safe enough then. I could not find the right hole. Eynon came and found it.” Mr. Wales explained that what the man meant was he screwed it as tightly as possible, but the screw was not exactly opposite the hole, it was not properly locked.” Witness: - “I locked it as well as I could, I told all the men to look at their lamps before they took them away.”

Daniel Davies, lampman, examined

**Daniel Davies** examined: - “I am lamp-man at the top of the pit, No. 2. I have been ill nine months and began work again three weeks before the explosion. I have held the same situation there for two years and a half before I was ill. It is my duty to clean the lamps in the lamp-room at the top of the pit. I can read and write, but keep no resister of those who have lamps. I was working at night. There is a day lampman there as well. I go to work between 5 and 6 o’clock in the evening, and go away about 7 o’clock the next morning as soon as we can clear away the people coming down by the first engine. Most of them come down by the first engine because they can’t have lamps out if they come much after 7 o’clock, but a few come down by the second engine. When I leave the lamp-room I leave it in charge of two girls about 15 years of age, who remain there ‘til I return. The girls were there at the time of the explosion.

There were two lamp-rooms before the explosion. I attended to one and Jenkin Jenkins the other. He also had a girl to look after his lamp-room.

If men came after we left these girls gave the men lamps who came up after the first engine. The greater part of the night men came in while we were there; but if any men came in afterwards the girls received their lamps, and opened them to be cleaned. Beddoe told me to leave his lamp alone on the corner of a shelf; and I never cleaned it or touched it. The firemen's lamps were not touched. While I was away ill several months the lamps were mixed. The one produced (Morris's) has a top 203 and bottom 50. The lamp I gave Morris was a gauze one. There is not a particular gauze lamp for each man but the others are owned by different colliers. There are about four dozen and a half of these gauze lamps. I saw Beddoe that morning. He usually kept his lamp in a corner on the shelf. He told me never to touch his lamp – to leave it as he left it. I never cleaned it, he always cleaned it himself. The fireman did the same. I gave the lamp to Morris the morning before, but I do not know what number it was. The number at the top and bottom get mixed.”

By the Foreman: - “I could not arrange the lamps properly when I came back to my work, as some of them were injured. I tried my best to put them right, but could not sort them. We are going to change these lamps because the screws are wearing out.” By the Coroner: - “I was one of the site workmen who first used these lamps, five years ago. We had two or three dozen two years ago.” By the Foreman; - “I don't know that it is my business to tell Mr. Moody when new lamps are wanted, I say when they are going old.”

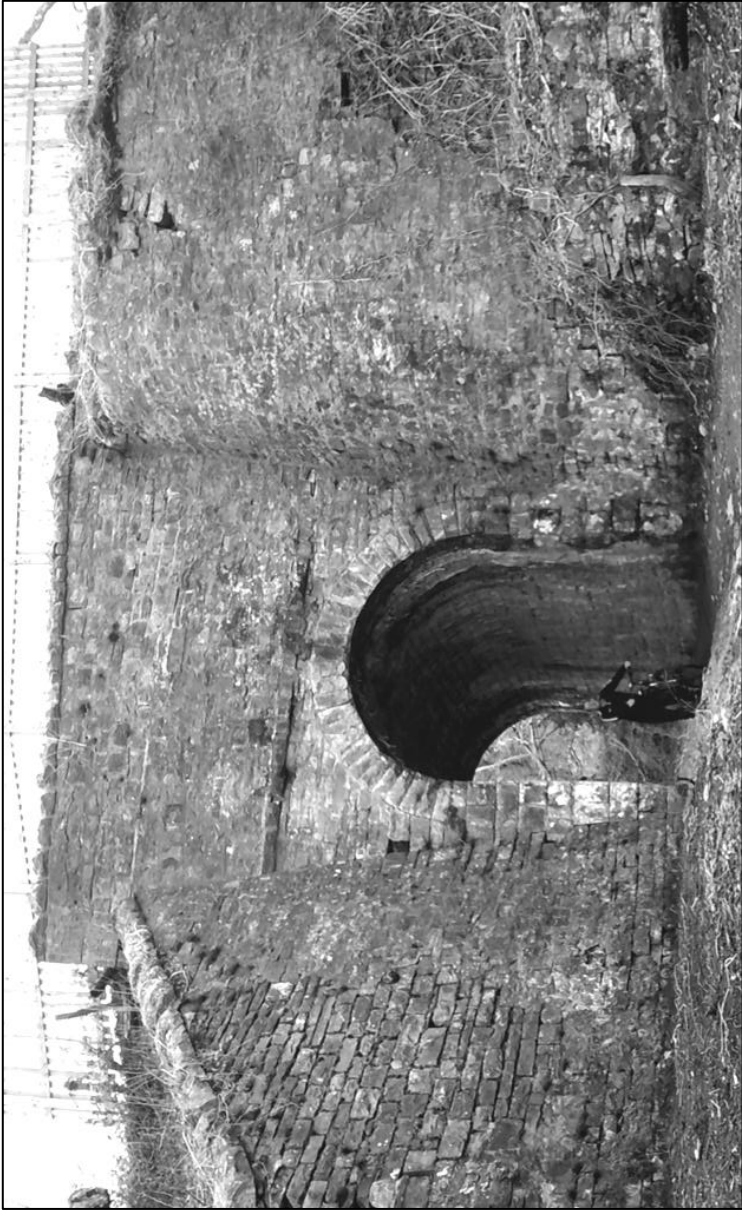
By the Coroner: - “The colliers use glass lamps now. Some of the boys and hauliers use the gauze ones. The men find their own lamps, but the oil is found for them. Those who own lamps frequently take the cases home but we clean them as well as we can. The men are not allowed to take away the lamps stamped with Mr. Crawshay's name.” By Mr. Wales: - “We put the lamps ready for the men who come up by the second engine.” By Mr. Plews: - “There is a man appointed to repair the lamps, Thomas Woods. He comes there every morning, and takes away any lamps that are chalked as unfit for use. He is an old man, and has been going there before I was there to repair lamps. I can't say what his former occupation was.” — Mr. Brough said a skilful artisan could soon learn how to repair lamps.

By Mr. Wales: - "We put a cross on them when they are bad. He (Woods) takes them to his own shop. He is a very handy old man, and puts in gauze sometimes. I had spoken to John Eynon of the confused state of the lamps. He told us to try and get them right, and we said it was impossible. I never mentioned the state of the lamps to Mr. Moody." Mr. Wales: - "Do you think the lamp produced, with a different top and bottom, was a proper one to give out? — Witness: - "I don't say it was perfect." - "Why could you not prevent it?" — "I wanted to get them right." - "How is it you could not get a top to answer to No. 50? — "They were in the other lamp-room." — "How many rooms are there?" — "Two; one on the lower and one on the upper pit."

"How far are they apart?" — "The length of the incline at the top of the pit." — "Does the man at the top of the incline do any repairing?" — "No." — "You say all the lamps pass through your hands?" — "As many as come into my lamp-room." — "Then do you deliver all the lamps out to the colliers, or does the man at the incline top give any out?" — "He don't give any out to any of the men." — "But does he give them out at No. 1 pit?" — "He does." — (After a deal of misunderstanding, it turned out that because some of the hauliers and boys of No. 2 pit went out at No. 1 pit, they delivered their lamps to Jenkins, the lampman at the top of No. 1 pit; but now there was only one lamp-room). — By the foreman: - "The reason I mentioned the mixed state of the lamps to John Eynon was because he happened to come that way." — By the Coroner: - "Before the explosion I never said anything to Mr. Moody or Mr. Eynon. They might know that I was ill and a stranger was in my place."

By the Coroner: - "When there was only one lamp-room the lamps were kept there, which was at the top of No. 2." The Coroner told witness to read rule 53, which he did — "The lamp-keepers shall keep the lamps clean and in good repair, and they shall supply such a number as shall be required daily, with a sufficient quantity of oil and wick. In all cases where lamps are returned injured, they shall report the circumstances to the overman &c." — By Mr. Wales: - "The girls are there in the day-time." By Coroner: - "Before my illness there was only one lamp-room. During my illness the girls were introduced. The alteration was made at the direction of John Eynon. I look upon him as the overman." — The course





**The Gethin Colliery tramway bridge that carried coal between No1 & No.2 Gethin pits. Photo taken 05/04/2018. Built so the Gethin Farm owner could reach his fields.**

I pursued at No. 4. from there on to the windway, and along the level to No. 5, and there a collier was at work. I stopped with him a quarter of an hour or twenty minutes. I then went down the stall of Joseph Rees's heading to the back stall. I tried every place and could find no gas. When I went to the face of the middle level I found no gas there. I returned afterwards to Joseph Rees's heading, and went down it. There was gas in Vavasour Rees's stall, and Thomas Price's stall.

After going to the flue of the middle level I returned twenty or thirty yards along the windway, and back to Joseph Rees's heading. The reason I did not follow the air beyond the middle level was because I should have to go down through the old stalls. I found gas in Vavasour Rees's stall ten or twelve yards from the parting, six feet from the bottom and two feet from the top. I put up the danger signal on the Monday morning. I went to Price's stall, and found gas there also.

A signal was put up there. Found gas from seven to eight yards from the parting, and five yards from the bottom. I went into the next stall for ten or eleven yards, but did not go further as the timber had been taken out, and it was dangerous. I did not find gas there. I went about the same distance into the stall below where a stopping had been put up. The master wasteman put it there to take the air up to the next stall, I think. It was inside the cross-hole. I then went to the bottom of Joseph Rees's heading into the lower stall. There was no gas, and the air seemed to be as it was usually.

I didn't go into the level, but returned to the third stall on the right hand side. There was no gas there. I went then into Lewis Thomas's stall and found no gas there. There is one stall between Thomas's stall and the middle level, which I did not pass through. I then went to the middle level. At the bottom of that level was an abandoned stall. It had been so a month or six weeks. I have been in it but can't say how many times. I was in the week before the explosion, and the windway between that stall and Joseph Rees's heading had been "gobbed" up. It used to open into Joseph Rees's heading, and split Vavasour Rees's stall. I saw that the stopping had been put up on Tuesday night. I don't think that the stopping would affect Vavasour Rees's stall."

Coroner: - "Why?" — Witness: - "Because there was no air to come that way." — Coroner: - "You think the stopping would not affect it because there was no vent to the other stall?" — Witness: - "No sir, Thomas Price's was in the other stall; Beddoe was waiting for me to come up. He said, 'I put up that stopping at the mouth of the windway because I thought it would do good.' I gave a report to him of the state of the workings. He asked how Vavasour Rees's stall was, and I said the same as on the Monday and Tuesday. He asked what the effect of the stopping was, and said the air was losing under the door at the top of Joseph Rees's heading and he thought the stopping would turn the air into Rees's stall. He said if it had no effect on the stall, he would take it down again, and Vavasour Rees should commence that morning to draw the heading back. I found gas in John Hall's old stall, from ten to fifteen yards from the face of it. I put a stop signal up on the Monday morning previous, and it had been there ever since, and the gas as well. I went into the stall by John Hall's and found the gas had been cleared out." — By Mr. Wales: - "The cross-hole of Vavasour's stall had been choked on Saturday, but not before I believe. I went there a week before. The top of Hall's was breaking then. I told Beddoe in the presence of Davies that there was gas in the other stalls. I did not see Davies on Wednesday morning."

By Mr. Plews: - "I think that all the timbers had been taken out of John Hall's stall, all that could be got, and that the roof was filling in." By Mr. Wales: - "That stall had been stopped eight; or nine days before I found fire." By Mr. Plews: - "Beddoe told me nothing about the orders he had received to get the windway cleared out. He said he should be obliged to head down, as he could not get at the cross hole." The Coroner: - "Did you think that was the best way?" Witness: - "Well, he could not go to the west, and I don't see that he could clear it out any other way." By Coroner: - "I don't think it would be safe to open the windway in the state it was then in." Mr. Plews: - "Don't you think it would be possible to open that windway?" - Witness: - "He could not then do it." Mr. Dews: - "Don't you know that it had been stopped up when it was opened before?" Witness: - "I don't remember that." - Mr. Plews: - "Don't you remember that it had to be opened when it was choked up?" Witness: - "I remember some stones falling in. Mr. Plews: - "Don't you

know that it has been opened?" Witness: - "I know it has been opened now." - Mr. Plews: - "You say it could not be done." The Coroner: - "We know it has been opened now, and the gas has been let out." (signs of applause). Mr. Wales: - "The gas was not out when I was there. It had accumulated again."

Rees Rees, Fireman, examined

**Rees Rees:** - "I am a fireman in No. 2 pit. I have held my situation eighteen months, and was day fireman at the time of the explosion. I went in about a quarter to seven. I went to put up a brattice in No. 1 heading. The night fireman reported all working places free, except the three named by last witness. The explosion occurred when I was at the west side. The gas had been in the three stalls since Sunday morning. I was present on Saturday night, when the air was turned. There was a little gas in a fourth stall, David Jones's, next to John Hall's. There was no gas in either of these stalls on Saturday, because I was in on Friday night. We got rid of the gas out of David Jones's stall, but it was in the other three on Tuesday. There is an old windway between Vavvy's stall and the middle level. It was open till about ten or eleven o'clock on Tuesday, and the air was intended to go that way to Vavvy's stall; instead of that it was taken to the back stalls. On that morning it was stopped up by Samuel Harris and John Daniel. Mr. Moody, David Beddoe, and myself, were looking on, and remained there about a quarter of an hour, and were trying an experiment to see if the cross-hole was shut up, and we concluded that it was, as we experienced no pressure of air. I left Mr Moody and Mr. Beddoe, and the men kept on with the work. It was then determined to pull back the loose coal, take up the plates, and abandon the heading."

When asked his opinion as to the cause of the explosion, witness said: — "I told Beddoe that I did not like the gas to be there as the pressure of the air might force it out. He said, 'If the men don't go there it won't matter but I'll go on now and begin to head down, and when Vavvy's stall is cleared we can get to the waste.' He went to start a cross-hole to the parting of the middle level, and in about three-quarters of an hour the explosion occurred. I did not approve of that, and think I should have

restored the previous system of ventilation. Price's stall would then have been cleared. They had not began to head — there was no time. It is possible that a man might have fired the gas and crawled out.” - By Mr Wales: - “Mr Moody did order that no one was to go down the heading without Clanny's lamp and David might have given him his lamp to go into the stall to knock as to where to head out. I told Mr. Moody on Sunday that the place was full of fire. Mr. Beddoe, and John Daniel Davies, wasteman, got there before me.

Witness was cross-examined as to his mode of clearing Vavasour Rees's stall. He said he would first turn the air into one of the lower stalls. — Mr. Plews asked: - "Could not the same principal he adopted in turning the air into Vavasour's stall?" — Witness: - “No, you just have a place for the air to go in, and another for it to come out (a laugh).” — Mr. Plews: - “Would it not have done to turn the air into Vavvy Rees's stall?” Witness: - “No sir.” — Mr. Plews: - “What is the reason you did not get it out?” — Witness: - “I was overpowered by the viewer, Mr. Moody, who gave orders for the work to be stopped and nothing to be done.” — Mr. Plews: - “Do you swear that?” — Witness: - “I do; I only said I didn't agree with it.” — Coroner: - “You said you didn't agree with Beddoe.” — Witness: - “Everything was taken out of my hand. The viewer and overman are over us; we can only tell them.” — Mr. Plews: - “Did he give you orders not to do it?” — Witness: - “He gave orders and I have to obey. Although he gave the orders to turn the air I thought it was a bad job.” — Mr. Plews: - “Did you tell him so?” - Witness: - “No; have I a right to say that to him?” — Witness in answer to the Coroner said since the explosion the air had been going the old way, and the gas has been cleared out.

Thomas Gurnew, Plymouth Collieries, interviewed

Thomas Curnew examined: - “I am colliery viewer of the Plymouth collieries, and hearing of the explosion I went to give my assistance. I got there about nine o'clock. I have been underground thirty-two years, and, speaking from my experience. I never found a pit in a better state than the Gethin was after the explosion, considering that the stoppings had been scattered in all directions. I went down with two firemen of my own, and met with Mr. Moody on the middle level, where there were

from ten to fifteen bodies. The ventilation was soon restored, and we had less trouble than I expected to get into the far end. I believe the explosion took place in Joseph Rees's heading, because I saw all the doors had been blown towards us. The following note was handed to the coroner from Mr. James as to the position of John Eynon:—

*Jan 2nd, 1865. John Eynon, — "Mr. Moody asks me to excuse him attending the Gethin pit for a few days. I have granted him leave to be absent, and the pit is therefore entirely under your management, and I hold you responsible for its working. You will remember the lives of many men are under your care."* This was a copy of a letter from Mr. Crawshay.

**John Eynon** was recalled. He said, "I never gave any instructions to the men before the accident. I am responsible for the working of the pit now." The Coroner: - "This is really a queer state of things. We must know who are the responsible men at the present moment, if you or Mr. Crawshay can prove it." — Witness: - "I have acted as manager since I have had that letter. I was directed by Mr Crawshay to take the control for a few days." — Coroner: - "Who is the under-viewer?" — Witness: - "John Maddocks." — Coroner: - "Are you viewer of the Gethin pits, or the whole of the collieries?" —Witness: - "I believe Gethin pits." - Coroner: - " Well, my good man, you have the letter. Surely you know what you have to perform." — Witness: - "It is the Gethin pit."

**David Williams**, Esq., Penrheolgerrig, said: - "I saw Thomas Morris at his own house, Cwmglo, on the evening of the explosion. I asked him in the presence of several other colliers, if he knew who had fired it. He said he knew it well. It was fired from David Beddoe. The fire came to me when I was naked from my waist. Morris had been badly burnt and his whole body was wrapped in oiled lint." The adjournment then took place, it being six o'clock.

**Saturday, 13th January 1866**  
Fifth day - John Moody recalled

The jury assembled at ten o'clock, when the Coroner proceeded with the inquiry. Mr. John Moody was recalled, and his evidence read over. He

added: - "The quantity of air coming from No. 1 pit that day, 15th December, was 7,260. I was in No. 1 pit with Jenkins on the morning of the explosion, and we went as soon as we heard of it. When we got to the pit I saw the ventilation destroyed, and some of the men putting up doors. I gave directions to get some more boards to put up where the doors were blown away. John Eynon had turned the air before I got there, and by this means shortly cleared the after-damp, and we were able to get out the bodies with the assistance of Thomas Curnew and others.

On Sunday morning John Daniel, Davies, and Beddoe, came and told me there was a little gas in John Jones's stall, and a little in the face of John Hall's and in Vavasour Rees's stalls. I told them I would put on my pit clothes and go down with them. David Beddoe said 'No they are putting the door right, and we expect it will be all right on Monday morning.' By that time Rees Rees came to the office door and just looked in." Witness did not ask him any questions, and they then left together. "I told David Beddoe I would be at the top of No. 2 at six o'clock on Monday morning. I was at the top a few minutes after six, when the colliers went down who came by the first engine. William Davies, David Beddoe, and myself went down the pit about half-past six, and we proceeded to the east level, through all the working places, from Morgan's windway to Joseph Rees's downward. We went, through the face stalls of Daniel Price, Thomas Bowen, and John Luke; and through the cross-hole from John Luke's down to the middle level to the east, to the bottom of Joseph Rees's cross-heading down to Lewis Price's stall, went into the face of that stall, and Price and the boy were filling a tram of coal.

We stood there a few minutes, and then came out of there to the parting went down to the bottom of Joseph Rees's heading, turned back up the cross-heading to Vavvy Rees's stall, where we saw the fire mark. I said to Davies and Beddoe that the fire mark appeared to be a loose one. Bar-off signals are used occasionally. When I said that William Davies said 'take hold of my lamp, and I and Beddoe will put a up proper fire mark.' He got some deal planks ten inches wide and one inch thick. After he put up the fire mark, he took his lamp from my hand and went into the stall to see where the gas was, and found it near the roof, ten or twelve yards

from the parting. He went in to within five or six yards to the face while I stood there, and I came back in company with David Beddoe, and we then returned to the parting.

Then William Davies gave Beddoe orders that the gas must be taken out. He told him to contract the windway leading from the middle level to the stall below, force a little more air upon Vavvy's stall, until he repaired the windway between Rees's and Price's stalls. He said the men must be put to it at a proper time, at night, after the work was finished. I left William Davies and David Beddoe at that place, and I went from the pit to see Mr. Crawshay as to whether I should remove the pillars from Joseph Rees's cross-heading, which was under house property at Abercanaid.

Mr. Crawshay told me that he had not seen Lord Dynevor's agent, and had come to no new arrangements with him. I then told him that there were twelve or thirteen stalls finished, and part of the plates taken up. The timber I said was all standing, a good deal of the pitwood had broken, and the top had begun to fall, and had caused puckering." By the Foreman: "I did not tell him about the gas."

Examination continued: - "I went down to Gethin on Tuesday morning, and passed into No. 2 about half-past six. I went up to cross-heading No. 1 and back again, and to Nos. 2 and 3, and back to the windway, No. 4, Thomas Morgan's. I had the dial with me that morning, and dialled that heading. I left there with Beddoe, and went to Joseph Rees's cross-heading. I put a point there, and stopped there twenty minutes or half-an-hour. I asked Joseph Rees and Morgan how they felt the place that morning — it they found it fresher than on the Saturday morning, and Joseph Rees said it was, because they had the air fresh from the shaft. I sat down with the dial in my hand, and Rees said, 'Now, after we've got the air fresh from the shaft to here, and it is cool, and there is more of it, you will shortly let us have a lamp room here.' I told him I could not do that, but I would consider it. I then left.

We went down the heading through the face stalls, and down to the middle level; went along that to Joseph Rees's cross-heading up that to the back stall of John Morgan, down through the windway the same as



on the previous day. I went into the face of the middle level, and put a point on John Morgan's slope heading. I then went down to John Hall's dip, and put a point there. I came back to the middle level, and went back to Joseph Rees's dip to the bottom. We came up the heading as far as Vavasour Rees's stall; while there, Rees, the fireman came. The gas there at Rees's stall was about the same. I stopped them about half-an-hour. I didn't try the gas, but Beddoe said it was about the same. I never go in beyond the fire mark. While there I told one of them to open the door above Rees's stall, and then I tried my hand below the upper door, where the piece of canvass, five feet by eight inches had been removed by my orders on Saturday night, to judge whether there was more air when the door was shut or open, to thus enable me to judge whether the cross-hole was open between Rees and Price's stall.

I told them to shut the door, and then called Rees to try it, and felt more air when the lower door was open than when shut. I felt sure then that the windway was "'squeezing" or getting less. I told Beddoe then that he must have his man that night after the pit was done to open it. The man was then putting a bay across Vavasour Rees's stall, for which I had given him orders. Beddoe said he would put his men there that night, and clear the windway as I had said. I then left and went to No. 1 pit, and was fully occupied there the whole day.

On Wednesday morning, I went to Gethin No. 2 pit. at six a.m., before any of the colliers. Benjamin Griffiths, the fireman, had not then come out to give his report. Beddoe came there a few minutes after me. I asked him if he had received the fireman's report, and he replied that he had not. I told him to get it, that I wanted to go down No. 1. I waited a few minutes, and the fireman came out and gave Beddoe the report. I asked him what it was. He said the pit was all right except a little gas in Rees's stall. I asked him if he had had his men that night to clear the windway between Rees's and Price's stalls. He said no, that they hadn't any victuals with them that night to stop. He had made arrangements with them to bring victuals with them that morning, and get some colliers to assist and finish it. I then told Beddoe as he hadn't carried out the orders to go down and remove Lewis Price and the boy from the dip, and allow no man to work there until the gas had been removed, and put

one of his men at the door next the level to prevent any men from passing that way. I afterwards told him to send someone for my dial and take it down to Thomas Morgan's windings, and meet me at 10 o'clock to put a point up. I then left and went down to No. 1, and didn't see Beddoe again until after the accident."

By the Foreman: - "About six or eight months ago there was a change in the agents at Gethin. Eynon left, and Davies appeared in his place, and Beddoe was selected by Mr. Crawshay from two or three firemen, for the office as overman." — By Mr Wales: - "I said to Rees I would consider his application of a lamp station. I accompanied you on the 26th to No. 2 pit, and do not recollect whether there was any gas in Vavasour Rees's stall on that day. You told me that you had received a letter from Mr. W. Jones that the pit would be ready for my examination, and that you were disappointed in not finding it so. You told me that you wouldn't come again until you had received another note that the pit was ready for examination. Don't know that Mr. Jones wrote to you stating that the pit would be ready on the 28th. I think I wrote to you on the 27th. You examined the pit on the 28th. The air was travelling on that day the same as on the day of the accident. The gas had not on that day been cleared in Vavvy Rees's stall. I cannot say whether we went to the face. I can't recollect whether we went into the stall at all on that day. You measured the air at the different splits on that day. I changed the air on the Thursday morning on purpose for you to judge it. The air was travelling at a previous inspection from No. 1."

By the Coroner: - "I was down on the day of the explosion, and afterwards every day until the 26th. I didn't see a signal at any stall but Vavvy Rees's. I did see the fire mark on Hall's stall on the Tuesday, and when we parted on Saturday evening I agreed to go down with them on the following day to see the effect of changing the air, but they said they would go and bring me the report, which they did. The gas in Price's stall was not reported to me.

Mr. Moody by the Foreman: - "Do you give orders for everything wanted at the works? — Witness: - "I write the orders and other people take them." — Foreman: - "Do you get the full extent of your orders?" —

Witness: - "I don't see them come; the overman and fireman can answer that best." — Mr. Plews: - "Do you know that they have complained sometimes that they have not had their quantity?" — Witness: - "I do." - The Coroner: - "That is a general inquiry." — The Foreman: - "The evidence was to show if Mr. Moody had the entire control of the works." — Coroner: - "Have you ever represented to the proprietor that you have not had the quantity ordered?" — "I have seen Mr. Crawshay, when he has sent for the overmen or firemen to see if they wanted the things."

Coroner: - "Have you represented that the things were not forthcoming?" — Again witness seemed inclined to give an indirect answer, and he said: - "I have spoken to Mr. Crawshay in the office, and said we could not do without them. I have not gone direct to him." — The Coroner: - "Have you represented these deficiencies to him!" — Witness: - "I have represented this — that in my position, I would never give an order unless it was really wanted." — Coroner: - "Did you get the orders completed afterwards?" — Witness: - "Not on all occasions." — Coroner: - "Generally?" — Witness: - "I can't say generally, because I am not there to receive them. I keep an order book. and when anything is wanted I sign my name to an order."

Coroner: - "Has there been anything not forthcoming which was conducive to the safe working of the pit? We are certainly not here to inquire into the moral character of any one, but I take it that generally your orders have not been carried out. Was there anything ordered for No. 2 pit not supplied that you can speak to?" — Witness: - "When an order has been sent for deal brattice the fireman has complained that he has not had the quantity necessary for this pit." — Coroner: - "On what occasion?" — Witness: - "I don't keep the dates of the orders, but I remember Rees Price, Jenkin Williams, and Benjamin Griffiths being short of nails. My order is that no place shall be taken back more than fifteen feet without brattice, and I have said they should not upon any consideration work with a single handful of gas in the heading."

The Foreman: - "Were you ever prevented putting up a brattice in Vavasour Rees's stall?" — Witness: - "I have heard no complaint about that." By Mr. Plews: - "Eynon has been down the pit without my

authority. Mr. Crawshay never spoke to me about his having authority to go down. I believe he has been down at night." — By a Juror: - "I am not aware of his having given instructions to the men, but he would have the privilege of conversing with them.

#### Testimony of Lionel Brough, her Majesty's Inspector of Mines

Mr. Lionel Brough said: - "I am her Majesty's Inspector of Mines for the South Western District of Great Britain, and have made my investigation with regard to the Gethin explosion, and attend this inquiry by the direction of the Secretary of State. Mr. Wales will lay before you more complete and elaborate evidence than I possibly can, because he was actually in the pit on the day of the explosion, whereas I was not instructed to assist in the matter until after a considerable lapse of time; and it was as late as Friday, the other instant, when I was enabled to inspect the colliery. I am of opinion that the explosion occurred in Vavasour Rees's stall; of that I have no doubt whatever. I think the gathering together of gas in that stall is to be attributed to the obstruction in the cross-hole between his working place and the one just below it. Such continued obstruction was, I believe, the primary cause of the calamity. The altering of the ventilation, or rather the reversing of it, by Mr. Moody, was so far judicious that it did away with vitiated air coming in contact with the firing of gunpowder, though, at the same time, it had the effect of sending dilated air down hill instead of up.

A current of air descending a pit from the surface, and proceeding down a slope to the deepest part of the workings, is an effective method on account, of its greater density, which prepares it admirably for the performance of its great function of sweeping clean all the openings from that lowest point right up to the rise, but I should tell you that, some very able men differ with me in opinion on this subject. When Mr. Moody determined to alter the ventilation, it involved the conduction of warmed, and, consequently, dilated air, down through Joseph Rees's heading and its adjuncts. Now, the tendency of attenuated air is not to find its way downhill as freely as it would ascend nevertheless, under the conditions ruling in that colliery at the time, I still think it might have turned out a useful change, though I agree with Rees Price in that part of



**Canal side, an old Beehive air receiver, one of the few remnants of the Gethin Collieries.** (Photograph courtesy of The John Owen Collection)

his evidence wherein he says that everything ought to have corresponded in order that it should have met with perfect success.

This brings me to speak of the general state of the ventilation of the nine-foot seam of coal at the Gethin colliery :— The quantity of fresh air descending from the surface could scarcely be said to be insufficient for ordinary purposes but the question which naturally arises is as to whether or not a proper quantity arrived at the far ends and distant faces of work. Its travel was tortuous and intricate, as it had to pass in and out in various directions, and through three underground pits or staples. Furthermore, the practice, appears to have prevailed in Cyfarthfa collieries, of scaling air through workings belonging to abandoned cross-headings, thus again lessening the amount so much required in those stalls which were furthest from the bottom of the downcast.

Fiery collieries, with currents of air only just enough to preserve the pit from explosion when all goes smoothly and everything is in its normal condition, may be said to be attended with the contingent danger, that when anything takes place, they are unable to contend with it, and calamitous results ensue. Those collieries are the best which possess a power of ventilation beyond the mere balance of conditional safety; when danger suddenly makes its appearance, surplus ventilation is often able to surmount and conquer it. Restricted columns of air never can do so. My belief then is, that to place the No. 2 Gethin in the category of a surplus-powered pit, would be to sink an entirely new shaft right down to the nine-foot vein of coal, and devote it altogether to ventilating purposes; a pair of furnaces of its own of course being constructed near the bottom, severing connection completely with those belonging to the upper four-foot seam. A high stack is a help, and is to a certain degree effective, but naked chimneys radiate a large portion of their caloric into free space. On the contrary, a deep pit, down through strong ground, preserves its hot column in a far greater degree than any high stack can ever possibly perform.

The evidence adduced at this inquest by no means establishes anything like ability or discipline in the lamp department of the Gethin colliery. Whilst underground with Mr. Wales we met a young boy going in-bye

with an unlocked lamp, more than one lamp found after the explosion was also found to be unlocked. The colliers are permitted to buy their own lamps — manufactured anywhere or everywhere— whereas, if the owners were to supply all their workmen, they would in all probability purchase their lamps of some approved makers in Newcastle-on-Tyne. Another circumstance became apparent from evidence — that is to say if a collier was anxious to proceed hurriedly to his working place, he could, with but little difficulty, evade examination by the poor old man stationed near the bottom of the pit.

I believe the gas could have been soon got out of the thurling between Vavasour Rees's stall and that of Thomas Price; but whether it was easy or difficult to dislodge it from there, or whether even it was necessary to head down from the middle level, they should certainly in either, or every, or any case, have kept the colliers out until the gas was entirely removed from both the stalls, whatever might have been the length of time required for the performance of the operation. To continue a dangerous accumulation of fire-damp for days together, was to imperil the lives of the workpeople.

I beg to add that, as the throttled cross-hole seriously affected one of the air currents, and caused a dangerous reservoir of gas to form in Vavasour Rees's stall, and most likely in the one below it, the non-ventilation of those places became, in my opinion, an infringement of the first general rule of the Act of Parliament, 23 and 24 Vict., ch. 151. I repeat, therefore, that the men should have been withdrawn, and then the fire-damp swept away by an adequate current of sharp air.

Evidence of Thomas Wales H.M. Inspector of Mines for South Wales

Thomas Errington Wales, Esq., of Swansea: - "I am Her Majesty's Inspector of Mines for the South Wales district. On the 20th of December I received a notice of the explosion at Gethin, and proceeded immediately to the scene. I arrived there about one o'clock, and descended the pit in company with Mr. Moody and other officials. I have committed to paper the result of my inquiries, as follows:—

As inspector of Mines for the South Wales district, it has been my duty to examine into the cause of the explosion of gas which occurred in the Gethin No. 2 pit, on the morning of Wednesday, the 20th December last, resulting in the death 34 persons, and serious injury to several others. The colliery is the property of Mr. William Crawshay, of Caversham Park. I descended the pit about two o'clock p.m. on the day of the explosion, in company with Mr. Moody, the colliery manager, and other officials. We proceeded along the high level, on the east side of the shaft, in the nine-foot vein of coal, where I found unmistakeable signs of an explosion of gas having occurred. The doors, stoppings, &c., were for the most part blown out and destroyed and there were tracts of after-damp (the products of the explosion) still remaining, but considering the short time — probably not more than six hours — which had elapsed since the occurrence, and the fatal results produced, the quantity of after-damp was much less than I expected I should have found. On this inspection I carefully examined all matters which I considered at all likely to furnish a clue as to where and how the explosion had occurred, but not until we had reached the part marked 'A' did I meet with anything to enable me to form a definite opinion on those matters.

Here, however, we found several doors, stoppings, &c., which had been blown in certain directions. I also found gas in the stall marked 'C', within a very short distance of the heading or mouth of the stall, and the roof of the stall still falling and in a very unsettled state, which are the usual traces left by an explosion of gas, but strange to say, no burnt coal or charred timber were found here. A danger signal had been placed at 'B' to bar the entrance into the stall 'C'. This danger signal had been blown against the rib on the opposite side of the heading marked 'F'. At the points marked 'D' and 'E', certain clothes were found which bore marks of the fire, and these were the only places where I met with distinct traces of fire.

On Thursday, the 21st ult; i.e. the day after the occurrence, I made another examination of the same workings, without, however, making any fresh discovery, but which certainly strengthened the opinion which I had already formed by my previous inspection as to where it occurred. Almost immediately after the explosion occurred the direction of a



portion of the air had been changed to enable the exploring parties to reach certain parts, where it was known several men would be found sooner than they otherwise could have done.

This condition of things, with regard to the ventilation, continued during this and my previous inspection. On the 26th and 28th ult., i.e. on the following Tuesday and Thursday, I made further examinations, and on the latter occasion I found that the doors, stoppings, &c, which were destroyed by the explosion, had been replaced, and the ventilation restored and put as on the day of the explosion. I carefully examined the whole, or nearly the whole of the places which were at work on the 20th ult., as also the old works as far as I considered it practicable and prudent to do so. During this inspection I was accompanied by the officials and several of the colliers who survived the explosion. We found gas in two places, viz., a small quantity lodged in a hole in the root of the middle level, and in an old stall marked 'G. A.', extending some 6 or 8 yards back from the face.

The gas which I had noticed on the 20th and 21st ult., in the stall 'C' had been so reduced in quantity that I did not consider it prudent to penetrate far into the stall as to reach it. It will have been observed that the condition of the pit on this occasion is supposed to be similar to what it was on the morning of the explosion. I therefore measured the quantity of air passing down the Gethin No. 2 shaft, the depth and area of which have already been stated, and into the nine-toot workings, where the explosion occurred. The total quantity of air descending the shaft was 36,828 cubic feet per minute, which was split or divided at the bottom of the shaft, 10,937 feet going into the workings on the west side — which workings had been only very slightly affected by the force of the explosion — the remainder 25,891 proceeding eastward, which was again split at 'I' and 'H' about two-thirds, or 17,360 feet, going to ventilate the workings on the north-west of the point marked 'H'. and one-third, or 8,631, went to ventilate the workings on the north and south-east of the same point.

From the foregoing it will be seen that during my inspections already referred to, three accumulations of gas were met with, viz. one in a hole

in the roof of the middle level, another in an old stall marked 'A', and another in the stall marked 'C'. It does not appear that any provision or attempt had been made to remove the two former accumulations of gas. Indeed, I was informed by the officials of the pit, who accompanied me, that they were not aware of these accumulations until after the accident. I think that statement applied to both accumulations, but if not I shall be glad to be corrected, although a danger signal had been placed to prevent any person going into the old stall John Hall marked 'G A'.

It is, I believe, usual to place a danger signal to bar the entrance into old or worked-out places, if such places are not shut by other means. On Friday, the 5th inst., I again descended the pit, and on that occasion was accompanied by one of my colleagues, Mr. Brough, who had been desired by the Secretary of State to assist in making my examinations, &c., &c. We examined all places which we thought at all likely to assist it forming an opinion as to how and where the explosion occurred. We were quite agreed as to where, but did not arrive at anything definite as to how the gas was fired. We measured the air, and found the total quantity circulating amounted to 30.937 feet per minute.

On this occasion the air was travelling up Joseph Rees's heading and past Vavasour Rees's stall (where doubtless the explosion occurred) on to the colliers firing shots. We considered such a proceeding fraught with much danger, and at once recommended that John Eynon, in charge of the pit, should discontinue the firing of shots under such circumstances, which he promised to do. I now come to a more important point, namely, what probably was the cause of the accumulation of gas in Vavasour Rees's and Thomas Price's stalls, and how, in my opinion, it should have been dealt with.

The stall 'C' is the top one of some four or five stalls on the west side of the heading next to a part of the eastern boundary of this colliery. It appears these stalls are underneath certain houses, and it had not been definitely fixed whether the pillars between such stalls should be removed (worked away) or left standing to support the said houses. During this suspense the thurlings on the lower or south side of the stall, and especially the one on the lower side of Vavasour Rees's stall, had

become crushed, that being the nature of the floor and roof of the nine-foot vein of coal, and of contracted area, which, doubtless, tended to limit or reduce the quantity of air passing there and hence the accumulation of gas in the stall 'C'.

When this condition of things presented itself, it was the duty of the proper authorities to take the necessary steps to remove the said gas at a proper time, and in a private manner; to place a proper danger signal at the roof of 'C' stall; and to remove all persons (except such as may be engaged in removing the gas) from within reasonable distance until that the safe removal of the gas had been effected.

From the evidence, I believe proper danger signals had been placed to bar the entrance into the three stalls which contained gas; but in my opinion the quantity of air passing south from the top or upper level should have been increased, and after leaving the face of the middle level diverted into Vavasour Rees's stall, to clear away the gas there. No men should have been allowed to work on the lower side of the middle level until that (the gas cleared away) had been done.

From much thought the result of several examinations of the workings, and the evidence I have heard, I have no hesitation in stating that in my opinion the gas in the stall had been ignited, and was, therefore, the origin or cause of the sad and fatal explosion now under investigation but inasmuch as this pit was worked with locked safety lamps, I am unable to state with any amount of certainty by whom or by what means viz., whether a naked light defective lamp, or an improper use of an efficient one, the gas was fired.

It has been stated that the lamp of David Beddoe, who was acting as overman, was found on the morning of the 24th or 25th ult. a few yards within the stall 'C.', but when found was locked and uninjured this therefore, gives me a clue as to how the gas was fired. Doubtless the deceased, David Beddoe, was well aware of the accumulation of gas in that stall it is, therefore difficult to conceive how he above all others should have approached it (the gas) except, for a lawful purpose and in a proper manner. Having given my opinion as to the probable cause or

origin of the accident, I shall now offer the following suggestions for the future working of the Gethin No. 2 pit.

1st. That the quantity of air especially on the east side of the pit be increased.

2nd. That all main levels or thoroughfares be ventilated with current of fresh air, and so arranged that the fresh air shall pass from such headings, levels, &c., into the old works, and not vice versa,

3rd. That all return airways be travelled on by proper and careful persons.

4th. That the Geordie Stephenson lamp be used instead of the Clanny and Davy and that the firing of shots be discontinued; that a more efficient person be appointed to examine and lock all lamps, and that the lamp department be improved.

5<sup>th</sup>. That all safety lamps be supplied by the proprietor of the works to the workmen. This would be a guarantee for the quality of the lamp. The custom throughout almost the whole of South Wales is for the colliers to purchase their own lamps, and they are, I fear, generally influenced by the amount of light and price at which they can be obtained, both doubtless of great importance, but ought, nevertheless, to be subservient to safety. I would strongly impress upon the officers of the colliery, the colliers, and others, the great importance of adhering strictly to the colliery rules, and especially with regard to the proper use of the safety lamps. It is the duty of every person using a safety lamp to satisfy himself that his lamp is locked before it leaves the lamp station, wherever that may be.

I need hardly add that the painful facts which have been elicited in this inquiry present a sad picture of the utter want of even ordinary care in regard to the use of the safety lamps, lamp keys, or contrivances for opening lamps, lamps unlocked, matches, pipes, and tobacco, having been found in the pockets of several of the unfortunate sufferers in this sad calamity.

Coroner: - "One witness, Rees Rees, expressed the opinion that the gas was ignited from Beddoe's lamp, or from a workman he sent in, do you think that theory would apply?" — Mr. Wales: - "Under the peculiar circumstances I think it would. A Clanny or a Davy moved at a certain velocity would ignite gas, but a Stephenson would not." In answer to Mr. Plews, Mr. Wales said it would be decidedly better to take the air from No. 2, other alterations corresponding.

He saw nothing to convince him that the principle was bad, but he thought that the quantity going through that day was small. He did not agree with Rees Rees, as the gas if taken out that way would be dangerous to the part where the men were firing shots. It would have been a safer way to have increased the air passing from the top of Joseph Rees's heading. The only objection to the mode of driving of the heading was the time it would take to do it. It was not unlikely that there may be various opinions. There was a bay put up to thrust the air through the door into Vavasour Rees's stall." By the Foreman: - "Mr. Wales had inspected Cyfarthfa collieries three times since 1862. Had been down the No. 1 pit eight months ago."

The coroner sums up

The Coroner then read over to the jury the 10th section of 23rd and 24th Vict. and said: - "We have examined I believe all who are in existence capable of affording us any information on the important subject we have had to investigate, and it will be your duty to form an opinion on the evidence you have heard. It is not so clear and conclusive as I would wish but I trust it will be sufficient to enable you to come to a conclusion that will be satisfactory to yourselves and the ends of justice. In enquiries of this kind we are obliged to go into a mass of evidence that may afterwards be irrelevant and not strictly in accordance with the rules of evidence but as our inquiries are merely preliminary, and not like criminal ones, we cannot reasonably reject any evidence referring to the matter, as it may form an important link or clue to some material and substantial facts. Unfortunately, we too often find that our researches are stopped at the important point by the cruel hand of death, and the only witness we could procure is gone beyond our reach.

These are the difficulties we have to encounter in inquiries of this kind, and the only persons who could speak to the most important facts are dead and gone, and we are compelled to have recourse to circumstantial evidence to supply the place of more substantial proofs but I need not inform you that, in many cases, circumstantial evidence is admitted to be equally as good, if not better, than direct testimony as it is an axiom that is laid down and admitted by the best judges of the land, we cannot therefore complain if we are placed in that position.

There is another reason why I have adopted that course. My experience in matters of this kind — and I believe it has been my unfortunate duty to hold more inquiries arising from explosions than almost any other coroner in the kingdom, has led me to believe that the safety of a colliery depends in a great measure upon the ability and efficiency of the officers, and the discipline and the material economy maintained in the pit and it is therefore but right and proper that you should have all those officers before you, and other witnesses who can testify to those circumstances, so that you may be able to form an opinion upon them. The proprietors also in the present instance very properly seek a full and faithful inquiry.

The importance of the case deserves it and justice to those who have suffered demands it. In my opening address to you I told you that the first question you had to decide was how the several persons referred to met their death, and for the present we will confine ourselves to the case of one of them, Vavasour Rees. Now on this first point the evidence is conclusive, that he died of suffocation, and came to his death from an explosion of gas in the No. 2 pit at Gethin, on the 20th of December last; and having arrived at this conclusion, you will then have to decide the more important questions of —1. How the explosion took place; and — 2. Whether it was by accident or culpable neglect. To enable you to come to a conclusion on the first point, we must wade through the mass of evidence we have collected. I would willingly, if you wish it, read it all over to you, and comment upon it as I proceed, but I fear it would take you, as it has already done me, several hours to get through, and I think it would be better if I detail to you the result of my inquiry.

There are certain facts that are I believe I may say clear, and may be admitted. There are others in which the evidence is not so conclusive. I will first of all take the former and leave you to decide upon the latter but at the same time I beg you will observe that it is entirely your province to decide upon all these facts, and if you think I am mistaken in any respect, do not let my observations in any degree influence you. Now the facts that appear to me to be patent are these.

It appears that on the 20th of December, about half-past eight in the morning, an explosion took place in the No. 2 pit Gethin. At the time there were somewhere about sixty persons employed in the pit, and of these 34 were killed and ten more injured, the rest escaped. Out of the thirty- four killed, it would appear from the evidence of Dr. Thomas—who with other medical men in this neighbourhood exerted himself, as they always do on most occasions, in the most laudable manner, in endeavouring to resuscitate the sufferers, that 27 died from suffocation, five more from the concussion, and two from burns.

Now, from the position in which the bodies of those burnt were discovered, combined with the places in which they were supposed to be at the time of the explosion, the appearance of the doors and stoppings after the occurrence, and the concurrent evidence of the witnesses, it would appear unquestionably that the explosion must have originated in or near the stall called Vavasour Rees's stall, and extended a short way down Joseph Rees's heading, and then up the heading to the top along the upper level, and up some of the headings.

In one of these headings (No. 4) the fire was distinctly seen, as testified by William John, and the effects of the explosion were clearly visible by all the doors on the rise heading having been blown down. The consequence of the doors on the rise heading and the stoppings having been blown down was, that all the air that passed in the interior workings immediately passed up those headings to the upcast shaft, and left the whole of the pit unventilated, and it remained in that state until John Eynon who happened to be in the pit at the time, made his way with great difficulty to the lower level, and opened door at the bottom of

the drift leading into the four-foot vein, and let in a supply of air from that pit into these workings.

The effect of letting in that air was that it drove the after-damp before it out of Joseph Rees' heading, and enabled him and the other men who accompanied him, to proceed up the heading and find the different bodies in the manner he had described, but unfortunately too late to save the lives of any of them. All the men killed were employed in Joseph Rees' heading, and the stalls connected with it, with the exception of the two Halls, who seem to have had a providential escape, as you have heard from the interesting narrative of John Hall himself, whose very sensible and wise conduct evidently saved the lives of himself and his brother from being sacrificed.

If therefore you are satisfied, as I presume you will be, that the explosion originated there, you will have to endeavour to discover how it originated; and on this point there is no clear evidence and you will be left in a great measure to conjecture. There is ample evidence to show that there was an abundance of gas in Vavasour Rees's, and the adjoining stalls, and it had been accumulating there from the Saturday previous and I think I may here at once say that there is no positive evidence of its existing in any other part of the pit, excepting those places, and, to a degree, in the abandoned stall called John Hall's stall between the middle and the upper levels; and it certainly would appear perfectly clear that the explosion could not have occurred in any of the headings above the upper level or in the lower level, as they appear to have had an ample supply of the fresh air, quite separate from the rest of the pit. The inference therefore must be that the gas, which was known to exist in Vavasour Rees' and the adjoining stall, must have taken fire and exploded, but how, and by what means, appears to me a mystery.

The only information you have on that point approaching to evidence, is the evidence of John Eynon who says that he found a lamp that is identified as Beddoe's in that very stall, which is a distance of about 3 yards from the place where the body was found. The lamp was found - we are told - on the Sunday following, and had escaped the notice of all persons who had previously been in the stall; and what is still stranger, it



appeared perfectly secure and intact and presented no appearance of being injured in any shape or way. It was, as you perceived, a Clanny lamp, and the general opinion has always been that they would not ignite gas. If therefore the lamp was found then there would be still the improbability of the lamp firing the gas. It may be that those lamps are not so secure as they are represented to be and I believe it is admitted that they may possibly, under certain circumstance to ignite gas. You have heard the opinion of the Government Inspectors on the point, and I can only add that I had two cases in which the only conclusion I could draw was that they were not infallible.

There does not appear any evidence or the slightest grounds for supposing that there was any naked light, nor am I aware of any other evidence on the point; so that will be a question which you must decide for yourselves. There is evidence that some lucifer matches, pipes, and tobacco were found in the pockets of the clothes of some of the workmen; but there is nothing to connect them with the parties who were supposed to be nearest to the seat of the explosion. It is true that the possession of such article is forbidden by the rules of the colliery, and so wrong but the same rule which forbids the possession of them also forbids smoking in the pit, while the evidence shows that the rule was never adhered to, and smoking, was directly allowed.

You will therefore have to form your own conclusion as to how the gas became ignited and having done that you will come to the second question propounded to you. — Whether it arose from accident or culpable neglect? To enable you to decide this point, you will have to consider whether there has been negligence on the part of any one connected with the pit in any way. For instance, if you find that any unauthorized person had gone into where the danger signal had been put, or done any other act in violation of the rules, and set fire to the gas in Vavasour Rees' stall it would be your duty to send him for trial; but it does not appear that there is any direct evidence on that point, and you will be left entirely to hypothesis on that head.

Now all the opinions we have heard on that point seem to lead to one, and only one, inference and I really do not see but one solution, and that

is the one suggested by the last witness, Rees Rees, the foreman, which is the man Beddoe must have gone himself, or seen the man that was assisting him into the stall for some purpose or other, with his lamp, and that the gas got fired through the lamp.

I really cannot perceive another explanation of it; but that is a question for you to satisfy yourselves upon. If you should adopt this view of the case, it is, I apprehend, quite clear that neither of those parties will be guilty of any criminal act as Beddoe, being the overman of the pit, was fully authorised to take any steps which he thought proper. If the evidence leads you to believe that the catastrophe did not arise from any negligence, or carelessness, but was one of those unforeseen casualties that ordinary foresight or caution could not foresee or prevent - that must necessarily, more or less, attend all mining operations - then however, serious it might be, and much to be regretted, it would only amount to accidental death; but if, on the other hand, you consider that it arose from the carelessness or negligence of any of the viewers, agents, overmen, or others who had duties to perform in reference to the pit or the men who were employed therein, then it would amount to culpable neglect, and it would be your duty to find a verdict of manslaughter against the delinquent.

Before I proceed to refer to the evidence, it may perhaps be some advantage to you 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 depends on its own surrounding circumstances. The general rule is that when death arises from want of due caution on the part of any person in doing an act, or, secondly, from his neglect to perform a duty which is cast upon him by law, such a person is guilty of manslaughter. It is your province to decide what does amount to such carelessness or negligence. All I can do is to assist you with any authorities or decisions which have taken place.

I find in "Archibald's Criminal Law," p. 220, the law thus laid down "If a man takes upon himself an office or duty requiring skill or care; if by his ignorance or negligence he cause the death of another, he will be guilty of manslaughter." He cites a case — where it is a duty of a ground bailiff

of a mine to regulate the ventilation, and to direct where air headings should be placed, and in consequence of his neglecting to do so there was an explosion of fire-damp and 19 of the workmen were killed." Justice Maule said — "I hold this to be manslaughter" and went on to further to state: - "It is no defence in a case of manslaughter that the death was caused by the negligence of others as well as by that of the prisoner for if death be caused by the negligence of others, the prisoner and all those are guilty of manslaughter."

This was, however, the ruling of a single but a very learned judge, the late Mr. Justice Maule, in the case of Reg. V Barret. In the same volume the same principle appears to have become recognized. The case is Reg. 1). Haines, 2 Car. & K., p. 368. In Reg. v. Twindall, 2 Car. k, K., 330, Baron 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." And Justice Coleridge, in a similar case, laid down the rule still stronger, as reported in Baker's Law of Coroners, p. 200. At the Assizes in this county, in Reg. v. Hopkins, Justice Crompton said — "That he was glad the investigation had taken place, as colliers and other persons may know that if the death of a fellow creature resulted from their negligence, they would be amenable to the charge of manslaughter." And in another case in 1830, Lord Campbell said: -

"I am clearly of opinion that a man may, by neglect of duty, render himself liable to be convicted for manslaughter, or even of murder;" Reg. 1', Hughes. In the case of Reg. r. Lowe (4 Cox, c. 449) Lord Campbell said I am clearly of opinion that an act of omission as well as commission may be so criminal as to be the subject of indictment for manslaughter." And in this county, in an indictment against an overman at Dowlais for not supplying timber according to the rule to a collier who was killed by a fall of roof, the Judge left these questions to the jury to answer:— 1st, Whether the prisoner knew the rules; 2nd, Whether there was such negligence in the prisoner in not supplying timber as led to the death of the deceased; 3rd, Whether there was such negligence in the prisoner in allowing the deceased to go on working as led to the death of the deceased and the jury, having answered all these questions in the

affirmative, the Judge told them that they ought to return a verdict of manslaughter, it was then done.

Cases of this description could be amplified, but it is sufficiently laid down to show that managers, agents, and others, who have duties to perform on the due and careful performance of which depends the lives of the miners and others engaged in these dangerous undertakings, are bound to bring to the exercise of their respective duties ordinary and reasonable precaution, as well as skill and ability. You have also heard the rules and have them before you. The first general rule (read) appears to be the most important. Having now explained to you the law, let us consider the facts as detailed in the evidence, and then see if anyone has infringed the law. The facts, I believe, are these: -

On Saturday, the 16th of December, the ventilation of the No. 2 pit was changed. Previously it was ventilated by two currents of air — one from the No. 1 pit and the other from the No. 2. Mr. Moody, as the viewer of the pit, for the reasons he has assigned to you, thought proper to alter the system and shut off the supplies from No. 1 pit, which, it appears, were about 9,000 feet, and divert or rather split off a portion of No. 2 pit to ventilate that part of the workings, which has been described as Joseph Rees's heading, and some few other facts.

The change was made on Saturday evening previous to the explosion, and it appears that on the next day, when the overman, David Beddoe, and two of the firemen went at the request of Moody to ascertain the effects of it, they discovered that there had been an accumulation of gas in the two adjoining stalls I have before alluded to — that is to say, Vavasour Rees's and Thomas Price's, and also another called John Hall's, between the middle level and the upper level. It would appear that neither Moody, the viewer, nor William Davies, the under-viewer, were present themselves, but it was proved, I think clearly, that both of them had a perfect knowledge of the circumstances, not only on the Sunday, but also on each of the subsequent days; and it appears also clear that Moody went to the place himself on the Monday, and afterwards on the Tuesday, when he remained there while certain experiments were being made with the view, no doubt, of removing the gas.

At all events it is proved most satisfactorily to my mind that Moody was there for a considerable time on the Tuesday morning trying some experiments himself, while the stoppings of which we have heard so much were being put up, and he must necessarily have known all about it. In his examination you will remember he told us that he had been in the lower level that same morning, and taken the measurement of the air there, which, he said, was 5,000, but he never intimated in the least that he had been present with Beddoe while he was putting up the stopping, although we were particularly anxious to obtain some information about it. William Davies appears also to have been present when the reports were made by the fireman to the overman, and he also admits being at the place with Moody and Beddoe on the Monday, and by himself on Tuesday, so that there can, I think, be no doubt that they were both aware of it, and if there was any doubt the evidence of Rees Rees, the fireman, completely settled it.

If you believe his evidence, and I must say I never heard any evidence given in a more straightforward manner, it appears that they were both aware of it, and Moody did give directions that none but Clanny's lamp should be used, and the plates and timber should be taken up, in the whole heading, in consequence of the experiment he had made, which convinced him that the air hole between that and the next stall had become stopped up. If you think they were cognisant of this state, you will then have to consider whether under the circumstances they exercised ordinary care, diligence, and attention.

It would appear that previous to the 16th, when the change took place, there was no gas whatever in any of those stalls, and it was after the change was made that it made its appearance. You have heard several opinions as to the policy of such a change, and the reasons in its favour. Some, are opposed to it altogether — others think that it is good on principle, providing arrangements had previously been made to correspond and some approve of it.

It appears, therefore, to be one of those cases which must necessarily be entrusted in a great measure to the direction of the parties, and if they exercise the best judgement in designing, and an ordinary precaution and

care in carrying them out, they ought not to be amenable for a mistake or error in judgment.

It may perhaps be that a similar, experiment had been tried some months before (on the 20th October), but in answer to that it may be alleged that the circumstances had been altered and the positions of the workings were different, the upper level and Joseph Rees's heading not having then been driven to meet. These are circumstances that you have to consider. The only question then remaining will be whether you think that proper care, diligence, and attention were exercised from the Saturday to the time of explosion. It is quite manifest that the gas was there on the Saturday, and was allowed to accumulate until Wednesday, and that men were allowed to work in some of the stalls and windways belonging to that heading below, during that time.

Do you think that was reasonable and proper or that it amounted to negligence? You have heard the evidence of what was done, what was undone, and the consequences, and if you think there has been negligence on the part of anybody that led to the death of these parties, it will be for you to say so.

There are several circumstances connected with the internal arrangements of the colliery, such as the divided responsibility, and the system adopted with the lamps, and other matters that have been elicited during our investigation, and one of importance in the management, that may perhaps call for some observations on my part; but the importance of the present enquiry, and the time it has already occupied, preclude my now entering upon them so I will not detain you any longer than to express my sincere thanks for the extreme attention and punctuality you have given to the ease, and I will leave you to consider your verdict, perfectly convinced that you will do what is right and just.

#### The verdict

The room was then cleared for the jury to consider their verdict, and after the lapse of about an hour, the Coroner sent a note to the foreman

reminding him that if twelve were unanimous upon the verdict, it could be returned. Another forty minutes passed and then the door was opened and the Coroner took his seat. He read the verdict handed over to him from the foreman, Mr. J. C. Wolrige, as follows: -

*"We find that Vavasour Roes came to his death by an explosion of fire-damp that took place in Vavasour Rees's stall on the 20th December, 1865; but we cannot say by whom or how the gas was ignited. We find John Moody and William Davies guilty of culpable neglect in not removing the men and clearing the gas."* The Coroner said: — "Gentlemen, I can only say that the verdict is in accordance with the evidence, and I don't see how you could come to any other conclusion. The court is now closed. This verdict was equivalent to one of **Manslaughter**, and the Coroner then formally issued his warrant of committal. Mr. Moody and Mr. Davies were each bailed, by two sureties of £20, and themselves in £10, to answer the indictment at the next Assizes, in March, at Swansea.



**This photograph from the top of the slip road of the A470, was taken when the tip of Gethin No. 1 was being removed in July 1987. In the right foreground is the site of the pit and the incline from No. 1 can be clearly made out. Nearby St. David's Square had already been demolished.**



## Chapter five

### Colliery Management

The verdict now given, the local newspapers, as usual, gave their opinion. The '*Merthyr Telegraph*' of 20<sup>th</sup> January 1866 reported: - The inquest upon the bodies of the sufferers by the Gethin explosion having been closed, and the jury having given in their verdict, we deem it a proper time to make some observations thereon. We have carefully abstained from the period of the accident to the present time, from making any remarks which might in any way have a tendency to bias the decision of the jury, upon the important matter under their investigation. We have not published a word which would impute carelessness, negligence, or inefficiency, to any one man, or men, connected with the catastrophe neither have we said aught in condemnation of the ventilation or system of working the pit. In the observations which we are about to make, they will have relation more especially to colliery management generally, than to the present case for as the jury have found an adverse verdict against two men connected with the management, we shall most scrupulously avoid any expression of opinion upon their guilt or innocence.

The first thing that strikes the most casual observer is the great number of accidents connected with coal mining. Our worthy coroner in his opening address to the jury upon the present occasion, gave the astounding fact, "that in the year 1864, in the South Wales district, there were no less than 101 separate accidents, involving the loss of no less than 105 lives, (and this exclusive of the ironstone mines,) which are more in number than any one of the ten districts into which England is divided and which, when compared with the quantity of coal produced, is far more than any of them, and more than double the average of the three principal districts, viz :-Northumberland, Cumberland, and Yorkshire; and the returns from Scotland are far more favourable than the best of our districts.

The returns for the year just past will present a still more gloomy aspect. They have not yet been made up, but from my own knowledge I can safely say that the numbers in this district will be fearfully augmented, as I have already held in my division alone, during the past year, nearly 100

colliery cases, exclusive of the one upon which we are now engaged, and the deaths in the ironstone mines."

This testimony, pronounced by the coroner in his official capacity, is strikingly important from the facts enunciated. The fact of the number of persons killed being double the average number killed in the three principal coal districts of Northumberland, Cumberland, and Yorkshire, must at once arrest the attention of every person, even those least concerned in the production of coal, or connected with collieries. The question which must, and will naturally arise is, why should the number of accidents, and consequent loss of life, be so far in excess of ratio to the other coal mining districts? Are the systems of working our collieries inapplicable or inefficient? Are the men who have the conduct of our coal pits — be they viewers, overmen, firemen, or others in control — more ignorant of their business, more incapable, or worse paid than the corresponding class of men in the English districts? Is there something in the character and bearing of the Welsh collier more careless of human life, more indifferent to the consequences of reckless hardihood, more stolid in the face of imminent danger, than is to be found in the English collier?

We cannot take upon ourselves to answer these questions satisfactorily, but we can aver from personal knowledge of many of the class in this neighbourhood, that they are men of good average intelligence, and of shrewd views upon the current topics of the day. Hence we hazard the opinion, that in the conduct of their daily employment they would not be far behind, if not equal in intelligence, to any body of men in any other district, engaged in the same calling. The notion is sometimes propounded that the legislation affecting the working of coal mines is loose and imperfect, but this idea would soon vanish from any person's mind who would take to the reading of the rules and regulations in force for their management.

The legislature has been exceedingly minute in the provisions detailed, many of which are of a very stringent nature, and the contravention of which entails serious penalties upon all concerned. It is well known that connivance is too often given to their evasion, and that in some cases

overmen set a bad example, by their own transgressions of the same. In other cases we find that men, as in Vavasour Rees's case — carrying Lucifer matches in their pockets, and that after the explosion there were found in various parts of the workings, an artificial key, (which doubtless was used to open a safety lamp,) two fuses, a packet of Lucifer matches, and three nails, also some tobacco, a dozen pipes, and about five boxes. Strong evidence undoubtedly of recklessness, and of a constant transgression of the colliery rules. And yet, when any cases are brought before the magistrates they are not slow to punish such, but as it appears with very little effect. But after making all due allowances, after admitting to their full extent, the gross carelessness and hardihood of the colliers, we are of opinion that the inspection of collieries, as conducted at present, is thoroughly inefficient.

The men appointed as inspectors may be, and doubtless are, well qualified both from practical and theoretical knowledge for the posts they fill, but we think that the inspection is far from being often enough. We cannot say how often the Gethin pits have been inspected since the former explosion, but Mr. Wales, the present inspector, in his evidence says he was not down in Gethin pit No. 2 (the pit of the explosion) before. "Six months ago examined the returns from the Nine-feet. Went down No. 1 and examined. Have been in Cyfarthfa pits thrice since appointment. Found them all in good order."

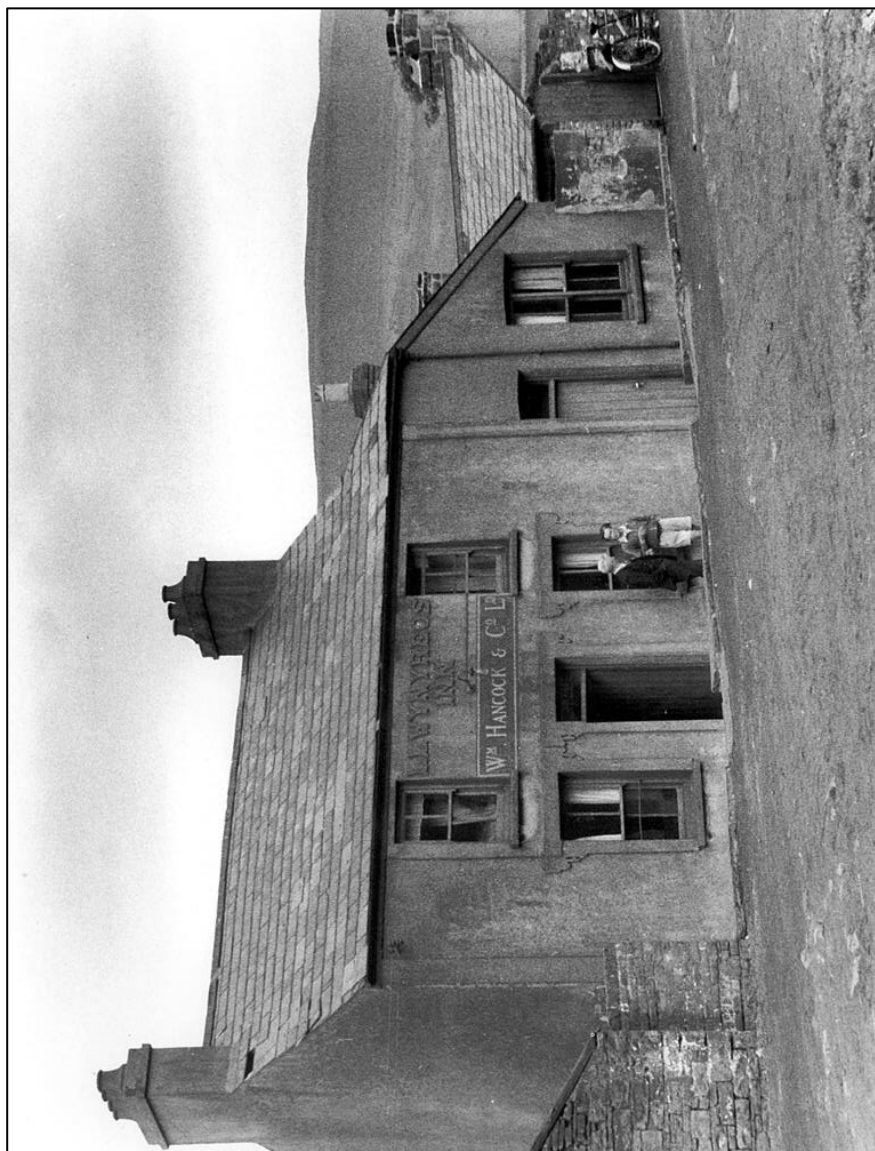
Now the Gethin pit No. 2 has been in work for a considerable time, some years at any rate, and the workings must be on a considerable scale, for from the evidence it appeared there were sixty persons working in the east side alone, and yet no inspection of it had ever taken place by Mr. Wales. Assuredly there ought to have been, for more than one reason. How was it possible for any man, let him be as conversant with ventilation as he might be, to state to a jury, with anything like satisfaction, the condition of the ventilation of the pit? It is true we had a description of it; its general appearance, and the quantity of air traversing it in the days subsequent to the explosion but we think every person of the commonest capacity must at once admit that a coal pit must present very different aspects if examined after an explosion, to what it would have appeared before one.

And again, although the inspector has made several excellent suggestions for the safer working of the pit in future, every common sense man will see that they are valueless, unless the viewer, whoever he may be, has full power to carry them into effect. It is but reasonable to suppose that a man, holding a most responsible situation, entrusted with the lives of many workmen, should be at liberty to carry out all such schemes as he may deem necessary for the efficient discharge of his duties. Yet it is a fact that crops out in the evidence of Mr. Moody himself, that after giving orders which he deemed necessary for the proper carrying on of the work, he had them either curtailed or countermanded. Now, observe the onus is thrown upon the man who is nominally responsible, while some one — who, we are not informed — has the dignified privilege of parsimoniously diminishing the supplies, which were not ordered until they were "really wanted." When Mr. Moody was pressed he could not say whether the stinted supplies had affected the working of the colliery, but he did say that the fireman had complained of being short of brattice and nails.

True, he made no direct complaint to the proprietor, probably being aware why this check-string was pulled but if in the way we allude to, and which is borne out by the evidence, the viewer's movements were controlled, then he and Mr. Davies were not the only men who have been virtually managing the colliery. These are matters which demand attention. They are the wheels within wheels, which may, for aught we know, throw the whole machinery of a colliery out of gear.

But we need not speculate. There is life to be considered of more value than a few yards of brattice and a small quantity of nails. The system of ventilation may be good, but if the other things don't correspond, an explosion may blow up the pit.

There are many minor details in a colliery plant that may escape the casual inspection it undergoes once now and then, for it is probable that the large number of collieries in the South Wales district afford more work than any one inspector can accomplish. If so, let us have a greater number by all means, so that under any circumstances, the public shall



The Llywn-yr-eos public house pictured in the 1950's – One of the favourite watering holes of the colliers at the Gethin pits and one of the few public houses left today at Abercanaid. It was built in the late 1700s alongside the new Glamorganshire Canal. Lwyn-y-eos (Nightingale Grove) was the name of the district before it became Abercanaid.

| Column—<br>Column— | 1  | 2  | 3                 | 4                 | 5                                      | 6  | 7  | 8  | 9   |
|--------------------|--|--|-------------------|-------------------|--|--|--|--|---|
| No.<br>No.<br>No.  | When and where<br>died<br>Place & date & by<br>law | Name and surname<br>Name & surname<br>Name & surname | Sex<br>Sex<br>Sex | Age<br>Age<br>Age | Occupation<br>Occupation<br>Occupation | Cause of death<br>Cause of death<br>Cause of death | Signature, description and<br>residence of informant<br>Name, address & residence<br>of informant & date of<br>signature | When registered<br>Date & place<br>of registration | Signature of<br>Registrar<br>Name & residence<br>of Registrar |
| 1862               | 19th February                                      | Situs Jones  | Male              | 16 yrs.           | Mason                                  | Manslaughter                                       | Information received from Geo. Weston Coroner for Glamorganshire Inquest held 21st February 1862.                        | Twenty Ninth March 1862                            | Herbert James Registrar                                       |
| 479                | Caethin Colliery Mathur Tyflie.                    |  |                   |                   |  |  |  |  |   |

Death certificate of one of the victims. Note the cause of death: - Manslaughter.

be fully impressed that as far as inspection is concerned, the life of the working collier has been cared for to the utmost.

There are two suggestions which we have heard from more than one of the colliers themselves, and which we think are worthy of consideration. The first, that the South Wales district should be divided into sub-districts, — Aberdare as one, Merthyr another, Cwm-Rhondda another, and that one or more practical men, who have worked in collieries, and are well acquainted with the nature of the coal therein, be appointed sub-inspectors, and that their sole work should be to examine the collieries in all their particulars, and report thereon to the inspector and to make such men independent of "favour or affection," that they be paid good wages from the Government, or some other source independent of the colliery proprietors.

The next, that the workmen themselves should have the appointment of overmen and firemen. It cannot be concealed that much dissatisfaction exists at present amongst them at the way these appointments are filled up, and perhaps more than all that they are so completely under the authority of the viewer, and paid a rate of wages often not so high as some of the colliers can get themselves.

We believe the first suggestion would embrace very nearly the provisions of the French and Belgian law relating to colliery inspection, an inspection as is well known to most colliery proprietors, of a very stringent and efficient character, but which, from this or some equally powerful cause, makes the number of deaths from coal mining to contrast most favourably as compared with those of England and Wales.

The other suggestion, which so nearly concerns the relations between master and workman, we shall not touch upon, but we cannot conclude without most fervently praying that some method may be devised, either by legislative interference, or the discoveries of science, backed by the wealth of the great colliery proprietors, that will render the coal pit the safe spot for the that collier to earn his livelihood by the sweat of his brow, and not be as it is at present, too often his tomb. The same newspaper on January 20<sup>th</sup> 1866 carried the following: -

## Letter to the Editor

**Sir** - Will you kindly allow me to make public the following act of kindness on the part of a public company. A gentlemen from Radnorshire sent me last week a cheque for £3 3s. to be given to the sufferers from the explosion at Gethin. He also told me that he had sent a carpet bag full of old clothes, which he hoped the company would not charge, and had it written on the address. I am happy to say that the Brecon and Merthyr Railway Co. have delivered it at my house free of every charge. During the number of years I have been incumbent of parishes like Merthyr and Aberdare my position has, in one way or other, brought me much in contact with public companies, and I am in duty bound to say that I have always found them, wherever charity and kindness to our fellow creatures were called for, invariably and cheerfully responding to them.

My thanks are also due to Mr. Gabe for carrying the parcel down from Pant Station, first to Merthyr and then to my house, free of all charges. The cheque of £3 3s. I, as a matter of course, returned to the clergyman who sent it to me, the Rev. C. Dowell, Rector of Pladestry, telling him that Mr. Crawshay had kindly undertaken to provide for all the sufferers, and he has most kindly sent it me back to be distributed among the poor of this parish in clothing, food, or fuel. Yours obediently, **John Griffith, Rector.**

## An editorial

The '*Merthyr Express*' of 20<sup>th</sup> January 1866 in its editorial commented to a slightly different line: - The Gethin Inquest, after being protracted over the space of five days, was brought to a termination on Saturday night last, when the jury, after two hours' deliberation, returned a verdict equivalent to the one of manslaughter against Mr. Moody, the viewer, and William Davies, the underviewer. Far be it from us to call into question the correctness or justice of such a verdict. The jury had all the evidence of all the witnesses, learned as well as unlearned, that could possibly be obtained to enlighten them, and they came to a conclusion which they believed to be in perfect accordance with the testimony upon which it was based. We have now only to consider what lessons of



practical value can be deduced from the accidents of this direful mishap, and the disclosures consequent thereon.

The evidence shows most convincingly the paramount and necessity of good management and strict discipline in coal mines. No colliery should be under the control of any man unless he has been educated in the work – that is to say, unless he is a thorough master in theory no less than in practice of the working of a coal mine. It is equally important that his assistant should be a man scarcely less capable than himself of conducting the operations of the pit; and the officers below these as they descend to the working collier should also be men qualified in every respect for the posts they severally occupy. In the appointment of incompetent men to posts of grave responsibility a terrible wrong is done to the men over whom they are placed, and the man who assumes responsibility, which he knows he is unable to discharge, commits an offence hardly more pardonable.

It would appear from the evidence of Mr. Moody, that in the appointment of men to subordinate positions of power, at Gethin, no rule as to qualification was observed. Thus David Beddoe had been *promised* the next advancement, and he was selected in preference to others; but we are left in the dark as to whether he was the best man for the vacant post. We think that to add to the efficiency of a working colliery the viewer should have the power of appointing the officers under him. At Gethin this was not the case; and, indeed, it was difficult sometimes to learn from the witnesses where their districts of management lay. Mr. Moody was said to be the manager of the *whole* of the collieries; yet, directly afterwards, John Eynon says he is the “*manager*” of “*a portion*” of the Cyfarthfa collieries, and was quite independent of Mr. Moody, having also the option of going through any of the pits not included in his district. This division, and to a certain extent, confusion of power, is fraught with great evils, and ought to be discontinued if we are to be preserved from such calamitous explosions as that of the 20<sup>th</sup> ult.

Another thing which impairs the discipline of a pit is the appointment of feeble old men to the highly important duty of locking the lamps. There

is some difficulty in locking a lamp, and there are many instances forthcoming at the inquest in which the old man at Gethin had “done his best” to lock the lamps and failed. Here we find an incompetent man placed in a position requiring a person of the opposite character. It is also reported that the division of opinion at Gethin was carried so far by some of the subordinate officials as to lead them to altogether disobey their superiors. These things, bad as they are, have, however, the redeeming feature that they are susceptible of instant and easy alteration, and the sooner they are remedied the better.

The extraction of fuel for our fires from the bowels of the earth will always be attended with the danger of explosions unless some genius should happily invent a method of withdrawing the explosive products of the mine as fast as they are liberated from the walls. But it is the duty of every coal owner to adopt all available means for lessening the probability of such disasters occurring to overwhelm the unfortunate miners by the score. And while the responsibility of the proprietor is great, that of the workman himself is heavy. Regulations are wisely framed and ordered for the safety of the pit; but to render these operative, it is clear, rests entirely with the men themselves.

Unfortunately the disposition manifested almost everywhere is to evade these regulations, and not a few who have set them at defiance, have brought a swift and terrible destruction upon themselves, and hundreds of others. So long, therefore, as this tendency amongst the workmen to set laws at defiance exists, so long will their mouths be gagged, and their complaints be ineffectual. The masters will say they are more sinned against than sinning. Some people think that no colliery should be worked that will not admit of the use of naked lights with absolute immunity from danger.

If their dictum were carried into practice there would, we fear, be most serious embarrassments in more than one of the chief branches of our national industry. Gas in greater or less quantities will always be found in collieries, and if the coal is to be got at all it must be by the light of the lamp. In this department again things were not as they should have been

at Gethin – all sorts of lamps were used – some excellent specimens of their class, and others very defective.

We sincerely hope that the recommendations of Mr. Wales on this matter will be attended to without delay and that the owner of the colliery will provide safety lamps of the best make for the use of the men. The Gethin Colliery has been the scene of two frightful explosions; let us hope that everybody connected with the working of the pit, the owners, the viewers, the subordinate officers, and the men will take these dreadful warnings to heart, and endeavour, the one by providing every facility, procurable to improve the condition of the pit, and the others by adhering rigidly to the regulations to avoid a third disaster.

### **A blunt letter from Newcastle**

The '*Merthyr Express*' of Saturday, 17<sup>th</sup>, February 1866, carried the following letter From Mr. T. Y. Hall of Newcastle that pulled no punches and reflected the views of many after the result of the inquest: -

*"I see by the Bristol newspaper of yesterday that the inquest is closed, and that the verdict is, "We find that Vavasour Rees came to his death by an explosion of fire-damp which took place in his stall on the 20<sup>th</sup> of December, 1865. We cannot say be who or how the gas was ignited. We find that John Moody and William Davies are guilty of culpable negligence in not removing the men and clearing the gas."*

I have read the evidence, and think that there can be no doubt that the explosion occurred in Vavasour Rees's stall. The explosion could not have taken place without a light having been brought in contact with the gas. There is very doubtful evidence of John Eynon, who stated that he found the lamp of Beddoe, the overman, four days after the explosion, on the plate in Vavasour Rees's stall.

How is it possible that, after Mr. Wales, the inspector, and a number of other people should visit this very place, none of them, after seeking repeatedly for it, should be able to find it, this man finds it on the Sunday, in a place where they must have stumbled over it? Then again,

he says it was locked, and then by a little shaking it became open. Why, the gas the fired somehow, and the very crooked evidence given by this man makes me doubt that the lamp was found locked, or that the top was not even on. All the other lamps were right I think. Did it not fire on Beddoe? And had he not his lamp top off? And did not this man find the lamp before, and used the time between in adjusting and rectifying the lamp partly, so as to throw the blame off the poor fellow Beddoe, who was killed?

From my own knowledge I know gas will explode a Davy-lamp gauze, and give good instances of its firing through the wire on a naked light. Even Sir Humphrey Davy did not contradict this. Even if an overman with his deputies were going along a contracted air-course towards an accumulation of gas, and they all had Davy safety-lamps, and they were lighted and in good order; if by some means a sudden water-fall was put down the down-cast pit, or a fall of stone, or any other cause producing a concussion of air, and the gas which was beyond them rebounded, and came out upon one of their lamps and fired, the lamp might, when found, be very little injured.

There are two or three crotchets in the evidence which appears to me to be inconsistent with the authority of Moody – authority which he is supposed by the public to possess, but which in fact, as I fancy, he may not possess. The witness John Eynon stated in evidence that he found the lamp on Sunday, the explosion having happened on the Wednesday previous. Who is this John Eynon? Why, he stated that he was colliery manager over a portion of the Cyfarthfa collieries, and that he had authority from Mr. Crawshay to go where he liked. I ask you this, is it consistent with Moody's position that another manager should be allowed to run about the colliery, when and where he has a mind?

It will easily be seen by the evidence that this man was the very first to find Beddoe after the explosion, so he had plenty of chance of finding his lamp, and possessing himself of it 'til Sunday, and then to say he found it all right; but you can depend upon it I cannot take it in this man's evidence, and can easily see there was an object in hiding the lamp. For it could be proved in evidence that Beddoe, the overman, and his

attendants, fired the gas by their own carelessness, which is my impression, then, I fancy the jury would hardly have incriminated poor Moody as they have done. This poor fellow is very unlucky, for four years ago there was a verdict of manslaughter against him for imperfect ventilation, which caused a serious explosion in another seam at the same unfortunate colliery. Mr. Moody stated in evidence that when he wanted goods he had to write to Mr. Crawshay for them, and perhaps only received half of them, or only a fractional part of them at a time.

Is it right that a man who holds the responsibility of a concern should be treated in this manner? Ought he not to have power to get at once whatever may be necessary for the safe and profitable working of the collieries, and not have to bend and beg for things to be sent and then received them by instalments? He ought to have full power or no responsibility, and before the public condemns any man let them ask what this man's authority is before they fix any blame to his actions. The responsibility of colliery managers or colliery viewers is a question, in my opinion, that is in a very unsatisfactory state. He is at present like serving two masters – one of them is his employer, the other is the public. The one holds him responsible for cheap working, and the other for safe working. But while his employer looks for cheapness, he may not in all cases look for safety, and when coal is in great demand pressure is put on the viewer to strain every nerve to fulfil the wishes of his employer.

This pressure is unseen by the public and then, if anything happens no mercy is shown to the viewer. There can be no doubt that the colliery which is best ventilated and that which is worked in the safest manner, is the cheapest worked in the long run. But then colliery proprietors – of South Wales particularly – have a habit of interfering with their managers and viewers and of directing or misdirecting things themselves, and many of them are ignorant of ventilation.

It appears that Mr. Moody changed the air on the Saturday prior to the explosion, and after the change there was an accumulation of gas in Vavasour Rees's stall. The accumulation of this gas was the direct cause of the fire, but undoubtedly the careless use of the lamps was the direct cause of it. The air was changed on Saturday because, I suppose, it was

the most convenient time, the object being to send fresh air upon those men who were permitted to fire shots. It had the undesirable effect of sending vitiated or light air downhill, and consequently the charge did not work well – to say nothing of the gathering of fire-damp where the explosion took place. Mr. Moody would have undoubtedly reversed this air again, so as to put it on the old track, as before, but an opportunity of doing this could not present itself 'til the Saturday night following. That opportunity, most unfortunately, never occurred.

I think it is unfair to condemn Moody for changing the air. There can be no question that he did it for the best, and would have remedied the defect as soon as possible. What he thought, or could have done, was to use every precaution whilst the explosive body existed, and to give every instruction to his subordinates to have all the precautionary rules and measures enforced.

This, I think, he did, but the under-officials failing to carry out or enforce the effectual observance of these rules, the disgrace of Moody was the consequence. This shows the necessity of giving every information to his subordinates. There might have been a great demand for coal, and a pressure put upon Moody (but whether there was or not I have no means of ascertaining) to get a quantity, and if this was the case he could be tempted to keep the men at work, and go on cutting coal.

There is a pressure put on viewers by managing partners to get coal, at great risk, I can speak from experience. Two things were necessary for causing the explosion. One of these Moody was cognisant of; of the existence of the other – a naked light it might have been – he could have nothing whatever to do, and no man can be answerable for the neglect of any ignorant workman in charge above him. It occurs to me that if a mining engineer, manager, or sub-manager, is to be responsible for the safety of a mine – responsible to the public – he ought in some measure to be paid by the public or Government similar to mining inspectors, for they are practically on the spot, the mining inspector only viewing the colliery after the mischief is done, or in cases where disputes arise, and he is called in, and in many instances age and infirmity may incapacitate him from satisfactorily performing the duties devolving upon him.

As a proof of this, the Government acted wisely, after a certain number of years, in giving them the option of being placed on the superannuated list at a fixed age or otherwise. Acts of Parliament of this description will probably at no distant period be altered. The public may put what value they like on my remarks on this sad case and on my defence of Moody (which, perhaps they will smile at) but the facts are, in my opinion a public question, and I do not like to see a colliery manager held up to the public dislike without saying what can be fairly said on his behalf.

The Welsh collieries are exceedingly difficult to discipline, had they not been this sad catastrophe would have been averted. That the colliers of this area appear careless and undisciplined is proved by the false keys, matches, and pipes which were found in the possession of many of the unfortunate sufferers. I think I have said all I can on this subject – at least touched on what appears to me the most salient points – and now leave the matter with the public and Government inspectors as to the probability of the facts, the writer's object being to do justice to the under-agents such as Moody, and try to get at the real facts without fear or favour from parties high in authority. – *Colliery Guardian*.

### **Revelations of the Gethin inquest and their teachings**

The '*Merthyr Telegraph*' of 27<sup>th</sup> January 1866 had its last say on the verdict of the Gethin explosion and wrote: - We will now give, in an effort to give in an epitomized form, the facts furnished to us by the Gethin explosion. A mile distant from the bottom of the shaft, at the furthest end of a tortuous maze there are three stalls in which, for several days, the presence of gas had been detected. The manager of the pit, the practical man Rees Price, overman, is absent from illness, and in his place there is a working collier named Beddoe.

The fireman detects the presence of gas, and Beddoe had his attention called to the matter. He evidently thinks that great urgency is not required, but reports the matter to the viewer. The gas occurs in a stall known as Vavvy's stall, and singularly enough, poor Vavvy, one of the killed, works in this stall on Saturday, the viewer makes a change in the ventilation, and Vavvy cannot work on Monday.

It is on Saturday after the change that the gas is found strong. It is on Saturday that the viewer is told of the gas, Monday and Tuesday he enters the pit, and in his statement gives a lengthy account of what he did; but one thing he did not do, he did not get rid of the gas. He deposes Beddoe to get some men on Tuesday and carry out a plan to free the stall from its danger. On Wednesday morning, the day of the explosion, he is down at the pit's mouth; it is 6 o'clock and very dark. Beddoe is there, and they wait for the fireman's report. For several hours the fireman had been perambulating the maze underneath.

At length he comes, "all safe, but a little gas in the old stall of Vavvy and another." When Mr. Moody inquires whether he (Beddoe) had put his men to work as ordered. "No." "Why?" "Because they had brought no food with them the last night." Next night they had made arrangements to come, and the work would be commenced. "Then," says Mr. Moody, beginning to be aware of the danger, "take the man and the boy, now working there, away from that part of the pit, and stop anyone from going in." Then he leaves, and Beddoe, unacquainted, hesitating, is left alone.

The first act of the tragedy has been played! Listen! From the distant town is heard the scream and roar of a coming engine. It dashes up, and shortly 60 to 70 hardy men who get their lamps from the room on the top, and party by party they are lowered 200 yards below the surface of the earth. At the bottom there is a decrepit man who lights their lamps and thinks he locks them.

They then dispersed, some few loiter in the hole called a lamp room, and talk about the gas. "There is enough there," says one, "to blow the whole pit up." They shrug their shoulders; and talking about going back and not working; but the hesitation is only a brief one – on the plunge with their glow worm lights, and soon the underground town is alive with the pick of the mandrill and the discharge of the "shot."

Half-an-hour passes, and without a moment's warning there is a loud report; every light goes out; a scorching mass of flame, reaching from the top nearly to the ground, flies along the headings, a winged destroyer



blasting everything it touches, and in its track steals the after-damp, suffocating those whom the fire-blast has spared. Such was the tragedy, and the sad and terrible one it was. In connection with it we hear of deeds of heroism, and incidents full of pathos; wonderful forethought is exemplified; and we have mourning and lamentations winding up the whole. At the inquest the crowd was great, and composed in greater part of working men.

There crowded behind the jury was a dense mass, and here and there might be described the sable face of the collier who had just come up fresh from his labours and anxious to hear the result. The black face, the white eye-balls, with distance, gave a peculiar addition to the scene, and but little imagination was required to deem these, the victims of neglect, demanding that justice from the law they had failed to receive from man. The tragedy has its teachings for the future. Competent men as viewers. Freer use of materials. Compulsory use of the best safety lamps by the men, and more expenditure of money in the improvement of ventilation.

There was a time when the 'gnomes' of the mine perished unregarded. That day is passed, and the responsibility on colliery proprietors is great and irremovable. Accidents will now be looked upon, not simply as the waste of flesh and blood which can easily be supplied, but as a costly sacrifice of life, entailing annuities, pensions, or just indignation of the country.

The moral law is now established, and it is binding on any man of honour, on any man who wishes to stand well with the world, as law of the country, - that the proprietor of a coal pit is responsible for the safety of the men who labour for him, and that a life lost necessitates a provision for the family.

We believe the effect of this established precedent will be most admirable as a preventative, and the terrible disasters which break up a community, which hurl a score or two hardy men to an early grave, will become less and less, and figure only in the background of history in the terrible past, from which we emerge to a brighter future.

## Merthyr Police Courts

Meanwhile, the Gethin explosion brought unexpected actions in the courts: - The '*Merthyr Telegraph*' of 10<sup>th</sup> February 1866 reported: - Jacob Edwards was summoned for leaving his wife and three children chargeable to the parish of Merthyr. The defendant lived at Blaenavon apart from his wife and family, who lived in Georgetown. Mr. W. Jones, relieving officer, proved that when Ayliffe Stephens was killed by the Gethin explosion his mother lost her principal support. The defendant came to the town the night before the funeral, but was drunk and made a disturbance with his family, and boasted he had a £5 note in his possession. He did not give them anything. Defendant denied this, and made the grossest charges against his wife, and said they were all drunk the night before the funeral. The Bench gave the defendant the liberty of paying over to the parish 18 shillings due for the maintenance of his family. He refused to pay, and was committed to prison for one week's hard labour.

**Chapter six**  
**12<sup>th</sup> March, 1866**

South Wales Circuit - Glamorganshire Lent Assizes  
The Gethin Colliery explosion - (Before Mr. Justice Blackburn)

After the Gethin inquest, the two men found guilty of manslaughter were to appear at the Swansea assizes in the Spring of 1866 and ended far quicker than anyone could have imagined. The *'Cardiff Times'* of 16th March 1866 reported: - John Moody and William Davies were charged with the manslaughter of Vavasour Rees, at Merthyr Tydfil, on the 20th December 1865. Mr. Giffard, Q. C., and Mr. T. Williams appeared for the prosecution, Mr. Bowen for the defence of the prisoner Moody and Mr. Michael for the prisoner Davies. Mr. Giffard, in opening the case, said that the inquiry the jury were about to enter upon arose out of an accident that happened about half-past eight o'clock on the morning of the 20th of December last.

By that accident, sixty persons being in the colliery where the accident occurred, thirteen escaped from the effects of the explosion, thirty-six were killed, and eleven injured. He was of opinion that when the jury had heard the evidence, that they would find that the accident took place by the explosion of what was popularly called the "fire-damp." A large majority of the persons were killed by the effect of the "after-damp;" comparatively few were killed by the actual burning; some by the extreme violence of the explosion and the killed and sufferers were thrown along one particular part of the mine.

The prisoners were the viewers of the colliery, and certain rules were introduced for the management of the underground work, including a system of ventilation and all precautions necessary to be taken in order to avoid danger. He thought he should be able to show that these men, having a regard very likely to the interests of their employers, wished to get the gas removed, which caused this explosion, without interfering with the regular work of the mine; and did so without taking any reasonable safeguards for the preservation of the lives of the human creatures who worked there.

Mr. **Charles Henry James**, a mineral surveyor of the Cyfarthfa works, said: - "The plan produced is a correct one. Moody was viewer of the collieries on the whole of the Cyfarthfa works. Davies was under-viewer at Gethin and two other collieries. I produce a copy of the rules published and posted in the collieries. Some 1,200 men are employed in the Cyfarthfa collieries, and the workings raise from 16,000 to 18,000 tons per month. The Gethin is a very small portion of the works. Davies's part to superintend is not so extensive as Moody's."

**Benjamin Griffiths**, fireman: - "I was in the pit on the Tuesday night before the explosion. Went next morning at three o'clock, and travelled the whole of the works completely. Came to Joseph Rees's heading; found gas in two stalls there — Vavasour Rees's and Thomas Price's. Found the danger-signal there, it had been there since the Monday previous. On the Monday morning I went into Thomas Price's stall, and put a danger-signal there, which remained until Wednesday morning. Nothing had been done that I know of to remove the gas. I made a report to remove the gas. I made a report on the Monday, Tuesday, and Wednesday mornings. The prisoner Davies was present, and heard me on the Monday morning.

On the Sunday after the explosion, went to No. 3 Gethin Pit, and on that day went to Vavasour Powell's stall, and found there David Beddoe's lamp. At that time the lamp was locked, as it appeared to me. Afterwards some men shook it a little, and it came loose. The lamp was six yards from the tramroad. From my experience of collieries, I think it probable that David Beddoe could have run from where the lamp was to where I found his body, which was about thirty yards from Vavasour Rees's stall. I believe the explosion took place in Vavasour Rees's stall or Thomas price's stall."

Cross-examined: - "An artificial key that would open the lamps I found in the middle level, in a coat. Two fuses were also found in a coat in Joseph Rees's heading; to the west side. Several pipes were found, and tobacco-boxes. I think it was possible for Beddoe to get from Vavasour Rees's stall. In all probability Beddoe was suffocated by the after-damp."

**Rees Rees**, fireman: - "I have been a fireman a year and nine months in this pit. Had seen Vavasour Rees's stall on the Saturday before the explosion. It was then quite clear on the Saturday night the system of ventilation had been altered. It was then reversed. Saw something wrong with that stall on the following Sunday morning. Found a quantity of gas there. In my opinion the gas was accumulating for want of air. On the Tuesday morning, saw Mr. Moody on the question of the stall. Saw him in the west side of the pit on the first time. I said to Beddoe, "What's that about this gas?" Moody said, "What's that?" I told him that there was a great quantity of gas in Thomas Rees's stall, and an old stall of Hall's. He told me he would see to it. Saw Moody and Beddoe afterwards standing opposite Thomas's Price's old stall, and Beddoe was coming from the stall. Beddoe said, "That gas is not in the place you told me just now." "Is it not?" says I, and I then trimmed up my lamp, and put the lamp there, and the gas did catch the flame. Mr. Moody gave us orders to have Vavasour Rees next day to draw the loose coal opposite Joseph Rees's stall, and abandon the heading, and to secure the coal already dug, and abandon the working of that stall. I have been underground this thirty years. In my judgment it was not safe to work so near such a large quantity of gas. Moody gave orders that no one should go down without a Clanev lamp."

**Rees Price**: - "I was appointed overman by Mr. Crawshay himself. I always had strict orders to prevent the men working where there was gas."

**Lionel Brough**: - "I am Government Inspector of Mines for the south-western portion of England. It is a fact that all the lower measures of coal in the Aberdare valley are fiery. This is the case in the Merthyr valley. To keep all the workings in safe condition it is needful that there should be a constant supply of air. It was not a safe thing to keep working in Vavasour Rees's stall in the condition it was. I should have withdrawn the colliers from that district, and then have removed the gas. There are three methods of doing it. One is by bratticing and closing in the fall; second, taking off the air from the upper part of the pit, and attempting to blow that through Vavasour Rees's stall. I cannot altogether say that that would be a very efficient way."

The third and most efficient way would be to have driven a level right down into Vavasour Rees's stall, that is from the middle level, cut away the coal, about the size of the cross-hole, into Vavasour Rees's stall; that would be the most effectual way. It would take from six to eight days probably. If the third method had been adopted it would have been necessary to withdraw the men, for there was quite a magazine of carbonated hydrogen gas." Cross-examined: - "There is no doubt that the cause of this explosion was the stopping of Vavasour Rees's stall. There were very small traces of charring there. I was shown the way in which the ventilation was carried out on the Saturday. Mr. Moody's plan, which he then adopted, was judicious. It was judicious in carrying the explosion away from the men, but not judicious in carrying the air away. If the directions of Mr. Moody were to abandon the heading and keep the men away, they were judicious. If the men were kept out of Joseph Rees's heading, even if they were at work at Vavasour Rees's, there would be no danger. At the exact point of communication between Vavasour Rees's heading and John Rees's heading, the men should have been withdrawn."

**Mr. J. E. Wales:** - "I am her Majesty's Inspector of Mines for South Wales. I went down the Gethin pit on the day of the accident. I have heard the evidence of Mr. Brough, and agree with him as to the cause of the explosion."

#### The verdict

His Lordship having directed that there was no case against Davies, proceeded to sum up the evidence against Moody, and defined the law in reference to manslaughter, stating that when a person accepted a situation like that which the prisoner held, it was required that he should bring to the duties reasonable skill and reasonable care; but if that was not exercised, and the result was that by his culpable neglect the lives of those under his care were endangered and sacrificed, the law held that he would be guilty of manslaughter. The pinch of the whole case was, whether Moody took reasonable and proper care to remove the gas. The jury deliberated for a few minutes, and delivered a verdict of *Not Guilty*.

His Lordship told the jury that it was exactly the verdict he would have returned had he been one of them.

### The slaughter in our valleys

The '*Merthyr Telegraph*,' of 31<sup>st</sup> March 1866 reported the huge amounts of deaths recorded in the south Wales valleys: - We are living constantly in the midst of a battle, as deadly as any ever fought for empire, or outraged honour. Yet there is no noise of conflicts, we have none of the accompaniments of war, the storm of shot and shell, the deadly play of the flashing sword, the hideous groans, blending with the bugle blast and the roll of the drum. Our battle is fought in silence, brave men fall here amidst our works below in the coal mine and to the poor house and the narrow room, not on the turf and under blue sky, is the spectacle of death confined. The return of the Coroner for the northern division of the county, G. Overton, Esq., is just out, and this yields us the bulletin of the war this gives us the records of the strife. In the last quarter the total number of deaths is 82, and out of these, which are due to a variety of causes, 65 have occurred in the coal and iron works.

From this number, if we deduct the 32 of Gethin and average the quarter at 40, which we believe is just, we find a total list of killed during the year of 160 men. The proportion of wounded so killed can be estimated by the test of battle fields and of medical averages—12 to 1. This would yield us 480 per quarter, or in round numbers we lose yearly in killed and wounded, amongst our industrial classes, no less than 2,000 men. Two thousand men are yearly swept aside from our ranks by death or sickness, due to the injuries received in the iron and coal works. We are not much, if any, comforted by glancing into particulars:—32 fell at one blast in the Gethin colliery, 8 went under trams, 6 were suffocated, 3 drowned, 3 burnt, 1 scalded, 8 killed by falls of roof, 3 blown up by explosions, 3 fell down either into the shaft or the sump; and 2 poor wretches died from want or exposure.

These were of all ages. Death seemed to strike hard quick blows at the poor scarcely formed things, hardly worthy of any exercise of severity or force, as equally as on the brawny strong men, who struggled hard and

desperately before they gave in. It came too, strangely enough, to the poor old men, who in the natural course of things would soon have dropped ripe into the grave. Let us see the list of these:— One old woman of 82 from burns; one old man of 74 died by "visitation of God;" another of 52 by an accident; one 55 by a fall of coal; one 75 killed under a tram, another 69 struck down by apoplexy; and the last poor old man of 76 by explosion.

It is peculiarly hideous to read this list, death visiting the poor and the afflicted in such horrible guise, not allowing them to drop away tranquilly to the rest which had been so well earned. If one thing grieves us more than another in respect of these poor old people, it is, that at their time of life they should be obliged to labour in the coal or iron works, for the very few necessities of life they need.

In a savage condition there would be more tenderness shown for age than is displayed amongst us, with all our assumed piety and blazoned civilization. That poor old man of 76 was one of the sufferers at Gethin — the tottering limbs, the grey hairs, the enfeebled frame dashed to the earth by the fire-fiend. The whole record is one fitted for most sober reflection. The first idea we have is — cannot something be done to lessen this state of things? If human muscle is cheap, and, consequently, life of little importance to masters of labour, and if love of life is not strong even amongst the men, what is the Government of the country doing, that these annual sacrifices should be made to the Moloch of Wealth, the Demon of Greed?

Government appoints one inspector for South Wales, and as we have stated before, and shall again until the evil is remedied, the number of pits in South Wales is so many that it would take the inspector two years to visit them, taking one per diem. So government inspection, even with our able inspectors, who cannot do impossible things, is a farce. Then, as regards the iron works. There we have no inspection. Men are pulled through rolls, instead of the iron bars being so handled, run over by trams crushed under locomotives, poisoned by gas and though we are thankful in having vigilant coroners, who vigorously sift evidence and



scruple not to censure, yet on goes the stream of accidents — gas, locomotives, iron works, feeder — all play their havoc undisturbed.

There is one special feature we may notice as occurring of late — deaths on the railroads connected with the iron-works. These are become so numerous as to demand investigation of a most stringent character. In most of the cases the victims are colliers returning home. They have been working in the pit all the day, in a place that deadens the faculty of hearing, so that when the daylight is regained most men feel for a time a humming in the ears. They have been away all the day, and tired and hungry and are returning home.

Many a young married man is thinking of his wife, of his child some of more matured age are pondering on thoughtful subjects which their minister or their newspaper has suggested. God help, then there is a whirl - a crash - a blinding cloud of smoke - and the relics of the collier are scattered like chaff before the winds.

Cyfarthfa line used to be notorious for such accidents, but it is greatly improved of late years. Now it is the Cwm-Bargoed railway, and we hope to see energetic measures at once adopted there to save the poor thoughtless men, who, like gnats, will perish unless means are taken to guard them, even from the chances of accident. This death roll must not be suffered to close, and then fade from memory. We look to the industrial ranks as the strength and the true wealth of the country. Individually, the poor collier or puddler may not be esteemed as of much consequence. Banish the class, and of what consequence would be our country ?

Mr. Moody steps down

The '*Merthyr Times*' of 20<sup>th</sup> April 1866 commented: - It is reported that a Mr. Bates, of Risca has been appointed viewer of Cyfarthfa collieries, in the place of Mr. Moody. It will be remembered that Mr. Moody applied to Mr. Crawshay himself, soon after the accident, to be relieved from the duty for a time, and up to the present the duty at Gethin and other collieries has been attended to by Mr. John Evans.

## A great want for Merthyr

With so much death and injuries throughout Merthyr and the valleys, the need for a local hospital seemed urgent for the district. The '*Merthyr Telegraph*' of 2<sup>nd</sup> June 1866 reported: -

Anyone who has been a spectator of those alarming accidents, which are now identified with the past history of Merthyr, will agree with us in the statement that Merthyr needs, if not a Hospital, some good substitute for that noble institution. Here say thirty or forty men are suddenly thrown wounded, helpless, into the hands of their friends, who have no means of relief, and no conveniences, no room where the sufferers could get little help and have a sufficiency of attention. We all know what a most improvident class working men are, and as the great proportion of sufferers comes from the very worst of these, it is evident that their homes are bad enough for the healthy, but intolerable for the sick. In many cases that occur amongst the workmen of the iron works the sufferer is brought in and placed on a humble bed in the only room of the house.

At this last Gethin accident our readers will remember a case to the point. D. Williams, Esq., Penrheolgerrig, deposed that he visited the house of one of the sufferers at Colliers Row. The poor fellow was in bed and in the room were a great number of his fellow-workmen, and some women. All the men were smoking! Now this is a sad condition of things. There was a poor fellow at the last gasp — for he died soon after — and obliged to lie in a close room inhaling tobacco smoke. Take another case. At Cefn a man fell from the railway bridge into the stream, and fractured both his legs. He was taken home, the room was soon filled by his friends, or rather we should say enemies, and there he remained until night. Night came, and it became necessary to depute some men to watch him; so a "fetching" was had, and a poor dying man lay all that long night in a room where friends were carousing and getting drunk in the benevolent idea of watching him.

Many similar instances could be given to show how utterly inhuman are our arrangements for the safety of those poor labouring men, who lack

the ordinary intelligence to take care of themselves. Do we err in the statement that a large percentage of deaths are annually caused by this? We think not. It seems so likely that such is the case, for we all know how important in many a case of sickness it is, that at the head of the disorder the sufferer should have that attention, and quietness, and purity of air, which it is evident he cannot get in such cases as we have quoted. And if many human lives are sacrificed annually there is a loss more important to the state than the cost of a few poor hospitals.

Leaving out of consideration the amount of agony to the bereaved, the blighted hopes, the warped lives henceforth of the children, there is an actual loss to the community by the death of each working man so important in amount, that in a district like ours a small percentage of life saved would amply repay a moderate outlay.

Here in a town of 60,000 people we have only a Workhouse Infirmary, and if accidents happen, no means but those worthy of a century ago for the relief of the sufferer. But in many villages they have cottage hospitals, which supply the very conveniences we require, and afford to the patient a surer hope of recovery than any amount of draught or pill prescriptions. We simply allude to these cottage hospitals as a preliminary notice, as we are glad to state that a gentleman of this town, ever foremost in good deeds, is now preparing a scheme for starting them amongst us, and we may add that when our readers see with what little expense a place can be had, where all the attention given in a regular Infirmary can be procured, they will wonder how it was that Merthyr was not gladdened with a hospital in times past.

#### Fatal accident at Gethin Colliery

The deaths, however, still continued at the Gethin Colliery. The '*Cardiff Times*' of 29<sup>th</sup> June reported: - A painful accident occurred at the No. 2 Gethin Pit, belonging to Mr. Wm. Crawshay, on Tuesday last. A Irishman named Timothy Mack commenced work as a hitcher the day before, and this morning he descended the shaft in the cage to the four feet, where the men get out to go to the stables.

The deceased should then have knocked, to give the usual signal to be lowered to the nine feet; but, it is supposed, while he was groping for the hammer, he toppled over, and fell down the shaft into the sump. One of his legs was broken, and he was shockingly bruised. After living for a few minutes, death released him from suffering. The deceased was 25 years of age.

The '*Cardiff Times*' of 25<sup>th</sup> August 1866 reported : - Gethin Pit again.—A boy was injured at this pit so severely on Tuesday that he died shortly after the accident. Meanwhile, the '*Merthyr Telegraph*' of the same date reported: -

#### The Gethin Pit

We have heard from a reliable authority that fire was discovered in this coal pit one day last week. We understand the fire even blew out the lamp of one of the men who was working at the time. An alarm was at once raised, the men were sent out of the pit, and the place was inspected by the manager. During the whole of that day the men did not return to their work, but we believe they did so on the following morning. We trust that, in the meantime, the fire was removed, and that we may not now have any fear of a recurrence of one of those terrible colliery explosions so fatal to human life.

#### Dreadful and fatal accident

On the morning of the 6th September 1866, a son of Mr. John Eynon, viewer of the Cyfarthfa Collieries, was coming from the Gethin pits by the engine to Merthyr, when a plug came out of one of the steam pipes, and he was badly scalded about the body and legs. Medical assistance was obtained, and after being taken home oiled lint was applied to the scalds, and he was placed in bed in the hope that he would recover. But one misfortune followed upon the heels of the other. In some unaccountable way a spark of fire fell upon him as he lay in bed, on Friday, and in a few moments he was so badly burned that he died shortly afterwards. The unfortunate lad was fourteen years of age, intelligent, and generally esteemed. A verdict of "accidental death" was returned at the inquest.

## Gethin coal for Cardiff

The '*Cardiff Times*', 3<sup>rd</sup> of November 1866 reported: - Cyfarthfa has at length entered into the list of coal sellers. On Wednesday last a train of twenty wagons left Merthyr for Cardiff, laden with Crawshay's Cyfarthfa Merthyr four-foot smokeless steam-coal. We are informed that the train left the works for the Taff Vale siding on the previous evening, and that it made its start amid the acclamations of a large party of workmen who had assembled to witness the departure from Cyfarthfa of the first train of sale coal.

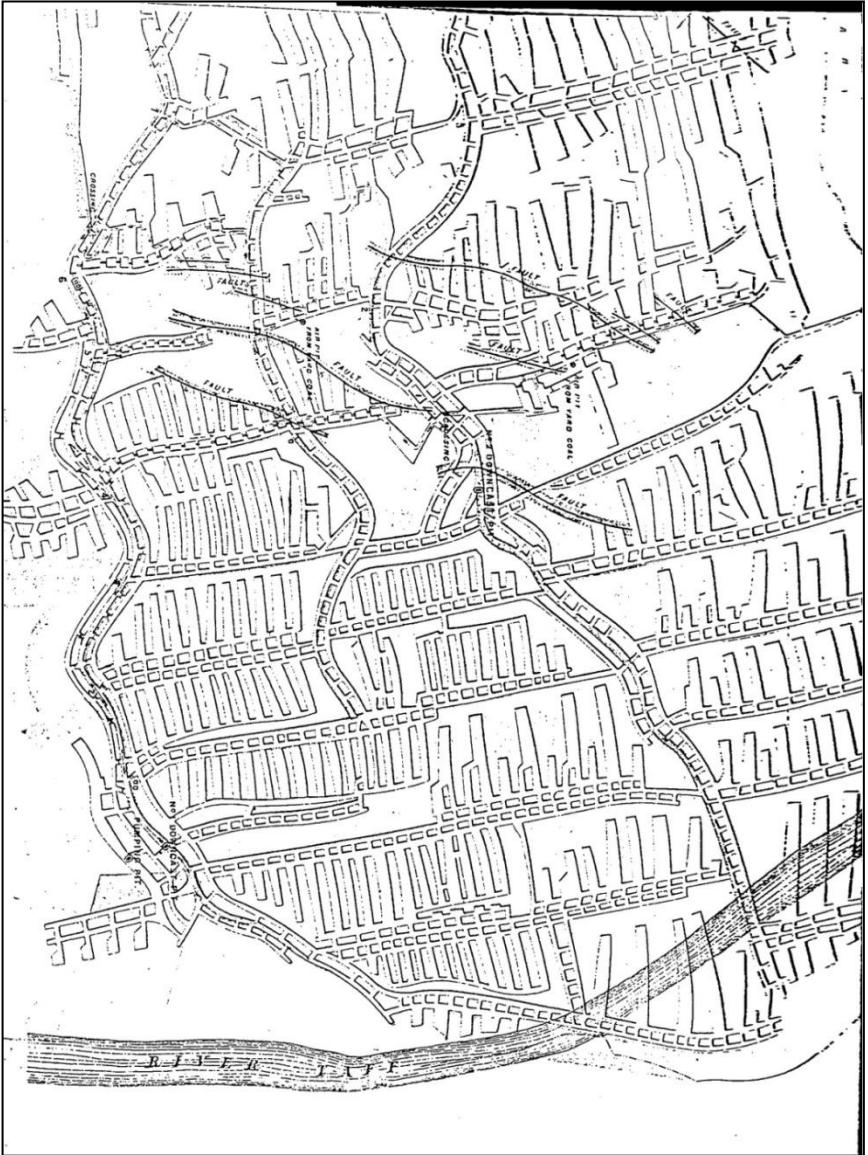
Mr. Robert Crawshay and family were also present, and dispensed some *cmrw da* (good) to the men engaged. The coal referred to is the Gethin four-foot. It must be remembered that it was the four-foot vein of the Craig estate, near Merthyr, that first established the superiority of that seam for steam purposes in the early days of navigation, and which is still maintained and this coal of Mr. Crawshay's is obtained from the adjoining property, and consequently of a quality not to be surpassed in the district. We do not know to what extent Mr. Crawshay is going to ship; but judging from the size and arrangements of the Castle pit, which is approaching completion, we have reason to believe that he will ship largely. This intelligence cannot be otherwise than gratifying, tending as it must do to greatly increase the prosperity of this district.

And so a new era of the Gethin Colliery had begun with the transport of coal to Cardiff to fuel the steamships from around the world, but the two explosions at the Gethin Collieries remained in local people's memories for many years and ought never to be forgotten.

Production ceased at the Gethin Colliery in the 1920's and it was used as a pumping station until its closure in 1947.



**The underground workings of the No. 1 and No. 2 Pits of the Gethin Colliery 1862. (Part 1)**



**The underground workings of the No. 1 and No. 2 Pits of the Gethin Colliery 1862. (Part 2)**

## Glossary of Mining Terms

(Courtesy of the Cynon Valley Historical Society)

**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 shovelled 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 0.559 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 shale 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 or 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 in-by” 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 19<sup>th</sup> 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.

**Regulator** - Similar to an air door but 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-by 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 veridical 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 lays 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.

**Thurling** - The point where one heading breaks into another.

**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 19<sup>th</sup> century.

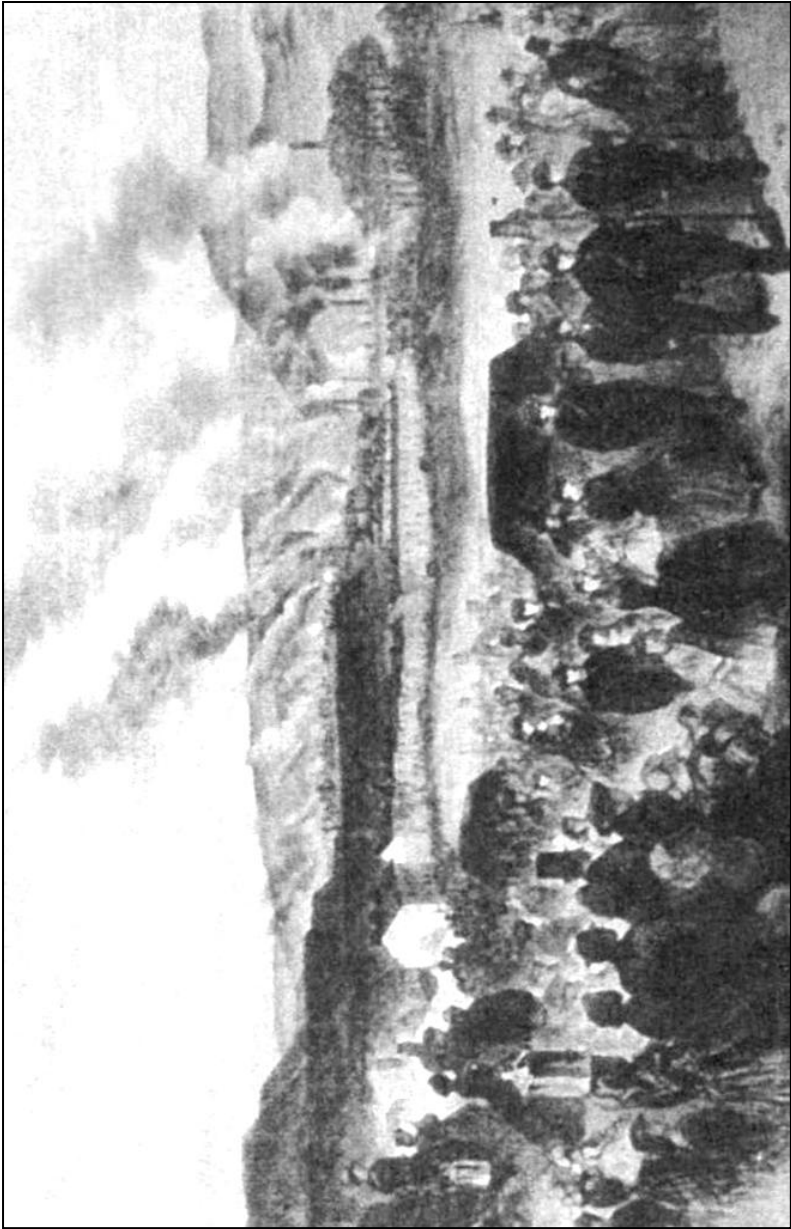
**Water balance** – See balance pit.

**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.

## References

Various south Wales newspapers of the period. Merthyr Tydfil - a valley community (Merthyr teachers Centre Group). 1981. The Glamorganshire and Aberdare Canals, Stephen & Ian L. Wright.





**A painting made at the time of the 1865 Gethin funerals at Cefn when all were placed in unmarked graves.**



**The reverse side of the Gethin Colliery tramway bridge that carried coal between No.1 & No.2 Gethin pits. Photographed 05/04/2018.**

This book tells of the two major colliery disasters that occurred at Abercanaid near Merthyr in the 19<sup>th</sup> century. The first in 1862 saw the death of 47 men and boys and the second, in 1865, when another 34 were victims. It goes on to record the poor working conditions endured by the colliers in the South Wales valleys, and in particular the poor lighting and ventilation that they were forced to endure to earn a meagre living. For anyone interested in Merthyr history or the coal industry in south Wales this book will be an interesting read.

Price £12.99