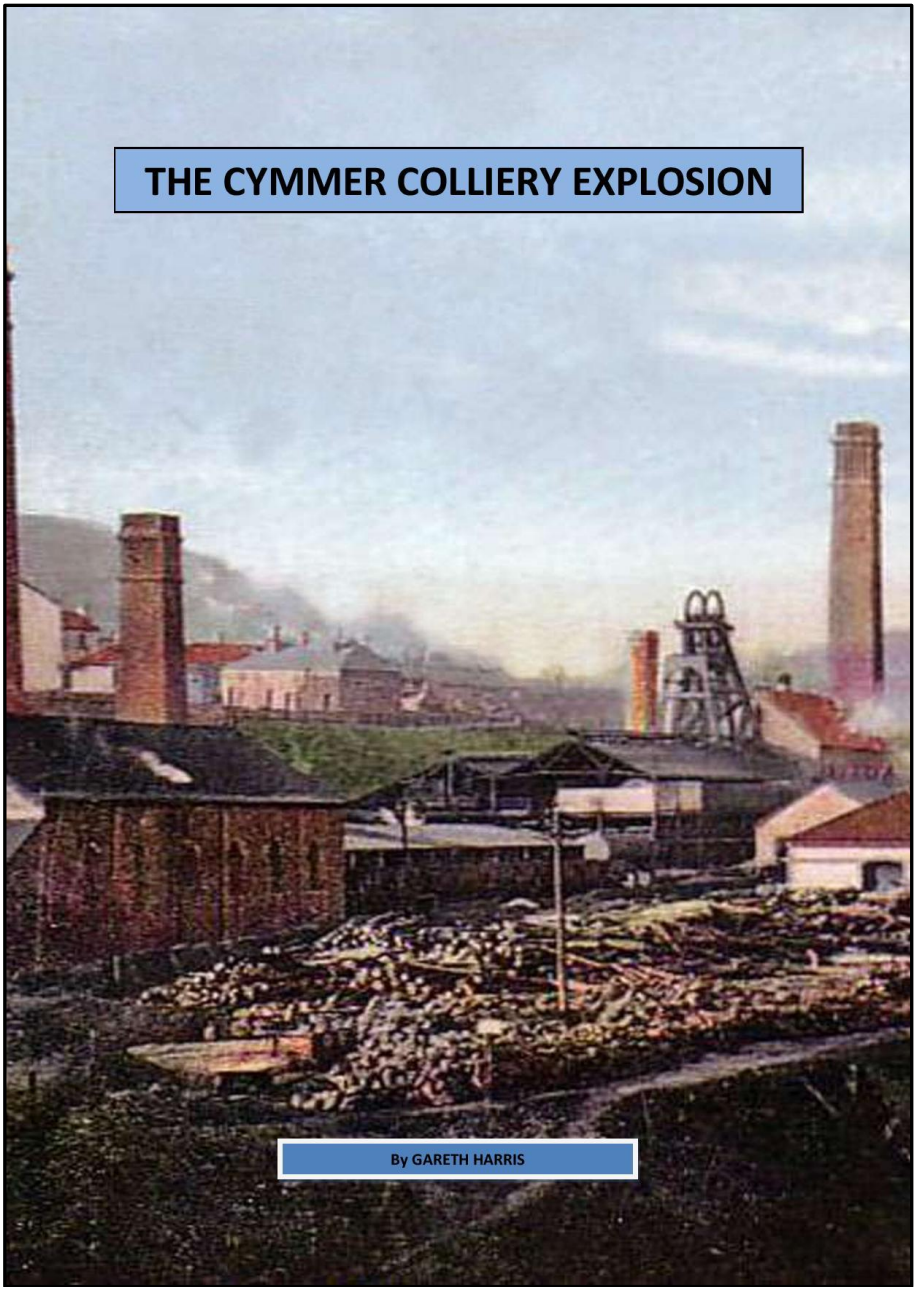
THE CYMMER COLLIERY EXPLOSION



By GARETH HARRIS

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INTRODUCTION
By the author

This is my third book on colliery disasters in the Rhondda Valley. My first, 'The Ferndale Colliery Disaster' and second 'The Mardy Colliery Explosion' were well received, but I had already almost completed a book about the Cymmer Colliery disaster, which happened very much earlier. So here it is.

George Insole was a contemporary of Walter Coffin and John Calvert, and a regular user of the tramroad from Treforest to Dinas. Like Mr. Coffin, he had his own special little tram, and before the Taff Vale Railway had opened its branch up the Rhondda he was to be seen regularly journeying up to Porth.

On the morning of Tuesday 15th July 1856 at the 'Old Pit' in Cymmer, there occurred as stated in the Mines Inspector's report, 'The most fearful and destructive explosion, resulting in a sacrifice of human life unparalleled in the history of Britain at that time'.

At 6.00 a.m. one hundred and sixty men and boys descended the shaft to begin their shift and were on their way to their working places when the explosion took place. The ferocity of the explosion led rescuers to believe that all lives below ground would be lost. However, some miners had only descended a short way into the pit and were able to make their way back to the shaft and safety. Rescuers took measures to clear the mine of afterdamp, and descended into the mine some three hours after the initial explosion took place. By that Tuesday evening some 112 bodies had been brought to the surface of the mine, another was recovered on the Wednesday and one severe burns victim died on the Thursday.

This is the complete story of the event, told through the scarce newspapers reports of the time. I hope the reader will enjoy as much as I enjoyed compiling it.

Gareth Harris
June 2013

CHAPTER ONE
Porth & Cymmer

Porth, known as 'The gateway to the Rhondda,' derives its name from its position at the entrance to the two Rhondda Valleys, the Rhondda Fach and the Rhondda Fawr. Similarly, Cymmer, which is now seen as a 'suburb' of Porth, derives its name from the old Welsh word that describes a spot where two rivers of the same name converge. Early sources show that originally the positions were reversed and that the district was more commonly known as Cymmer. It was only with the development of the mining operations on the Porth Estate, and the coming of the Taff Vale Railway to Porth, that the name Porth for the area came to prominence. In common with most of the Rhondda, prior to the emergence of coal mining Porth was very much a 'rural idyll,' sparsely populated and of great natural beauty. Porth however was one of the first districts within the Rhondda to see industrialisation on a large scale, changing its nature from one of pastoral tranquillity to one that 'assumed the dreary, God-forsaken aspects of colliery districts in general.'

George Insole at Cymmer

It was not until the arrival of George Insole that extensive mining operations began in the Porth district, starting the beginning of industrial activity in the district that would become a feature of coal mining in the Rhondda before the discovery of steam coal. George Insole, the owner of a wood shipping firm in Cardiff since 1828, soon began to specialise in finding markets for the bituminous coal, used in homes for heating and cooking, and by blacksmiths, commercial undertakings and industry, that was being unearthed in South Wales. With a shortage of coal for the coastal trade around the Severn estuary, the Western seas, and London and Irish markets, he decided to become a coal producer himself, so in 1832 he leased the mineral rights of the Measbach Estate from the Rev. Dr. John T. Casberd at Llantwit Fardre where he founded the Maesmawr Colliery. He could not produce enough by this means, and his coal could not compete with Walter Coffin's coal being produced at Dinas for coking or smith's work.

It was this fact that turned Insole's attention to the Lower Rhondda. He had visited the area periodically since 1838 and had sold very small amounts of the No. 2 Rhondda coal variety for Richard Lewis of the Cymmer Level in 1843. On September 25th 1844, George Insole, and his son James Harvey Insole, leased for seventy years the mineral rights of 375 acres of Cymmer land from Evan Morgan of Tyn-y-Cymmer Farm. The Insoles were to pay £126 as a yearly fixing sleeping rent and a royalty of sixpence per 2,520 lbs of large coal. They hoped to eventually work the famous Rhondda No. 3 seam, but from December 1844 until 1846, the first two years of working, George Insole and his son had to be content to mine the No. 2 Rhondda seam by their South Cymmer Level, but again output and progress were slow.

In 1847, Insole determined to sink a pit, the No. 1 Pit, or the Cymmer Old Pit, as it became known, to the No. 3 Rhondda seam of coal which was discovered at a depth of some 80 yards below the No. 2 seam, and once the immediate transport difficulties were overcome, this coal was shipped in ever-increasing quantities from Cardiff. It gained a wide reputation as a coking coal and substantial coke contracts were secured, and in 1848, thirty-six coke ovens were completed at Cymmer at a cost of £1,440. But demand appeared to be insatiable. By the middle years of the nineteenth century, a decided impetus had been given to the development of Cymmer and Porth.

At the opening of the Cymmer Old Pit about 50 miners' cottages were built at Cymmer and others at Bedw, Glynfach, Porth, and new mining settlements were being established. The intrusion of the Taff Vale Railway (T.V.R.) to Eirw in 1841 played a big part in this, though Walter Coffin, the owner of the Dinas Colliery, who transported his coal along his own tramroad from Dinas to Eirw, was reluctant for anyone else to use his tramroad, even though as a shareholder of the T.V.R. it was costing him money. Because of this there were plans for a Rhondda and Ely Valley Junction Railway to rival the T.V.R. However, this threat saw the directors overrule Coffin, and by 1849 a T.V.R. extension had reached Cymmer and Dinas.

Over Christmas 1850 George Insole suffered what was probably a stroke and died on New Years Day 1851, leaving his thirty-year-old son sole owner

of the company. Soon, James Insole set out to increase the output of his mineral holdings at Cymmer and sunk a new pit about a mile upsteam from the old Pit, on a narrow piece of land between the foot of the mountain and the Rhondda Fawr River. This was known as the Upper Rhondda Colliery and was soon in operation. To meet the ever-increasing mining operations at Cymmer were extended and several sub-leases granted, so that shortly the mineral property under lease covered 1,300 acres. In 1855 Richard Ellis leased a small portion of the Cymmer property from James Harvey Insole at a dead rent of £200 per annum, and opened a level to the No. 2 Rhondda seam.

It is significant that so great were the profits from the Cymmer enterprise in the first few years of working that in 1852, in addition to these other speculations, James Harvey Insole purchased £6,000 worth of shares in the Deep Duffryn Colliery (Mountain Ash) from David Williams and in 1856 began to build a mansion in the fashionable district of Llandaff, Cardiff.

The Cymmer 'old' pit

James Harvey Insole continued to develop the Cymmer Colliery and in 1853 he sunk a second pit, the New Cymmer, 100 yards from the old pit, making more of the No. 3 Rhondda seam available to fulfil the increased demand for coal caused by the Crimean War.

In 1850 the Cymmer old pit employed 80 men and boys. By 1855, however, the workforce doubled to 160 and the working area increased by a third. The length of the underground airways was now nearly six miles but the ventilation had not been improved. It still had a single shaft divided by a timber and brattice into a downcast and upcast. The shaft was oval, 16 ft x 9 ft 6 in. The usual method of ventilating pits was called the 'North of England' system, imported from Europe in the eighteenth century that placed a furnace at the bottom of the upcast, which was used to draw air from the pit. A complex system of doors was required to maintain ventilation, but even then accumulations of gas would occur and sometimes ignite as it passed over the furnace in the return air current. The Cymmer Old Pit had this furnace and 72 of the said doors.

The downcast, 11 ft 10½ ins, was used to lower and raise the workmen, horses and trams of coal, and as the colliery grew there was criticism that the ventilation was not adequate, especially from Herbert Mackworth, H. M. Inspector of Mines, appointed in 1851 to enforce the 1850 Coal Mines Act, brought in by the government to legislate for greater safety in collieries. Mackworth was well aware of the dangers the colliers ran in winning the coal. Explosions in the Cynon Valley, at Lletty Shenkin in 1849, when 53 lives were lost, and Middle Duffryn, in 1852, when 65 died, amongst others, showed the risks that being a collier entailed.

Deep mining in South Wales was relatively newer than in other parts of the UK because of the Welsh use of level collieries. In addition, the sandstone roof on the No. 3 seam in the new deep coalmines often gave a false sense of security and shortcuts were often taken which resulted in roof falls. This seam was not considered a dangerous one, but fire-damp or methane gas was later to claim many lives.

Herbert Mackworth had early concerns about the Cymmer Colliery and in July 1852 sent a letter to James Insole pointing out what had caused the explosion at Deep Duffryn and the need for good ventilation and effective safety rules. Insole, however, like many other owners, appeared to try and avoid or ignore their new obligations.

By the mid 1850s the colliers at the Old Cymmer colliery, were paid about 22 shillings per week but employment was irregular and they were on annual contracts that began on 1st January. This was signed by the miner in the presence of witnesses, and under its provisions he undertook to serve the master faithfully for a year in consideration for payment of wages in accordance with the terms specified. This contract worked unfairly for the miner, for any breach of his contract rendered him liable not only to civil damages, but also to imprisonment, and there are several cases of this actually happening at other collieries.

Living conditions for the colliers were poor, and the work fraught with danger. They worked six twelve-hour shifts, and had to walk to their working stall, sometimes several miles, before they began earning their wage. There was no compensation for any injuries and often a disabling injury meant a life of poverty on parish relief.

On New Year's Day 1854, on work resuming after a strike, Jabez Thomas, the Cymmer Colliery manager, decided to make a change in management underground because of the emigration to Australia of William Mills, the colliery's underground agent and overman. Two firemen, both with four or five years experience and who had the confidence of the men, were fired by Thomas on the grounds that they were not 'proper men,' and that he needed to impose his authority, though he did give them excellent character references. Two inexperienced men from the Dinas Colliery were then chosen as replacements by Jabez Thomas. This went against normal practice for the men usually nominated a short list of candidates from within the Cymmer Colliery from whom the manager usually made his selection. This upset the men and a strike ensued for nearly six months. On 31st March 1854 a detachment of police were brought in to protect new or wavering colliers that Insole or Thomas had managed to recruit. However, after threats of more legal proceedings the men all eventually returned to work.

On 28 March 1854 Mackworth called at Cymmer, but Jabez Thomas was off work sick, so he inspected the pit with the acting manager, David Thomas, and the overman Rowland Thomas Rowland. He was unhappy with what he saw and although he could not issue an official warning because the pit was not working because of the strike, he left recommendations with the two that included dividing the airways and reducing the number of doors; the use of safety lamps, and that the old working should be connected to the New Pit shaft when it was completed.

In May 1854 Edward Hay was employed as an underground agent who gave instructions on working the seams and some other office duties. He also recommended linking the two pits, but Jabez Thomas resented Hay's interference and again ignored the advice.

Mackworth again visited the Cymmer Colliery on 20th of October 1854, five months after his last visit and discovered that none of his recommendations had been carried out. He decided a set of rules were needed and sent Insole a copy of the rules made earlier that month by the recently formed Coal Owners Association. These were not enforceable rules but a procedure by which the owner, with or without the local inspectors, drafted a list of rules for his colliery which were then sent to the

home secretary for his approval. They were printed in Welsh and English and given to the men or read to them so that they understood them.

In June 1855 Morgan Richards, one of the new firemen, reported having seen 60 yards of 'fire' in the main headings, which were part of Morgan Rowland's district. Twenty-five year old fireman, Morgan Rowlands, contradicted this and a fight took place. Thomas came between them and threw Richards out of the office. Edward Hay confirmed what Richards had said, but both Richards and the overman, Rowland Thomas Rowland were dismissed. Thomas then appointed Rowland Rowlands (Morgan's brother) as the new overman, a man with five years experience as a collier, but none as a fireman. Morgan Rowlands kept his position as fireman and his brother-in-law; William Thomas and David Jones were employed as the replacement firemen.

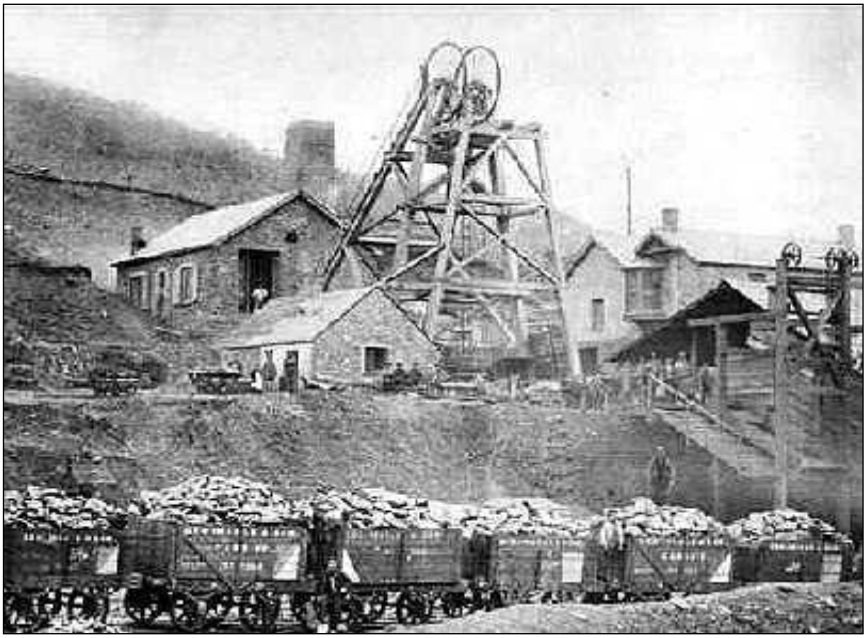
On 20th August 1855 an explosion caused by firedamp killed one man at the Cymmer New Pit. Because of this Mackworth returned to Cymmer Pit and discovered that again very few of his recommendations had been carried out. He referred Hay to the rules and left him another copy and on 25th November he received an assurance from Hay that Insole had sent the rules on to the Cymmer Colliery.

At the start of 1856 Herbert Mackworth's Inspector of Mines District was split, and the Rhondda district fell into the hands of Thomas Evans. Mackworth, however, was so concerned about the Cymmer Colliery that he left a special report on this colliery for Evans voicing his concerns. Herbert Mackworth was to die of natural causes on July 13th 1858 at the early age of 34.

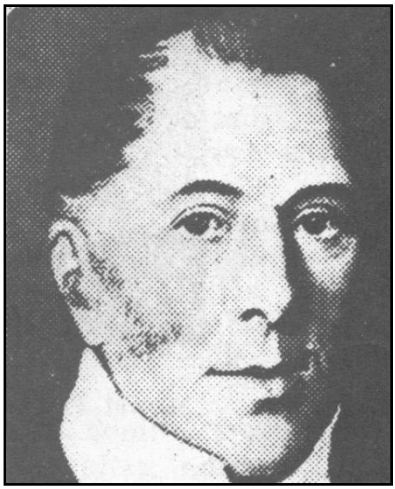
In February 1856 Edward Hay resigned, much probably, to the relief of Jabez Thomas, who appointed David Grey as the new underground agent. In April the rules for the Cymmer Colliery were approved, but not issued to the men until June 1856, but although they were printed in English and Welsh they were not read to the men who were mostly illiterate, and excluded rules on gas, firedamp and lights, which Thomas had removed from the original rules because he thought the No. 3 Rhondda seam was not fiery. On July 11th 1856 David Grey left Cymmer for another post,

leaving the colliery without an underground agent and in an even more dangerous state.

However, Herbert Mackworth's prolonged efforts as regards to the Cymmer Colliery were in vain. Henry Harvey Insole's drive for production and profit and his habit of ignoring warnings and advice, Jabez Thomas's insensitive attitudes in the management of the colliery, the appointment of inexperienced officials, a cavalier attitude to the men's safety and the overwhelming belief that the No. 3 seam was safe, all conspired to make the Cymmer Colliery a very dangerous place and in July 1856 an explosion would take 114 lives in the worst coal mining disaster to date in the UK - the first to claim more than 100 lives.



Cymmer Colliery 1880



George Insole

Henry Harvey Insole

THE CYMMER COLLIERY DISASTER
The loss of 114 lives - Tuesday, July 15th 1856

Many years had elapsed since an accident of a very serious nature had occurred in the Glamorganshire valleys, which were celebrated for their coking coal, and from which the Great Western Railway derived the supply for its locomotive power, the last explosion of this sweeping character was the one in 1853, at the Middle Duffryn Colliery, near Aberdare, when 64 men were killed. However, an explosion was to occur in the Rhondda Valley on July 15th 1856 that would see the death of over 100 miners. The following is a report of the events that took place the day of the disaster and what followed as viewed through the local and national newspapers: -

Terrible Explosion of Fire-damp at the Cymmer colliery, near Newbridge

Rich as the county of Glamorgan is in picturesque scenery, it probably boasts no more beautiful spot than the portion of the Rhondda valley at which is located the mineral district of Cymmer. Forming the centre of a type of cross there diverges from it four valleys overhung by hills of great latitude; these are occasionally enriched by patches of woodland and cultivated tracts of arable land, but they display more extensively that short verdure the vivid but varying hues of which, when viewed from the valley in the broad light of an open day, form one of the distinguishing charms of Welsh mountain scenery.

Running down the centre of these principal gorges are seen the bright waters of the Rhondda Fawr, forcing their way through masses of fallen rock, now dashing and foaming as they encounter some formidable impediments; now gently rippling as they sweep over a bed of pebbles, but ever filling the air with tranquillising music. In the midst of these natural beauties stand the above-ground works of the Cymmer Colliery; monuments to the enterprise and skill of man, engines by whom power and wealth richer than gold is torn as it were from the bowels of the earth, and made subservient yet to the wants and happiness of the human family.

Connected with these are seen in every direction, now hanging in small clusters from the sides of the hills, now stretching in lengthening ranks at their base, now crowning their very summits, the humble but neat and

cleanly kept cottages of the workmen, who, in the simplicity of valley life, pursue the course of peaceful industry, and become at once the producers and the recipients of the treasures which "the mountains yield up." Such is the district of Cymmer, and anyone who beheld it at early morning on Tuesday last would have had little thought the angel of death was hovering over it with outstretched wings, and it was about to become the scene of a catastrophe so dire and terrible, that the past annals of mining history, stained as they are with blood, can scarcely furnish parallel.

The Cymmer is one of the extensive collieries worked by Messrs. Insole & son, and its coal being peculiarly adapted for the manufacture of locomotive coke, the whole, or nearly the whole, of its yield used in the production of that particular article for the Bristol & Exeter Railway Company. It may be mentioned, as showing the peculiar excellence of the coal of the Rhondda valley for railway purposes, that an extensive colliery located at about two miles lower down the valley, towards Ponty-y-Pridd, is worked for the use of the Great Western Company, and it is known as the "Great Western Works." This coal is not of the dangerous nature of some of the steam coals, and it is not usual in the mines from which it is produced to observe the precautions, which are taken in what are called "fiery collieries."

It has been rumoured some colliers in the valley that there had been previous to the explosion on Tuesday, recent indications of the presence of explosive gas in the Cymmer works, "blowers," or casual discharges having taken place. It is right, however, to state, that those connected with the working of the colliery allege that there was no reason whatever to anticipate a calamity of this kind; and that the explosion that did take place was anything but an extensive one, the great loss of life being chiefly caused by the after or "choke" damp. It is stated by them that the mine has been worked for the last twelve years, and that although there have been some minor explosions, by which men have been burnt, nothing of a serious nature has occurred; that the ventilation, which is effected by a furnace, has always been regarded of a superior kind, and that the accumulation of fire-damp was not large, as was shown by the fact that the works themselves are not injured to the extent of £10, while two of the doors were not even thrown down.

We heard it further stated that it is about 12 months since Mr. Herbert Mackworth, one of Her Majesty's inspectors of collieries, went over the mine and made no orders for alteration. The course, which has been observed at Cymmer, with a view to guard against accidents by explosions, is thus described: -

There are three firemen employed, and a superintendent above them, and it is their duty every day before the colliers go down to descend the pit and carefully examine all the workings. If they find them right they hang up in the front of each man's working place a tin label, which it is the collier's duty to posses himself of, and deliver at night back again to the foreman. If the place were not found in a fit state the label is then withheld, and a piece of wood is erected across the entrance as an indicator that the collier is not to work there. Behind these observances and an attention to ventilation it would seem no other precautions were considered necessary, as no safety lanterns were supplied to the men, who worked with naked lights.

The fateful day

On Tuesday morning, July 15th 1856, the firemen went down as usual to discharge their duty, and, having reported all right, the hands descended to their labour. The average number of colliers, men and boys, employed in the Cymmer pits is 200, but it fortunately happened that on the fatal morning only about 160 went down. Another most fortunate circumstance also occurred, for which loss of life, frightfully extensive as it was, would necessarily have been much greater.

Tuesday was the last day of the fortnight, and a number of the men having trams already full did not, although they descended the shaft, go into the workings. In order to explain how this circumstance proved so blessed in the salvation of human life, it should be stated that the workings of the Cymmer mine are of great extent, penetrating under the hills to a distance of nearly a mile, and that the parts in which the colliers now cut their coal are remote from the entrance shaft. The explosion, which led to such an enormous sacrifice of life occurred near the commencement of the workings, and cut off the air from the interior, where every breathing thing, men, boys, horses and all, were suffocated by the after-damp.

It will readily be understood, therefore, that, had the miners employed in the cutting parts of the colliery been counted by hundreds, instead of scores, they would have all equally perished. To return to the narrative, the men had been below some inconsiderable time when, at about half-past seven o'clock, the explosion took place. The indications above ground were very slight; no noise was heard by anyone, and the only circumstance giving rise to suspicion that something was wrong below was the ascent by the shaft of a puff of wind accompanied with some smoke.

Soon afterwards, a signal was given to haul up, and "hitchers" as they are termed, or men who are employed near the bottom of the shaft to hang on the carts of coal, were brought out, and gave the terrible information that an explosion had taken place.

The utmost consternation was at once produced amongst those above ground, and messengers were immediately dispatched for medical assistance. Mr. Henry Naunton Davies, the resident surgeon of the works, was in attendance instantly, and Mr. Thomas, Mr. Davies, and Mr. Cook, of Newbridge (Pontypridd), and some other surgeons living within reach arrived with all possible despatch.

The managers and agents of the colliery, as quickly as possible, took all the necessary precautionary measures for preparing to descend to examine the state of things below although the duty was attended with considerable danger, in getting the men up. When the after-damp had been somewhat cleared away, a party descended to their fearful work, and a truly horrible spectacle met their eyes in every direction.

The persons employed in this labour had the satisfaction of bring up about twenty men who, having been on the shaft side of the explosion, were either not hurt at all or but only slightly injured. Nine were brought out, who, although terribly burnt, were still alive, but of the other inmates of the mine not one was destined to see the light again. By eleven o'clock, 24 black and lifeless bodies were exhumed from the pit, and, and during the day, continued exertions on the part of the courageous men succeeded in bringing 62 of their unfortunate comrades' corpses to the surface. The injured were treated either at the Cymmer surgery by Dr. H. N. Davies, the

works doctor, or in their own homes where in some cases operations were carried out on the kitchen table by the light of an oil lamp.

All day long, the brave fellows ventured down, almost in the face of death, to bring out the dead and bring up the bodies of the unfortunate men who had perished, and when these were brought to the surface the recognition of beloved husband or loving child awoke harrowing cries.

By Wednesday morning, no less than 110 dead bodies had been taken out of the pit and it was thought all but one had been recovered. The missing corpse was that of a boy who had kept one of the doors, named Llewellyn Thomas, who must have fallen far in the works, too far to venture to find him without much danger; but it was resolved not to abandon the search until he had been found, and on Wednesday evening two brave fellows who had run so much risk in this work of humanity crawled in on their hands and knees without lights, and thus succeeded in bringing out the corpse. This made the number of dead bodies recovered 111, and on Thursday morning, the death of one of the rescued nine swelled the entire human sacrifice to 112.

There were also several horses killed, fine powerful animals, which had cost the Messrs. Insole from £30 to £40 each. Thirteen horses were employed at the pit, eleven of whom were killed. A little boy was was driving a horse at the time of the explosion is said to have hidden under a manger, and thereby escaped, whilst the horse was killed. One touching sight exhibited to the view of those who sought out the dead bodies was that of a father and son lying in each other's embrace, and both in the embrace of death! The fact that the explosion must have occurred before the men generally commenced work is gathered from the incident of about thirty having been discovered in one place, where they had sat down, apparently to take a 'whiff' before stripping to their laborious toil. A great number had not even unslung their cans. About thirty-three widows are bereaved by this catastrophe, and in two or three instances there are widows with six or seven children each, some of which are very young babies.

Language fails to describe the agonising scenes which on Tuesday and Wednesday were to be witnessed, both above and below ground. The bodies of the poor fellows who had been reached by the explosion itself

presented shocking spectacles, being scorched and burnt all over. The countenances of those who died from suffocation were for the most part passive, but the situations which some of the bodies were found told effective tales. It was evident that upon finding the air cut off the poor fellows had rushed from their work. Many, probably, had hoped to save their lives by making for the shaft, and had fallen by the way, their dead bodies blocking up the paths, and thus causing impediments to the flight, alas, a hopeless flight – of others.

In some places single bodies were found kneeling or sitting in niches and sidings of the work, as if the poor wretches had abandoned themselves to their terrible fate, while some marked instances were presented which showed how little justice they do to human nature who speak of "self preservation," as its first and strongest law. There were indubitable cases in which, instead of themselves rushing for the opening heedless of what happened to everyone else, fathers had gone back from their own stalls to those in their rear in which their children were, and had perished with "love of offspring," their last and strongest feeling.

The scene on the surface

Harrowing, as were the scenes which presented themselves below ground, even more painful and heart-rending were those which were to be witnessed above. We have before stated that the cottages of most of the workpeople cluster around the works, and the tidings of the dreadful occurrence having rapidly spread abroad, the wives, children, mothers, and sisters of the men and boys in the pit hastened to the mouth of the shaft, eager to ascertain the fate of their respective relations. The Welsh are a people remarkable for strong and deep feeling, and to the intensity of their grief, and the frantic and soul-touching manner in which many of them gave expression to it, language would do but feeble justice.

Numbers of them were kept in a state of agonised suspense for many long hours, and to note the eagerness with which they examined the faces of the dead, as cart after cart was brought to the surface, was one of the most painful things that could be conceived. By and by a woman would recognise a face familiar and clear to her, or a group of anxious children would detect the person of their father, and then the very air would be

rent with lamentations, for it was one of the characteristics of the scene that every particular grief was made a common grief and that every expression of sorrow evoked a common sympathy. One very painful case occurred: - A boy named Martin, who had been visiting some relatives in the neighbourhood, and had nothing whatever to do with the colliery, had been taken down by his uncle, with the intention of showing him how the men worked underground. The little fellow was amongst those who perished, and the recovery of his corpse gave rise to a scene too agonising for description.

An incident of a more pleasing character was related to us upon reliable authority. Amongst the bodies brought up in one of the carts, was that of a youth whose father was anxiously waiting at the mouth of the pit for the purpose of receiving his corpse. After his body had been laid upon the ground, one of the surgeons in examining it thought that he could discern signs of life, and it was accordingly removed and acted upon in a way usually employed to restore suspended animation. The skilful and humane efforts of the medical gentlemen were happily crowned with success, and the father had the satisfaction of receiving his boy almost literally "raised from the dead."

Amongst the dead bodies was one pointed out to us as one boy called Richard James, whose case was peculiar, in as much as on his earnings depended an entire family. Sometime ago his father, who was employed in the valley, broke his leg, whereby he had been disabled from labour. On the occurrence of the accident the courageous little fellow said, "Never mind, father, I will earn money for you," and he kept his word. He has now himself been swept away, and on one of the clerks of the works visiting the family after the corpse had been brought home, the poor father said, the tears streaming from his eyes, "Ah! Sir, we all depended on that boy; there is a sad fate for us now."

One or two others amongst the lads were named to us as materially contributing to the support of large families. Another singular and painful incident may be mentioned. On the opposite side of the Rhondda Fawr, but almost literally underneath the shadow of the Cymmer works' incline-engine-house, is a neat little chapel, belonging we believe to Welsh Methodist connections. The choir of that chapel has been so famous that it

has earned them the title of “The Sweet Singers” and at the Eisteddfods has been eminently successful in carrying out prizes. Every man of that choir has been swept away by this terrible catastrophe. Another well-known local choir, named the “Porth Choir” had lost all but one of its members.

The male membership of the Methodist cause at Bethlehem, most of whom had followed Jabez Thomas the colliery manager and founder of the chapel, from Maesmawr and Rhyd-yr-Helig to Porth, was more than halved. Of those killed, many were young boys, seven under ten, seven under eleven, eight under twelve and twelve under sixteen years of age. Several fathers and sons had been killed and in one case a father (aged 46) and three sons (10, 13 and 16 years old). In some cases whole families were wiped out and there were frequently two and three and in one instance six bodies in one house.

The colliery carpenter's shop was pressed into service as a temporary mortuary, as indeed was the Independents' Chapel at Cymmer. Workmen were immediately put on to make coffins for the dead in the open-air on Cymmer yard. There they were, working hastily with the saw and plane, to construct crude shells in which to deposit the unfortunate dead in their untimely graves, amidst the crowds of eager people, still waiting to see the last of the dreadful catastrophe.

Several bodies, on being removed from the pit, were moved to the homes of their relatives, and melancholy indeed was the spectacle which the little village presented. It one rank there was scarcely a single house which did not contain one or more bodies. In one cottage the bodies of a father and a son were laid out on the same bed. The son, who was 21 years of age, had been burnt, and his body presented a painful appearance, being skinned and occasionally charred. The father’s face wore a placid or almost happy expression, as if he had fallen off in a pleasant sleep. In another cottage might be seen the bodies of a father and two sons, and in others, rows of two or even three brothers.

Another account

A reporter from the ‘*Star of Gwent*’ gave this vivid account on reaching the scene of the disaster on Tuesday: -

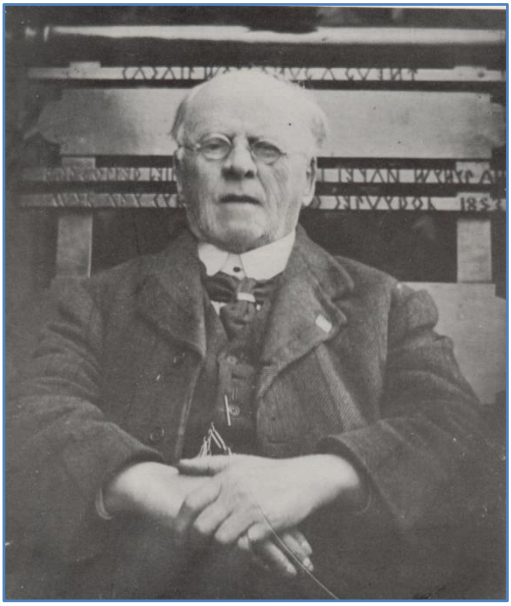
Who can picture the sight that met our gaze, as guided by an intelligent miner we scrambled down from the village to the colliery, or describe what we witnessed when we got there. The pencil of Rembrandt or the pen of Dickens would utterly fail in the attempt. There was a sublime and awful grandeur in the surrounding scenery, and intense and horrible misery in the foreground. Nearly all the inhabitants of the neighbourhood were congregated on and about the upper works of the pit – men, girls, and boys, most of the former and latter in their working dresses, and their faces blackened with coal dirt. The coke ovens and open fires shed an unearthly glare on the crowds, and gave their faces a ghastly, deathly hue. Just as we arrived, the bodies of four men and two boys were landed. They were lying in a tram side by side, three over and three under. On the tram being drawn up the shaft towards the bank, an anxious crowd, some carrying lighted candles, speedily surrounded it for the purpose of identifying its occupants. This was no easy matter, for the faces of the unfortunate fellows were blackened, and in some cases disfigured. The jacket, the trousers, or the boots were frequently the only means of identification.

As soon as they were identified, the bodies were lifted out, put on planks, their limbs being tied round with strips of calico, covered over, and then borne by the light of torches, accompanied by the wails of the bereaved, to their desolate and gloomy homes. We were reminded of the passage – *'In Rama was there a voice heard, lamentation, and weeping, and great mourning, Rachel weeping for her children, and refusing to be comforted, because they are not.'* It was indeed, a scene of 'lamentation, mourning, and woe,' and while we remained, and it was approaching 11 o'clock before we left, these scenes were several times repeated. About 106 bodies had been brought to the surface before we finally left the sad locality.

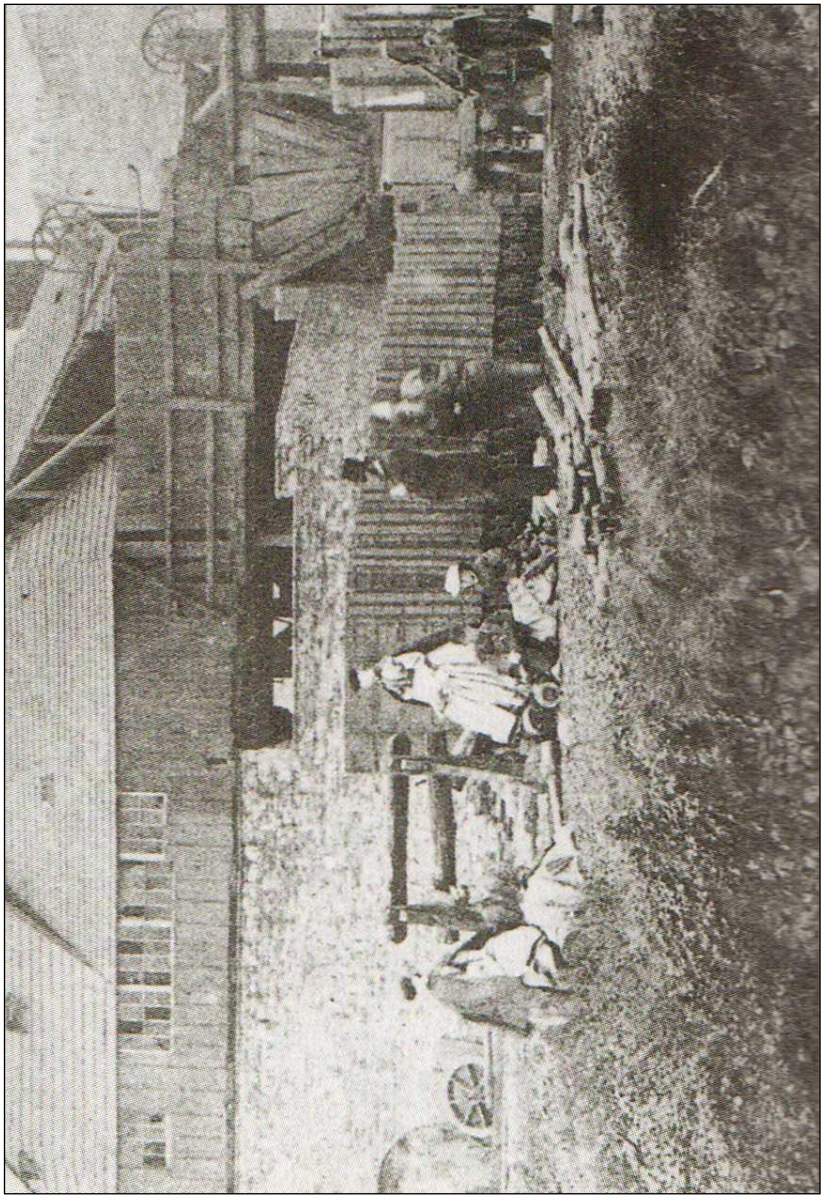
We noticed one touching scene. An aged man discovered in one of the trams the body of his son, a boy of about fourteen years of age. As soon as he had satisfied himself that it was his son, the old man caught him up in his arms, in the most frantic grief, and bore him to his sorrowing mother. We understand that scarcely a family has escaped, and in some houses there are two, three, and four dead bodies. In nearly every case bodies were found to be dreadfully marked by the deadly instrument that had laid low so many valuable lives. By Tuesday evening 112 bodies, wrapped in

blankets or canvas had been brought up from the mine; one body was recovered on the following day and one collier, severely burnt, died on Thursday.

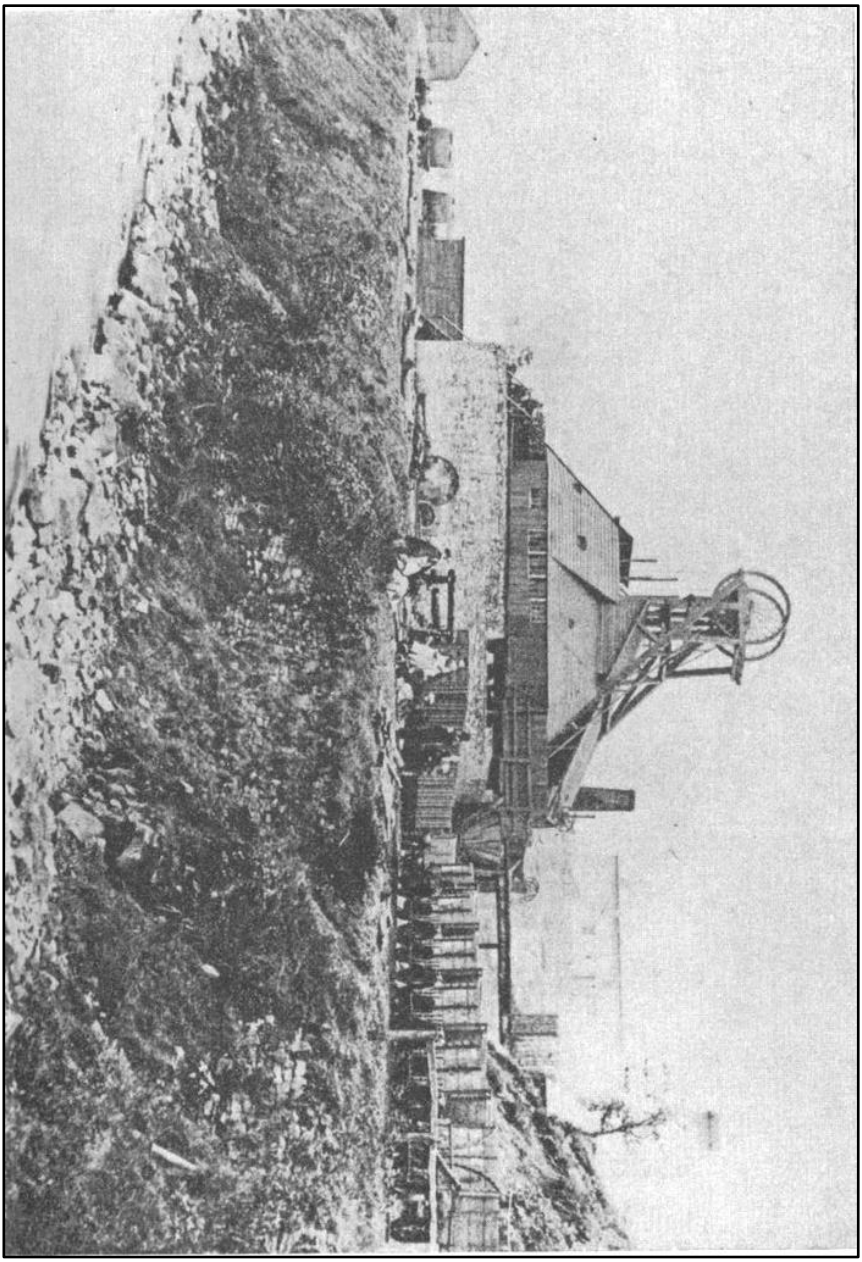
Of the immediate cause of the accident nothing reliable is known. By some it is alleged that the inflammable gas was ignited by a fire kindled in the pit; but another and more probable version is stated to have been made by two of the survivors, viz., that some of the men incautiously carried lights into the abandoned part of the workings, for the purpose of raising some tram plates that were laid there. Whether either, and which of these is a true statement, must remain at present a matter for conjecture, as it has been considered undesirable, until the men's minds have somewhat recovered from the terrible shock they have sustained, to press the inquiry.



Owen Morgan (Morien) who shot to fame in the Western Mail reporting colliery disasters



Close-up of the 1860 Cymmer Colliery and possibly the Insole family, though what they were doing there was anyone's guess. Looks like a picnic.



Cymmer Colliery 1860

Wednesday, July 16th 1856

The Coroner's Inquest opened and adjourned

On Wednesday, July 16th 1856, the day after the explosion, the Coroner for the district, Mr. George Overton, Esq., commenced an inquest on the bodies at a public-house adjacent to the works, called the Ty Newydd (new house). There was a great amount of excitement. Intelligence of the explosion had been widely spread, and (as is usual upon occasions of great accidents) the hands at the other collieries in the valleys had struck work. This had also been the case with the mines in the Aberdare valley, and the 'steam colliers,' as the miners employed there are called, had come over in great numbers, and some of them had demanded and been refused permission to descend the Cymmer pit.

The presence of such a large number of corpses in the district, was naturally calculated to inflame the men's feelings, and the excitement was heightened by the presence (not probably to have have been avoided) of a number of men who were engaged night and day in the preparation of coffins and biers for the burial of the dead.

Prior to the inquest there had been some meetings of the vast body of men which had congregated near the works, at which the uncertainty which prevailed as to the cause of the accident, and the possibility of blame in the over lookers, had been warmly if not angrily canvassed, so that the Coroner's inquiry undoubtedly commenced amidst much excited feeling. A jury of nineteen have been sworn. Their names were: -

Daniel J. Hutchings (foreman), John Jones, Lewis Davies, Edward Rees, William Brooks, Llewellin Lewis, John Burgess, Robert Miles, Daniel Maxey, John Dory, John Hughes, William Gayney, David Rees, James Rees, Edward Plummer, William Rosser, John Hughes, and William Hopkin.

Before the jurors were sworn, the Coroner said he found it desirable to ask if any of the jurors came from a distance, and to state, for the information of such persons, that, in all probability, it would be necessary for the jury to sit for several successive days when they entered upon the inquiry, and if any of them thought they would be unable to give their attendance for five or six days successively, he should be glad if they at once say so. He felt it

necessary to make these observations, because his experience at the inquest at Aberdare had shown him the difficulty of keeping the jury together in a prolonged inquiry.

At the inquest at Aberdare there were some colliers on the jury, and after the first day or two, they did not come, which was attended with some inconvenience to the proceedings, and, as the men stated that they could not come without starving themselves and their families, he was obliged to deal more leniently with them than he would in other circumstances. He therefore appealed to the jurors at once, to state if they had any objection to a prolonged sitting which might be necessary. As none of the jurors made any objection they were then sworn in.

It was not his intention to at once pursue the inquiry, for he considered that in the present state of feeling he could not hope to satisfactorily elicit the facts. He proposed therefore to go with the jurymen and view the bodies, after which he should adjourn to Monday week, by which day they would be prepared to enter more fully into the particulars of the catastrophe.

The Coroner said he would next state the course of proceedings he intended to follow. It would be the duty of the jury first to see the bodies, and as they were scattered over a large space of ground, it would occupy the greater part of the day. Some were lying at a distance of four miles, and he believed that some were in Aberdare, if so, he should not trouble the jury to go there, but he would get another jury in Aberdare. He proposed then that after the jury had viewed the bodies the inquest would be adjourned for some days, as he would, in the meantime communicate with the Secretary of State and he had no doubt one or two government inspectors would be sent down to examine the pit.

Mr. Evans, the Government Inspector of Mines had been down in the pit on the previous evening and had promised to see him (the Coroner) but he had left a message at his house last night to say that he was so much exhausted and felt so ill after his examination of the pit that he found he had at once to go home, and if sufficiently recovered he would be present at the inquest. He (the Coroner), would, however, see Mr. Evans, and by

the time the jury again met, he had no doubt the government inspectors would be able to give evidence as to the state of the workings in the pit.

In viewing the bodies he should be glad if the jury would make notes of the indications shown as to the cause of death. They would probably find death to have resulted from three different causes. Some they would find had been burnt; some had died from suffocation; and it was possible they would find that some had died from violence by the force of the explosion. He advised the jurors therefore, to be careful in noticing the appearances of the different bodies, as such observation might materially assist them upon the subsequent inquiry. The jury then rose to fulfil their next duty of visiting the different houses where the bodies were lying.

At this point of the proceedings Daniel Maxey, a Cymmer collier, one of the jurors, then addressed the Coroner and his brother jurymen, in a rather excited manner, in the Welsh language. He proposed that a body of colliers from the Aberdare district, one being selected from each pit, should be appointed to examine the Cymmer mine. The Coroner said that the suggestion he had made was a very proper one, but it would have been better if he had been calmer upon the subject. If he had been aware of what he had just been told before Maxey was sworn, he should have refused to admit him on the jury.

He had learned that Maxey had on the previous night attempted to go down into the pit in opposition to the regulations which had been properly and necessarily been made; a course of proceeding which was very wrong. The suggestion that Maxey had made he (the Coroner) had no objection to, but he must impress upon Maxey that it would be his duty, as well as the duty of his brother jurors, to pursue the inquiry calmly and dispassionately.

The Coroner said the works would not, he apprehended, be fit to be entered for two or three days. The government inspector, Mr. Evans, had gone down yesterday, and would inspect the pit again, so that the public might depend upon there being a proper examination.

Mr. Hutchings, of Newbridge (Pontypridd), the foreman of the jury, suggested that the entire workings of the Cymmer pit should be suspended until after the inquiry had been got into. The Coroner said he would take

care to intimate the wish of the jurors. Mr. Maxey (who was evidently a great deal excited) again got up, and complained to the Coroner that he and two or three other practical men applied yesterday to go down the pit, but the parties in charge refused to let them go down. The Coroner said, if Mr. Maxey would give him the names of three or four respectable practical working colliers, he would give them an order to go down with the government inspector as soon as the pit was considered safe, which would not be for a day or two. It must be obvious that all who applied could not go down.

Maxey, still with excitement, but a little more calmer than at first, again spoke in Welsh, and, made something like an intimation that there had been neglect, or worse, on the part of the firemen, whose duty it was to ascertain that all was right in the pit before the colliers went down. The Coroner told Maxey that his proper course would have come to him and made his statement, and he would have given him an order to go down; but he ought not to have attempted to force his way down. It was not safe for anyone to go down for a little time after an explosion, generally it required two days before people could go down safely, and therefore it was necessary that there should be some regulation made to prevent anyone going down without proper authority.

The jury then proceeded with the Coroner to view the bodies, which proved, indeed, a melancholy and deeply painful duty. The spectacle in the great majority of cases was frightful, the major part of the unfortunate deceased having met their deaths through fire, not the choke damp, the former causing the body to become charred, and literally scorched to almost a cinder, while the 'damp' causes death by suffocation, and leaving but little upon the countenance, except an expression like that of sleep.

Not only was it distressing to visit such a large number of corpses, but also the jurors had to encounter the agonised relatives, whose wailings were truly heart-rending. At the close of the inspection the inquiry was adjourned until Monday, the 28th inst. A local newspaper reported: - "We accompanied the jury to a few of the houses of mourning, and we may observe that we could not help being struck by the clean, neat, and comfortable appearance of the houses generally – we might almost say

universally. At the first house we found the bodies of a father and son laid on the same bed, the father 66 years of age, and his son 22 years of age.

The father had evidently died from suffocation, but the son had been burnt to some extent, though not to the extent which in accidents is sometimes met with when bodies are charred; none of the bodies were so far injured as to be charred. It was a melancholy sight indeed to look upon the old man, who previously had passed the whole of his life in always hazardous employment. The man in the prime and vigour of his days, with all the energies, cut off in the hour he could most effectively employ them for his support – or sadder still, for the maintenance of a young family; and again yet, we saw the young man and the boy, whose spirits were yet unclouded by heavy-handed care, suddenly brought to that end, in which they had, perhaps, hardly given thought. We were sorry to learn, and in fact to witness, that there was some disposition shown to create a disturbance, and though it appeared to have subsided as night drew on, we were still more sorry to learn that on Thursday this bad spirit was again manifested, but a tolerably strong muster of the County Police Force we hope will be found sufficient to prevent anything in the shape of an outbreak."

Thursday, July 17th 1856

The burial of the dead

Thursday was set apart for the interment of the bodies, but owing to the great number, and the distances which many of them had to be carried – distances of five, six, and even twelve miles – the day was found insufficient for the completion of the solemn duty. Thirty graves were opened at the Cymmer Chapel burial ground and a huge crowd from near and far attended the mass interment. J. H. Insole, owner of the Cymmer colliery undertook to meet the cost of the funerals.

Sad and gloomy, indeed, was the appearance of the so lately happy valley. Business was entirely suspended, and the roads were thronged by thousands who had flocked from all parts of the district to assist in the solemnities. All were attired in holiday dress, but every face bore a marked expression of sorrow, while the countenances of numbers bespoke a grief so profound that it could only have been felt by those connected by ties of blood and kindred with some of the deceased.

There were probably as many persons in the valley as on the previous day, but owing to the numerous points to which the dead had to be borne, they were more widely scattered. Deeply affecting were the scenes which everywhere presented themselves. The simple solemnity of a Welsh funeral is proverbial, and that solemnity was much increased by the circumstance of two and three coffins being frequently carried in the same procession. No outward show of mourning was anywhere visible; there was neither pall nor plume; nor hatband, scarf, or cloak, but there was that which is more touchingly solemn and profound – an earnest and general sorrow.

Each coffin was borne uncovered on a bier, raised on men's shoulders, and every procession comprised many scores of men and women of all grades and ages, some mounted, some in vehicles, and some on foot, who preceded, surrounded, and followed the bodies. At every little village or cluster of cottages the inhabitants turned out *en masse* to testify their respect for the dead, and their sympathy with the popular grief, while at frequent intervals during their progress towards the grave, the voices of the multitude swelled in a solemn dirge or hymn, which is always sung in the Welsh language, and often to some old traditional chant or tune. At Pontypridd, through which more than one of the funeral parties had to pass on their way to Monmouthshire, the shops were almost universally closed, and from some of the windows black mourning banners trimmed with crape were suspended. This mode of expressive grief was also to be observed at one or two other places in the valley.

After some of the burials had been completed, numbers of the miners, especially from Aberdare, began to congregate near the colliery gates; apprehensions being entertained that a disturbance might be attempted, a messenger was despatched to Pontypridd, to request the presence of Mr. Superintendent Thomas, and a strong body of the Glamorganshire County police. The following is the list of the persons killed: -

John Williams and Daniel Williams (his nephew), Benjamin Evans (a boy), Morgan Morgan, John Rees, William Williams, Wm. Jenkins and Wm. Jenkins (father and son), John Roberts, David Morgan, Isaac John, David Richards and Zachariah Richards (brothers), Daniel Lewis, Henry Jones, Enoch Thomas, William Thomas and Llewellyn Thomas (brothers), Thomas

Andrew, Richard James, Enoch Morgan, Morgan Morgan, and Thomas Morgan (3 brothers), Evan Phillips, George Selway and Henry Selway (his son), Nathanial Thomas and Samuel Thomas (his son), Morgan Evans, Evan Lewis, David Morgan, Isaac Morgan, Evan Miles, Morgan David, Hezekiah Davis and Thomas and Eli Davis (his two sons), Jus. Evans and John Evans (brothers), Walter Miles and Richard Miles (brothers), Rees Thomas, Gummer Thomas (his father, David Thomas, was killed at the works the month before by the buffer of a carriage on the railway). Henry Jervis, Thomas Matthews, Thomas Williams, Wm. Richard, Wm. Davies, Aaron Rees, George Griffiths, Thomas Williams, Thomas Davies and William Davies, Thomas Davies and David Davies (his three sons), Thomas Davies and Wm. Davies (his son), Richard Rees, and Isaac John, all of Cymmer.

Benjamin Rees, Wm. Lewis, Thomas and William Llewellin (brothers), Daniel Lewis, John Salathiel and Jechonias Salathiel (brothers), Rees Jenkins, Jno. Jenkins and David Jenkins (brothers), David Thomas, William Martin, Edward Howell, Thomas Hopkins, John Isaac, David Thomas, David Howell, Daniel Davies, John Thomas, Thomas John, and William Collicott, of Dinas.

Joseph John, Jnr. Morgan, Thomas Rees, David Morgan, and William Evans, of Ton-yr-efail; William Morgan, Thomas Edward, and Edward Davies (all boys), of Porth; Matthew Evans and Phillip Evans (his son), of Troedyrhiw; Jenkin David, David Daniel, Thomas Lewis, Evan Hughes, Jno. Hughes and William Hughes (brothers), David Powell (boy), Peter Griffiths and Henry Griffiths (boys and brothers), of Americu Fach; David John, Thomas Davies, David Harris, Wm. Evan and John Evan (his son), Samuel Edmunds and Wm. Edmunds (his son), Edward Lewis and Thomas Lewis (his son), Thomas Williams (boy); Wm. Rees, and two children of David John, of Gwauen Erwo. Samuel Edmunds, was one of the rescue party at the Dinas explosion in 1844.

Another account of Thursday

The '*Merthyr Telegraph*' reported: **-** On Thursday, the day of the funerals, it is calculated that not less than fifteen thousand persons were present. The scene was well calculated to harrow up the feelings of the spectators as the coffins passed along in various directions followed by sorrowing relatives.

The Welsh are naturally an excitable people—quick to appreciate a kindness or to avenge a wrong. They love their country and are ever ready to espouse the cause of their countrymen. They may therefore be pardoned if amidst so sad a scene in this valley of death, they gave way in some few instances to an unguarded expression. Of the deceased, 48 were interred in the burial ground of the Cymmer Independent Chapel, eleven at Tonyrefail, nine at Ffrwd Amos, eight at the Dinas Methodist Chapel, and the rest at Pontypridd, Treforest, Coed Cymmer, Llantrisant, Llanharry, Bedwas, Trebanos, Brynmenyn, Wauntrodau and Llanwonno. The Cymmer Colliery has been opened about ten years, is 81 yards deep, and extends nearly a mile underground. The workings are very extensive there being eight or nine headings and about fifty stalls of from twelve to twenty yards in width. The level is about eight or nine feet wide and the headings about thirty feet. As we before stated, about 200 men and boys are employed here. With regard to its being a safe pit there are various reports. Some assert that it was generally considered safe, and that it was pretty free from fire, while we have conversed with others who stated that for some time past they had considered it very unsafe to work there, and had left in consequence.

One old collier was lately so fully impressed that an accident would someday happen that he gave notice to leave, and to the impression that then so burdened his mind, he now attributes the preservation of his life. On the night previous to the accident two young men named Samuel Edmunds and William Evans while at Pontypridd spoke of the apprehensions they entertained respecting the safety of the pit, and intimated their intention of soon leaving. They were both the next day numbered with the dead. It would therefore seem from these and numerous other matters which we have heard related that however safe some might have supposed the pit to be, there were others who entertained a different opinion. Nor does it seem probable that gas which exploded was merely that which might have escaped from some old workings, as some would have us believe.

The accounts given by some of our contemporaries state that there could have been but little gas in the pit, as two of the doors were not even blown down, and that £10 will cover all the damage that has been done to the pit by the explosion; that they attribute the great loss of life to the fire having

taken place near the pit's mouth, and thus exposing the great body of the workmen who were farther in the works to the choke damp, the suffocating properties of which are so well known. However, if such were the case, only those near the pit's mouth where the fire is supposed to have existed would have been burnt, whereas, bodies were found to have been burnt in all parts of the pit. The probability is, therefore, that gas had been accumulating in a small degree in all parts of the works, perhaps for years, and that the circumstance of so little damage being done to the pit by the explosion arose rather from the want of proper ventilation. We could not help noticing the smallness of the flue. An aperture of three feet square we are sure all who know anything about coal or mining operations will admit was not capable of ventilating so extensive a pit.

There was another thing to which our attention was particularly directed as showing the insecurity of this pit. The upcast shaft is separated from the downcast only by a brick wall of 4 inches or the width of a brick in thickness, the wooden tie beams of which it is said are in some places burnt asunder. This kind of pit we are told is very common in this district, and are constructed in this manner instead of having two separate shafts, for the purpose of avoiding expense in the first instance. Now nothing can be more dangerous than this method of constructing pits, for should the brattice or partition ever be blown down by an explosion, the death of every one in the pit would be inevitable.

Of the number killed 41 were burnt, and 73 suffocated by the “choke damp," which is generated by the ignition of explosive gases, and which diffuses itself all over the workings as soon as a fire has taken place. The explosion took place soon after the greater portion of the men had gone down as only a few had commenced work, while some were on their way to their stalls with their cans slung across their shoulders, and others were evidently sitting down chatting together over a friendly “whiff" of tobacco previous to commencing their labours for the day. A large proportion of those employed in the colliery were mere lads. It is said some were under ten years, and from this age up to 18 there were 66, of the 114 who died. By this desolating event 36 women have been rendered widows; eight lads—all under eighteen, who had kept their widowed mothers, were snatched away and 94 children, too young to earn a subsistence for themselves, have been rendered orphans.

Among the affecting incidents connected with this fatal event, we may notice that belonging to Porth Methodist Chapel, was an excellent choir of singers, some of whom had taken part in concerts given in various parts of the country. It was their intention this week, assisted by the Cymmer choral society, and some others, to give a grand concert for the benefit of the funds of their chapel. But, alas how uncertain are all earthy things. The whole of the male members of this excellent choir with but one exception, are now numbered with the clods of the valley. When taken out of the pit, the bodies of Thomas Davies, and his three sons, were found lying side by side; and Samuel Edwards was found with his son, a lad of 11 years old, clasped in his arms. It would thus seem that apprehending the danger which impended, he took his child up in his arms with a view of making his escape, when, alas! They were laid prostrate by the fell monster. They were united in life, and in death they were not divided.

House of Commons question

The explosion in Glamorganshire

In reference to this most dreadful occurrence, the following transpired at the House of Commons, on Monday night, July 21st 1856: - Mr. Cayley asked the Secretary of State for the Home Department if he intended to employ any special means to ascertain the real circumstances under which the disastrous loss of nearly 120 lives had just taken place from an explosion in the coalmine in Glamorganshire?

Sir G. Grey said that he had received an account of this very lamentable accident on the 18th inst. both from the Coroner and from the inspector of the district. The Coroner stated that the inspector was on the spot within two hours after the accident occurred, and that he had rendered very efficient assistance in the preliminary investigation; but as the then state of the pit rendered it impossible that they could proceed at once with any further inquiry into the cause of the accident, he had adjourned the inquiry until the 28th.

The inspector requested that he might be assisted in pursuing his inquiries by two other inspectors whom he named. These two gentlemen had been requested to attend on the 28th, to give their assistance to the inspector of

the district; and that he had no doubt that the circumstances would undergo a most thorough searching investigation.

The disaster at Cymmer had re-ignited the national debate about safety in the UK coal mines, and the following two articles are typical of the many views expressed in the newspapers of the time: -

The terrible accident at the Cymmer Colliery
The *Morning Chronicle*, Saturday, July 19th 1856

The terrible at the Cymmer Colliery recalls attention to those conditions of peril and suffering under which mining operations are carried on, and to investigate or, if possible prevent, on which, Parliamentary committees have sat, and Government inspectors exercise incessant vigilance. The incidents of this tragedy are inexplicably awful. Over one-hundred and sixteen miners descended the pit believing in its full security, and before many minutes have elapsed – even before some of them had taken off their clothes to begin their subterranean work – an explosion takes place, and only six of the whole number are left alive! The inquest has not yet been held on the sufferers – but there is little or nothing to be learnt – for where are the witnesses? The few survivors are necessarily those who had not yet reached the workings, and who can, therefore, afford no information as to the cause, the warnings, or the phenomena of the catastrophe.

From what can be gathered by the appearances presented in the mine, the catastrophe would seem to have occurred with frightful suddenness. The unhappy victims had barely time to rush into a tram wagon, or crouch within some recess, in the hope of escaping destruction, when the blast overtook them, with its devouring flames and deadly vapours.

Others seemed to have had briefer notice of the impending calamity, or were burnt or suffocated as they sat at work. The pits were of great extent, and the number of persons who are known to have perished in this catastrophe is no fewer that 110. The question which everyone asks on hearing of such a tragedy is: – "What was neglected at the time, or can be provided hereafter to prevent occurrences so disastrous?"

To this we fear the answer must be somewhat unsatisfactory. The fact is that with everything which legislative provision or science can effect towards securing the safety of the coalmine, has already been accomplished. A system of inspection, with very stringent powers over the proprietors of the mines, enforced by heavy penalties, has been organised by legislature. Science, on its part, has provided the safety-lamp. Neither legal or mechanical ingenuity seems able to do more.

At the same time it must be acknowledged that what they have done is much – and, indeed, enough to accomplish all that is desired. By a judicious system of ventilation, such as the law declares compulsory on the coal-owners, and by the 'Davy,' every danger from choke-damp or fire-damp can be eventually averted. In the case before us, the Cymmer Colliery appears to have been well managed and in good condition as to its ventilating apparatus. The inspectors visited all the shafts and workings on the morning of the accident, and reported that all was safe within an hour of the explosion.

The plain fact, that neither safety lamp nor ventilation will serve to protect miners from peril, if they will not themselves act with common prudence. Long habitude to danger and frequent lucky escapes, infuse a reckless spirit of hardihood, and cause them to neglect the most ordinary precautions, however well supplied with the means of safety, and enjoined to use them.

In breaking up the large seams of coal, enough carburetted hydrogen or fire-damp will be disengaged in a very few minutes to bring the whole atmosphere of the mine into an explosive condition. Yet, if the air seems tolerably pure at first, the men will often work, though against severe prohibitions, with naked lights, regardless of the chance that its condition may change before they can provide against casualty.

Much carelessness is also shown by the workmen in omitting to see that the 'Davy' they carry is undamaged. A small aperture in the wire meshwork will give passage to the flame and explode the vapour outside. It is to recklessness of this sort that the late calamity, like many predecessors, must probably be attributed. After all that philosophers or legislatures have endeavoured to accomplish, it is melancholy to reflect that more

accidents occur, and more lives are lost in coalmines since the introduction of the safety lamp than any time previously.

The idea of security has evidently rendered the miners far more incautious. The only remedy that can be imagined must be left to a more stringent supervision over the men if that be possible, and an endeavour to educate them as to impress upon them a higher sense of the responsibility which they undergo for their own lives and those of their fellows.

The editorial of the same newspaper commented: -

If an instrument of safety be only reliable under circumstances of moderate danger, and totally ineffectual when conditions of extreme perils arise, the chances are that it will tend to promote the evils it was intended to obviate. This is a remark which emphatically applies to the safety-lamp. It is not the first time we have made the remark in our columns, and we had hoped that practical attention would have been given to the whole matter before the occurrence of a calamity of wholesale death so frightful as which has recently taken place at the Cymmer Pit.

The fearful scourge of fire-damp, is not, like many others, veiled in obscurity. Its origin and composition, its laws and powers, are well known. Where coal exists there *may* be carburetted hydrogen gas; where carburetted hydrogen gas is involved it necessarily mixes with atmospheric air; when the mixture takes place in certain proportions, an explosive gaseous compound results; when the latter comes in contact with flame it ignites, and the result is destruction and death – wholesale and indiscriminate, as the late terrible accident abundantly testifies.

Now, in order to guard against the destructive influence of the fire-damp, three indications suggest themselves for consideration. The first is, to prevent the formation, or at least the escape, of carburetted hydrogen into the workings of the mine; the second, to destroy it otherwise than by combustion when formed; the third, to employ some kind of lamp or lantern which, although yielding a certain sufficient amount of light for the purpose of the workmen, shall not have the property of exploding the fire-damp.

Coming now to investigate these several indications, it is evident that the first, under no circumstances, be carried into effect. To control the formation of carburetted hydrogen in beds of coal is beyond the power of any human agency. There it is, and there it might have been from a date coeval with the existence of coal itself. Pent up and compressed in its prison house, there it lies, a pick-stroke may break into its prison cell at any unforeseen time; then out it rushes in a strong jet, technically known as a 'blower,' and, mixing with the atmosphere, explosion is imminent should an unprotected light be brought its way.

Scarcely less hopeless of any practical issue is the second indication. Granted that carburetted hydrogen can be decomposed and rendered harmless by chemical agencies – granted that chloride of lime will accomplished this, and that it has be proposed by certain foreign chemists to this end. What then? Considering the vast extent and area of coalmines considering that the underground avenues present in some cases a linear extension of perhaps thirty or even forty miles, how is chloride of lime, how is *any* chemical agent, to be brought into requisition? A tunnel to America under the Atlantic would be even more feasible - the thing is preposterous.

Two indications then, being disposed of, we come to the third. The fire-damp can be breathed with impunity, but the miner must have light. Is it possible to devise a source of illumination which, under all circumstances, may defy the fire-damp? If we are to put faith in the statements of those who advocate the use of the Davy lamp, not only is this possible, but it has been done.

Flame, say they, will not permeate wire gauze; surround then, the burning wick with a cage of this material, and you have the safety lamp of Davy. The principal, we grant, is unimpeachable. Given a sufficient thickness of wire gauze – flame – neither quiescent nor in motion, will permeate the gauze; but the point to which we desire to draw public attention is this.

One layer of wire gauze to surround a burning wick, as in the Davy lamp, is not adequate to prevent the transmission of the flame of gas in motion, although it may, and usually does, prevent the transmission of the flame of gas at rest. We set forth this, not as a new discovery – but as a thing undemonstrated. The late Dr. Pereira, we believe, was the first who

exhibited in his lectures the insecurity of the Davy lamp when brought into a strong current of carburetted hydrogen gas and atmospheric air. Success in conducting this experiment may be insured by any person; it has become one of the staple demonstrations of the chemical lecture room; yet, strange to say, there are people who, with the fact demonstrated before them, still cling to the phallacy that the Davy lamp is universally safe.

Why, Davy *knew* his lamp to be unsafe. He was aware that wire gauze is an inadequate protection under two practical circumstances – *i. e;* when the lamp is brought into the presence of blowers, or when it is swung too and fro, as is very likely to happen when borne along the galleries of a coalmine. That he was aware of this weak point in his lamp is sufficiently proved by the admonition he gave, to the effect that when a coalminer, provided with one of the safety lamps, found himself in the presence of a blower, *he should cover the lamp with his hat!* The grotesque admonition might provoke a smile were the results of fire-damp explosions less frequent or less terrible.

Unsafe though the Davy lamp unquestionably be, the principal on which it is founded cannot be impugned. Carry it far enough, and it is unimpeachable. Given, instead of one layer of wire gauze, several, and the lamp is perfectly safe; but this, unfortunately, cannot be done without diminishing to a proportionate extent the light evolved, and lowering its intensity to a degree that renders it inefficient to the miner.

Nevertheless, the problem can be solved, nay, it is solved, in certain lamps founded on the Davy principal. We remember seeing one many years ago, the invention of a working miner of great intelligence, and the construction of which is so simple, and can be made so easily intelligible, that we offer no apology for describing it.

Viewed casually, the lamp in question is the lamp of Davy, surrounded with a glass cylinder; but on closer examination a further peculiarity is noticeable. It is this: - All atmosphere necessary to the support of combustion, instead of entering the lamp laterally through the meshes of the wire gauze, as in the lamp of Davy, enters at the base, and the gaseous and aqueous results of combustion emerge at the top.

Now, mark this. The air necessary to combustion and also the volatile results of combustion, easily find their way through many layers of wire gauze, where as the light necessary for illuminative purpose cannot. The bottom and the top of the lamp in question are, therefore, packed with wire gauze, superimposed in so many layers that the flame of the most explosive gaseous mixture know to chemists, viz; the mixture of two volumes of hydrogen and one of oxygen cannot pass through, much less can the flame of fire-damp.

Why, we ask, in the presence of accidents repeatedly occurring – accidents more dreadful in their results than the direst pestilence or the most sanguinary warfare – why is the simple invention just described not used? The glass sheaf will break. Not certainly if it be sufficiently thick and adequately protected; and granted that it does break sometimes, the lamp is a Davy lamp still.

If there be objections to the lamp, we should like to know them. We never heard of any - we cannot think of any. If there be such, in the name of humanity we implore practical coalminers to state them. To permit the reoccurrence of a human holocaust like that at Cymmer – in listless apathy, as if it were the behest of an unswerving fate – would be a disgrace, nay, worse, a flagrant crime. We could do no more if the resources of science and the application to this matter were exhausted, or if we were a barbarian race whom science has never reached

Another newspaper view

'*The Globe*' newspaper of Wednesday July 23rd 1856 printed the following comments: - It is quite natural that an explosion like that in the Cymmer Colliery in the Rhondda Valley, near Cardiff, should create a strong 'sensation,' as it is the fashion to call it, and much indignation at the waste of life; and yet we venture to say that there are so many causes for any particular event of the kind that it is scarcely possible to apply one complete and positive remedy to prevent such accidents. They can only be prevented by the application of many improvements.

We are quite aware that the Inspector of Collieries is engaged in an inquiry, but the inquest was adjourned for a fortnight, and that much light may be

thrown upon the particular facts in the evidence at the inquest or in the report of Mr. Evans; but we speak in anticipation of those statements, for the full conviction that the whole case may not be presented in either one. There are difficulties connected with the management of all collieries, but of Welsh collieries in particular, which will scarcely come within the survey of the inquiry, and may not all be all taken into the official report on this particular case.

Yet we are not disposed in any way to assume that such a scene as that presented by the mouth of the pit can have been witnessed in vain. The coal trade is the very basis of a large part of our industry; it is the lever without which much of the machinery of modern civilisation could not be stirred – without which our cities would be deprived of the winter warmth, and the light which has been so marked and beneficial an influence amongst the manners of the day.

It is in the pursuit of that common mineral that myriads of our fellow countrymen are sent beneath the surface of the earth; they encounter there spontaneous emanations of that very gas which we know to be so useful and so very dangerous; and in order to execute their work, the men bear with them that fire which is only needed, in negligent hands, to explode the gas.

It is by a kind of *malice prepense* (premeditated evil) that we convert these huge workshops within the bowels of the earth into artificial volcanoes, with crowds collected as if for the purpose of destruction. On Tuesday last the explosion at the Cymmer Colliery announced in its thunder the sacrifice of more than a hundred men and boys; the pit was soon surrounded by the wives and friends bewailing the dead; and in a short time their charred remains were carried through the valley to their homes.

All this is very fearful, and it will no doubt stimulate the endeavour to prevent such scenes in the future; but we can say, whatever may be pronounced upon the cause of this particular disaster, it would be a very gross mistake to assume that all the causes of such calamities can be at once stopped by any regulation or compulsorily law. Other counter acting causes may be brought into play, and one of the measures which has been

passing through Parliament this week will contribute powerfully to set those in operation.

The negligence which resulted in the explosion undoubtedly was aggravated by the warnings that had been given within the pit itself. There had been several minor explosions, showing a considerable disengagement of gas. There ought therefore to have been additional caution, additional means taken to draw out the inflammable air, before the men were suffered to descend. These things might be conjectured on the face of the general account. Before the men had descended, however, firemen had gone down and reported it safe. Now we know how such laxity habitually creeps into these observances, but particularly in coal pits.

It is not only in Wales – the remark will apply to Northumberland or to any other county where coal mining prevails. It is quite impossible to select the men entrusted with the charge of deputy inspectors – for such were the 'firemen' employed on this occasion – among persons who have undergone a high degree of education.

Now undoubtedly then an untutored mind conducts an examination day after day without result, it inevitably grows lax in his watch; it is only a mind keenly alive to remote ideas, which can be strongly enough impressed by knowledge that there will be no sense of danger, perhaps from some hundreds of times, but that nevertheless the chance of danger constantly exists, and is to be looked for just as a comet is to be watched which seldom sails within the region of the telescope.

Those active inspectors therefore grow lax, and, even if doubt of danger exists, it is difficult to keep the men from hastening to their work without regard to the inspectors. A case happened in Wales lately, where the men struck work because they believed the pit to be unsafe. It is possible that in that instance they may have acted on some prejudice – for alarm may be created by imaginary causes among the very men who would neglect the real causes. We are aware that in some of the best known collieries of Northumberland it has been difficult to keep back the men from their work after meal times, when a previous inspection has been particularly necessary.

There is another difficulty which especially applies to the Welsh districts, and no doubt to any district where the general state of culture is low. Where men are Welsh, the employers are not always of the same race. The Welsh are not generally well educated, and are not quite so manageable in matters of business as the English; yet they have a particular jealousy of the employment of English officers. Instances have frequently occurred within our own knowledge, in Staffordshire as well as in Wales, the over-looker proves not trustworthy; a 'stranger' is appointed, and the jealousy of the men is excited; and shortly some damage is done 'by accident,' entailing a loss of perhaps between £500 or £1,000. Here was a heavy fine upon the employer for selecting a superior class of over-looker.

Exactly the same kind of difficulty will apply whether the question is the profit of the master or the safety of the men. The men are no doubt anxious for their own safety, when they are alarmed, but the difficulty is to make them alarmed by the proper causes. Their condition would be improved by the gradual introduction of superior workmen among them, but the jealousies excited, it would be seen, impose severe penalties on the attempt to introduce superior workmen.

In estimating the figures of mine disasters, we must take into account the progress of mining itself. It has been shown from actual verification that the amount of coalmining enormously exceeds any supposed estimates; that where as the calculation varied between 35,000,000 and 55,000,000 tons annually, the actual amount exceeds 60,000,000 tons, only to have been obtained, of course, with increased speed of production.

Under these circumstances it would, of course, require a very earnest co-operation between the proprietors, the officers and the workmen of the mines to keep that constant vigilance, and yet that absence of fussy obstruction, which are essential to the working as well as the safety of the mine.

But before we can arrive at any such state of things, it is clear that the habits of the men, their notions, their view respecting the very mines with which they suppose themselves to be familiar, their suspicions respecting their superiors – their power of discrimination, in short, between fancied dangers and real dangers, between baseless alarms and genuine prudence,

must be cultivated; and that no one can suddenly endow any large class of men with such faculties. In this sense the appointment of a Minister of Education is one of the greatest auxiliaries that we can desire in promoting an increase to the safety of mines, and the comfort of the hosts employed underground.

Thursday, July 24th 1856

Public meeting for the relief of the widows and orphans

A public meeting convened by a requisition, very numerously signed, was held at very short notice at the Temperance Hall, in Pontypridd, on Thursday afternoon, July 24th, 1856, for the purpose of considering what means may be adopted, whereby the very distressing condition of the widows and orphans of the men killed may be alleviated. Shortly after three o'clock, several of the most influential proprietors of land and mineral property in the neighbourhood, as well as the majority of tradesmen of the town had assembled. The Rev. George Thomas, of Ystrad Mynach was called to the chair.

The Chairman opened the proceedings, by expressing his thanks for being placed in the chair on this sad occasion. He then read the portion of the notice, stating the objects of the meeting. He observed that the sad circumstances attendant on the melancholy occurrence were so familiar that he need not dwell upon them. They had seen or heard or read of the particulars of the sad event, and anything he could say with respect to the dreadful accident, would, he feared, only lessen the impression it was calculated to produce. Whether they considered the number of lives lost, or the number of families left to deplore the loss of husbands and fathers, or the greater number still of young men hurried into eternity, without preparation and they must feel how unprepared we all are to take our departure from this earthly scene.

They could not, however, recall those to life who had perished, but they could do something to alleviate the distress and sufferings of the survivors, who had been dependent for the means of subsistence, on the labours of those who had perished. That was the object of their meeting, and he was quite sure that anything that fell from him would not be required to deepen the sympathy they felt for those who had departed and those who

survived. He would not detain them with any further remarks, but would merely exhort them in the language of Scripture, “Be merciful after thy power. If thou hast much, give plenteously if thou hast little, do thy diligence gladly to give of that little; for so gatherest thou thyself a good reward in the day of necessity."

The Chairman then read a letter from the Mayor of Cardiff, expressing his regret that he was not able to attend, and stating that he intended to convene a town meeting, for the same object. He also read a letter from Mr. Bland, of Bristol, detailing plans for obtaining contributions in that city, and offering to find board and lodging for two of the men saved, if sent over for that purpose.

Mr. Edwards Vaughan, of Rheolau, said that, they all knew how distressing was the event which had brought them together; and he could not help congratulating the county upon the very respectable meeting called together without public notice in any of the papers, but merely by the distribution of a few handbills. He was glad to find that all parts of the county had shown a readiness to do their duty by succouring the afflicted and distressed on such a melancholy occasion. As for himself, he owed a great deal of his prosperity to the mineral produce of the Rhondda Valley: he could not forget that the sweat of the brows of working colliers had earned for him many luxuries and comforts, and, with a willing heart, he should give such assistance as his means would afford. Colliers were a class of men subject to peculiar dangers; their want of education also rendered them very ignorant of the means of guarding against these dangers, and, though not a practical man, he might be allowed the liberty of offering a few hints. He had himself been recently down in a deep drift, in order to ascertain the nature of a fault, when he was struck by seeing the men carrying their lamps almost horizontally.

The Chairman said he hoped that he should not be considered to offer any discourtesy to Mr. Edwards Vaughan, if he reminded him that it would be better that all remarks should be confined to the strict objects of the meeting. A tribunal would shortly sit, whose province it would be to inquire into these matters, and it would be desirable that all discussion of the kind should for the present be postponed. Mr. Edwards Vaughan said he should cheerfully bow to the authority of the chair, though he merely

intended to throw out a few suggestions, and should, therefore, move the first resolution:

"That it is highly expedient that contributions should be solicited from the humane and charitable in order to relieve and support those entitled, according to their several claims and necessities." Mr. Homfray, of Penlline Castle, seconded the resolution, which was unanimously adopted.

The Rev. Evan Morgan, vicar of Llantrisant, then moved the second resolution, seconded by Major Hewitt:

"That this meeting, collectively and individually, be requested to exert themselves in collecting contributions; and also that all Christian ministers be respectively requested to render their valuable assistance by using their influence with their respective congregations, to supply their contributions, however small, for so large and worthy an object."

In moving that it be adopted the Rev. Morgan said he did not think it necessary to use any arguments in its support, as it required no powers of oratory, for it spoke for itself. It appealed with irresistible force to all who had hearts to feel for, or the means to alleviate, the misfortunes of their fellow-creatures. The objects of their benevolent consideration had found themselves at once reduced from a comfortable position to utter destitution and deep poverty, by an awful and mysterious dispensation over which they had no control. When the news first reached him of the calamity which had overtaken at once so many of his fellow-creatures, he felt his spirit awed and impressed with grief and horror. Now they would look back upon it with more tempered feelings, and would calmly consider the condition of those who had been bereaved of husbands and fathers who, little more than a week ago, were apparently in health and strength, pursuing their avocations.

At one moment all was life and cheerfulness - no sounds were heard but those of familiar converse among those who were commencing their daily work. In another moment an explosion was heard, and all was confusion, horror and death. One hundred and eleven human beings were suddenly cut off! In one moment living and strong men and the next, pallid and disfigured corpses. They were gone beyond the reach of human sympathy,

and our regrets were of no avail. Let them, however, turn to another part of this dismal scene, and realise the anxious despair of wives deprived of a husband's protection, and orphans of a parent's care. But what estimate could they form of blighted hopes and departed happiness? They must seek for comfort at a higher source, in this hour of their dark and sad affliction. The cure of a diseased mind must be the work of power superior to that of man.

But man could do something to relieve the immediate pressing wants of the destitute, and could supply some help until the bitter storm had blown over. It was their present duty to inquire into the means by which this object could be best accomplished; and, as there were gentlemen present who had kindly considered the matter, they would, no doubt, explain their plans. He could not sit down without expressing his thankfulness that such prompt and energetic measures had been taken to afford relief, and his hope that the present appeal would not be made in vain, but that a sufficient sum would be realized to save the sufferers from the misery of want, and the degradation of a workhouse. (Applause).

Major Hewitt, (Ty'r Mab Ellis), seconded the resolution. Mr. D. James said that he rose to support the resolution, and remarked, that having been an eye witness of a great part of the melancholy scene of Tuesday week, he should think nothing too much that he could do to forward their humane object. He remarked that Mr. Edward Vaughan first heard of the sad event from him, and he could see that from the bottom of his soul, he was anxious to do all that could be done, and offered his services in any way, and he was convinced that his subscriptions would be given, irrespective of every object, besides relieving the wants of the distressed.

He had a communication to make to the meeting, from Mr. Insole, the unfortunate proprietor of the colliery. It had been properly said that the tribunals of the land would have to judge whether blame was attached to any one or not, but he knew that Mr. Insole felt the force of the calamity as acutely as any man could feel. He had seen him on the day of the accident, and although it was well known that he had not for some time been on such terms with Mr. Insole, that would induce him to become his eulogist, he must bear evidence to the sincerity of the manly grief, amidst which he was doing all in his power to assist. Mr. Insole had authorised him to state

that he considered it his duty to subscribe £500 towards the objects of the meeting. (Applause.)

Mr. James then read a letter from Mr. Hussey Vivian, M.P., inclosing a cheque for £50. Also, a letter from Mr. Fothergill, stating that the workmen at the Taff Vale Iron Works had collected £22-12s-6d. A friend of his had also been requested to put down the name of Mrs. Hanbury Leigh for £5. (Applause). The resolution was then put and agreed to. A letter from Mr. Richard David, of Dinas, was read, in which it was stated that a lecture would be given at the Baptist Chapel there — the proceeds of which would be handed over to the committee. Mr. D. W. James then moved the appointment of a committee. Mr. Lennox seconded the motion.

Some gentlemen expressed a wish that the committee should be at once nominated. The Chairman suggested Mr. Insole as a member. Mr. Chivers stated that there were objections to any party connected with the works being on the committee. The Chairman observed that Mr. Insole was largely connected with the subscription as well. Mr. James said he knew that Mr. Insole would prefer his name withdrawn from the committee; and the following gentlemen were nominated :—T. Powell, Esq., jun., D. W. James, Esq., Rev. Evan Morgan, Thomas Fowler, Dinas, Mr. Davies, Gelliwion, and Mr. Bassett, Pontypridd.

Mr. T. Powell, jun., of Gaer, in moving the fourth resolution, for the appointment of treasurer, &c., expressed the regret his father felt at not being able to attend. There were few persons who could sympathise so deeply as he could, having had severe accidents at his own works, and he would do everything in his power to alleviate the sufferings consequent on such a calamity. Mr. Calvert, in seconding the resolution, expressed a hope that their subscriptions would not be taken into account by the parish authorities in giving their relief to the sufferers, as no class of men troubled parishes so little as the colliers did. The resolution was then put and carried. Mr. Lenox read a letter from Mr. Hopgood, of Bristol, to show the spirit of sympathy aroused in that city. Mr. T. W. Booker, in moving a resolution for the publication of the proceedings and list of subscriptions in the local papers.

Some conversation arose as to the best means of raising local subscriptions; but the matter was left for the decision of the committee, and of the ministers of various denominations in the neighbourhood. A subscription list was then opened, and in a short time the total of donations amounted to £1,194-4s-0d., exclusive of the sum of £22-2s.-6d. collected at the Taff Vale Iron Works. The enginemen and firemen on the Taff Vale Railway have contributed a day's pay.

Mr. Edward Vaughan then moved that the thanks of the meeting be voted to the Chairman. Major Ellis seconded the motion, which was unanimously agreed to. The Chairman said that his duty had begun rather sadly, but had ended very comfortably, and he had to congratulate them as well as himself on such a liberal subscription. He had been told that on the occasion of the unhappy accident, a great number of brave men had exerted themselves, at the risk of their lives, in endeavouring to save others, and though they had been successful in but few instances, they could do no more, and fully deserved their public thanks - (applause) - and if the committee could in some more substantial manner acknowledge their services, without injustice to the widows and orphans, he thought they were entitled to their consideration. He concluded by expressing his thanks for the compliment paid him.

Pontypridd, Monday, July 28th 1856

The inquest re-opened

Inquests at this period were well reported, and it is only through these, and the testimonies of witnesses that reveals what conditions were really like before, during, and following the disaster: -

The official investigation into the circumstances concerned with the terrific coal pit explosion and melancholy loss of life that occurred at the Old Pit at the colliery at Cymmer, belonging to Mr. J. H. Insole of Cardiff, on Tuesday, the 15th inst., was opened this morning by Mr. George Overton Esq., Coroner for the Merthyr district at the Butchers' Arms Inn, Pontypridd. The inquest excited great interest throughout the district the, and at the time appointed for the court (10 o'clock) the Inn was thronged by visitors from the surrounding parts, anxious to obtain a hearing of the proceedings.

A large tent, capable of holding several hundred persons, was erected immediately contiguously to the Inn, and long before the proceedings commenced crowds of persons assembled prepared to enter it; and when at last the doors were opened it was immediately crowded to the exclusion of one more individual, although hundreds were waiting to obtain admittance.

The auditors consisted in great part the relatives of the deceased, attired in deep mourning, naturally anxious to watch the proceedings in which the fate of those most dear to them and who had so suddenly and in so melancholy and calamitous manner, been hurried away from the enjoyment of health, domestic comforts, and the scene of their youth or manhood, to a precipitate an awful death, was so intimately connected. The Coroner deferred the proceedings until the arrival of the train leaving the Taff Vale station at Cardiff at 9.30 a.m., which conveyed persons immediately connected with the inquiry. Mr. Poulden, Barrister and Government Inspector, did not arrive until 3.40 p.m.

Mr. Huddlestone, of the Oxford circuit, appeared as counsel for the owner of the Cymmer Colliery, instructed by Messrs C. H. and F. James, solicitors of Merthyr, and Mr. J. G. Owen, of Newport, solicitor, represented the interests of the surviving colliers and the friends of the deceased. Mr. Thomas Evans, Inspector of Mines of the south Wales district, Mr. Joseph Dickenson of the Manchester district and Mr. Herbert Mackworth, of the Bristol district, attended. All attended by the request of the Secretary of State, by the application of Mr. T. Evans, the local Mines Inspector of the district, for the purpose of assisting the investigation.

The business of the day did not commence until about 11 o'clock, owing to the preliminaries and interior arrangements of the tent not having been completed. Mr. Thomas, Superintendent of the Police of the Pontypridd district, assisted by Mr. Wrenn, Superintendent of the Police of the Merthyr District, attended with their constables, and the most creditable order was maintained. The assembled multitude were exceedingly peaceable and orderly in the melancholy occasion. The gentlemen empanelled on the jury were: -

D. J. Hutchings, Draper, Pontypridd; John Williams, Collier, Gyfellion; William Rosser, fireman, ditto; Edward Evans, ironmonger, Pontypridd; John Burgess, Contractor, ditto; William Garney, Carpenter, Cardiff; Robert Miles, Draper, Pontypridd; George Dovey, overlooker, Gyfellion; John Hughes, Collier, Aberdare; Lewis Davies, Maltster, Pontypridd; John Brooks, Taylor, Ditto; John Phillips, Publican, Treforest; Daniel Maxey, Collier, Aberdare; Thomas Merrick, Foreman, Taff Vale; John Jones, Butchers' Arms, Pontypridd; David Rees, Collier, Aberdare; Evan Hopkins, Gentleman, Ty Mawr; James Rees, Collier, Aberdare.

Mr. Owen, upon the names of the jury being called over, intimated that he would like to have a list of the residences of the gentlemen empanelled. It had been alleged, he said, that one of the jurymen was in some manner connected with the parties interested, and if that was so he should object to him. The coroner observed that he was glad thus to have an opportunity of explaining the matter. The other day (the day after the first inquiry) it came to his knowledge that one of the gentlemen of the jury was connected with some agents employed at the pit.

Immediately he heard of it he thought that it was his duty to excuse that gentleman, and his name, therefore, had not been called over today. If Mr. Owen had objection to any of the others, he (the Coroner) would take upon himself the responsibility of excusing them also. Mr. Owen would find the residences, and also, he thought, the occupations of the jury, in one of the local newspapers. Mr. Owen having thanked the Coroner for his information the Coroner addressed the jury with reference to the discharge of their duty. He said they met that day by adjournment, to continue an investigation commenced on the 16th inst. at Cymmer, in regard to a very serious and melancholy event which took place at that place on the 15th inst., the circumstances as far as they were at present aware, might thus be described: -

On Tuesday, the 15th inst., about half-past-seven in the morning, 140 persons went into the pit as usual to their work, and shortly afterwards an explosion was heard. For a time all was darkness, confusion, and alarm, but presently several persons hastened to the spot, and descended the pit. They proceeded as fast as they could along the workings, but in consequence of the explosion they could not progress far.

They succeeded in rescuing a few persons, but they were too late to save the rest; and it was some time before the ventilation of the pit could be restored as to enable them to progress further. At last, when they were able to proceed, they reached the distant parts of the works, and then found that there were 114 colliers who had become victims of the explosion. He could not dwell upon this part, however, of the narration, as it was not necessary in the present instance. It was, indeed, a sad and melancholy event, unprecedented, in fact, he believed, in the annuls of mining operations, and he trusted that such a spectacle would never be again presented to their observation. The most extensive catastrophe of the kind of which he was aware, occurred some years ago at Haswell, on September 28th 1844, where, he believed, 95 persons were killed.

He was, however, informed by Mr. Dickenson, one of the inspectors, that there was an accident at Wallsend, on June 18th 1835, where there were 102 persons killed. But vast as these might appear, they were of far less importance and magnitude than the one in which they were inquiring. He confessed, that when he considered the importance which necessarily attached itself to this inquiry, he felt distrustful of his own ability, and he had, therefore, solicited the Government to attend him some assistance, which had been readily given, and he expected that by the time of the next train, Mr. Poulden, a gentleman of great ability, would arrive for which he felt greatly obliged.

And now he must entrust their utmost attention and assistance, which, he was sure, he could regularly afford. They had already visited the scene of the occurrences, and viewed each of the bodies of the deceased. They had noticed the appearances which they presented, which was one of the first and most important parts of their duties as a jury, and which would enable them to arrive at the conclusion as to which of these causes the deceased had met their deaths, namely, burning, suffocating, or bruises. In cases of this kind, they generally found that death might be described to one of these three causes.

This valley had, hitherto, escaped the fearful catastrophes which had visited other places; and I believe that, with the exception of the accident which occurred at Dinas Colliery some 12 years ago when there were 12, 13 or 14 persons killed, there had scarcely been an accident arising from

explosion, indeed, he might go to the extent of saying, so great was the feeling of security than there was little or no 'fire-damp' existing in the collieries of this valley, that he was afraid some had come in such a feeling of confidence as to rest contented with adopting less means of security that they would have otherwise used. Such confidence had led, as in the present case, perhaps, to imprudence, and the colliers little dreamt that while they were resting, as they thought in security, they were 'sleeping' as it were on their graves.

In the neighbouring valley of Aberdare there had been several visitations of this nature during the eight years he had the honour of holding the office of Coroner, and he had opportunities of enquiring into the circumstances surrounding them. Perhaps the most extensive of these was which took place in Letty Shenkin, in August 10th, 1849, when 52 persons were killed; another occurred in Middle Duffryn, in December 12th 1839, when 13 persons were killed; and a second at Middle Duffryn in May 15th 1852 then 55 lives were lost.

Those, as important as they were, dwindled into insignificance when compared with the calamity which was the subject of their present enquiry. In preparing themselves for their duty they must discharge from their minds any rumour that might have been heard or any impression which they might have received, and must be guided in the investigation entirely and solely by the evidence which would be brought before them. On occasions of this kind, after the fatal event rumour was rife in circulating all kinds of reports, and the friends and relatives of the unfortunate deceased were apt to throw in a gloomy cover over the catastrophe, but they must be guided solely by the evidence.

On the other hand it would be their bounden duty to probe the catastrophe and endeavour to ascertain the true cause of the explosion which was the occasion of all these deaths, and if they found that it arose from the fault or negligence of any individual it would be their duty to send the matter to be investigated by another tribunal.

But in this respect their duty would be to partake of more of the duties as a grand inquest than those of a common jury. If there was any doubt in the

latter case it would be just and right that when the person was put on his trial they should have the benefit of it, but in their case it was different.

There was at present no prisoner and no crime; there was merely a preliminary inquiry – they were meant to investigate the cause of the circumstances attending the death of the parties, and if in doing so it should appear to them that there was sufficient evidence to satisfy them on reasonable judgement that any person was instrumental in causing the death of the departed, it would be their bounden duty to send that party for trial before a legal tribunal. Having made these remarks, he would propose to direct their attention to the course he intended to pursue in the investigation. The law would require that each case should be taken separately, and the great probability was that the parties must have come to their death by one of the three causes he had mentioned.

He proposed, therefore, to commence with one of the instances of burning, and it would be their duty, in each case, to consider, first of all, what was the original cause of this explosion that produced such consequences; and, secondly, to satisfy themselves as to whether it arose from accident, or carelessness or neglect of any parties. As to the first point, they would have the evidence of the survivors of those who were in the pit at the time of the explosion, and also the agents and workmen connected with the works, as well as the scientific evidence of the Government Inspector, who been called upon to attend. Mr. Mackworth and Mr. Dickinson had also been requested by the Government to attend and tender their valuable aid; and, he hoped, by means of evidence as to the facts, and that of a scientific character, they would be able to come to a conclusion as to the final part of the inquiry.

The second part was of more importance, and might involve a question of law, which it might be premature in him to allude to now, as we should have an opportunity of defining to them the law after the evidence had been taken, if he should consider it necessary to do so. There was one more observation which he must make, as being necessary for them to know in reference to the second point. During the last session of Parliament, an Act was passed, of which they were no doubt all aware, namely, the 'Coalmines Inspection Act,' and which would greatly facilitate them in their exertions. By this act it was required that all colliery

proprietors should establish not only certain rules provided by the Act, but also special rules, agreed upon by the proprietor and the inspector, and when agreed to and duly signed, they became a portion of the law established in that colliery.

These rules would be of great service to them in the present inquiry; they would be able to ascertain what were the duties of each party connected with the works, and if such duties were properly or improperly performed. It would be their duty to see whether the rules had been attended to in every essential particular, whether the under-agent, and workmen had each discharged his duty, as he was morally and legally bound to do. The infraction of any of these rules in an essential particular he should consider a most serious offence.

The rules of the colliery immediately under his notice appeared more lenient than some which he had met with. He was surprised to find that many important rules adopted in other collieries were omitted in this, and he could not avoid observing this fact, that since the Act came into operation in his district the only serious case of explosion he had met with had been in those collieries where the rules had been most lenient. He had been induced to make these observations from the fact that in all the most serious cases in this district, the evidence of the scientific men had invariably shown that the loss of life would have been much less if a different system of ventilation had been pursued, and perhaps even the accident itself would have been altogether avoided.

This brought him to the second part of the inquiry - as to the death of those who fell by suffocation; and he might say that it was not at all incompatible with their deaths to take the evidence of the three inquests simultaneously; it would greatly facilitate them and he thought there would be no legal objection to it. He should now proceed to say a few more words, more particularly applicable to the second part of the inquiry. By far the most important matter in mining operations, was that of ventilation, which was not only necessary to prevent accidents, but also essential for the health of the workmen. It was quite clear the rules for a system of ventilation might be adopted which would prevent so great a sacrifice of life in cases of explosion, or, at any rate, very much limit the extent of the consequences.

In this present case it would appear that out of 114 deaths no less than 73 had resulted from suffocation, and, he believed, this number was below the usual average. By an official report of the commissioners, it appeared that the usual average of deaths arising from suffocation, was about 75%. It was quite manifest that some of these 73 men were injured by the primary or direct effects of the explosion, but were killed by the after-damp accident. In the Middle Duffryn accident it was shown by the Government Inspector, a copy of whose report was forwarded to ever coal proprietor of the district, that by having substantial barriers or stoppages, so as to divide the workings, the extent of the explosion might be limited, and not so many lives sacrificed. It was the duty of every coal proprietor to make himself acquainted with the best and most scientific mode of carrying on the operations.

If he did not do so he incurred the most serious responsibility. He had detained them perhaps more than he should have done in consequence of his anxiety in this most important inquiry. He then left the jury to the discharge of their duties, intimating that he should first have evidence to prove the ownership of the colliery, and the relative positions of the agents; then he should identify the persons killed, and prove the cause of death in such case; then he should ask for the production of the plans of the colliery, the printed rules, and other matters connected with the works; then examine the survivors as to their knowledge of the accident, and the injuries to the other men; and, lastly, he should take the evidence of the Government Inspector, and any other scientific gentleman whom he might find necessary.

He begged, however, to state, that if any witnesses were intended to be called on the part of the proprietors of the pit, or by Mr. Owen, who represented, he understood, some of the relatives of the deceased, if a list were forwarded to him he would take care that they should be duly called under each head of evidence to which they would relate.

Evidence of the proprietor

Mr. James Henry Insole, the principal proprietor of the Cymmer Collieries, was first called to prove the ownership of the works. He said: - “The Cymmer Collieries are composed of two pits, named respectively the Old,

and the New, and the explosion happened in the Old Pit on the 15th of July. I produce the printed rules of the pit, which are in Welsh and English, and have had the usual letter from the government approving them; these rules have been duly published by my direction in the colliery.

I take no part in the management of the mine, but, in compliance with the requisitions of the act of parliament, I, as owner, directed the manager to give a copy of the rules to every collier employed in the mine. The persons responsible for the proper working of the mine are the officers; Mr. Jabez Thomas is the general manager; the colliery agent, up to February last, was Mr. Edward Hay, and from that time to within a few days of the accident. Mr. David Grey was agent; he left from ill-health, and no person was appointed in his place, I expected him to return.

The overman is Rowland Rowlands, and there are three firemen in addition; their names are William Thomas, David Jones and Morgan Rowlands. I am not aware of the other appointments in the mine. I consider that Mr. Jabez Thomas is the responsible manager of the entire mine, and entrust the whole control to him. I have no communication with the other officers. I never curtailed or impeded the laying out of money for securing the safety of the men's lives, and was always most anxious to listen to the suggestions of the miners for that object."

Examined by Mr. Owen, through the Coroner – "In the year 1854 Mr. Jabez Thomas with my concurrence in the discharge of two firemen he considered as incompetent, but he did not wish to take the responsibility of discharging them on himself. Other men were appointed, but the colliers would not have them, and struck in consequence. These men are not now there, the colliers had no confidence in them. The men stood out for a very long time and the law was brought to bear upon them for riot, but they were not compelled to go in under the men appointed. I recollect receiving a communication upon the matter from Mr. Owen at the time."

Mr. Owen proposed to put in a printed copy of the letter, the original having been lost, but it having been submitted to the Coroner, he decided that, as the two men to whom it referred had been discharged shortly afterwards, it could not be read, but he would allow an application to be

made when the evidence relating to the ventilation of the mine was submitted to him.

Examination resumed – "I knew that great responsibility rests on the firemen employed, but I cannot detail their duties."
By Mr. Huddlestone – "I believe Mr. Jabez Thomas to be one of the best managers in the district. He has been employed 25 years by my father and myself in the management of collieries. He is not a partner."
By Mr. Evans – "He is not a contractor. I have received no communication from the government inspector of the district respecting the work of the mine."

By Mr. Mackworth – "I am aware that a very disastrous explosion took place at Middle Duffryn Colliery, Aberdare, four years ago (65 killed), but I do not recollect receiving a letter from you dated 8th July 1852, pointing out the great loss of life that might be caused in my mine from want of proper ventilation, insufficient stoppings, and so forth, nor have I any recollection of receiving the printed report of the inspector relative to the causes of the explosion at Middle Duffryn Colliery. I cannot say what steps were taken after that explosion to prevent a similar explosion in my mine; do not recall receiving a letter from you in 1854, pointing out the danger of an explosion at Cymmer colliery, and suggesting the adoption of certain rules to avoid its occurrence."

"I sometimes visit Cymmer Colliery and occasionally look at the plans, but I have never seen any alterations on the plans pointing out improvements that might be made in the ventilation, nor do I remember seeing a separate sketch. I believe that in September 1855, there was an explosion at Cymmer New Pit, and an inquest was held upon a person killed by fire-damp. The verdict in the case was not officially communicated to me; it was not in the pit where this latest accident occurred. Mr. Hay was then coal agent, but he communicated no notes to me of what was said upon that occasion. There were printed rules in use in the colliery before the passing of the present Act of Parliament, but they may not have been as well distributed as the present."

The proceedings were then adjourned for a short while. During the short absence of the jury, Mr. Poulden, a gentleman connected with the Home-

Office, arrived by train from London, and on their reassembling the coroner took an opportunity of stating that fact. Mr. Poulden said he was sent down by the Home-Office to give every assistance in his power. The government were extremely anxious that the fullest investigation of this despicable accident should take place, and he was there for the purpose of promoting the inquiry, and of hearing suggestions from any person present.

Mr. Henry Naunton Davies, surgeon, of Cymmer, deposed to being present at the mine shortly after the accident, and seeing the bodies brought up. There were 112 brought up dead the first day. Llewellyn Thomas's body was not recovered till the next day. Morgan Evans was brought up much injured, and died on the 17th, making altogether 114. Five were brought out alive, four being badly burnt, and one labouring under asphyxia. The names of three of the men burnt were Thomas James, William Jones, and John Thomas, the other name he did not know. The boy who was brought up suffering from asphyxia was named Davis. The injured persons were unable to be present yet, but were recovering. He did not think that any of the sufferers died from the effects of the burning. It was impossible to say whether they would have died from the burns, because he had seen persons recover who had received worse burns than those he had witnessed.

Dr. Davies being questioned stated: - "I remember Thomas Lewis, he was badly burnt, but I do not think that was the cause of death. I believe the indirect cause of death was from suffocation. Benjamin Rees, residing at Dinas, was very badly burnt. There were about 15 badly, and 21 slightly burned; 73 suffocated, and 5 bruised; there are four alive, all of whom are burned, but they are not sufficiently well to attend. Thomas Davies, William Jones, John Thomas, and David Thomas, are the names of those now living; they are badly burned. These persons are recovering; one of them will be able to be examined in a few days, and the whole of them in about ten days or a fortnight. There were none that had died from the effects of the bruises they had received. I believe that only one of the whole number died from the effects of burning. That was Moses Evans, a boy, who died on the second day. I do not believe that any of the others died from burns; they died from suffocation."

Mr. John Williams, of Hendrescythan, surveyor, said: - I made the plan now produced; I am acquainted with the course of the air in the pit. The pit is oval, 16 feet 6 inches, by 9 feet 9 inches. Part of this pit, on the north end, is bratticed off, which reduces the dimensions to 14 feet by 9 feet 6 inches. The part bratticed off being 7 feet 3 inches, by 2 feet 6 inches, is used for the upcast shaft. The area of which would be between 9 or 10 feet. The brattice is composed of brick at the bottom, and wood at the top. There is only one pit, and the large part is used for winding, pumping, and a downcast shaft. The air, on reaching the bottom of the pit, travels along the level heading on the south side of the pit, up to Evan Phillips's dip heading, (small splits being allowed to go off to the dip to ventilate the old dip working, and afterwards to ventilate the workings on the north side of the pit).

At Evan Phillips's heading there is a principal split on the first stall to the left through the fault, which joins the other splits, and passes on to the workings on the north. The remainder of the air is carried on for the ventilation of the south workings, where the explosion appears to have taken place. It passes first from Evan Phillips's heading through a windway of 14 feet area, into another heading called Cwmderry heading, down which it goes along the gob to the face, and at the end it turns up the drawing road of the heading, until it arrives opposite the last stall of the heading, where there is a door to divert it into that stall it traverses through all the stalls of that heading, and returns back into the level - thence along the level heading to the parting of Morgan Griffiths's deep heading.

It passes to the face thereof, and then turns back along the horseroad of the heading to the second stall, where it turns into the stall, and passes to the face, and there passes into No. 1 stall, (either through a thurling, or back by the gob, into the level heading), thence by the level heading to the parting of Thomas Ffynnonwen's heading, where there is a door from off the level heading into that heading, which it traverses along the gob to the face thereof, and when it gets to the face, it returns along the drawing road back to the level headings.

It then traverses the level heading up to the face of a level, up to a fault. It then returns back behind the gob until it arrives opposite Griffith Williams's

heading to the rise, where there is a door to turn it to the top of Griffith Williams's heading; from which it returns along the gob, and thence along the gob of the level heading to Salathiel's heading, where there are double doors to turn the air through a thurling into the first stall of Salathiel's heading, and then through the four stalls in that heading to the face thereof, and back by the gob to the bottom of the heading, where it passes along the gob of the level heading for the distance of 88 yards.

Within about four yards of the intake air course, with only a gob between, the air passes up the face of the stall, as at the other headings, returning by the gob of the straight heading, into the main level, about five yards from the parting of the straight heading with the level heading, thence along the level heading until it crosses a fault, when it passes up through some old workings into Jacob's heading. A little there escapes and passes into Moses's heading. The other portion ventilates the storms to the top of Jacob's heading, and returns from the face through the gob to the second door from the mouth of the heading, thence through old workings to the stalls in Moses's heading, along the face of which it passes to the top stall, about 16 yards from the face of the heading.

It then comes down behind the gobb, about half way down the heading, and passes along through a thurling, into a stall from Charles's heading. One portion then goes along the stalls to the face of the heading, and returns down the back of the gob, through some stalls, a distance of about 66 yards. It then goes to the top stall in John Caemaur's heading, down the gob and drawing road, where it meets with the splits from Charles's, Moses's, and Jacob's headings — thence along the gob of the level heading into South Wales No. 2 heading. It ventilates the stalls of this heading to the face down at the back of the gob to the bottom, returns through the old working of South Wales No. 1, ventilates the stall up to the face of the heading, and returns to back of the gob through some stalls of some old workings, to the upcast shaft. The first day's inquiry terminated about seven o'clock.

The correct figures

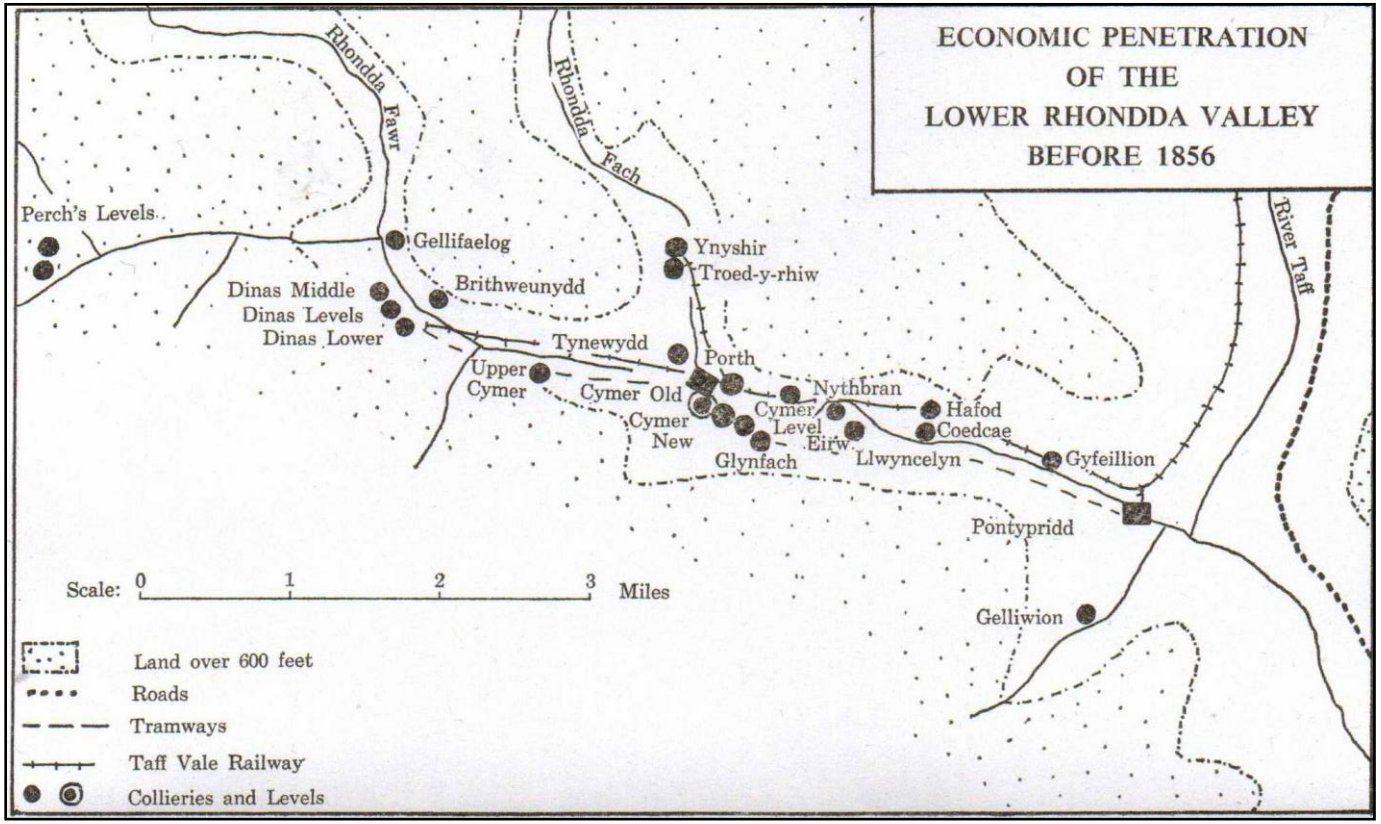
The *'Cardiff & Merthyr Guardian'* of July 26th 1856 reported: - It will be observed in the Parliamentary extract that Mr. Cayley has been represented to have somewhat magnified the number of the dead, and we

must say we think if he did so, it is to be regretted that he should not have been more cautious, as in a calamity of such direful extent the report of one more than the actual number of deaths should be carefully avoided if possible. We are sorry to say there is reason to believe that one of those who were taken up from the pit alive, died on Thursday, and it is not quite certain that there are not, in all, 114 deaths to record, but the absolute correctness of the numbers will be ascertained on Monday next, at the inquest. The total number of widows is 35, and of children 92. The following table will show the number of children or other relatives, dependent on the different men killed: -

Married				
Name of deceased	Orphans left destitute			
	Boys	Ages	Girls	Ages
David Daniel*	-	-	-	-
T. Hopkins*	-	-	-	-
T. Davies*	-	-	-	-
Aaron Rees*			1	1 year
William Rees*	2	12 & 4 years	3	15, 9 & 3 years
Matthew Evans	1	11 years	-	-
Thomas Lewis	-	-	-	-
William Llewelyn	1	1 month	2	6 & 3 years
Benjamin Rees	2	7 & 5 years	3	12, 10 & 2 years
Thomas Llewelyn	1	9 years	3	7, 5 & 2 years
William Lewis	1	9	3	12, 4 & 2 years
J. John	1	6 years	1	6 months
T. Rees	1	8 years	3	6, 4, & 1 years
T. Williams	1	5 years	3	4, 2 & 7
R. Rees	-	-	2	4 yrs & 14 months
T. Davies	2	15 & 12	2	16 & 9 years
William Davies	-	-	1	16 months
Thomas Matthews	1	6 years	5	15, 11, 8, 4 and 1½ years
Hezekia Davies	1	7 years	1	2 years
David Morgan	1	6 months	-	-
Evan Lewis	1	10 years	-	-
Nathaniel Thomas	1	11 years	2	18 & 15 years

George Solloway	-	-	-	-
Evan Phillips	2	6 & 16 years	2	13 & 3 years
Thomas Andrews	-	-	1	4 months
Daniel Lewis	2	5 & 3	1	18 months
David Richards	1	2 years	-	-
Hezekia Richards	1	2 years	-	-
William Jenkins	-	-	2	9 years & 9 days
William Williams	2	3 years & 3 weeks	1	1 years
Morgan Morgan	3	7 years & twins 3	3	9 years, 7 years & 15 months
David John	3	5, 2½, & 8 months	-	-
Samuel Edmunds	3	6, 8 & 4 years	4	12, 2 years, 7 months, 3
Edward Lewis	2	9, 7, & 6 years	3	16, 14, & 7 months
Williams Evans	-	-	1	11 years
	Total		Total	

Single	
Named of deceased	Relatives dependant on deceased for support
David Thomas	Mother
E. & D. Howells	Mother
Gomer Thomas	Mother
Henry Jarvis	Brother & two sisters under 10 years.
Rees Thomas	Aunt & 2 children
Walter & Richard Mills	Mother & 2 children under 10 years.
Isaac Morgan	Mother & 3 children under 10 years.
Morgan Evans	Mother & 1 brother.
Benjamin Evans	Father, mother & 1 sister.
Thomas Williams	Grandfather & grandmother.
Thomas Davies	Mother.


ECONOMIC PENETRATION
OF THE
LOWER RHONDDA VALLEY
BEFORE 1856
Rhondda Fawr
Rhondda Fach
River Taff
Perch's Levels
Gellifaelog
Ynyshir
Troed-y-rhiw
Brithweunydd
Dinas Middle
Dinas Levels
Dinas Lower
Tynewydd
Porth
Upper
Cymer
Cymer Old
Cymer
New
Nythbran
Cymer
Level
Eirw
Glynfach
Hafod
Coedcae
Llwyncelyn
Gyfeillion
Pontypridd
Gelliwion
Scale: 0 1 2 3 Miles
Land over 600 feet
Roads
Tramways
Taff Vale Railway
Collieries and Levels

CHAPTER THREE
Tuesday, July 29th 1856

On the jury reassembling on Tuesday morning Mr. Huddlestone said that he had an application of considerable importance to the ends of justice to make. They had it in evidence that several of the survivors were too ill at present and, as it was usual in all cases to examine the persons present on the spot in the first instance, so as to get to the main facts, he suggested that the proper course would be to adjourn the inquiry until the injured persons were able to attend.

He was very glad indeed that the government, in their natural desire to protect the interest of every class of society, had sent down a legal gentleman to give his assistance to the coroner, who, he had no doubt, was just as anxious as he (Mr. Huddlestone) was representing the owners and managers, that the investigation should be of the most searching character, and he hoped that, as it would occasion a great waste of time if they went on with any other class of evidence in the meantime, that learned gentleman would agree to the adjournment.

Mr. Owen said that it was most important that the investigation should of such a character as to satisfy the miners that nothing was stifled, so that if any blame was to be attached the guilty persons should not escape. If the coroner and the jury considered that justice would be better served by an adjournment he had no objection.

Mr. Poulden, on behalf of the Home-Office said that he had no power to object to an adjournment, even if he wanted to. The Coroner remarked that as a general rule he was opposed to adjournments in cases of this kind, as they tended to keep alive excitement in the district, but, as it had been put to him that it would be inconsistent with justice to go on with the other part of the case until the three men had been examined, he could not resist the application. At the same time he thought no inconvenience would result from continuing the examination of Mr. Williams as to the system of ventilation. After some further discussion it was agreed that an adjournment should take place at the close of the day to Monday week.

Mr. Williams was then recalled and was examined by Mr. Evans, one of the government inspectors. He deposed as follows: “The total length of the main air current for the ventilation of the south side of the old Cymmer Colliery was 19,525 yards (between 5 and 6 miles), and the passage of the air current depended on the air doors at numerous points of which there were 67, including stall doors, some of which were single and others double. In most of the stall doors there was a liability to leakage, but this was not the case with double doors.

A great many of the heading doors were partial, that is there was on either side a small opening for the purpose of allowing the air to pass into the heading, so as to ventilate the drawing roads as well as the stall. He believed that the leakage that he referred would not diminish the quality of air passing along the main workings more than was necessary, but there could be no doubt it would injuriously diminish the main current of air. The double doors were for the purpose of intercepting the air altogether if necessary. All the doors were blown down at the time of the explosion.”

In reply to a question (in Welsh) from one of the jury, the witness said that he had made the tracing produced since the explosion. He was not aware whether the air went through a heading called John Caemaur’s heading, which led into the old workings, he not having examined it because it was abandoned.

By Mr. Owen – “I did not consider it necessary to go to that old working, it was not because I was afraid there was firedamp there.”

By the Coroner – “I was engaged to put on the doors, and John Caemaur’s heading being abandoned I did not consider it necessary to go there. The doors have been put on since the explosion. I have put them on, as near as I can say, at the same places.”

By Mr. Huddlestone – “I have endeavoured to show in this plan the state of the mine before the explosion. I believe that there was a door at the commencement of John Caemaur’s heading before the accident. There was a door frame, and I put another up one.”

By the Coroner – "I have been through the works since the accident. The most striking appearance that I witnessed was at the mouth of a heading called Griffith Williams' heading, and at the top of the straight heading, but I cannot say that the explosion did not take place in other headings; did not examine the headings with the view of asserting where the explosion took place and will give no opinion on it, because that is a very serious question; merely went there to put up the doors."

The foreman of the jury expressed a wish that they should be furnished with the old map and not the one produced. The coroner informed them that a verified copy should be furnished – the proceedings were then adjourned for one hour.

The jury reassembled at two o'clock, when the technical evidence of Mr. Williams, the colliery surveyor, having been brought to a conclusion, it was arranged, at the request of the jury, that the evidence of some person who could prove the position in which the bodies had been found should be taken.

Rowland Rowlands was accordingly called and examined by the coroner. He said: - "I am an overman at Cymmer Old Pit, and have been in that situation about a year and a half. For about seven years previously I had been a collier in the same pit. At the time of the explosion I was at the office about one hundred and fifty yards from the mouth of the pit. I did not hear the explosion, but directly after it occurred one of the men ran to the door of the office and told me.

I ran at once to the pit, without stopping, and was there about five minutes after the accident. I went down directly, the shaft being in perfect working order, I did not remember whether there was anyone with me. On arriving at the bottom of the pit I proceeded along the level as far as the South Wales parting, and there I met Thomas Evans, with one or two other men. I asked if there was anything the matter with the doors of the South Wales heading, and they told me that they were quite right – no mischief was done in that part of the pit.

I went on the level and shortly came to a spot at which there were two horses dead on the floor, but whether they were burnt or had died from

the after-damp I don't know. Reece Morgan was the haulier attached to those horses; he is alive, and, I believe, escaped uninjured. I then proceeded to David Arthur's heading, on which there was a horse lying in the last stage of exhaustion and shortly afterwards died. Just before this I met John Thomas running forward on the level to get to the mouth of the pit. He was much burnt, but is now alive. There were trams attached to the horses of which I have spoken, and on passing them I saw two men - William Jones and Thomas David - lying down on the road. They were alive, but were burnt. Subsequently they were taken up to the mouth of the pit.

Their proper place of work was a heading called Griffiths's heading, but at the time of the accident they were going down the level to fetch some iron plates. They had been to David Arthur's dip for the plates. That was not the usual place to keep the plates, nor were they accustomed, as far as I know, to go there for them. The plates were usually kept at the pit's mouth. After I left these men I heard some one calling out, and went in the direction of the noise. I then saw David Thomas, a door-boy attached to John Thomas, the haulier; the boys accompany the haulier to this pit, and this one was near John Thomas at the time of the accident, he was also alive, but burnt.

William David, the boy who was brought up in a state of asphyxia was found in Moses's heading, and taken to the mouth of the pit. I assisted all the men that I found, and, some more men coming out, I ordered the sufferers to be removed. I then went as far as John Caemaur's heading and saw the doors blown off there. There was only one door at that heading, it not being worked. The door was blown up the heading. Finding that was the case, I ran back to get some canvas to stop the doorway up, and when I was coming back I saw others stopping up the doors in other directions so as to restore the ventilation.

As soon as I ordered the canvas I returned, and went on to Charles's heading. By this time there were others with us. Some one said they could hear voices in Moses's heading, and I, with two of the colliers went there and found Thomas Matthews, who was there in a state of exhaustion, and who died before we got him up to the surface. There was also a dead horse there, and Matthews was lying across the shaft of the tram attached to it; the haulier also was picked up there. Further on, in the fourth stall,

William Jones, better known as “Billy the Orphan,” and Benjamin Evans, were taken up dead. I then saw David Daniel, but, being overpowered by the bad air, I fell down insensible and was carried out of the level and taken home.

In about an hour I recovered, and again returned to the pit, where I found Mr. Evans, the Inspector of Mines; Mr. Williams, the Mineral Surveyor; Mr. Bedlington, and Mr. D. Thomas. The firemen who went with me in the first instance had explored during my absence, the road between the Windway headway and Moses heading, and had found several more bodies, which were removed to the surface.

Mr. Thomas went to the face of the Windway heading, but did not find anyone; saw Williams Williams’s candle in his stall, in the place where he usually worked, but there was no one there, both Williams and George Griffiths, who also worked in that stall, were found dead at the level heading at the top of the Windway. I could not proceed so far as that, being too weak with exposure to the bad air I fell down exhausted and was again taken out to the mouth of the pit, and exposed to fresh air. I revived in about an hour and went down the pit a third time, but, there being there plenty of assistance, and being very weak, I took no further active part in the proceedings.”

The witness then, with the assistance of Mr. Williams, gave an account of the number of men taken out dead from the various headings. As a correct list of the names has not yet appeared, it may be well to give it here. The witness stated that in Charles’s heading five stalls were being worked. In the first, Thomas Williams and John Isaac were engaged; they were found dead in the heading. In No. 2 Griffith Williams and his nephew, Thomas Williams, were taken out. The first is dead, but the latter is a survivor. There were no men working in the No. 3 stall. In No. 4 the workmen, Hezekiah Davis and his two sons, were dead, having been found in Charles’s heading. In No. 5 William David and Henry Jones, colliers, with a haulier named Rees Jenkins, and David Jenkins, a doorboy, were killed.

The men taken out dead from Moses’s heading were Enoch Morgan, Peter Griffiths, David Morgan, Thomas Watkins, J. Hind, Williams Jones, Benjamin Evans, Thomas Matthews, Thomas David, William David, Rees Thomas,

second Thomas David, David Daniel, and Edmund Davies. Some of the men were burnt and others suffocated. One man, William Davis, was rescued alive, but burnt.

In Jacobs's heading there are 12 stalls, and the following were taken out dead: - Thomas Lewis, Thomas Hopkins, Richard Miles, Walter Miles, Evan John, Isaac Morgan, John Roberts, Thomas David, and his three sons. Thomas Williams, William and David, all being badly burnt. John Williams and his nephew, William Williams, John Rees, Thomas Rees, William Evans, Williams Jenkins, David and Zachariah Richards (two brothers), Morgan Evans, Moses Rees, John Jenkins, Aaron Rees, Thomas Williams, and Daniel Thomas (found dead at the bottom of Jacobs's heading).

The straight heading contains three stalls, and there were found dead in that heading Samuel and Williams Edwards (father and son), Morgan David, Edward Lewis and his son, and Henry Jones, Llewellyn Thomas (found dead at the mouth of the stall), and Williams Thomas. In this heading the bodies of twenty-eight working in the other parts of the mine were taken up dead, having fallen down insensible while endeavouring to make their way out of the colliery after the explosion. William Lewis and William Llewellyn were found dead in the face of the straight heading. There were five stalls in Salathiel's heading. From that heading were taken out dead, William Rees and his son, Jenkin Davis, Morgan Morgan, Matthew Miles, Matthew and Philip Evans (father and son), David Haines and Philip Evans. Two other dead bodies were found near Jacob's cross heading in the level.

Griffiths Williams's heading contained two stalls. There were taken out dead Evans Phillips, David Morgan and George Selway and his son. In Thomas Ffynnonwen's heading, William Martin, David Thomas and Thomas Jones, were all dead, and in the face of the heading were found the bodies of Isaac John and Thomas David. At the level heading Daniel Lewis and William Caldicott were killed.

The following were taken out of Morgan Griffith's heading: - Evan Hughes and two brothers, David Powell, Nathaniel and Daniel Thomas. William Evans and John Evans. In the face of the heading Benjamin Rees and John Williams were found dead. At the top of the Windway heading, which was the main road to the mouth of the pit, 40 bodies were discovered, the

colliers having been evidently rushing to the mouth of the pit when the fatal gas overtook them. In that heading there were seven stalls, and there were killed there John and Jeremiah Salathiel, Joseph John, and a boy; William Williams and a boy; George Griffiths, David Howells, and David John and his two sons. In the face of the heading Morgan Morgan and a boy were found dead.

In Evan Phillips's heading Morgan Morgan and a boy were found dead. In Evan Philips's heading Richard Rees and David Morgan were taken up dead. Rees Jenkins, a haulier, was found in Charles's heading, and a horse with him, dead; John Thomas was found in the level heading at the bottom of Charles's heading, badly burnt. David Daniel was found at the bottom of Moses heading, and David Thomas, a doorboy, at David Arthur's dip. There were several horses found dead in certain parts of the mine. The foremen for that morning were Morgan Rowland and William Thomas. They were not in the colliery at the time of the explosion.

The witness was visibly affected while giving his evidence, and on several occasions, when speaking of the discovery of particular persons who were intimate friends his eyes became suffused with tears. A great deal of commiseration was also shown by the jury, some of whom were working colliers themselves. The inquest was adjourned at 6 o'clock until Monday week.

Public meeting at Cardiff

On July 31st 1856 a public meeting, called by the Mayor by handbill, was held in the Crown Court of the Guildhall, for the purpose of raising a subscription for the relief of the widows, orphans, and relatives dependent on the unfortunate men killed at the Cymmer colliery explosion. The Mayor presided, and amongst the company present were - The Very Rev. the Dean of Llandaff, the Rev. Canon Morgan, vicar of St. Mary's; the Rev. J. Evans, Llandough, and the Rev. E. Fice, curate of Canton; the Rev. T. Davies, and the Rev. R. T. Verrall, congregational ministers, and the Rev. N. Thomas, Baptist minister; Walter Coffin, Esq., M.P., Charles Crofts Williams, E. P. Richards (Plasnewydd), W. Dona Bushell, and J. Stuart Corbett, Esq.; Messrs. and several others. There were also several ladies in the gallery.

The Mayor opened the proceedings of the meeting by saying: - Having been so recently before them advocating a charitable object, he should scarcely feel justified in calling upon their benevolence again so soon were it not that an event, unparalleled in its fatal consequences and in the extent of suffering that would necessarily follow, had happened in our own neighbourhood.

Before, they contributed cheerfully to alleviate the distress of our neighbours the French; now, the events of Providence had brought those with whom we lived our nearer neighbours, and our own countrymen to endure suffering almost unparalleled, from 110 to 120 of our fellow creatures had in an instant of time been snatched from all the activity of life, from all the hope and pleasing anticipation that the young man might have felt, and from all the desires which those more advanced in life felt for the support of their families, they had all been called away, and had in an instant become corpses. Such an event was in itself most appalling and grievous to contemplate, but the mass of suffering that would follow was not to be described, their agonies were sharp, yet but for a moment; but we did not know how long poverty might afflict and wear out some, and finally, perhaps, hurry others to premature graves, so that it appeared to him an occasion that called for our most strenuous efforts.

The accident had happened to a class of most useful men who did their work as it were with their lives in their hands as they went down to their employment, and, from the numerous accidents which had happened, they felt very uncertain whether they would ever see daylight again. And when we contemplated the great use this class of men were, perhaps he might say greater than any other, if they had not, whilst surrounded by poisonous gases, dug out of the earth the treasure that lay there, we should never have had steam; by coal, steam was produced, which effected wonders, such as some present, advanced in life, in their younger days thought impossible.

They had raised an agent that stole over earth and sea, and the wonders of steam were not to be described; if he were gifted with eloquence, nothing that he could say would exhibit to the mind the extent of the benefits which steam was producing in the country, not only in diminishing labour, but in spreading civilization in an amazing manner, and bringing man in

contact with man, thus causing them to feel and know that it was in their real interests to live in love and fellowship with their fellow men (hear, hear.) Who were the men who had achieved this great victory over matter - converted an inert substance in itself into so mighty and so potent an agent! It was the very men whose lives had been sacrificed, and surely we could not rest satisfied with the subscriptions of those in their own neighbourhood.

He considered Cardiff ought to bear its share in endeavouring to alleviate their suffering, and as mayor, he should have thought himself culpable had he not brought the subject forward. Although the meeting was not so numerous as they had hoped, he was quite sure there were hundreds absent from inevitable causes, who would contribute to the utmost of their ability, to lessen the sufferings of those men who had perished in so unprecedented a manner, for he believed such a frightful calamity had never before happened either in England or Wales. Surely they could not think of it without being sensible of the duty devolving upon them to support such men, and by their acts letting them know that when they went to their hazardous employment when they descended to the bowels of the earth—that there were those on the surface who cared for them, and if it was the will of Providence that they were taken off those who were dependent upon them would not be forgotten.

He had placed the meeting on its own merits, and had taken no measures whatever to forward the object, knowing that the object itself would be sufficient to recommend it to their notice. In conclusion the Mayor observed that although a meeting had been held at Newbridge (Pontypridd), and at which some who had business transactions at Cardiff had subscribed, still he was sure all would agree in the propriety of a similar meeting being held at Cardiff, in the hope of securing every shilling that could be raised for such fitting objects of charity (hear, hear, and applause).

Mr. Walter Coffin, M.P., moved the first resolution. He said that connected as he had been with the immediate neighbourhood in which the lamentable accident occurred he was quite ready to obey the summons of the Mayor to move the first resolution, which had been placed in his hands. To say anything at length upon the great misery attending the sad catastrophe was needless. But he must say that the intimate connection

which the town of Cardiff had with those collieries made it incumbent on the town to take a leading part in endeavouring to alleviate the great miseries which had fallen on those poor people (hear, hear). He himself had been acquainted with a great many of the poor men who had died, and he must say that a more respectable body of men than the colliers of that neighbourhood did not exist; and a more worthy work of charity there could not be than in endeavouring in some small degree to alleviate the unspeakable misery which had befallen those persons.

To those who had not witnessed scenes of the kind which had just occurred at Cymmer—the scene of the dying and of the dead, the cries and lamentations of the widows and fatherless children, it would be impossible to depict it in appropriate colours. He himself had witnessed a scene of the kind, though very small in degree compared with that which had taken place at Cymmer. He was sure they would all be exceedingly ready to alleviate in every way in their power the misery of the survivors, and he had, therefore, great pleasure in moving the resolution which had been placed in his hands, and which was to the effect — *"That this meeting feeling deep sympathy with the families and relatives of those who perished by the recent explosion at Cymmer, desires to institute a public subscription for the town of Cardiff, for the purpose of contributing to their relief."* The Rev. Canon Morgan said, he had been requested to second the resolution moved by the last speaker. He felt that it was quite unnecessary to say much upon that most lamentable and terrible calamity. Everyone who had a heart to feel for the widow and fatherless children would be ready to give and glad to distribute.

The first thing was that, whatever they did should be done quickly and at once; and that the committee which was formed, if such a course was adopted, to supplement the committee formed at Newbridge, and should set their shoulders to the whole at once, and alleviate the distress and misery of the widows and orphans of those who had perished in such great numbers. He urged this suggestion for a reason which perhaps, he was more acquainted with than some others present on Saturday and Saturday week he saw many of the widow applicants for the poor-law relief at the Board of Guardians. One of the gentlemen at the meeting at Newbridge (he forgot his name) said he hoped the subscriptions that would be raised would be sufficient to prevent the degradation of those poor persons from

being applicants for parish relief. He himself would not say that it was a degradation, but rather a painful humiliation to be, under such circumstances, obliged to appear at the poor-law board for relief as parish paupers. This he hoped would not occur again, and their coming forward to the relief and support of the distressed would be the means of preventing their being applicants for poor-law relief, and would also be the means of aiding them for the time being, if not for their lives, and enable them to live in some other way than upon the rates of the parish. Having made these remarks, he had much sorrowful pleasure in seconding the resolution which had been moved by the member for Cardiff. The resolution on being put by the Mayor was carried unanimously.

The Very Rev. the Dean of Llandaff then moved the names of the committee, treasurer, and secretary. He added, that he had really no further observation to make on the subject, because it had been so ably and fully submitted by their excellent Chairman and Mayor, and their respected member and he should therefore content himself by simply moving the resolution. Mr. Batchelor had very great pleasure in seconding the resolution.

There was a suggestion which occurred to him in relation to the subject before them; and that was, that it would be well, instead of when an accident of this kind occurred that the widows should depend on the kind of aid now raised for them, that they should that day, or at some future time, organize a committee, who should place themselves into communication with the proprietors of the different collieries in the neighbourhood, and for some one, two, or three of the more respectable insurance companies to endeavour to establish at Pontypridd, or some other central position, a branch office, in which any collier might insure at his death (although it occurred by an accident of the kind under notice), the sum of about £100, for something like a 25s. or 30s. annual subscription (hear, hear, and cheers).

If the meeting could take some such practical shape as that, he was sure they would accomplish great good. He was assured that there were many of the insurance companies, if the subject were taken up by the colliery proprietors (who might have their names added as local directors) who

would only feel too glad of such an opportunity of establishing an office in a central position (hear, hear).

The Marchioness of Bute had also been written to, and apprised that a subscription was about to be entered into for the relief of the sufferers from the recent disaster at Cymmer, and he had no doubt that her ladyship would contribute with her usual liberality. Mr. W. Bushell said he had much satisfaction in rising to move a resolution which had been placed in his hands; but before proceeding further, he wished to make an observation upon some remarks which fell from the Rev. Canon Morgan, in which he understood him to convey the idea that the colliery people should not receive parochial relief, but that the subscription which would be raised would be sufficient to take them off the parish.

For his own part he hoped that the people would have the benefit of both, for he did not think that a private subscription should relieve parishes from their liability of extending to the poor that relief to which they were justly entitled (hear, hear). He most willingly and gladly united himself with the object which they were assembled to promote. It might be with some degree of hesitation, for he had only lately solicited aid in behalf of a most excellent and worthy charity- he alluded to the Cardiff Infirmary. He had not had an opportunity of stating publicly before what he wished to do now, that through the press it might be seen that the commercial interest of the town of Cardiff had most nobly and handsomely responded to the call in behalf of that institution.

Since then the same interest had been applied to in behalf of the French inundation, and still they had opened their purses they now made another call upon their benevolence, and he believed they would open them wider than ever. They wanted some foreign and extraneous aid, and it had been suggested to him they ought to call upon and request the respectable ladies of Cardiff to extend their kind co-operation. Did they ever appeal to woman in vain for assistance and compassion? He was certain they never did, and he was persuaded that on the present occasion their call would be most cordially and warmly responded to. He therefore moved that the ladies of the town be respectfully solicited to afford their kind co-operation. Mr. E. P. Richards (Plasnewydd) seconded the resolution. Mr. Bushell again rose and said he begged to announce that since the

unfortunate explosion at Cymmer the Taff Vale Railway Directors had not had a meeting, but he assured them that he should appeal confidently to his colleagues for permission to remit a subscription.

Mr. Coffin, M.P., rose to make an observation upon some remarks which had been made by the Rev. Canon Morgan, and which had been alluded to by Mr. Bushell. He was quite sure that the Rev. Canon did not mean to insinuate that, though the subscription raised should be fully adequate, that parochial relief should be withheld on that account. The Rev. Canon: - "Certainly not." The observation of Mr. Bushell, was not quite so judicious as he was in the habit of making. It was not their object to hold out to people requiring parish relief, that they had an undoubted right to that relief, if they could help themselves. Mr. Bushell's observation would tend to weaken a sense of pride and independence which belonged to every English person and it was exceedingly unwise at any time to say anything to weaken it. At the same time he was only doing justice to Mr. Morgan to say that what he threw out was that the subscription would only go to make the relief more effectual.

The Rev. Canon said he intended to have replied to the remarks of Mr. Bushell. He simply meant that the subscription should be made as quickly as possible, so as not to leave the poor people on the parish, and he hoped they would be relieved to the fullest extent possible. Mr. C. C. Williams said he was at the Board of Guardians on Saturday last, when the Relieving Officer brought forward the cases of many of the unfortunate widows, and it was the unanimous resolution of those present that the subscription should be considered as not in any way lessening the relief they intended to give to those widows; and if any person thought well to refer to the book of the Relieving Officer, he would find a liberality scarcely ever equalled in the relief of any persons who ever applied for parochial assistance.

There were many guardians from the parishes upon which the the relief might fall heavily, but they all united cheerfully in granting the liberal amounts the Chairman was requested to extend to every person who then applied. The Mayor said he could confirm that statement, adding that the Board of Guardians considered that when a pauper had by his foresight entered a club, or rendered himself entitled to any other similar provision, that was not to prejudice him in regard to the relief given to him; but was

rather considered a sort of boon for his discretion and provident habits. The resolution was agreed to without dissent.

The Rev. N. Thomas then moved that the proceedings of the meeting, together with the list of subscriptions be advertised in the local papers. Mr. C. W. David seconded the resolution, which was carried and Mr. Jonas Watson suggested, that the advertisement should be inserted in the Times also, which was agreed to. The Mayor said he had received several letters from gentlemen who had been unable to attend the meeting, which perhaps he ought to have read before, but which he would place before the meeting now. The letters were accordingly read. The first was from the Rev. J. M. Traherne, who said he had ceased to attend public meetings; but deeply sympathising with the object of the present assembly, had remitted a note for £5.

Mr. Richard Henry Cox, Llandaff, enclosed an order for £2. John Samuel, Esq., High Sherriff, stated his inability to attend the meeting, and enclosed a note for £5. The Rev. Thomas Stacey, of St. John's, enclosed a cheque for £3 3s.— £2 2s. for himself, and one guinea for his son, Mr. Cyril Stacey. He regretted that he could not be present at the meeting, but wished that it might have a good result. The Rev. F. Signini, Roman Catholic Priest, expressing his hearty approval of the meeting, enclosed an order for 10s. Mr. Coffin, M.P., then proposed a vote of thanks to the Mayor for his kindness in taking the chair, and for his attention to the business of the meeting remarking particularly his worship's readiness to give his assistance in works of charity. Mr. C. C. Williams seconded the motion, which was carried by acclamation. The Mayor returned thanks, expressing himself deeply sensible of the mark of approbation shown him, and observing that he had but done his duty. The meeting then separated.

Monday, August 11th 1856

Adjourned Inquest

The Coroner’s inquisition on the hundred and fourteen unfortunate men and boys, who were killed by an explosion of fire-damp in the Cymmer Colliery on the 15th ultimo, was returned on Monday, August 11th 1856, by adjournment from the 28th, at the Butchers’ Arms, in the large tent which had been erected in the rear of the inn. At 11 o’clock the names of the

jurors were called over, when Mr. Owen said that although it was understood at the last meeting that he might be allowed to send down two men into the pit, for a full examination, they were refused, for some reason or other, on the part of Mr. Insole, to go down the pit.

Mr. Huddlestone stated that the person who had presented himself to go down had produced no authority or voucher from Mr. Owen or any other person, and Mr. Insole had therefore refused his consent. The Coroner said he had consulted Mr. Owen's application, if the person sent was accompanied by an inspector. Mr. Owen replied that he had sent the man with Mr. Mackworth. Mr. Mackworth said he was not the district inspector and Mr. Evans, who was, said that he had not been applied to on the subject, or he would have been happy to allow it. It was ultimately arranged that a person should be duly authorised to descend the pit for the purpose required by Mr. Owen.

The Coroner said that since the last meeting a perfectly correct copy of the pit and all its workings had been provided on a very large scale, which now hung on the wall, and which would no doubt be found of great service in the course of the inquest.

Evidence of some of the survivors

The first witness called and examined was **David Thomas**, a lad about 15 years of age (one of the survivors), whose hands, covered with gloves, were much burnt. He stated that he was a Welsh boy, and could not speak English, and he was therefore examined in Welsh by Mr. Myers, one of the jury, acting as interpreter. The witness said that he was in the pit on the morning of the explosion, working as a doorboy. He had been in Jacob's heading, after a journey, and was coming out with the haulier.

He had been to No. 11 stall of that heading, the highest stall but one. He and the haulier had two trams of coal and one horse. Thomas Lewis, who was in his own parting, asked them, by No. 2 stall, if two horses were there. They said they did not know, and they went to another place, where they saw Dan the labourer, cutting under a door, as the ground had swollen and the door would not act – open or shut. John Thomas asked the labourer if

he was coming to clean that heading that day. But the reply was that he had received no orders from Rowlands to clean the heading.

They shortly after went on to Charles's heading, and stopped there to allow another haulier to go by. They then proceeded to the dip hollow, and then on top of the East Dip. When they were coming out of the colliery, they saw William Jones and Thomas Davies. There was a door there, which was closed. Jones and Davies were on the upper side of the door. In a minute or two they heard the explosion, and at once ran along the level. He said the explosion was accompanied by a noise like thunder, some fire, and a rushing wind.

He reached a parting where he saw a horse, against which the fire struck them. He, himself, had been driven or carried along by the wind to that spot. Then he became insensible, and, he understood, was carried up to the surface in that state. When the explosion took place he saw William Jones and Thomas Davies about 30 yards distant. They were sitting down. Witness saw that the haulier was behind him on coming out, but he escaped, though he was much burnt and was unable to attend. He did not know if his horse was burnt, he thought he had been blow about 30 yards by the explosion.

To Mr. Owen – "John Thomas asked Dan the labourer if he was going to clean the heading. There was no gas or fire there at the time, nor had he heard anything of fire that morning. Jones and Davies, when he saw them, had plates by their side."

To the Coroner – "Saw the men at work that morning with naked candles."
To Mr. Mackworth – The door was open of No. 1 stall, where Dan the labourer was working, cutting away the ground under it, when he passed by, but he could not say in what state it was when he left it. Dan was afterwards found dead in the pit.

Thomas Davies, haulier, a Welsh lad, was next examined. He said that he was at work in the Cymmer pit on the morning of the explosion, at the double parting, at its furthest end. This was between the New South Wales and the Arthur slip. He was coming out, he had been hauling two loads of coal that morning, one from No. 6 and the other from No. 7 stalls, but he

could not say whether the men were at work there then or not. He believed there were men working in No. 7 stall, but he did not see them.

He knew, however, there was not a single man in the No. 6 stall. While he was standing at the double parting, leaning on his empty tram, he saw a great cloud of dust coming towards him, and then a rushing noise of wind, and the sound of the report of the explosion. He ran immediately towards the mouth of the pit, leaving his horse where he had stood. He had a companion, William Davies, a haulier, who ran there with him. He himself saw no fire, but the sulphur or "smoke damp" nearly suffocated him as he ran away, and he fell and knew no more about it.

In a reply to a question, the witness said he saw two men, Thomas Davies and William Jones, sitting down on top of the dip hollow when he was coming out of the heading. There was a door there, which was closed but the men were on the side of the door next to the level.

To Mr. Owen – The men sitting at the top of the dip hollow were sitting down talking to each other. Did not know what they were doing there except fetching plates in from the deep hollow. They said they were getting plates out of the old workings. Did not know whether it was dangerous for men to go into old workings for plates. Met a good many colliers going before the explosion; did not observe any difference in the air of the pit until he felt the rushing wind after the explosion. He had no candle, but an open lamp. He did not observe any difference in the flame, but he did not look to see if there was anything there.

Mr. Williams, surveyor recalled

Mr. Williams, surveyor and mineral agent, was here recalled. He was examined on the first day. He now produced a plan of the bottom of the pit, and supplied some deficiencies in his former evidence. The court then rose (half-past one), and adjourned for an hour.

On reassembling that afternoon, the examination of Mr. Williams, colliery surveyor, was continued. The witness stated that the brattice which formed the upcast shaft was composed chiefly of brick, and the area of the space at the bottom of the shaft was 11 feet 10½ inches. The number of

doorways on the south side of the pit was greater than he had stated on the last occasion; a narrower inspection had shown him that, exclusive of two doors leading to the flues, there were 72 instead of 67.

The witness was cross-examined at considerable length by Mr. Owen as to the number of the doors, when he admitted that he had not seen them all himself. The circulation of the air in the mine depended in a great measure upon the number and position of the doors.

Evidence of the Colliery manager

Mr. Jabez Thomas, the manager of the mine, was then called and examined by the Coroner. He deposed as follows "I hold my appointment of principal manager of Cymmer colliery from Mr. Insole, the proprietor; my duties are above ground altogether. Rowland Rowlands, the overman, having the management of all the men and the working underground. He has been employed in that position about a year and a half, and has full control both with respect to driving the levels and cutting the coals, but he does not make any alteration in a heading or any other part of the works, when such alterations become necessary from meeting any faults or otherwise, without first consulting me and ascertaining my opinion.

If it were necessary to make a new heading or airway he would apply to me. Have not gone down the works for two and a half years except on one particular occasion, about 18 months ago. I don't consider I have experience enough to undertake the management of the underground portion of the colliery. About 18 months ago Mr. Hay was engaged to do that work. He did not report to Mr. Insole, but to me. It is part of the duty of the underground agent, who should be a mining engineer, to visit the workings twice a week, so as to see that everything is going on properly.

About three weeks before Mr. Hay left, I engaged Mr. David Grey, and had both Mr. Hay and Mr. Grey in my office together next day, and I desired Mr. Hay to show Mr. Grey everything, both in and out of the pit, and generally to instruct him in his duties, telling Mr. Hay that Grey was the person who I had employed to fill his place, and that he was to put him to do everything he wished during the three weeks that (Mr. Hay) remained. I believe that Mr. Hay took Mr. Grey through the colliery twice. Mr. Hay left

in three weeks, and Mr. Grey remained in his place till within two or three days of the explosion.

Mr. Grey's health was very delicate, and he was not able to go down the pit so often as Mr. Hay used to go. He went underground generally once a fortnight, on the measuring day. His duty then was to measure the width of the headings with Rowlands, and to go into most of the stalls to take the thickness of the coal, and to see that the top and bottom were cut sufficiently close to the stalls. If he saw anything irregular and improper he ought to have reported it to me.

The underground agent's duties were not expressed in writing, but I mentioned them to Mr. Grey verbally. Part of those duties was comprised in the payment of wages, and keeping the books. As he was unable to attend regularly, I did not consider that any responsibility rested on him. He left the works altogether three days before the explosion. About a fortnight before that I requested him to descend the pit, and make a report to me of the general state of the colliery. He did not make that report, and I believe that was the only request which I made that he did not attend to. He gave up his appointment on his own accord, his notice not expiring until the 24th July, but he was allowed to leave at his own request. I looked upon Rowland Rowlands as being responsible for all the underground works.

In cases of difficulty or danger it was his duty to communicate with me. Before being appointed overman he was a collier, and had been so five or six years. He never held the place of fireman. The overmen could read and write, though better in Welsh than in the English language. I make the appointment both of the overman and firemen – in point of fact no man is fixed in any particular situation in the colliery without my first being consulted. There are the firemen, named Morgan Rowlands, David Jones and William Thomas. Rowlands has been employed for two years, Jones about fourteen months, and Thomas seven months. The first-named fireman was the brother of the overman, and Thomas his brother-in-law, they had, however, all been previously employed in the mine as colliers. I cannot define their duties previously. The rules of the colliery were printed in Welsh and English, and were given to the overman to distribute among the colliers on the 21st of July last."

By Mr. Evans – "Every man had a copy, but the rules were not hung up in the office at the time of the accident."

Examination resumed – "We commenced working the coal in the old pit in 1848, and in the new in 1855. The overman and firemen of whom I have been speaking were engaged in the old pit. The two pits are half-a-mile apart, but the workings in some places approach very near each other, the same vein of coal being worked in both collieries. The old pit is ventilated by an air furnace, which was managed by two firemen, named George Evans and Richard Butler. A haulier, named Joseph Thomas, was in charge of the fire on the night previous to the accident. I was at the pit when it occurred. The first I heard of it was from some men who ran to me from the spot.

I did not go down the pit because, as I know nothing of gas, I thought it would be useless. I sent for Mr. Daniel Thomas and his son, and assistance soon poured in from various quarters. From 150 to 250 tons of coal are got out from the old pit daily. 150 men are employed in the mine, and there were thirteen horses down the pit at the time of the explosion, and 130 men. Eight horses were killed.

By the 14th rule it is required that whenever there is a danger apprehended cross timbers and a board could be set up at the entrance of the particular part of the workings. The tickets were prepared about six months previous to the explosion, to be placed in a conspicuous situation, in order to indicate that the firemen had been there to inspect the stall, but I am not aware whether or not the rule was strictly carried out. I understood very lately that the tickets were in use. – The inquiry was then adjourned at quarter past six o'clock.

A sermon at Aberdare

On Saturday, August 9th 1856, the Vicar of Aberdare preached a sermon in his church on behalf of the sufferers from the Cymmer accident. The text was, Dueteronomy, VIII, 8. He commenced by calling attention to the wonderful foreknowledge exhibited by Moses in pointing out what constituted the real and material wealth of a country. Canaan was a land

not only abounded in corn and wind, but a land “whose stones were iron, and whose hills were brass.”

Wherever these would be found, there would be, he knew, “bread without scarceness,” and the people should “lack nothing there.” This country, formed a powerful illustration of the text. England is confessedly, the greatest and richest, the most powerful of all nations. For some wise and holy end, God had thought fit to bestow upon her a degree of prosperity unrivalled in modern and ancient times. She had an empire upon which, it was truly said, “the sun never sets.” Her commerce pervaded every land, her ships, of merchandise and war, traversed every sea, her name, wherever it was heard, implied hope, confidence, respect, and terror. At home, her institutions, as they were the ripened and matured growth of ages, so were they the envy, and the just admiration of the world.

The enterprise of her private citizens was altogether unparalleled. Her wealth, private and public would be unbelievable, were there not daily and substantiated proofs of it. It was a question then of considerable interest, where all this prosperity has arisen. Some would tell them that it derived its origin from a mixture of the elements which composed the characteristics of the three great races that had at various times held sway in these islands - that the quickness of one, the stolid energy of the other, and the fixity of purpose of the third, had reunited, and united, to produce a character which recognised no difficulty, and surmounted every obstacle.

Without discussing this question, interesting as it would be, he could not come to the conclusion that the greatness of England was far more correctly to be attributed to her “stones of iron, and her hills of brass,” and her fields of coal, than to any particular characteristic belonging unto the people. These had given motion to her spindles; these had called for thirsty-engines - her iron roads, and her stupendous navy, without these, she would still have been what she was when these lay hidden, buried in the bowels of the rocks – respected, but not feared – a second or a third-rate power.

Our comports, luxuries, pleasures, our very necessities, flow from it. In this respect we owe a debt to those material substances, and God who gave them to us, which could never be adequately paid, and too highly thought

of. Still, even these would be of little avail to us, were it not for the workers. Our "hills of brass and stones of iron," would still have laid in their natural beds, were it not for the bone and the muscle of those whose lot it is to dig and delve for them. The obligation, therefore, we owe to them is one of no inconsiderable moment.

We depend solely on their industry. Their labour is literally the great source, though an independent one, of our national and private wealth. Without that labour we could never take the lead in the markets of the world. England would not be England, great and powerful, rich and fearful, were it not for the strength and the number of her countless sons. Gratitude demands, policy and self interest suggest, that the account we shall be able to give of these, therefore, be such as this steward, should not be ashamed of it. Bearing in mind the luxuries we enjoy let us not be forgetful of their dues.

Conscious of the dangers they encounter for our sakes, be it never our part to be unmindful of the dreadful consequences – alas! – too frequently entailed upon them. Who living in these districts does not know the terrible nature of these catastrophes? Yet, how few really consider that there is not a day in the pitman's existence, not even an hour in the day, which might not produce a fearful result, as that whose terrors that have so recently paralysed the country?

No, no – there is not one hour in the day, not one stroke of the hammer, not one lifting up of the mandrill, which might not bring death and destruction to the miner. That mysterious agent is ever here hidden in the caves of the rocks, lurking beneath beds of coal, ready to overwhelm him and his fellows at any moment, and without the slightest warning! No life, however, is as precarious and as venturesome as his.

The mariner, it is true, braves the perils of the great deep, or struggles with the storm, or rides upon the hurricane, or possibly the next blast, or the nearest wave may be his death and the grave at the same moment. Still, the sea is not always stormy, the waves do not always toss their heads up angrily to the sky; besides in the fiercest storm or loudest hurricane the haven may, and often is, reached in safety.

War likewise has its terrors; the soldier enters the battlefield; there may be death in every bullet; he attacks the deadly breach, seeking honour even at the cannon's mouth; he knows not what moment may be his last; yet fortune may befriend him; he may escape with his life, and be crowned with glory.

Not so with the pitman; he has no visions of glory in prospect, no haven to fly to; the deadly gas once broken in upon him – his life is a sacrifice, his destruction certain. Oh, what words can depict the terror of the assembled crew when the explosion has been heard in far off caves! To advance may be certain death; to stay, death may be equally certain. Between them and the world above is that noxious vapour to inhale which quenches existence. They may have seen some of its terrible effects before, carrying away here and there some ill-fated fellow labourer; but it has come at length in all its grim hideousness, and they must die! – die in crowds – die in heaps – die, many of them, unprepared!

But what is to become of the little ones they have left in the world above? - Those dear partners of their weal and woe, their joys and sorrows? Will the world befriend them? Will charity feed them? Will rich men's wives, and rich men's daughters, be the their pursuing mothers? Oh, who will be a father to the fatherless? Who will be a husband to the widow? Doubtless these were the feelings which agitated the miner, as he waited the approach of death.

He said "waited," because it had been proved in some of these terrible accidents that the sufferers met their death even by "walking into destruction." And he well remembered one particular instance, when there was every probability that had they been aware of the nature of this destructive agent - and he called particular attention to that fact – and continued in the upper part of the mine until assistance had reached them, the greater part of sufferers would have survived the dire catastrophe.

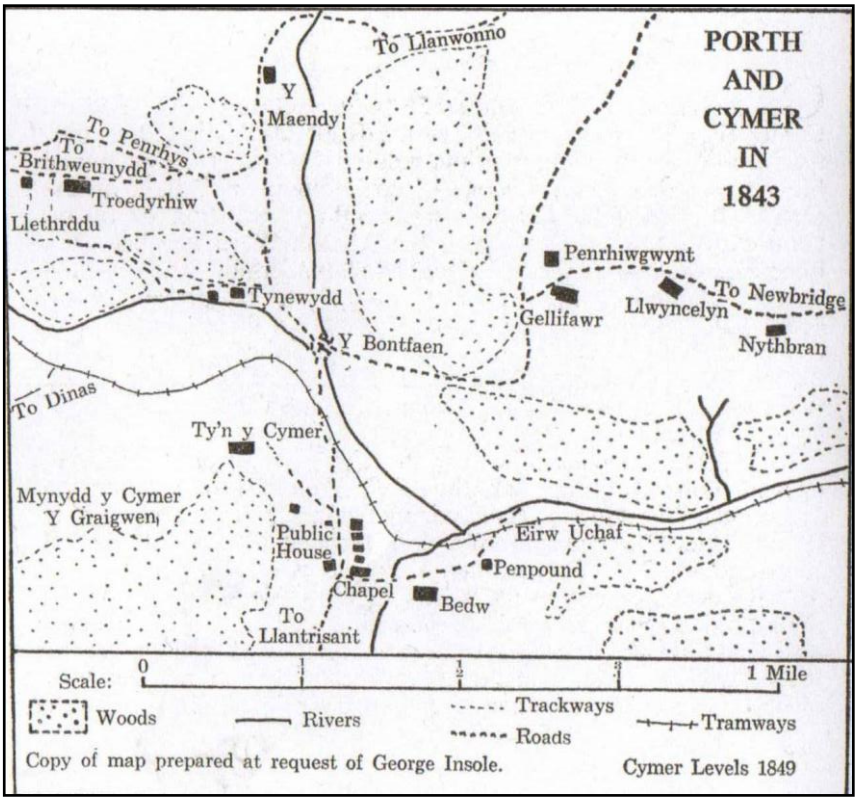
But, if these had been the feelings of the dead, they knew well the wailings and sufferings, and tears and laminations, of those who survived? Who had not seen that valley – and once seen could ever forget the tumult of its agitation, when the cry had come that human beings were buried hopelessly below?

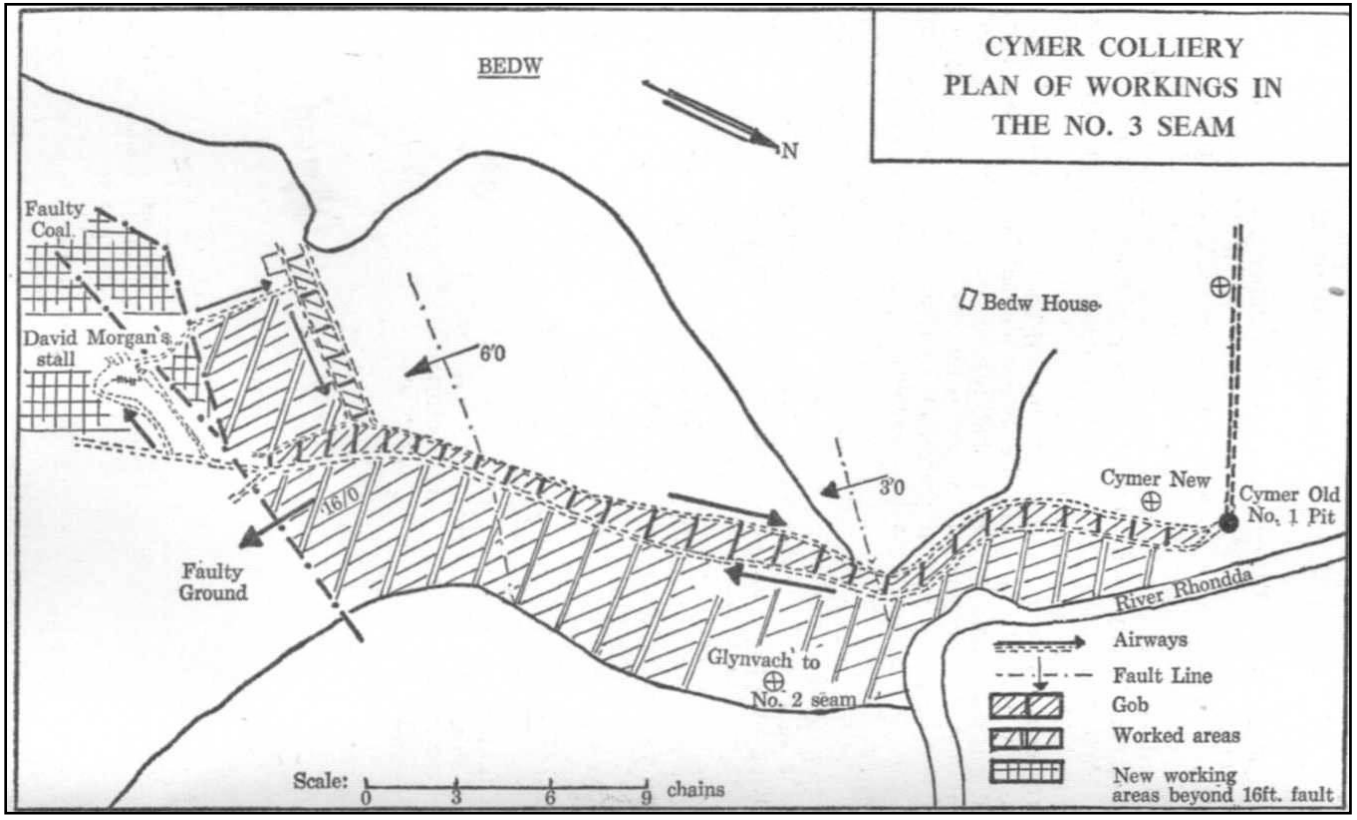
What man could ever cease to remember the heart-breaking shriek when a mother or a wife claimed a husband? He would not, however, dwell on these painful scenes. He would not needlessly harrow their feelings. That was not his object; no was it altogether his aim to widen the strings of their purses. For, he was not unconscious of the universal sympathy exhibited in this as well as in other instances when the catastrophe had been nearer home. His object was to create an impression which should be permanent, which lay still in their hearts when their memory of this was gone; an impression that should be ever present to them of the position they stood to those who dug and delved for them. He would have men and women to ponder what their duties were to those who braved such dire perils for them. Nor did he know anything he could especially express longer upon them than the duty of seeing "the people educated for the work."

They might make rules that should be models for foresight and wisdom; but until they impressed upon the miner the nature of this danger he would be forever breaking and evading them. And how could they ever impress this nature upon it, unless it be intelligently apprehended by him. No amount of experience would ever instruct him; no length of years underground would ever give him the foresight which a school of mines would in a few months teach him. He lived daily in the face of danger; he was told there was danger; apparently he saw nothing, and an uneducated mind, unless danger was visible to it, would cease to apprehend any danger and the consequences was that with the apprehension failing, the pitman grew neglectful and reckless; he drew near where it was death to approach, he fired the mine, and hurled himself and all his fellows to death and destruction.

He might, however, mention that one large employer in that parish had admitted the news that he had authorised him to engage an instructor for 12 months at a competent salary, whose soul business would be to devote five nights of every week to giving gratuitous instructions to his workmen in the rudiments of education generally, and in the nature of gases especially. Whether the workmen would avail themselves of it was a question that should not interfere with the experiment. If they did not he would have the satisfaction of conscience to reward him, that he had done all in his power to prevent a re-occurrence of these catastrophes.

Their first line of duty, charities noblest act, the exhibition of liberty, was to do all they possibly could, all they were expected to do before the catastrophe occurred. One pound spent then was better than a thousand spent after. Silver and gold, when lavished freely, and expended charitably, might do much, and would bring many blessings with them; but they could not bring the husband back to the wife; they could not restore the father unto the orphan; they could not place the soul again in the body. These had gone wither they must all follow sooner or later; and mighty God in his mercy that they might one and all so apprehend and fill their duties here, that they might have no cause to fear the issues and the consequences of them hereafter.




CYMER COLLIERY
PLAN OF WORKINGS IN
THE NO. 3 SEAM
BEDW
N
Faulty Coal
David Morgan's stall
6'0
Bedw House
3'0
16'0
Faulty Ground
Cymer New
Cymer Old No. 1 Pit
River Rhondda
Glynvach to No. 2 seam
Airways
Fault Line
Gob
Worked areas
New working areas beyond 16ft. fault
Scale: 0 3 6 9 chains

CHAPTER FOUR
Tuesday, August 12th 1856
Evidence of injured collier

On Tuesday morning **William Jones**, one of the injured colliers, was the first witness. The unfortunate man, who was still swathed in bandages, and had both his arms in a sling, having been severely burnt, stated that on the morning of the explosion he descended the pit a little after seven o'clock and proceeded in company with another collier named Thomas Davies, to David Arthur's dip, to fetch some tram plates to take to the place where they worked, at the far end.

Those tram plates had been taken up, and were lying on the side of the heading road. They were old plates that had been taken up after having been used. No one told him to go there for them. They carried the plates that had been raised from the coal heading, and were waiting for a tram to go by to put them in, and convey them to Griffith Williams' heading, where they worked. There was another man named Jonathan Williams, who had been there to fetch plates, and he had gone back to his work in the South Wales heading. Davis and witness were sitting down by the dip-door on the upper side of the level. The door was shut. He was sure of that.

The reason why he went there for the plates was this – when he went into the mine he saw Jonathan Williams who told him he was going there for plates, and then he remembered that he should want some for his work, and went there too. He had never been there before. The colliers were allowed to go into the old workings to get plates, and, in fact went for them wherever they could find them. Sometimes they were got from the top of the pit, at other times from the side of the level and from the old workings. Rowland Rowlands, the overman, was the underground master, and, witness believed, was aware that the colliers went into the old workings to get plates, but he had never any conversation with him upon the subject. He had never told him to get them from the old workings. The colliers had to get the plates themselves when they wanted them.

Mr. Poulden called the attention of the Coroner to the 22nd rule. The rule in question states that, "no man of boy shall go into any other part mine than where he works upon any pretext whatsoever."

Examination resumed – While witness was sitting there the explosion occurred. He had heard the noise, and, knowing what had happened, fell down on his face in order that the fire and gas might pass over him, but before he could receive any assistance he became insensible. The dust and fire came from the inside, and not, as he thought, from the directions of Arthur's dip. He was sure that the fire came from the far end.

Witness had worked three months in Griffith Williams' heading at the extremity of the workings. He considered the air there "middling good." He had never been stopped for want of air. He worked with a naked candle. He believed that lamps were not used at all in that colliery. He had also worked in Salathiel's and Charles's headings. In the former the air was about the same as in Griffith Williams', but he had seen gas in both of these headings on top of the coal, or on a rider (a thin vein of coal above the main seam) occasionally. In Charles's heading the air was not so good, but he had not seen gas there. It sometimes fired his candle in the two former headings, he was not, however, afraid. He mentioned the fact to the firemen.

At one time there was a tin ticket placed in the stalls, to show the colliers that the firemen had been there, but witness lost his almost directly, and then he used to know whether the firemen had been there by a shovel or a pickaxe being placed in a peculiar position on the face of the heading or at the entrance of the stall. Some time ago lighted candles were used, being placed there by the firemen to show that all was safe. When the system of tickets was introduced the colliers had to bring them out and hang them on a nail in a different place at the entrance, when the firemen would remove them again in the morning. He, however, put his in his pocket and lost it the first day. They were very little tickets – about an inch wide and two long. He never had another ticket supplied to him.

Since then the firemen had adopted the other system mention by him. He had occasionally seen danger signals at the entrance to Salathiel's heading. The signal consisted of cross pieces of wood put up at the entrance of the stalls to show that there was fire there. Occasionally the men worked both night and day, and on such occasions the firemen sometimes came to inspect the works and sometimes did not.

By Mr. Evans – He had never read the rule before which prohibited the men from going into any other parts of the mine than those which they worked. The rules were never read over to him.

By Mr. Poulden – By the first rule it is provided that the manager should take care that the workmen are more acquainted with the rules, by causing them to read over them when desirable.

By Mr. Evans – "I knew that if I left the door of Arthur's dip open a leakage of the air would ensue, and, therefore, every time I went to get the plates I took care to shut it."

By the Coroner – "Frequently when I was working in Charles's heading there would be a cap (a globule of ignited gas) at the top of my candle about half an inch high. That was in the upper stall on the right hand. I mentioned that to Morgan Rowlands, the fireman, who came there with another man, and made a brattice with the rubbish as to concentrate the air. After that it was a little better."

By Mr. Evans – "I saw it there the first day I went to work in the stall. The firemen had not left any mark to indicate what gas was there."

By Mr. Owen – "I was engaged by Rowland Rowlands, and not by Mr. Jabez Thomas. I worked in the same pit in 1853, and continued there until the great strike in January 1854. I went out the same time as the rest of the colliers. The reason why we struck was because they wanted to keep the firemen, the old firemen, who had been there for some years from being discharged. The old firemen were there before I was there. Some minor differences had been settled between the master and the men.

On the 1st January 1854, the men were prepared to go to work, but found, when they got there, that a new firemen had been appointed, in consequence of which we all refused to go down to work. We had great confidence in the old firemen and the reason I did not go to work was, because I was afraid the new firemen were inexperienced. The life of every collier in the pit depends upon the experience of the fireman. I was present when the men waited upon Mr. Jabez Thomas to tell him that we were afraid to go down the pit because the firemen were not competent.

Jabez Thomas replied that he could have a man go down with them to try them. The collier asked him, 'Why did you discharge the old ones?' When he replied 'That is nothing to do with you; I discharged them because I chose to do so,' upon which the colliers said they were afraid to go down with them; that was the truth. I was afraid because I knew nothing about them. The men would not go to work, and stood out for sixteen weeks on that occasion." The proceedings were then adjourned at half-past one o'clock.

An injured lad excused

The jury having been re-assembled, a boy named William David was next called, and appeared before the coroner accompanied by his father, who stated that the lad was in the pit at the time of the explosion and was brought home insensible. He remained insensible for nine days, and had not yet sufficiently recovered his memory to be enabled to remember anything that took place. Under those circumstances the Coroner excused the boy from any further attendance at the inquiry.

Another poor fellow testifies

A boy named **Thomas David** was next called. A young athletic man, with each arm in a sling and bound up, and much disfigured about the face, and was attended by a nurse, and supported while giving evidence by pillows etc. He looked deathly pale and ill. He gave his evidence in Welsh, one of the jurymen Mr. Myer, acting as an interpreter.

He said – "I am a collier, and was in the pit on the morning of the explosion. I had been with William Jones to fetch plates, and was sitting on the side of the level heading when I heard a puff like an explosion, and immediately afterwards found myself blown forward. I was severely burned over the arms, body and legs. The fire appeared to come from the workings inside the level. I called out for assistance and in a short time some colliers came to me and carried me out of the pit. I did not become insensible. I have worked in several headings of the pit. In the Windway heading there was not a good current of air, and there was no way to get good air in consequence of a fault being struck. Improvements were made, and in the

course of three months the air became tolerably good. In Griffith Williams's heading the air was pretty fair on the ground, but there was a little fire on the top. I received a copy of the rules, but do not know how to read them. They were never read or explained to me, nor did I ask for any explanation. I have seen a cap of ignited gas upon my candle when I have been working in Griffith Williams's and the Windway headings."

The witness then corroborated the evidence of William Jones as to the measures adopted by the firemen for indicating to the colliers the existence of fire-damp in any of the stalls or headings. He added that he never left the door of the heading leading to the old workings open when engaged is procuring plates.

By Mr. Owen – "I usually obtained plates from the top of the mine, but when I could get none there I obtained them elsewhere, without consulting the overman upon the matter. When I have seen a cap burning blue upon my candle I have been aware of the existence of gas, and that it was dangerous to continue working in the stall. I did not complain to the fireman because we had just commenced driving a new heading, and all the air we could get was that which forced itself in by its own weight. If the heading had been made wide enough, a current of air might have been passed through by the means of a brattice."

The manager recalled again

Mr. Jabez Thomas, the manager of the colliery, was then recalled, and, in answer to the coroner, said he never looked upon Mr. Grey as the underground manager, in consequence of his ill-health. About six weeks after Mr. Grey received his appointment he complained that the air was bad in one of the headings at the further end of the workings, but he said nothing of the presence of gas. Witness remembered Mr. Grey expressing an opinion that the system of ventilation was not good, and that the upcast shaft was too small. Both Mr. Grey and others persons had suggested that there should be a communication between the new and the old pits.
By Mr. Owen – "I have had the management of the pit since it was commenced in 1848. Mr. Hay had more responsibility underground that Mr. Grey. Do not remember that the former ever complained to me of the bad ventilation of the mine. The day before he left he gave me a report,

which stated that the collieries were in a proper state. I cannot say how long Mr. Grey remained in my service after having reported that the upcast shaft was too small. In 1854 the men struck because I had discharged the firemen. The men had great confidence in them, and I believe they were experienced firemen. I had, however, a reason for discharging them.* A strike took place in consequence, which lasted for four months. I had appointed a fireman named Rowland Thomas Rowlands, a cousin of the present overman, and the colliers wanted me to dismiss him, and if I had consented to that I believe they would have gone to work without any firemen at all. Before that time the colliers themselves had a voice in the appointment of firemen, and I believe that I gave them the same privileges afterwards." The proceedings were then adjourned at six o'clock, Mr. Thomas still being under examination.

*The two discharged firemen, were Morgan Richards and Morgan Rowlands. The former had informed Jabez Thomas that he had seen 60 yards of 'fire' in the main headings, which were in Rowlands' district. The two had to be separated by the manager as they grappled in his office. Despite Mr. Hay confirming what Richards had stated, both firemen were dismissed. Rowland Rowlands was appointed as a new fireman, the brother of sacked Morgan Rowlands. **Rhondda coal, Cardiff Gold – Richard Wilson, Merton Priory Press 1997.*

Wednesday, August 13th 1856

A newspaper comment

The '*Daily News*' (London) of Thursday, August 14th 1856 wrote:- We have, of course, no intention of anticipating or influencing the decision of the Coroner's jury now engaged in inquiring into the causes of the late terrible colliery explosion in Glamorganshire. Some portions, however, of the evidence already taken in that case have afforded so striking an instance of the habitual and extreme harshness of the men engaged in these hazardous pursuits, and of the extreme difficulty of enforcing any precautionary rules the observance of which involves the slightest degree of trouble, that we feel ourselves justified in alluding to the facts of this frightful case, even in the present incomplete state of the investigation, as affording a striking instance of the truth of the most salutary laws are useless unless met by some corresponding disposition on the part of those whose benefit they enacted. *Vigilantibus, non-dormientibus, subveniunt leges* (the law helps the watchful, not the sleeping).

The Cymmer collieries are the property of Mr. James Insole. They consist of two pits, the old and the new. On the morning of 15th July last about 130 men and boys were working in the old pit. An explosion of fire-damp took place, and of those 130 humans beings not less that 114 have perished from its effects. In any other description of casualties so frightful a percentage of mortality would petrify the whole nation with horror. Imagine a railway or steamboat accident in which, out of 130 passengers, only 16 escaped with life. Take the most sanguinary passages of modern warfare, and inquire in any of them if the destruction has in anyway been equal to this? 114 out of 130 is equivalent to a loss of 10,400 out of an army of 13,000 men, but Glamorganshire is a long way off. The Cymmer colliers have probably never been heard of before by nine-tenth of our readers, and the sufferers are obscure men, who leave nothing behind them – except starving families and desolated homes.

The legislature, as most people are aware, inferred some six years ago by an Act especially designed to protect those most ignorant and thoughtless people from the consequences of their own recklessness, and coal mines inspectors have ever since been engaged, upon snug salaries of some £600 or £800 a year, whose express function is to inquire and report to the Home Secretary upon the conditions and workings of coal mines, with special reference to the modes adopted for the ventilating and lighting of them. Let us see how much this well intended Act of Parliament had effected the security of the colliers in the old Cymmer Pit.

Mr. Insole, the proprietor, appears from his evidence to know little enough about the mine except the annual profit it produces. He has occasionally visited the Cymmer Pits, and is aware that they are professedly regulated by a set of rules which have, it seems, been submitted to the approval by the Home Office. Further than this he has no particular cognisance of the matter, and shifts all the responsibility of the management upon Mr. Jabez Thomas, who, according to his view of the matter, had the entire control of the colliery.

The examination of Jabez Thomas, which was given at length shows pretty clearly the extent and value, as a protection for human life, of the Act of Parliament responsibility thus imposed upon him. According to the evidence of this person, who admits that he has the principal management

of the concern, his duties were above ground only. In the course of two years and half he has only once been into the works, except on particular occasions.

The whole management of the men in the workings below ground was entrusted by him to Rowland Rowlands, the overman. There was indeed, besides, also an underground agent, "whose duty was to go through the works once or twice a week, to see that they were conducted in a proper manner," and to report any deficiencies to Mr. Jabez Thomas. A person by the name of Hay fulfilled this office until February last, and he was succeeded by one Daniel Grey, who continued in office until a fortnight before the explosion. This person's health was too delicate, it appears, for the duties of his situation, and, "he went underground once a fortnight only." During the fortnight that intervened between his resignation and the explosion, *the mine was left without any inspection at all*, except that of Rowland Rowlands, the overman, and three firemen.

What its condition was, and for some time had been, may best be gathered by the statements of William Jones, one of the few survivors of the horrible catastrophe. There were no safety lamps. It was worked throughout "with naked candles." Jones had worked three months in this way at the far extremity of the pit. In some of "headings" he considered the air "middling-good," though in almost all he had occasionally seen gas. In "Charles heading," which he described as one of the worse, it frequently happened "that there would be a cap (a globule of ignited gas) at the end of his candle half-an-inch high." He sometimes mentioned these things to the firemen, and sometimes not. He was "not afraid about it."

On the occasions when he thus perceived gas, the firemen had left no marker at the entrance to the headings to indicate that there was danger in working them. The history of the danger signals adopted in this pit is a curious comment on the efficacy of the Act of Parliament. When Jones went to work there, the ordinary indications that a heading might be safely worked was by leaving a lighted candle burning in it.

When there was danger, "cross pieces of wood were put up at the entrance to show there was fire there." In November last year, and not until then, the candle signals were abolished and certain tin tickets were

substituted, which the colliers were instructed to hang on a nail at the entrance of the stall or heading, leaving them to be removed by the firemen the next morning. This novel step in the science of self-preservation immediately became excessively unpopular amongst the men. To hang a ticket every day on a nail was literally more trouble that their lives were worth.

William Jones, for his part, soon settled the matter. He put his ticket in his pocket, and lost it the first day. He never had another supplied to him and in all probability, he never asked for another. The thing had to be given up, and the safety signals in the old Cymmer Pit consisted henceforth "of a shovel or a pick-axe placed in a peculiar position by the fireman at the entrance to the heading."

A set of rules were prepared in Welsh and English, the first was that the manager should take care that the workmen were all made acquainted with them. William Jones declared that the rules had never been read over to him; but his evidence on this head is not probably entitled to explicit belief, seeing that a gross violation of one of the rules had just been committed by him at the moment when the frightful explosion took place. The 22nd of these rules in question provides that "no man or boy shall go into any other part of a mine than where he works on any pretext whatever." In contravention of this rule, William Jones and another man had, on the morning of the calamity, gone to an old working called David Arthur's Dip, in order to bring up some iron tram-plates.

The two men were sitting down by the dip door, which Jones is positive he closed, when the roar of the exploding gas was heard, and he had scarcely time to throw himself onto his face, before the torrent of fire and gas rushed over him, and he remembers nothing more till, some hours after, burnt and mutilated, he awoke to consciousness at the pit's mouth. It may or may not be true, as the man says, that he had closed after him the door of Arthur's Dip. If he did not, the cause of the horrible catastrophe seems at once explained.

Whether this was so or not it is no province or ours to inquire. We leave to the proper tribunal the job of investigating the cause of the disaster, and apportioning the degree of culpability. The sole object of our remarks is to

show how completely in this instance the benevolent intentions of the legislature would seem to have been defeated by the mischievous division of responsibility in the management, and the hardened insensibility to danger of the men.

The court re-assembles

The court re-assembled on Wednesday morning at eleven o'clock, when the cross-examination of Mr. Thomas was continued as follows – "I believe that Mr. Mackworth, the former inspector, made some complaints to the overman with respect to the ventilation of the pit. He said there were too many doors on the level heading, and that a communication ought to be made between John Caemawr's and South Wales headings. Those alterations were made as soon as possible. Don't know that Mr. Mackworth said the air courses were too small. When the men refused to work under the new firemen they demanded their discharge, and it was granted by me as soon as I was ordered by my employer. Don't recollect when, or that they brought actions against Mr. Insole. It is the custom for the men to give a fortnights notice. He had no wish to prevent their obtaining employment elsewhere.

By Mr. Mackworth – "The men never complained to me of want of air in the colliery."

By the jury – "I recollect that at the time of the strike the men asked if they could appoint the firemen themselves, and I said I should be quite willing for them to do so if they would allow me to retain Rowland Thomas Rowlands. I intended to retain Rowlands as an overman, but did not tell them that, but only asked that I should keep him in the colliery."

By Mr. Mackworth – "I recollect the explosion at the Middle Duffryn Colliery four years ago, but don't recollect seeing a letter by you to Mr. Insole with regard to the state of the Cymmer Colliery, or any printed copies of the report made by the inspectors. The printed rules were not framed in consequence of such a report, but from a strike having taken place. I was told that a copy of the rules could be found in September last year on the occasion of an inquest being held on someone who had been killed by an explosion in the new pit. The English part was torn off and the

Welsh only remained. Don't know if a large number of deaths in collieries have been caused by the brattice being blown out. The suggestion made by Mr. Hay and Mr. Grey for remedying the brattice in the old pit was to connect the two pit by a level, but it has not yet been decided how that communication should be made.

I made a provision at the time of the sinking of the new pit for facilitating such a communication. It is not part of my duty to examine the plan and no one told me you had drawn air courses on the plan. Rowland Thomas Rowlands did not tell me the quantity of air that you said would be required in the colliery, nor have I any knowledge of a letter written by you on that subject. I have no recollection of the clerk saying that you recommended me to get a copy of the new Act of Parliament."

The Coroner expressed his surprise that the witness, who, as manager of the colliery, had most important duties devolving upon him, should have no recollection of such an important matter as those referred to by Mr. Mackworth.

Examination resumed – "I do not know who drew up the existing rules, nor where they came from. I read over some amended rules with Mr. Insole in January last, they had been sent down by the Secretary of State. I don't know how it was that your cautions were not incorporated in the present rules."

By Mr. Mackworth – "The communication between John Caemawr's and the South Wales heading had been made before the inquest in September 1855."

By the coroner – "The only fireman who complained to me of gas in the mine was Morgan Richards. The overman never complained about it, nor did Rowland Thomas Rowlands, who was overman before Rowland Rowlands. I believe there is no reference in the rules at present in force to safety-lamps, in that respect they differ from those of other collieries; the clauses also with regard to gas and fire-damp are omitted in ours."
Mr. Mackworth explained that the first general, the first special, and the 18th, 19th and 24th rules referred to the prevention of the accumulation of noxious gases, and some discussion took place on the subject, which ended

in the last answer of the witness being struck out of the Coroner's deposition as not being legal evidence.

Mr. David Grey – Underground manager - gives evidence

Mr. David Grey deposed – "I was employed in the Cymmer Colliery from the end of January to the 11th of July. My duty was to attended to the office work and occasionally descend the pit to measure the workings and headings. I had no control whatever over any of the men. I was engaged by Mr. Thomas, who told me when he engaged me that the greatest thing he had against Mr. Hay was, that he interfered too much with his (Mr. Thomas's) business as manager of the mine. I left the employment of Mr. Insole for a position in the Maesteg Colliery, which was better suited to my capabilities.

I had nothing to do with the ventilation, and took no notice of it, but I recollect saying that the upcast shaft was much too small to give the necessary quantity of air required in so an extensive colliery as that of Cymmer. I expressed that opinion to Mr. Thomas and also told him that the air was not very good in the far end of the workings. When I went down I found that the air was not pure after it had traversed the workings, being too much mixed with gas to pass properly over the furnace. Thought there was not enough air coming down the shaft, and that in fact there was not sufficient to supply the colliery. Did not tell that to Mr. Thomas, but I suggested to him to drive from one pit to the other, and make the old pit the upcast and the new one the downcast, and to put a good ventilating furnace at the bottom of the old pit. I did not consider that a very fiery vein." The witness was still under examination when the usual adjournment for lunch took place.

David Grey's examination resumed – "I remember going into the main heading, and the colliers telling me not to raise my candle too high, as there was gas there; this was the farthest part of the workings, near the faults. Never told this to Jabez Thomas. This was two months before I left. By Mr. Hay's surveyings, there were only 18 or 20 yards between the two workings, and the men were able to hear each other at work; in his opinion it would take two or three weeks to connect the two pits – the men working double turns.

Did not consider the air very bad, although much more air was wanted. Had no power whatever in laying out the ventilation of the old pit. "Jabez Thomas told Hay to show me all duties. I considered Jabez Thomas the mineral agent, and Rowland Rowlands never interfered with my duties; had all the underground management at Maesteg, but never at Cymmer. I have full power at Maesteg over all the air-ways and everything is in my own hands. I considered the mineral agent the responsible person at Cymmer."

To Mr. Owen – "I tested the impurity of the air, by the candle, and saw a "cap" on the top of the light. Told this to Thomas, who asked Rowlands, who said the air was unusual, and blew the candle; said it was so, not as to quantity, but purity. Did not consider the air good enough for the health of the men. Had it been my duty, I would have altered it. As it was, I thought it of sufficient consequence to mention it. Do not know what Hay's "interference" was about, of which I was told when I went to Cymmer Colliery. The reason I did not make a report as to the underground workings, was told that I had to go to Maesteg, and had leave from Mr. Thomas to go. I was at Cymmer when the new rules were established.

To Mr. Evans, inspector – "Had the works been well ventilated, it would have been safe to work with candles. There were twenty-four new safety-lamps in the office."

To the Coroner – "The men were frequently fined for not cutting top and bottom. The use of gunpowder would make the air worse. Never went down except on measuring days, and then, to make a greater quantity, the men used gunpowder."

To Mr. Owen – "If the communication between the two pits were carried out, it would perfect the ventilation, and it would not be a difficult thing to accomplish."

Former underground manager examined

Edward Hay examined - Submitted all alterations of importance to Mr. Thomas, manager, before effecting them. He guessed that from 15,000 to 20,000 cubic feet of air passed through the colliery per minute. Had only

one complaint of gas in the pit, and that was in October last, when Morgan Richards, a firemen, complained that there was gas in the district of the other fireman – in the stall of John Caemawr. He went down, and found two cubic yards of gas in the roof of a stall where the roof had fallen. There was a good current of air at the time. He left it there, but might have consumed it all in a few minutes, if he wished. It was high up, over a fall, and where no one had any business to go. There was no danger it. That was the only gas he had seen in the pit. The stack, furnace, &co., are the same now that were used when I was there. Have no plan here. The works have been considerably increased since I left, but no additional means of ventilation provided. Mr. Jabez Thomas was the manager, and had all the responsibility.

To Mr. Myers, juryman – "I do not recollect Mr. Thomas objecting to any alterations when he was applied to."

To the Coroner – "At the inquest in September, on the man killed in the new pit, Mr. Mackworth made certain objections to me about the old pit as he had observed it in March, 1854, and desired me to make a memorandum of the act referring to the inspection of mines to give to Mr. Insole.

To Mr. Mackworth – "You were of the opinion, you told me, that there should be different splits of air instead of one currently going up the heading, but I cannot remember how many splits you recommended. Told Mr. Jabez Thomas that you said it was necessary to have special rules in your pit. Have heard the noise of gas coming from the coal pit. The blowers come from nearer the bottom than the top. It has been reported to me that some of the doors were occasionally left open – not the main doors."

To the foreman of the jury – "I only examined the stall in John Caemawr's heading. I went through the whole of that stall. That was the stall where the gas was said to be by Richards. Do not recall that I ever saw or heard gas coming from the bottom of the coal, or underneath the coal, or the strata under the coal."

To Mr. Williams, juryman – "There was air going through the old workings to John Caemawr's heading, to ventilate the stall."

To Mr. Owen – "The ventilation has not been increased, though the works have. Morgan Rowlands, and Rowland Rowlands, the overmen, went into the heading to see the fire with me, reported by Richards. I believe I went down the day after Richards spoke of it. Richards said there had been some alterations in the air since he had spoken of it, and before I went down. I cannot say I heard Richards say that if he was not believed he would never go down again. I was not discharged for too much interference. I discharged myself. It was my duty to give the best directions I could for the proper working of the pit. I never saw the brattice burning."

To the Coroner – "While I was there I found there was sufficient air, on proper care being taken. The explosion took place in my opinion, from the deficiency of the air in the whole of the workings, but I cannot say where it occurred, through I saw indications of the fire having been very strong at the bottom of Griffith Williams' cross-heading, at the farthest end of the works. There were slight indications also in other parts of the same quarter." The witness described the indications he had seen of fire, and the doors & co., blown down. At about seven o'clock his further examination was adjourned to half-past-ten on Thursday.

Thursday, August 14th 1856

Continued examination of overman

After some conversation between Mr. Owen, Mr. Huddlestone, and the Coroner, respecting the order of future proceedings, the overman, **Rowland Rowlands**, was sworn, and in the course of a long examination stated, in effect, that there were firemen in the colliery whose duty it was each to take a district at 3 o'clock every morning for the thorough examination of the pit, to ascertain that all was safe below. And if they found danger in any part they were to place transverse boards across the entrance to the stall, to "bar" the men from entering.

If all was safe a candle or other indicator was placed at the entrance. Having concluded their examination, the three reported to each other at

the bottom of the pit, and the senior firemen carried out their "three minds," as the witness expressed himself in Welsh to the overman, who thereupon gave directions accordingly for the colliers to descend or otherwise.

On the morning in question, the two firemen of No. 2 and 3 districts, in which the dead men were afterwards found, reported to him that all was safe and right below. He understood that a quarrel which has been mentioned as taking place between himself and two of the firemen was not correctly stated. Morgan Richards, one of these firemen, had reported to him having a fall in a heading in his district, and witness asked him if he had cleared out the gas, by turning the wind, which he should have done. That Richards told him he (witness) had no authority to tell him what to do in such a case. But was then told by witness to go to Jabez Thomas, and tell him, and see what he would say.

That Richards did so, and while informing the manager witness and Rowlands, one of the other firemen, talked in the office about it also, and he and Richards thereupon quarrelled and a fight took place; that Mr. Hay, the underground manager, shortly afterwards desired to go down and examine the fall, to ascertain if there was any gas there.

The witness and some others went down previously and erected a "bay" or wall, to turn the wind into the stall, to clear out the gas, but did not succeed. That this was done before Hay went down, who, however, found the gas still there. That this was an old working called John Caemawr's heading, and the men all knew of the "fall" and were "out." That the examination of place might be effected.

The witness in cross-examination said, that a collier, named Davies, a day or two before the explosion said that Morgan Richards, the foreman, did not visit his stall; but he did not say that there was fire in it. He said to Morgan Richards, "Why did you not take my ticket? I found it where I left it." Morgan replied, "I was looking for it but I could not find it and therefore had put up a stick." Davies said. "It was quite right," and went away. Witness told Davies it was quite right to go to the foreman when he could not find his ticket. Davies and his three sons were found dead in their stalls.

To Mr. Huddlestone : – "The boy Llewellyn wanted to work at cutting coal in a stall, where his body was afterwards found. I had refused him, but he must have gone there, and he was found dead, with his victuals strapped to his back, and the pieces of timber, which had no doubt been put up at the mouth of that stall as a danger signal, found lying near. The body of William Thomas was found at the bottom of the straight heading, where he had no business. He had been training as a haulier."

To Mr. Poulden : – "I am quite sure that on the morning of the explosion the foreman reported to me that all was right. The sticks I saw near the body of Llewellyn were beside him, in the stall."

By the jury : – "The sticks were two pieces of pitwood."
Mr. Balsden : – "Whose district was Llewellyn found in?"
Witness : – "In No. 2 district, David Jones's."
The foreman of the jury: – "Is it likely, if the boy ignited the gas in that state, that his body would be found in the position it was – the head lying inwards and his cap further in?"
Witness : – "It is not likely."
To Mr. Owen: – "The Dinas men were in before I was. I went in last Saturday, but I don't know if they saw the timber."
To Mr. Huddlestone : – "I have considered about it and examined all the headings, but when I saw the doors of all the headings blown in and out, I cannot satisfy myself as to where the fire originated."

Evidence of David Lloyd of Cwmaman

Mr. David Lloyd, of Cwmaman, in the parish of Langwick (called by the proprietor of the colliery), said he was down the Cymmer Colliery fifteen months ago, and also down the Llwyncelin, the Dinas, and Great Western, to ascertain the state of the ventilation, and he considered that of the Cymmer the best of the whole four. He did not consider one air course sufficient for six miles of way, as at Cymmer, without a split.

To Mr. Owen – "I was not sent specially to visit those collieries or to ascertain the state of their ventilation. I went down to learn something. Would not undertake to say what amount of air would be required for the

safety of men in ordinary collieries. Did not think anyone could say correctly."

To Mr. Huddlestone – "I expressed my opinion as to the state of the Cymmer pit to Mr. Christopher Jones, junior, at the time." To Mr. Owen – "There must have been some mistake to have caused the serious accident."

Evidence of Mr. Bedlington

Mr. Bedlington, mineral agent at the Abersychan ironworks, said he was at the Cymmer Colliery on the day of the explosion. The manager said that he could not go down for an hour, and he occupied the time in preparing a plan of the colliery. He then went below and found a number of dead bodies in Charles's heading, which they cleared out with a temporary stopping, and then proceeded up the heading following the footsteps of a man in coal dust, whom they shortly found lying dead in the dust. The air was very bad there and he was obliged to go out. Mr. Daniel Thomas, of Dinas, and Mr. Evans, the inspector were with him.

On recovering, at the surface, he descended, and found 26 bodies in Jacob's heading. Doing all that was possible there, he was again obliged to go to the surface, the air being so bad. He went down again afterwards and found people clearing Moses's heading.

Next day he heard there was one body below – that of a boy. He went down. He found that inside of the parting of the straight heading the door had been blown down, and this they put back up again, to turn the current of air, which had the effect of bringing out the hydrogen. Last Monday he again visited the colliery and measured some of the air courses, and found them varying from ten to twelve feet in three places, in the Windway heading, one in Griffith Williams's and one in Salathiel's heading.

He produced a plan, on which he had marked the positions that all those that were killed should have occupied had they all been at work in their proper places that morning. It also showed the various air courses. He found the coal coked or charred in David Morgan's heading, and also at the bottom of Griffith Williams' heading, and the top of the Ffynnonwen dip. It appeared also as if there had been some fire in the dip hollow, there being

soot on the inside of the door in the old working. He believed the explosion took place in Arthur's dip, and a series of other explosions might have followed in other parts of the works.

The witness elaborated his opinion as to the explosion having taken place in Arthur's dip, and gave particular reasons for his belief, which were disputed by the Coroner and other gentlemen, who believed that the explosion had taken place in Griffith Williams' heading, half-a-mile distant from Arthur's dip. Mr. Bedlington's opinion was also directly opposed to that of the two men who brought plates out of Arthur's dip, and who described the noise of the explosion as coming towards them.

The Coroner read over the depositions of the two men engaged in bringing out plates as described. The witness said that he was not aware of that evidence and he confessed that it might induce him to change his opinion as to the place of the explosion, which, if the evidence was true, might allow the inference that the explosion took place in the straight heading. He did not consider the airing sufficient for a colliery of that magnitude.

If the explosion occurred in the straight heading it must have been in consequence of bad ventilation; the ventilation was carried on by means of one current of air traversing a space of between five and six miles from the in-take to the return. In his opinion, it was improper to carry one current of air so far, if it could be avoided, and in the Cymmer Colliery it could be. The longer the heading the greater was the object of making the air traverse it in one current. He should have considered it his duty, if he had been the manager of the mine, to drive the stalls from Griffith Williams' and Salathiel's heading to the straight heading, so as the ventilate them separately.

It was very undesirable to have a great many doors in the colliery, the fewer the better. Had the headings been separately ventilated, the consequence of the door being blown out in one of them might not have been so serious as when there was only one current, and the effect of an explosion would have been confined to the heading in which it originated, and would not have even stopped workings in another. If a proper system of ventilation had been adopted in this mine he had no doubt that the lives

of all men would have been saved with the exception of those who were in the headings in which the explosion occurred.

By Mr. Owen – It was most improper that men should have been employed in David Morgan's stall, when it was thirty yards in advance of the air, except for the purpose of driving an air-course, and in that case safety lamps ought to have been used. It was the duty of the overman to prevent anyone from working in that stall. If it had been visited by a fireman on the morning of the explosion he ought to have known that there was no air circulating in it. He would not, perhaps, have found any hydrogen in the roadway, but the danger lay in the "goaf," (the worked out ground of a coal mine) or waste. The pit is not a very easy one to work, and therefore more care than usual ought to be taken by the manager.

By Mr. Huddlestone – "The fall took place in David Morgan's stall the day before the explosion. If the overman refused to allow men to work in that stall he would not be responsible. The system of ventilation adopted at this pit is similar to that in use at other pits in the neighbourhood. In my opinion the whole district is imperfect."

Mr. Huddlestone – "There are government inspectors of collieries here, and I hope they will make a note of the witnesses last statement." The court then adjourned at 7 o'clock.

Cymmer Colliery pit-head C.1910

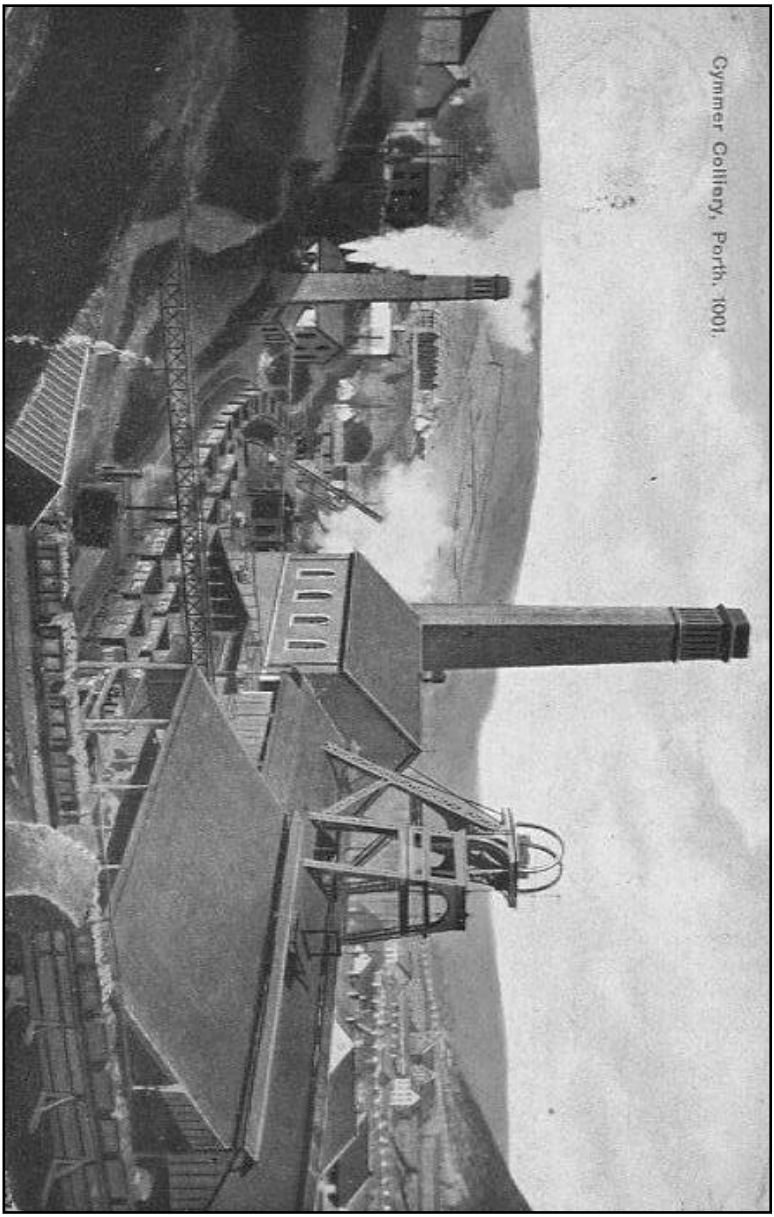


Photo of Cymmer Colliery 1901

CHAPTER FIVE
Friday, August 15th 1856
Evidence of Morgan Rowlands

The court re-assembled at half-past-ten on Friday morning, when **Morgan Rowlands**, one of the firemen, gave a general description of the appearance of the pit on the morning of the explosion. His district to examine as fireman that morning was Jacobs's heading, Evan Phillips's dip, Richard Reece's stall, Charles's heading and stalls, and Arthur's dip, the latter of which was kept open for the purpose of depositing rubbish. There was no one working there.

He commenced his inspection about half-past-three o'clock, and went through every stall and working place in the headings in his district. The time of his inspection averaged about two and a half hours. He did not see any gas in Arthur's dip that morning, and had never seen any there at all. He was there an hour before the men went to work. The colliers sometimes descended the pit before the firemen had come out by deceiving the brakesman, and on one occasion a man was found in a stall in Charles's heading by the fireman, when he went there to inspect the stall. That was contrary to the rules. David Jones's district that morning comprised the Windway level, Fynnonwen's, Morgan's, Griffith's, Salathiel's strait, and Moses's headings. "It was customary, after the three firemen had gone round and made their inspection, for us to meet together at the bottom of the mine and consult about the report. "

The witness continued – "It was customary that if there was anything wrong we gave two knocks with a hammer. On the morning of the explosion, Jones had gone down before W. Thomas and myself. The custom was for them to report to me, and I took upon myself the responsibility of reporting to the overman. We met as usual that morning at the bottom of the pit, and David Jones told me that he had seen no fire anywhere except in the upper stall on the Straight heading, David Morgan's stall. I asked how much fire was there, and he said a small quantity. I enquired where it was, and he replied that it was a few yards from the top of the road in the face. That stall was 22 yards wide, 1 yard high, and sixty yards long.

Jones told me that something had fallen in the stall which caused the fire. I asked him if he had put up the danger mark, and he said he had, in the same place as usual, on the inside of the Windway, the air course that brought the air from the other stall. I told Jones that David Morgan, who worked in that stall, was gone to the seaside, and we agreed to meet in the stall after breakfast. We then gave three knocks, the signal for 'all right,' and ascended the pit. I did not see any men going down, but some of them might have gone down when I was coming up. When we arrived on the surface the men were going down. I sat down at the pit's mouth on a piece of plank, and the other two went home. I was not there many minutes before my brother, Rowland Rowlands (the overman) came up. He asked me how things stood there. I told him all right. That was about half-past six or seven o'clock.

The witness here was directed to read the 20th rule for the regulation of the colliery, which stated that, *"The overman should report to the manager and the deputy to the overman all accidents or defects which occur in the mine. The overman shall suspend any and all operations attended with unusual risk until he shall receive special instructions thereon from the manager, and shall stop the working or use of any pit which may appear not safe until the removal of the defect."*

Examination resumed – "I received the rules six weeks before the accident, and had frequently read them, but did not understand the rule then, and do not yet. The reason that I did not report the existence of gas in that stall that morning was because the owner of the stall was absent at the seaside, and the usual marks to indicate danger had been placed there by the fireman of the district. I don't think any of the firemen were in the pit at the time of the explosion, I was not."

The examination of the witness had not concluded when the mid-day adjournment took place. When the examination of Morgan Rowlands was resumed, the witness's attention was called to the 15th rule, and he said: -

"I know that that rule requires that the overman or his deputy shall maintain a constant supervision of the ventilation during all working hours, but I do not consider that it requires the constant presence of one of the firemen in the pit. On the Saturday before the explosion I examined David

Morgan's stall, and saw the fall there. The air entered the stall through another, and circulated around the "goaf" into the straight headings, it being necessary, however, to prevent its entering the straight headings through another opening too low down, and so a half-door was placed in the heading so as to force air over the fall which had taken place." The witness was cross-examined at considerable length, but nothing was elicited that tended the least to shake his evidence.

Morgan Rowlands was then examined by Mr. Miles, one of the jurymen, in Welsh. He said: - "I have been one of the firemen at the Cymmer Colliery for about two years. I live near the pit, and was at home when the explosion occurred. A boy ran to my house and informed me of the accident, but could not tell me the exact spot it had happened. I therefore took my lamp and went to the pit, which I descended. I went into the South Wales parting, and saw several colliers standing there. I asked them if all the South Wales doors were safe, and they replied that everything was safe there.

I then passed on and saw two trains of coal. The horses attached to the trains were dead. About this time I met John Thomas, who said he was burnt severely. Proceeding to the double-parting near Arthur's dip, I saw several horses lying dead, and shortly afterwards I heard voices in the dip below, where I saw some horses struggling upon the ground. A train was close by, on which William Jones was leaning. Thomas Davies was sitting down beside him. They both said 'Oh, Morgan, we are burnt severely.' I asked if they knew where the accident had originated. They said they did not, and requested me to take them out. I had them conveyed to the mouth of the pit, and I then found that the door of Arthur's Dip was blown out. The door of John Caemawr's Heading was also blown. I did the best I could to stop up the doorway. Shortly afterwards I saw my brother, Rowland Rowlands, the overseer, and sent for canvas. (the witness here described the search for bodies of the unfortunate colliers)."

By the jury – "It was possible that after the firemen had left the stall, and before the workmen went there, an accumulation of gas might have taken place." It was his opinion that the candle system was the safest.

By Mr. Huddleston – "The ticket system was adopted in consequence of a suggestion by Mr. Hay, but he could not tell whether it was Mr. Mackworth who first suggested it to Mr. Hay. It was done after Mr. Mackworth had been with Mr. Hay, and he (witness) was told by Mr. Hay that that was Mr. Mackworth's opinion."

By the jury – "I think there was enough air in the face of the workings near the fault. Before the explosion I had no objection in my mind to work the No. 3 vein in that pit with a naked candle, but since that occurrence I have altered my opinion, and will not say anything about it."

Examination of fireman Jones

David Jones was next examined. He said:- "On the morning of the explosion I inspected a portion of the mine, going through the Straight heading, and into all the stalls, as well as into the other headings mentioned by the last witness. On going into the upper stall I found fire there. A fall had taken place, and I found a strong cap on the flame inside the lamp, which was indicative of gas. After seeing this I went back up and put up three cross pieces of timber on the road near the windway, about 45 yards from the mouth of the stall.

On the face of the headings Salathiel and two other men were working, and I told them that there was fire in David Morgan's stall, and cautioned them not to go into it. Those men had been working all night, and left the pit before the accident occurred. I told Morgan Rowlands what I had seen and done. It was my duty always to report to Morgan Rowlands. The air in the pit that morning was as good as it usually was when I worked there. Coming out of the heading when we were on the level, I believe Ebenezer Salathiel asked me whether I noticed any smoke, alluding, as I thought, to the smoke which generally came down the intake while the furnaces were being lighted, but did not complain of any gas or heaviness in the air."

Cross-examined by Mr. Owen – "I did not mention anything about this smoke to the other two firemen at the bottom of the pit, because I had frequently seen smoke before when they were lighting the fire. None of the men there told me that that it was a sulphurous smell, nor did I tell them that there was no danger in it"

By the Coroner – "Never knew an instance when any of the colliers had passed the crossed pieced of timber when they had been put up."

By the jury – "I have seen the furnace-fire worse on many occasions than it was that morning, but I thought it wanted some coals on it. There is a man in constant attendance upon the flue." The court adjourned at seven o'clock.

Saturday, August 16th 1856

Mr. Daniel Thomas, manager of the Dinas Colliery, gave some important evidence this afternoon, respecting the manner in which the doors were blown up the several headings. He deposed that as soon as the explosion took place, Mr. Jabez Thomas sent to him to ask him to come and see if he could do anything for him. He went immediately to Cymmer, accompanied by two of his firemen, and having descended the pit proceeded to the South Wales parting, where the doors were all right. Two horses lay dead by the parting, and between Arthur's dip and the double-parting there were no less than six dead horses. The door at Arthur's dip was blown out and carried down the dip.

At John Caemawr's heading the doors were blown upwards, as was the case with the double-doors in Charles's heading. In Moses's heading the doors were blown downwards. He then proceeded to the door on the Level heading, which was blown inwards towards the far end, and was very much shattered by the force of the explosion. His reason for his thinking that the door was blown inwards was because the hinges were bent in that direction.

The Coroner here observed that this was the most inexplicable circumstance in the whole proceedings, the evidence of Mr. Thomas being incompatible with the explanation of the origin of the explosion given by other witnesses. He asked Mr. Williams what his opinion about this door was. Mr. Williams said it certainly was his opinion that all the doors were blown inwards, and Mr. Evans, the inspector of the district, confirmed that opinion.

Examination resumed – “At the bottom of the pit we found Mr. Bedlington and consulted as to the best mode of getting the dead bodies out. At that time the choke-damp was frightful, and every exertion was being made to turn in the fresh air by stopping the door with canvas. We determined on clearing up Charles’s heading first. The witness then detailed at considerable length the means taken by himself and his son to search the mine, each with a different party of men, and its shocking condition after the explosion.”

On the following Friday he again went down to look at the airways and endeavoured to find the body of Llewellyn Thomas, which was believed to be in Morgan’s stall. After having made a thorough examination of the colliery, his opinion was that the explosion took place in David Morgan’s stall and that the explosion produced four or five local explosions in various parts of the pit.

The strongest indications of fire were found in Griffith Williams’s heading. A rider had been worked in the horse-way, and a tender clod between the vein and the rider* had given way, leaving a vacancy there. The rider contained more gas than the seam of coal, and if there was any hollow in the stall or heading the gas discharged from it would accumulate. Any concussion in the mine could force that gas down on the naked candles of the workmen and produce the explosion. Marks of fire were in Salathiel’s heading, and some clothes were burnt there, but there was no signs of fire in the stalls of the Windway heading. He thought that the explosion came from the inside of the works, and that the door of the level heading was drawn inwards towards it. The fire and explosion always went against the air, and might pass through some heading without leaving a sign.

* **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.

By Mr. Dickenson – “It was not unusual in that dingle where a rider was not worked with the bed of coal, to bore holes in it, to allow the gas to escape. As far as South Wales was concerned, holes were not bored in riders for that purpose.”

Mr. Dickenson: - “Mining engineers ought to know that this is indispensable where naked candles are used.”

Witness - “I think it objectionable, because if the rider gives way the dangerous gas will always accumulate at the top. I am not aware that it is a custom to bore holes in the north of England. This cavity was open on the side of the level.”

By the Coroner – “If there had been a sufficient air current, and well managed, these gases would have been carried off. I consider the system of ventilation in this colliery a proper one, but some of the airways are certainly too small since the extension of the works. The system of conveying the intake and the return air-courses, with only the “goaf” between them, should only be used until a more perfect mode is adapted.

The headings in this colliery are not parallel, as is the case with other pits in the Rhondda valley. If they were nearer the ventilation could be carried from one to another. I think that 7,000 cubic feet of air a minute is sufficient to ventilate the Cymmer old pit, and that quantity would pass over the furnace without its being unusually heated. In Evan Phillips’s dip the area of one of the airways is 16 feet, which I consider too small. I am quite sure that the explosion did not take place in consequence of the up-cast being too small. The ventilation of the colliery can be very greatly improved by making a communication between the old and the new pit, and if I were manager I would make that communication as soon as possible.”

By the jury – “Rowland Rowlands did not tell me his reasons for saying that Llewellyn Thomas’s would probably be found in David Morgan’s stall.” Hitherto the evidence of the witness, which was given in the Welsh language, had been interpreted by Mr. Miles, one of the jury, but, some cavil arising as to the meaning of particular expressions, Mr. Miles declined interpreting any more. Upon this a conversation ensued as to what was to

be done with the Welsh witnesses, and Mr. Huddlestone applied to the Coroner to appoint a sworn interpreter. The Coroner wrote his answer on his notes: - "Rowland Rowlands said he had a notion that the boy's body would be found in David Morgan's stall."

By Mr. Owen – "The air was very weak in the face of the South Wales heading. I believe it is 36 yards behind the workings. I was in the pit with two Aberdare men, when we walked from the Straight heading into Salathiel's, and said 'I hope for the sake of the guys,' meaning Rowland Rowlands and his brother Morgan, who had the management of the pit, 'this is not the main headway.' I said that because I considered it too small."

By Mr. Huddlestone – "When Rowlands made the observation about the body of the boy, they had been searching all day for it. On Wednesday I told Foster and Thomas Butler to search the Straight heading, but it was too dangerous to go there. I was in David Morgan's stall last Saturday, and saw three pieces of timber near the windway, about 39 yards from the entrance to the stall. Foster and Butler searched Morgan's stall and found the two caps. The stall is 66 yards long and 22 broad. It sometimes happens that where there are faults and other difficulties, headings cannot always be carried out parallel."

The letter written by Mr. Owen to Mr. Insole respecting the dismissal of the old fireman and the consequent strike was here put in after a good deal of discussion. It was placed on the evidence by the express desire of the jury, in reference to which Mr. Huddlestone withdrew his objection.

The evidence of fireman Morgan Richards

Mr. Owen then called **Morgan Richards**, who expressed a desire to give his evidence in Welsh. Mr. Thomas Morgan was accordingly sworn as interpreter. The witness said that he had been a collier all his life, and was first appointed firemen at Cymmer, at the time of the strike in 1854. He had also been a fireman there since the explosion. The colliers objected to his being fireman at the time of the strike. He remained fireman eighteen months. The reason he left there was because it appeared to him that

there was too much fire-damp in the mine for the safety of the men and he complained to Mr. Jabez Thomas about it.

Before he complained to the manager he had talked to Rowlands about the existence of fire-damp in John Caemawr's heading, and Rowland Rowlands told him to keep everything as quiet as possible, and not to say anything about the fire-damp. When he complained, Mr. Jabez Thomas said, "That is what I never knew anything about," he also said "If ten or fifteen men and timber were wanted they could be had, that neither Mr. Insole nor himself wished to spare anything to ensure safety." Previous to this he had worked that stall with Morgan and Rowland Rowlands, and the first time they went there they found 60 yards of fire-damp in it. Here, Mr. Morgan resigned his office of interpreter, which, at the request of the Coroner, was again taken up by Mr. Miles.

Examination resumed – "When we met the two Rowlands, at the office, after the repair of the stall, Morgan said that it was his (witnesses) lies about the firedamp, on which he said to Mr. Thomas, 'If you are taking their testimony against mime, I will not go into the pit any more." A quarrel ensued, and battle followed. A bag (a mound to make the air pass higher and thus force the air to pass higher and thus clear away the gas in the cavity), was put up in the stall, and after that Mr. Hay could not find out where the fire-damp was."

When the Aberdare men went down the pit he desired them to examine the stall in John Caemawr's heading. Since the explosion he had been down and pointed out the stall respecting which the dispute arose. He bored a hole in the bag which was built up to the top there to wall in the gas. The hole was as large as his hand and the gas immediately issued out, and rising the safety lamp, it fired immediately.

He then closed the hole up, and went for six or seven men, to whom he showed the fire. After consulting together they determined to put a canvas stopping on the heading to turn the air. They did not make the hole too large, for fear too much gas would find its way to the flue. It was nearly all out at present. Their opinion was that there were from 100 to 120 yards of fire-damp there. The stall was full to the mouth.

He reported that stall and left the works, because the lives of men were entrusted to him, and he was afraid he should not be allowed his own way in carrying the air. John Griffiths and William Meredith told him that there was sulphur in the old workings. Mr. Hay was not sent down until four days after he made the complaint. Witness had since been working in the new pit, and had told them plainly that he would never work in the old pit as long as the Rowlands was there.

Mr. Hay's report, which was here read, stated that there was no more than two cubic feet of gas in the stall at the time he examined it. If there had been anything dangerous it had been kept from him and Mr. Thomas.

By the jury – "I was never desired by Rowlands to clear away a fall, nor did I refuse to do so. The only quarrel we had was about the fire-damp, and not the fall. The proceedings were here adjourned until Monday.

Monday, August 18th 1856

The inquiry was proceeded with on Monday morning, but in consequence of great inclemency of the weather it was found impossible to remain in the open shed which had been erected for the purpose of the investigation, and an adjournment then took place to the large room of the Butchers' Arms Inn, which was swiftly crowded. On the assembling of the jury at half-past ten o'clock, the Coroner took the opportunity of stating, that since the investigation had commenced he had received a vast number of letters from gentlemen in all parts of the kingdom giving various suggestions for the ventilations of mines. As they had no bearing on this particular case he could not refer further to them, neither could he undertake to answer them. But he would state however, for the information of the persons sending them that they would be laid upon the table, and facilities would be given to any persons interested in the ventilation of mines to peruse them. The examinations of Mr. Owen's witnesses was then continued.

Evidence of the collier, Ebenezer Salathiel

Ebenezer Salathiel stated that he was a collier, and on the night preceding the explosion was working in the Cymmer Pit. The gas in Griffith Williams'

heading proceeding from the rider fired a little that evening between 6 and 7 o'clock, but he could not tell whether it did any mischief to the doors. As he was coming out from his work he notice a kind of fog in the place where the air went from the level to Jacob's heading – a small airway called the "little heading." He did not know what it was, having never seen such a thing before. David Jones, the fireman was with them before they came from the heading, and called out to them from the parting of David Morgan's stall to tell them not to go into that stall, because there was a fire in it.

Henry Salathiel, Thomas Edwards, David Jones, and witness talked together at the mouth of the pit. Some conversation took place about the fog, and David Jones said that he did not know what it was, but he thought there was no danger in it. They told him that they never saw it there before. No one tried it with the lamp.

On the morning after the explosion witness asked David Jones who was going to work in that stall, but nothing more was said at the time they were in the mine. He had heard that one of the men, named William Thomas, was going to work in that stall, and in reply to his question David Jones said that he did not tell William Thomas about it, but he had told Morgan Rowlands, because that was their rule. He did not know to his own knowledge that William Thomas was killed in David Morgan's stall, because he was not there afterwards to see.

By Mr. Evans – "Coming through the fog we noticed nothing more than usual upon the candle, but he was noticing it between three and four o'clock on the morning before the explosion. The candle at that time was fixed on the face of the coal in the straight heading, and it was flaming up towards the top more than usual, he thought, from the effect of fire-damp. He told Henry Salathiel that his candle was flaming very much, and asked him what the matter was. His reply was, "there is a little of the nature of fire in the coal. I suppose it 'flags' towards that." Witness said nothing more, but looked to see if the current air passed as usual, and, after looking both sides of the tram and finding it did, he took it easy then. The candle was 'flagging' a good deal more than usual that morning, because there was a great deal of fire in the coal there."

By the jury – "I heard that William Thomas was going to work in David Morgan's stall, but David Jones did not tell me so on the morning after the explosion. Don't know from whom I heard that Thomas was going to that stall, but I heard at the pit, after the explosion, that he was going there. Had found the greatest deficiency of air when turning into Salathiel's heading."

By Mr. Owen – "The strength of the fog that morning was up, and Henry Salathiel carried the candle down by his thigh. That is the usual way to carry the candle, and it was not because of the fog that it was so carried."

By the jury – "Have never seen the candle without a cap to it, but it is worse in some parts of the colliery than in other parts. There is fire in every part, but less in the South Wales than in any other heading. Have not worked in any other part except beyond the fault, and a little in the South Wales. I cannot tell the length of the caps on the candles in the worse part, because while turning the heading I worked with safety-lamps. The colour of the cap was between blue and grey. I have never complained about the state of the air except when I was turning Salathiel's heading, about ten months ago. I then complained to the firemen, Morgan Rowlands, and means were taken to improve the air, which was better afterwards. Have worked in the Dinas and other pits in that dingle, and have seen fire in all of them. The cap was less in the Cymmer than in Dinas, because there was more fire in the latter pit."

By Mr. Dickinson - "Cannot say what was the length on the cap upon the candle the night preceding the explosion, but particularly noticed it 'flagging' up."

By the Coroner – "Was startled a little when I saw the cap, but was satisfied after looking to see if the air passed. I did not attach serious importance at the time to there being a cap on the candle, providing air was passing."

By Mr. Owen – "When the air is weak it sometimes brings foul air with it, and causes a cap on the candle."

Henry Salathiel corroborated the evidence of the last witness, and stated that the fog noticed that morning extended from the little heading to John

Caemawr's. He thought nothing about fire-damp, the candle not being effected by it.

By Mr. Dickenson – "Have seen a cap on the candle every day since I have been working in the colliery. Occasionally it is an inch and a half in length, and sometimes less. I think there is some danger when there is a cap on the candle, but did not complain because I thought that the danger was not sufficient. Never mentioned it to the fireman."

Examination of Griffith Williams

Griffith Williams was next called. This witness had advanced 62 yards into the colliery when the explosion took place, the fire passing over him. After describing at great length the appearance of the mine after the catastrophe, he said – "A month previous to the explosion William Thomas worked in the next stall to me in Charles's heading, and I remember him sending a boy to ask me to go to his stall. When I went he said he was afraid to work there because of the fire.

Asked whether he had seen the fireman that day, I had no answer. I put the candle in the corner of the goaf to see if there was air passing there. Found there was, and said, "There is air passing here boy." I then took the candle and moved it from one side of the stall to the other to try the air, and the candle had a bad look. There was a large cap on it, and that 'flagging' (mounting towards the roof) was nearly three inches high, and rather blue. Told him not to work any more there then went away, leaving him in the stall. William Thomas was not killed in the explosion, having left work before it occurred."

"I know Hezekiah Davis. On the Thursday morning before the explosion he came to my stall and asked, "How is the air with you here? There is no air with me." "Don't say so," said I. "No, there is none, indeed," he replied. I asked him if he had seen Rowlands. He said, "Yes, and he had told him that there was enough air in Griffith Williams's heading. On trying it they could hardly see it moving between the goaf and the face of the heading, and there was a cap two-inches in length on the top of the candle. Davis afterwards told him that he had been from his stall to William Thomas's

stall, through the windway, and his candle did not move at all." The usual mid-day adjournment then took place.

After the adjournment the examination of Griffith Williams was continued. In answer to questions given by Mr. Owen he said, "I found the ventilation of the pit very bad, and have often been able to detect the presence of gas. It is the firemen's duty to inquire into the state of the air, but I did not complain about it, because the masters never pay any attention to the complaints of the colliers. I thought that as Morgan Richards had been turned away for making a complaint the same thing might happen to me. Upon one occasion Rowland Rowlands stopped my trams, and I complained to Mr. Thomas, the manager. There had been a fall in my stall, and I was unable to procure trams to take it away. The only result which attended my complaint was the loss of three or four days work, and I thought I had better not complain again. If it had not been for the treatment which I received upon that occasion I should have complained of the gas in the stalls two months before the explosion."

Rowland Thomas Rowlands, fireman and overman, examined

Rowland Thomas Rowlands deposed – "I was formerly a fireman in the old Cymmer pit. I was overman as well as fireman, and went down the pit every morning with Morgan Richards and Morgan Rowlands, the other two firemen. In the spring of 1854 Mr. Mackworth, who was then the government inspector for the district, visited the underground works at the Cymmer Colliery, and complained of the ventilation of the pit. That gentleman drew up a plan of the alterations he wished made. I believe he suggested that the air should be divided into several splits. At the bottom of the shaft I pointed out to him the manner in which the air passed through the mine. He asked how many men and horses were employed. I told him, and then he examined the return air from the pit, and said that the quality was not good. I then took him to John Caemawr's heading, where, he said, the air was insufficient in quantity and that the windways were too small. He objected to the flue, and said the best way to ventilate the mine would be to drive the heading to the further head, and work the coal back.

He also suggested that the mine should be divided into branches, and each branch worked separately. Mr. Mackworth, when at the office, told me how much air should be required for each man, and showed me how to measure it. He drew a plan of a new flue, and said that there ought to be a communication between the old and new pits. I was one of the firemen objected to at the time of the strike. Before going to the Cymmer Colliery I was a fireman at Dinas. I have been a collier ever since I was eight years of age. Several of the alterations suggested by Mr. Mackworth were carried into effect, but not all of them."

By Mr. Owen – "Morgan Rowlands was not so readily obedient to me during the latter part of my time as overman, I do not, however, think that he refused to do anything I ordered him."

Other colliers interviewed

John Morgan, a collier, working at the Cymmer new pit, said: - "On the morning of the explosion I saw Morgan Rowlands, and asked him if he knew where William and Llewellyn Thomas were working in the pit. He did not know, and I afterwards met Rowland Rowlands outside the pit, and asked him the same question, when he replied that he had asked one of them to go and drive two horses, but he had refused. Rowlands then added, 'I sent him and his brother to work in your father David's stall.' Evan Thomas was present, and heard the conversation. David Morgan was at the seaside at the time." **Evan Thomas** corroborated the evidence of the last witness.

Roderick Morgan, a boy employed at the old pit, deposed that on the morning of the explosion he went to Rowland Rowlands to ask for work, and he told him to go to work with William Thomas in David Morgan's stall in the straight heading. He was waiting at the top of the pit when the explosion occurred.

Edward Williams deposed to having worked some time ago in John Caemawr's heading. The air was very bad, and he frequently saw a cap from two to two-and-a-half inches on the top of the candle.

William Morgan, collier, who had been working in the old pit for two years before the accident said, "I knew Thomas Davis. On the Friday before the explosion Davis came to meet me at the parting belonging to his stall, and asked me to stop. It was then about 7 o'clock, and he said, "No fireman has been at my stall today, my ticket is in the same place as I put it last night." This was one of the top stalls at Charles's heading. I told him not to go to the face of the stall. He is since dead. My stepson, who has since been killed, called my attention to the fact that there was no air, the candle not moving in the airway. I took the candle in my hand and examined all the stall. The airway was very bad, and there was a cap on the candle from an inch to an inch-and-a-half in length. This was on the same morning.

The flame of the candle did not move, there not being the slightest air there. I went back with the candle, buttoned my jacket over my head to enclose a portion of the air, and put the boys to stand back. I then went very cautiously to the face of the work to examine whether there was any danger mark there. I reduced the flame of my candle down to one thread of the wick, but the cap did not at all decrease. The colour of the cap was red. Having proceeded to the face, I held the candle up to the top, but it would not catch.

The Coroner - "What! Did you want to set the place on fire?"

Witness – "No, I tried it with my candle, in that way there was no danger, in my opinion, it is frequently done." Mr. Evans – "Yes, and many men get burnt by it."

Examination continued – "When I went to the face of the coal I found no mark of the fireman having been there, I had no ticket, my mark was a shovel and a mandrel, there was nothing there then, I did not complain about the gas." Mr. Owen – "Why, man? I cannot understand you. Why did you not complain?" Witness – "Well, Sir, one reason was that I did not want to be turned off, as I believed I should be if I did. After the great strike the men did not like to complain."

William Marshall deposed he was banksman at the old pit. On the morning of the explosion the three firemen came up, about twenty minutes past six o'clock. Two went home, and Morgan Rowlands remained

until he saw three of four colliers coming towards the pit, and soon as they approached he went to them and beckoned to one, who came up, and Rowlands told him not to go down for a little bit, or else he was sure to be burnt. "I ran (continued the witness) to the top of the pit and told the brakesman what Morgan Rowlands had told one of the colliers. 'Now, Morgan,' said I, 'you mind if anything happens today,' and the answer Morgan Rowlands returned was 'yes, and you mind too,' and then went to work as usual."

By Mr. Huddlestone – "It was not my business to caution the men going down the pit. About 25 men went down after I told the brakesman about it." By Mr. Owen – "I had no authority whatever to stop the men, and I could not have done so if I wished."

William Powell, brakesman at the Cymmer pit at the time of the explosion, deposed that the firemen on that morning gave him the usual signal that all was right, and the men commenced descending the pit as the firemen were coming up. After confirming the statement of the last witness, that Morgan Rowlands told one of the men not to go down for a little bit, because he might be burnt, he said that he did not think anything of it, because Morgan Rowlands frequently, if there was anything wrong in a particular stall, used to tell him to prevent the collier who worked there from going down, and he thought that on this occasion Morgan had cautioned the man himself, and therefore there was no need for him (witness) to say anything about it, and he went on with his work of letting the men down. By Mr. Huddlestone – "If I thought there had been any danger I would not have allowed a single man to have gone down. My son was below, and was killed by the explosion. When Marshall came to me after the explosion he came to me and asked what the smoke coming up the shaft was, and I said that I was afraid that the pit had fired, as he had guessed. The court rose at 7 o'clock.

Tuesday, August 19th 1856

Evidence of Aberdare Collier

John Edmunds was the first witness examined on Tuesday. He deposed that he was one of the Aberdare colliers deputed by the men to examine the mine. The inspection took place on the Friday after the explosion. He

was accompanied by two other men, and also by Mr. Evans, the government inspector. Proceeding first to the furnace he examined it, and thought it was too small, but did not measure it. In his opinion the portion bratticed off was much too small for an upcast shaft. He next went to the South Wales heading, where he found that it had been driven 36 yards before the air. The return air-course in the South Wales heading was 2 feet 10 inches by 3 feet 3 inches, which was too small - quite insufficient.

The airway heading to John Caemawr's heading was also too small, being 4 feet 10 inches by 2 feet 10 inches. At Arthur's dip a temporary door was put up. Rowland Rowlands was with witness in John Caemawr's heading. Rowlands told him that the original door was blown up the level to the heading, but they could find no trace of fire coming out of that dip. There was only one door at John Caemawr's heading and Arthur's dip. There ought to have been two at each, because all the air that leaked through one door would return to the up-cast without ventilating the works.

Rowland Rowlands told him that the second door had been taken away previous to the explosion, with an intention of making a "bay" instead, which was not done. The doors of Charles's and Moses's heading were also blown up from the level. There was a fault between Edwin Phillips's heading and the Windway heading, and on measuring the main airway, which was made through the fault, he found that it was 6 feet by 2 feet 4 inches, the air there being split into two parts, one portion going into the stalls to the Windway heading, and other traversing the 'goaf' and joining the intake at the further end of the heading.

The main airway was too small. The door of Morgan Griffiths's heading was blown up towards the level. He proceeded in company with Mr. Daniel Thomas to the level heading, and was told by him that there were 40 yards of gas in the face of the level, and persons who had been there that morning had put a chalk mark there. Griffith Williams's heading was the first cross-heading to the rise at the extremity of the mine. The door was blow inwards. In Salathiel's heading there were three doors, the first was blown up and the other two downwards. There were marks of fire there, and there was fire-damp there.

Adjoining the first stall the coal was very much charged upon the pillar of the roadway, this was between the two doors. The reason he assigned for the doors being blown in different directions, was, than an explosion below the lower door on the level took place first, which blew one door up, and was not sufficient to force the other two, but that it preceded such a concussion of air that the gas which was floating in the stalls was forced down upon the naked flames of the men, and a second explosion took place, which blew the two upper doors downwards.

He did not go into the straight heading that day. In Jacob's heading he found the wall across the parting of the old stalls, which had been built up nearly to the top, blown down. In the first and second stalls the wall was blown inwards, and there were then 230 yards of gas there. Next day he went down, and in Moore's heading found the first and second doors blown outwards, and the third and fourth downwards. The second stall door was blown right into the stall. All the rest of the doors in that heading were uninjured. Some candles in the heading below the first stall had been melted into a shapeless mass. "It is a great mystery to me," continued the witness, "how the doors could have been blown in contrary directions in that heading, and I can form no positive opinion upon it, but the same causes would apply as in the other instances."

On the Monday following he again visited Charles's heading. The first and second doors were blown away, and the third door on the heading was blown down 16 yards. In the third stall the door was uninjured; the fourth was blown up, and the fifth down. There were marks of fire in one of the stalls, near the top, which had been idle for some time. An explosion occurring there might account for some of the doors being blown down, but he could not tell how they came to be blown in different directions. He was accompanied through the mine by the overman, Rowland Rowlands, the fireman Morgan Rowlands, Mr. Daniel Thomas, the manager of the Dinas Colliery, and by Mr. Mackworth and Mr. Evans, government inspectors.

On a subsequent occasion he had applied to go down again, but was refused by Mr. Thomas unless he went accompanied by a surveyor. He told Mr. Thomas he wished to see every part before it was repaired, and he had been told that a portion of the Windway between Charles's and John

Caemawr's heading was being repaired, which was the reason why he was not allowed to go down. In the straight heading there were also traces of fire. He did not go into David Morgan's stall, but here Jenkin Jones and William Rees went there, who told him that there had been fire there. He took the measurement of the return airway at the bottom of the heading, and found it to be 4 feet 8 inches by 3 feet. He thought it ought to have been larger, for he believed it was about eight feet less in area than the South return air course near the flue.

By the jury – "I have worked in the Rhondda dingle, and now work at Aberdare, having been a collier for 23 years. The airways in the Rhondda Valley, in the No. 3 vein, are not required to be quite so large as in the Aberdare collieries, because the coal is more fiery in Aberdare. There is not near so much gas in the Rhondda dingle."

By Mr. Owen - "The Cymmer pit, if properly managed, is a very easy one to work. I consider the ventilation bad in comparison with our pits. The inference I draw from the fact of the doors being blown some one way and some the other is, that there have been four of five explosions, or, at least, the same explosion in four or five different places. My opinion is that the first ignition took place in the level between Griffith Williams's and Morgan Griffith's heading, and that being in the upper part of the mine, cut off all communication with the other part, and that the concussion of the air forced the gas accumulated in other places, down upon the men's candles. I believe the explosion could not have taken place if the firemen had done their duty in their part of the work that morning. By the firemen I mean the two who went over the southern portion of the mine, not the one who inspected the South Wales parting. The air was better there, in consequence of the leakages, than in any other part on that morning."

By the Coroner – "Either those two men did not walk the works as they ought to have done, or they did not speak the truth after, because I believe it was impossible for that quantity of gas to have accumulated after the firemen left and before the time of the accident. My reason for saying that was that I was in the mine before the explosion and found no gas in Griffith Williams's heading."

By the jury – "If there had only been half-a-yard of gas in David Morgan's stall that morning, and it had fired, its effect would not have been felt outside the stall. The return airways of the Aberdare collieries are 8 feet by 8 feet, and there is a horse road everywhere." At the conclusion of the witness's evidence the proceedings were adjourned for an hour.

On the re-assembling of the jury on Tuesday afternoon, **Jenkin Jones** and **William Rees**, two of the colliers deputed to examine the mine, corroborated the evidence of the last witness, and spoke generally of the bad ventilation of the colliery. Both the witnesses said that they had gone into David Morgan's stall, and had not been able to discover that any cross-sticks had been put up as fire marks. **Thomas Butler**, fireman at the Dinas Colliery, deposed to finding two caps in David Morgan's stall. One was 14 yards from the face of the stall and the other in the horse way. He also found some pieces of timber, which appeared to have been put up at the entrance. His partner, William Foster, was with him at the time. They told me, Mr. Jabez Thomas and Mr. Insole what they had found, and also Mr. Thomas of Dinas, after they returned home that night. **William Foster** was also called, and corroborated the evidence of his partner. The examination of these witnesses occupied the whole of the afternoon.

Wednesday, August 20th 1856

The inquiry was resumed this morning at the usual hour, in the tent adjoining the Butcher's Arms. In consequence of the extreme wetness of the weather on Monday and Tuesday, the Court was held in the Oddfellows' Lodge-room but in consequence of its being today required for the attendants at the market, the jury were obliged to adjourn to their old quarters.

Ebenezer Harris was the first witness. He said he was a collier, and worked in the Cymmer Pit before the explosion. On the Tuesday after the accident he was employed in walling up a hole in John Caemawr's heading. While thus engaged Rowland Rowlands, the overman, went to him and desired him to clear the Windway between Charles's and Caemawr's headings, where a large quantity of gas had accumulated. It was said that the Windway was too small to allow the air to pass properly through it, as it had fallen altogether, with the exception of about 30 yards. Witness

declined to work in the Windway, because he considered it too dangerous. Morgan Rowlands discovered a great quantity of fire in Caemawr's heading.

Evidence of Mr. Dickenson

Mr. Joseph Dickenson was then examined. He said – "I am the Government Inspector of Coal Mines in the Manchester district, and I attend here in obedience to the instructions of the Secretary of State, to who, the inspector of the district had applied for assistance in investigating this unprecedented accident. On the 28th and 29th of July and on the 9th int., I examined the Cymmer Old Pit, accompanied by Mr. Evans, the inspector of the district, and several other gentlemen. I endeavoured to trace the course of the explosion. It had evidently been confined to the south side of the pit, where the workings are more extensive that on the north side.

The flame appears to have extended from the level to within 800 yards of the mouth of the pit, a distance of about 1200 yards. Throughout this distance it has apparently entered more or less into the four dip headings and six cross-headings. With regard to the arrangements for the ventilation, I find, firstly, that there is nothing but a bratticed shaft, which is objectionable. Secondly, the area of the upcast part of that shaft is too small, it being somewhat less than 12 feet, and the chimney to which it is connected at the top of the pit is still less. Both of these areas are far too small for the proper ventilation of the colliery. Thirdly, I find that the airways are also too small, and the ventilation being thus limited at the outset, and difficulty might have been experienced in getting a sufficient quantity of air into the mine for dividing a reasonable number of splits, such as would allow a sufficient quantity air to circulate through all the various working places.

The air for the south workings may therefore somewhat necessarily have been coursed around the workings in one current for a distance of about six miles, which is far too long, especially when it is considered that it has to depend upon an unusually large number of doors and packed "gobs," or rubbish, for its transmission into the inner workings. In addition, a leakage at any point would allow the air to go back to the upcast shaft without ever

entering the inner workings. The cross-headings also appeared to me to be much too long for safe ventilation, especially when driven so irregularly as they had been at Jacob's and Moses's headings.

The great distance between them prevents the stalls from being holed through at anything like reasonable intervals, the air-course being thereby shortened. Two-hundred or more or at the most 300 yards seemed to me to be long enough for cross-headings on this system of pillar and stall work, but I find that some of these headings are nearly 600 yards. The arrangement for the ventilation of the part of the workings inside the 16 feet fault is particularly defective, not only would leakage at the main doors and gauging further cut off the air from those workings, but it has the special defect of having nothing but "gob"* about 4 yards wide for 88 yards in one length, besides other pieces of "gob" upon which the intake air depends for its separation from the return air.

* Gob - Where old workings had been filled in with 'rubbish' behind the men as they advanced in cutting away the seam.

The length of workings traversed by this air current from the passing in on one side of the Gob until it returns to the other side is about 1,400 yards. It is obvious, therefore, that this is a very likely place for leakage, and the explosion, so far as I have been able to trace it, leads me to suppose that leakage has there taken place. The fire has been most intense inside the fault, especially in the level and in the straight heading, where the burning is easily traceable up to David Morgan's stall. In that stall fire-damp was known to have accumulated, and it is there that one of the bodies is said to have been found.

Two opposite opinions have been offered as to where the gas was first lighted. I concur with those who state it was in David Morgan's stall, and I believe that it was at the candle of Llewellyn Thomas or his brother. Timbers three or four feet long are stated to have been placed by the firemen as a signal to prevent persons inadvertently entering the firedamp which was known to have been there. Such short timbers, and the mode in which they are said to have been placed – namely, on their heads, apart at the bottom and meeting at the top – seems scarcely a sufficient a signal to

prevent persons inadvertently entering the roadway into the stall about 6 feet broad.

And it does not, in my opinion, carry out what is required by the 14th special rule, which sets forth "*that cross-lined timbers and a board shall be set over the entrance,*" thus implying, at least, as I think a collier would view it, that a barrier should be placed across the full width of the entrance. In the absence of such an effectual signal the parties might have walked inadvertently into the firedamp.

The quantity of firedamp which this stall appears to have contained would probably, when lighted, spread into flame through numerous neighbouring works. And if the return air in the inner workings, and also for some distance outwards, were in a foul state, as there is reason to suppose it was, the flame would be carried along by it beyond where the flame from the ignited firedamp as the stall extended, and other accumulations may have been lighted in its course, or they might have been wafted upon the lighted candles of the workmen, thus completing the conflagration and violent rush of air. The flame seems to have followed the return air through numerous stalls until it became expended about halfway to the shaft, where the air would probably be purer owing to the leakages from the intake air. It also appears to have struck out direct from the workings inside the fault along the main level, against the intake air, so within about 330 yards of the pit.

The supposition of Mr. Daniel Thomas, of Dinas, that gas may have been given off by the rider coal, or that firedamp had been lodging in cavities caused by the subsidence of that coal, or the clod between it and the main bed, is not without its importance. It is quite possible that firedamp may have been so accumulated, but as the rider was cut through at the main level, and at many parts of the subsidence's would admit being examined, it scarcely reconcilable with careful or proper management if such accumulations were not detected and dislodged.

Even if they were not evidently visible they should have been searched out and got rid of, as it was known that this rider coal contained more gas that the main bed, and it might have been prevented from accumulating in those parts by drill-holes through the rider coal into the roads. Some such

precautions seem necessary where open lights, as in this instance are used. The mine, including the rider, yields only a moderate quantity of firedamp, and with ordinary ventilation and care in such matters as those to which I have alluded, might be safely worked with naked lights, safety lamps being used, as it appears they have been in particular cases, and by the firemen for examining the mine before the workmen enter.

I am of the opinion that the air in a large portion of the inner workings had been in a foul state for some time before the explosion, and that as the workings became extended it kept getting worse, until it only required an unfavourable day for ventilation, or a little increased leakage, or even the opening of the many doors by the men going into their work to turn the balance and bring the air to the explosive point.

I believe that the first general rule, which requires of the owner or principal agent that under ordinary circumstances an adequate amount of ventilation should be provided, has been violated, and that the 18th special rule, which enjoins a similar duty upon the overman and his duties has also been violated. I believe that the air in the inner part of the workings could not well have been otherwise than in a noxious state which these rules are intended to provide against.

A great deal has been said respecting a cap upon the flame of the candle, which no doubt arose from the air being insufficient to dilute the firedamp. Yet, with this before them, so familiarised with it had the overman and the firemen become, that they and the men seem to have believed that the air was armless, which in reality it was nature's warning passing disregarded.

Had this not been so the firemen who sent the workmen into the inner part of the south workings on that morning of the explosion, must, if they were fit for their business, have known that that part of the mine was not in a safe state. By so sending the men in they have broken the 14th special rule, which requires them to caution the workpeople against entering such a portion of the mine. In particular, one or more of them has broken the 20th special rule of not reporting to the overman that danger has been found in David Morgan's stall.

It seems to have been the custom of all the three firemen to come out of the pit to breakfast together after they had made their morning's examination, and before the overman had gone down into the pit. This, in my opinion, is not in accordance with the 15th special rule, which requires the overman and his deputies to maintain during all working hours a careful supervision in the airways, working places, and over all things connected with the ventilation, lighting, timbering, and the general and special safety of the workmen.

Before the firemen came out the overman should have gone in. Had the firemen been efficient, or had they and the overman attended to the rules which I have quoted, and which they were required to observe – or had the proprietor and manager, instead of leaving the management of the colliery to these men, who seemed to be ignorant of the principals of ventilation, but good enough apparently to properly direct it, called to their assistance in the laying out and carrying on the mine with some competent mining engineer in whom they had confidence, and to whom they would have entrusted proper power - these 114 lives need not have been sacrificed.

It has been stated by Mr. Daniel Thomas that this colliery might be safely ventilated with 7,000 cubic feet of air per minute. In that opinion I do not concur. The fog on the level, said to have been met with by some of the witnesses, admits, I think of an easy solution. The temperature of the atmosphere had been daily increasing until the day of the accident, which was unusually high and ripe for a thunderstorm, which appears took place in parts of the kingdom on that day, and in this locality on the day following. The difference in the dew point produced condensation. This is more evident, as the part where the fault is described to have extended is just where the parties who met it came to the intake air. I do not think the fog was gas, and I do not accord any importance to it as far as the explosion is concerned."

By Mr. Owen – "I cannot say whether or not I saw any cross timbers near David Morgan's stall."

By Mr. Huddlestone – "If I were the inspector of the district, I think the smallness of the upcast shaft and airways would have occurred to me at once had my attention been called it. The act appointing inspectors and

the duties are defined by section 2 and others. By that act, if the inspectors see anything defective in the management of the mine it is his duty to summon the manager or agent before him, and report to the Secretary of State. The intention of the appointment of inspectors was to secure as far as possible the safety of the men." The meeting was then adjourned.

When the jury re-assembled Mr. Dickenson was cross-examined by Mr. Huddlestone. Had he not heard the evidence of some of the former witnesses he should have concluded that the explosion commenced, not in David Morgan's stall, but in the level heading.

Evidence of Mr. Mackworth

Mr. Herbert Mackworth, Government Inspector of Mines for the counties of Gloucester, Somerset and Monmouthshire, was then called. Having stated that he attended at the request of the Home Secretary to give every assistance in his power in investigating the cause of the recent explosion, he explained in detail his reasons for believing that the accumulation of gas could not have been continuous; that it existed in several parts of the colliery; that the gas first ignited beyond the fault; that the other accumulations took fire from it, or from being driven by concussion of air upon the candles of the men; that the explosion commenced in the upper part of Morgan Griffiths's heading, and, getting power in its progress, had sufficient intensity to burn the men and horses at the top of David Arthur's dip; that other explosions, but of a smaller extent, occurred in Jacob's, Moses's and Charles's headings.

The witness proceeded to observe: - "The continued discharge of firedamp from a fall near John Caemawr's heading exhibits the liability of the roof to exude gas, and in Thomas Flynnonwen's dip heading, three weeks after the explosion, the escape of gas from the bottom of the coal was audible at eight or ten yard's distance."

"The colliery was dissected by 'faults,' notwithstanding this, the works had been carried on with less attention with regard to the windways than ought to have been maintained. While the works advanced the stalls and the pillars ought to have been so kept as to have as free circulation of the air as possible, and gradually have exhausted the gas. The smallest pressure

against the roof of the level between Griffith Williams's heading and the fault, showed that there was a large quantity of gas lying there between the beds. The origin of this explosion, as well as the defects which made it so destructive, had considerable similarity with those which caused the death of 65 men at the Middle Duffryn Pit Colliery in 1854.

I inspected the workings of the Cymmer Old Pit on the 28th of March 1854. At that time the colliery was in a very different condition to what it is now. The workings had not having reached the fault. Jacob's, Moses' and Charles's headings had not reached one-third of their present excessive length, and John Caemawr's and the South Wales heading were not driven up to their present limit.

The ventilation of the colliery was at that time comparatively easy, though conducted on a wrong principal. The witness then described in detail the state in which he found the colliery when he visited it in 1854, and enumerated the various suggestions he made to Mr. David Evans for the improvement of its ventilation."

"Among other things during a long conversation I called his attention to the advantages, in the event of an explosion happening, of the system of working in separate 'panels' or districts, the air ascending through each. The arrangement of the ventilation which I proposed is applicable to every colliery, and may be called the natural system.

Each heading or panel has its separate current of air, so that any gas which exudes from the coal most readily escapes in the same direction as the air. If an explosion were to occur in a colliery thus arranged, it would almost certainly be confined in its subsequent effects to the heading or panel in which it originated. To these statements Mr. David Evans and Rowland Thomas Rowlands made no objection, but appeared desirous of adopting them.

I visited the colliery under unfavourable circumstances for judging of its working condition. The quantity of air coming down the shaft and along the level was 15,000 cubic feet per minute. Notwithstanding that the men were off work, I found no part of the colliery in a dangerous condition, or liable to become so; but as the circumstances attending the discharge of

firedamp might hereafter change as the work extended, I though it right to explain every precaution which might be taken against danger arising from it.

I recollect that a conversation took place between myself and Mr. Hay respecting the use of tin tickets as firemen's marks, instead of naked lights on the face of the stalls. I told him that, in my opinion, candles were dangerous in any pit where gas might come off between the candle being placed and the last of the men going into work, and that, with the exception of the neighbouring collieries, the use of candles was repudiated throughout the district.

I said a chalk mark on the face of the stall was the most common precaution, but that the owners of a neighbouring colliery were about to adopt the tin-ticket system, which I thought was a very good one. Many accidents happen from the colliers going into the workings before the firemen have examined every place and return so as to caution them. This is the chief difficulty to be obviated. I have examined the Cymmer Old Pit four times since the late explosion, and comparing its condition at the present time and at the time of my previous inspections, I find that the colliery has been increased nearly one-third in area; that the number of persons employed has been nearly doubled; but that the amount of ventilation passing into the mine has not been increased, while the air current passing around the south workings has been extended through contracted and leaking airways to the excessive length of about six miles.

In consequence of the great leakage through many of the 72 doors the south side of the fissures in the 'goaf' wall, extending along the side of the level, the quantity of air going through the fault deprives the workings beyond, where it is most required, of a portion of the 3,000 cubic feet per minute. This is quite inadequate to render this section of the workings safe in which the rider was constantly discharging a considerable amount of gas.

I agree with Mr. Dickenson as to the neglect exhibited by the manager, overman, and firemen in regard to the ventilation of that part of the colliery beyond the fault. If any of the operations of the colliery are unsafe it is the duty of the manager to compel the use of safety lamps. I think the explosion arose from the persons in charge of the pit neglecting the

commonest precautions for the safety of the men and the safe working of the colliery."

By Mr. Owen: - "I did not observe any cross-sticks near David Morgan's stall. I never heard a word with respect to the existence of that danger-mark at the time of the explosion, until I heard it mentioned in court. If the suggestions I made in 1854 had been carried out, this accident would, in all probability, have never occurred. The court adjourned at 7 o'clock.

Thursday, August 21st 1856

The lengthened inquiry into the cause of the explosion at the Cymmer Colliery, whereby 114 individuals were killed, was brought to a close today. The jury assembled at ten o'clock this morning, when Mr. Mackworth was re-examined by the jury. He stated that he did not recommend tickets to be used at the Cymmer instead of candles but stated that candles were repudiated in other collieries in the district, except in that immediate neighbourhood. The system of tin tickets used at the Cymmer was an imperfect one of the system he mentioned. According to the system adopted at the Cymmer, the colliers had to go into the stalls to see if the tickets were there, whereas they ought not to have been allowed to go into the pit without a ticket (tickets were prepared about six months previous to the explosion, to be placed in a conspicuous situation, in order to indicate that the firemen had been there to inspect the stall). He thought in consequence of the difference in the discharge of fire-damp in the No. 3, Rhondda seam, in various collieries it was difficult to lay down a specific rule but this should be adhered to in every district of a mine in which fire-damp is liable to make its appearance in dangerous quantities, the men should work exclusively with locked safety lamps.

Mr. Thomas Evans, Inspector of Mines for South Wales, said: - "I reside at Dowlais, and the Cymmer Colliery is in my district. I was at Pontypridd on the morning of the 17th of July, and hearing that an accident had taken place at the Cymmer Colliery, I hastened to the spot, and found that ten or twelve bodies had been brought out. After looking at the map I proceeded to the mine, accompanied by Mr. Daniel Thomas, of Dinas, taking with us a large can of water and cloths to put over the mouths of the men in search of dead bodies, and assisted in getting out the bodies as described by Mr.

Thomas, Mr. Bedlington, and Rowland Rowlands. Soon after the explosion, the fire was drawn from the up-cast, fearing that some gas might have escaped from the workings, and a second explosion ensue. Water was allowed for some time to run down in large quantities, to force air into the workings, but its being a water balance pit; the water was pumped up again by the engine. It being found that the water fell on the chain, and consequently made-it slip on the pulley, making it unsafe for men to ascend and descend.

I then proposed that pipes should be laid from the boiler to the chimney of the up-cast shaft to assist the ventilation. This was found to be of much assistance to the furnace until the fire was again lighted. On the 18th, 19th, 20th, and 26th ult., I made an examination of the colliery, with a view, if possible, to ascertain the cause of this frightful accident. On the large plan put in by me, I have shown the parts of the pit affected by the fire. It has extended from Thomas Ffynnonwen's heading, on the level heading, to Arthur's dip from the level and cross headings down Morgan Griffiths' heading to the second stall; Jacobs' Moses', and Charles' heading the windway heading, and there are also slight indications in Evan Phillips' dip.

I am of opinion the explosion first took place in David Morgan's stall, where the gas had been allowed to accumulate, and that the boy Llewellyn, or his brother, on going to work there, fired the gas. When the fireman saw the gas in this stall, and reported it to Morgan Rowlands, that person should have reported it to the overman according to rule 20, and the overman to the manager. The fireman should also have put, as described by rule 14, cross-timbers and a board firmly fixed, and not merely three props, which might have fallen of themselves before the men arrived. The explosion blew down some of the doors, cut off the ventilation, and small explosions occurred in other parts of the mine. Had not the return air been very foul, and nearly at the explosive point, the fire would not have extended so far, although it is quite possible that the first explosion in David Morgan's stall may have blown out gas and other accumulations upon the naked candles of the workmen, and thus have caused separate explosions, whether the foulness of the return air communicated fire to them or not.

The rider coal above the main bed gives off more gas than the coal itself, but as that rider coal is taken down the horse roads of the workings inside the fault, where alone this "rider" coal is met with, firedamp, therefore cannot exist in those workings in a compressed state, and the gases, as made, would be given off by the ventilation. If the ventilation was weak in this part of the colliery, it is likely that some of the gas so given off would be lurking about the roof, or in any part where the rider coal may have subsided, and in the absence of a sweeping current of air would not be safe for the workmen. As it was known that this rider contained a larger portion of firedamp than the main bed and the adjacent strata, it would have been ridden of the fire-damp if the first general rule, for efficient ventilation, had been adhered to.

Since the explosion, I have measured the air, and on the last day, when the pit was restored similarly to that before the explosion took place, I found the average quantity from the whole of the south workings, where the explosion took place, to be 6,011 cubic-feet per minute; and from-the north workings, 6,637 cubic feet per minute, making a total quantity of 12,648 cubic feet per minute, which makes the velocity of the air passing up this small and shallow shaft extraordinary. The velocity of the air through the area of the chimney was not less than the upcast. It would there be more than 1,400 feet per minute. The return airways averaged 22¼ and 24½ feet in area, which is very small.

The ventilation of this colliery appears to me to be most inadequate, and the air has to travel for more than six miles, and in many places the windways are much contracted. The main return airway from John Caemawr's heading, South Wales, No. 2, was only an area of 13 feet. The windway through the fault from Evan Phillips's dip to the windway heading, was only 13½ feet area. The immense number of 72 doors, some of which, in the most important position, are single, the length of gob inside the fault, on which the ventilation of the level along the dip heading and two crossings, are all points at which an immense leakage must have taken place.

The system of coursing the air up and down very long headings several times, is, of itself the cause of very much loss. It appears some men had been fetching tram plates from Arthur's dip, contrary to the 22nd special

rule. If the door of the dip had been opened it would have the effect of cutting off the workings inside from the greater part of the ventilation intended for them. Two doors should have been so hung that one of them could always have been shut, and the shut door locked. The same remark applies also to John Caemawr's heading, where there is only one door instead of two.

I think that a proper communication ought to have been made between the old and new pit, the shafts of one might then have been used as a downcast and the other as an upcast. Had this been done, and proper return air course made to the rise of the working the air split and the colliery divided into several districts, each district having an independent ventilation, in this case, should an explosion have taken place, it would only have effected a part of the mine and not the whole. Under the present system, the quantity of air passing through the several workings must necessarily be small.

The person who has the charge of this colliery, it would appear, is wholly unacquainted with the changes that have taken place from time to time underground. The extra quantity of gas given off by the rider coal, and the bad ventilation that has prevailed for some time are matters that should have been attended to by him, and not left to the mercy of a hard-working and, industrious, but ignorant workman. If colliery managers are allowed to rid themselves of responsibility, by placing such men in charge of extensive collieries, accidents will, I fear, be much on the increase, and the poor fellows will suffer, while the responsible men will escape all blame. I think a manager should himself be responsible for his own bad management."

By Mr. Owen: - "I do not believe that a man who confesses his ignorance of underground workings, ought be the manager of a colliery. I inspect some mine every day, having 300 collieries in my district, but I did not inspect the Cymmer Pit before the explosion, can manage so extensive a district, provided the agents assist me by adhering to the rules, and those I have visited have hitherto done so, I believe.

Previous to my being appointed mine inspector, I was connected with the most extensive colliery in Wales. I believe that 35,000 cubic feet of air per

minute to be necessary for the proper ventilation of the pit." Mr. Mackworth and Mr. Dickinson stated that they entirely concurred in this opinion. In reply to a question from Mr. McMahon, Mr. Evans said that so far as he was concerned, every facility was afforded by the proprietor of viewing the pit. "I was there several days, and they were with me, and if they had not viewed the portion of the pit they desired, it was their own fault." This closed the evidence, and the Court adjourned, the Coroner intending to sum up and address the jury after dinner.

Thursday afternoon

On the reassembling of the jury, the Coroner summed up at very considerable length and minuteness. He first thanked the jury for the very great attention with which they had watched these proceedings, and the diligence they had displayed in arriving at, as nearly as they were able to do, the facts of the case. In his opening address he endeavoured to impress upon them the importance of the inquiry, as one of unparralled magnitude, and he feared the evidence which they had since investigated showed it to be equally grave and serious in its consequences.

In his observations at the commencement of the proceedings, he intimated that it was necessary to take each case separately, and he selected one, the first on the list, that of Thomas Lewis, who he stated appeared to be seriously burnt, but it now appeared, from the evidence of the medical gentlemen, that he died of suffocation, and it became their duty to find their verdict in reference to his death. They would first have to satisfy themselves that he was killed by damp arising from explosion at the Cymmer pit, on the 15th of July, after which they would have to decide two important questions, what was the original cause of the explosion that resulted in his death, and did it arise from accident, or through the carelessness or negligence of someone else.

Now, these were two questions upon which they were to decide, and with the view of assisting, he would read over such part of the evidence as appeared materially to bear upon the several points, and make such comments as appeared most materially to bear upon them, as appeared necessary to elucidate the subject. But before he did so, he would first define what he considered the law of the case. The first question was one

of fact, and would not involve any point of law. What was the original cause of the explosion ? But when they had satisfied themselves of that, they would have to decide whether the explosion arose from accident, or negligence, or carelessness; if the one, it would be accidental death; but in the other, it would be manslaughter.

The Coroner then explained the difference between death caused by accident and manslaughter. If death arose from wilful negligence or carelessness, the person guilty of such carelessness is guilty of manslaughter. But there were cases in which the law attached still greater responsibility, which was, when parties undertook to perform certain duties, and negligently omitted or carelessly performed the same. If the jury believed that death did not arise from carelessness or negligence, but was one of those unfortunate causalities that must necessarily attend mining operations, it would only amount to accidental death but if, on the other hand, they considered that the explosion did arise from carelessness or negligence of the managers, agents, overmen, or others who had duties to perform, in reference to the pit, it would be their solemn duty to find a verdict of manslaughter against the delinquent, that the matter might be investigated elsewhere.

These were their duties, and all he could do was to help them with any authorities or decisions that had taken place. In Archibald's Criminal Law," page 220, it was thus laid down : — *"If a man take upon himself an office or duty requiring skill or care, if by his ignorance, carelessness, or negligence, he cause the death of another, he is guilty of manslaughter.*" Where it was the duty of the 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 in the mine, and a workman was killed, Justice Maule said: - *"I hold this to be manslaughter, l Reg. v. Haynes, 2 Cae and K, 368."* the Coroner quoted several other similar cases: - "*Rex. v. Swindle 2 Cae and K230*."

At the spring assizes in this county last year, in Reg. v. Hopkins, Justice Crompton stated that he was glad the investigation had taken place, so that all colliers and other persons may know that if the death of a fellow creature resulted from negligence, they would be amenable to the charge of manslaughter.

In arriving at their decision they would be greatly assisted by the established rules of the colliery. If they should be of opinion that the unfortunate occurrence arose from the neglect of anyone, or the omission of any precaution that ought to have been taken, then they would be able to ascertain from the rules whether it was required by the rules to be performed.

The Coroner then briefly alluded to the principal points in the evidence relative to the explosion, by which 114 individuals lost their lives, 16 of whom were severely burnt, and 21 slightly. The following statement was then put in by Mr. James, Mr. Insole's solicitor, and commented upon by the Coroner "That the manager maintained that he had a right to perform the duties of special rule 1, which says the manager shall see that the pit is properly ventilated, by proper agents. Morgan Rowlands maintained that on finding gas in a stall all he had to do was to act under Rule 14, which states that cross timbers shall be placed in the entrance of the stall in case of danger. Morgan Rowlands contended that Rule 20 did not apply merely to finding the gas in a stall in a morning, but only to such dangers as threatened some large district of the work, of sufficient importance as to render it necessary that the head manager should know. Rowland Rowlands maintained that not being informed of danger there had been no rule broken by him."

In conclusion the Coroner said they would have to attribute the occurrence to one of three causes. From some accidental cause, that common and ordinary foresight, prudence, and precaution could not have prevented—or, from a generally bad and improper system of ventilation adopted in the pit, and the general management under which it was carried on or from culpable neglect, negligence, or omission on the part of someone or more of the agent, overman, fire-men, workmen or others connected with the pit, to obey and perform the duties which they are bound to keep and perform; have arisen from the two last causes combined. They had heard the evidence and it would now be their duty to be guided by it in forming their decision, and he exhorted them to do it in the solemn words of the oath which they had taken.

The jury then retired and after an absence of an hour and a quarter, returned into the room. Stillness prevailed as the foreman of the jury said: -

"Seventeen of the 18 jurymen are unanimous in our verdict. We find that the explosion which occurred at the pit at Cymmer and whereby Thomas Lewis and 113 other men lost their lives, was caused by the negligence of Jabez Thomas manager, Rowland Rowlands overman and Rowland D. Thomas, fireman. We therefore find a verdict of manslaughter against these persons."

The Coroner said he found the verdict a very proper one. Mr. Owen, on the part of the colliers whom he represented, begged to acknowledge the attention and fair manner in which the Coroner and the other gentlemen had conducted the proceedings.

A comment on the verdict in the Cymmer explosion case
(Monmouthshire Merlin, August 30th 1856)

The protracted inquiry before the coroner, George Overton, Esq.,—whose patience, discriminating judgement, and legal acumen, during the investigation as to the causes of this awful catastrophe, do him great honour - closed too late for any remarks in our last week's impression but it seems to us that we may now, without impropriety, comment upon some of the evidence which has been given. It is true that certain parties are inculpated, and may have to answer elsewhere a charge of criminal negligence, but the almost invariable result of such proceedings, viz., the escape of the parties, however morally clear their faultiness, leads us to attach little importance to that fact.

When men are immolated by hecatombs (killed or sacrificed), if the law is insufficient to punish those who may be blameful, there is the more need for the power of public opinion to be brought to bear upon such a state of things. In any case, it will be useful to place before our readers in a brief form, some of the principal facts which were elicited. Beginning with Mr. Insole, the proprietor, we find him expressing his readiness to adopt any improvement requisite for the safety of his men. It does, however, seem to us, that any gentleman who employs, in a dangerous occupation, a number of his fellow-creatures, is under a moral responsibility to do something

more than this to take more than a negative interest in their safety to see, in fact, that all those reasonable means for protecting the lives of these men, means which it is in his power to adopt, but which are entirely beyond their control, should be used.

So far from this, however, he suffered them to undergo all the hardships of a long strike, on one occasion, rather than consent to their reasonable wish that the firemen, in whose hands their lives were placed, should be experienced persons, in whom they could confide. No wonder that, after this, they should fear, as some of them said, to complain of danger, since loss of work would probably be the only result. Next we come to Mr. Jabez Thomas, to whom Mr. Insole delegated the general management, and on whom he relied for information as to what was necessary. Though, as we have remarked, no owner can rightly, as it reasonably appears, divest himself entirely of responsibility, yet, as to details, he must necessarily depend much upon those under him.

Mr. Thomas, being invested with so much control, was certainly bound to do, or propose to his employer, whatever was needful and, if he failed in this, was guilty of criminal neglect. He tells the jury that he knows nothing of underground affairs; and at the close of the inquiry, he puts in the general allegation that he provided competent men for underground work, and that, having done so, he is not responsible for anything that occurred. Whether these men were so competent, however, is one of the points raised by this inquiry. At any rate, the jury think that, if competent to such duties, they did not perform them properly.

It was this Mr. Thomas who discharged the old firemen in whom the colliers had confidence, and in whose appointment they had previously had a voice, and appointed new ones of little experience in whom they could not trust, and thus caused the protracted strike. It should here, however, be stated, in justice to him, that he did offer to the men the continuance of their voice in the choice of firemen, if they would consent to a man named Thomas Rowlands being somewhere employed in the pit; and it is much to be regretted that they did not show a more conciliatory spirit. But Mr. Thomas does not seem to have made due provision for the delegated exercise of that important work of underground management which he says he performed by others. At one time, Mr. Hay was principal man

below but Mr. Thomas complained that he interfered too much and gave a broad hint to any successor not to be too active.

Mr. Hay was followed by a Mr. Gray, who was complimented by the jury for the straightforwardness with which he gave his evidence. Mr. Gray distinctly states that his only duties were those connected with measurement. He did, however, report to Mr. Thomas that the upcast shaft was too small for proper ventilation. But in this very important matter nothing seems to have been done. Naked lights were allowed in the colliery, notwithstanding this knowledge of defective ventilation, which necessarily made such lights unsafe. Though rules had been distributed in the colliery, Mr. Thomas admits that he never had them read to the men; a very reprehensible piece of negligence, as well as a violation of the first rule.

When he says that he cannot recollect whether his first question on hearing of the explosion, was as to the number of horses killed, he must not wonder if the public should draw a very unfavourable conclusion as to his humanity. No man, with any regard for his fellow creatures, could have been in any doubt on such a matter. Of his general responsibility, the government inspectors, as well as the jury, have no doubt. The next person in authority at the time of the explosion was Rowland Rowlands, the overman. He says he was not informed of any danger, and, therefore, had no duty to perform with respect to it. But the witness Salathiel says that Jones told him there was fire the night before, and he had told Rowlands. The jury either believed this, or thought he had not exercised that general superintendence which an overman ought; or probably, both considerations influenced them.

It will not be overlooked that, long before this, Morgan Richards left the mine, rather than run the risk of what he considered its dangerous state; and that it was this Rowland Rowlands, who, on that occasion, endeavoured to conceal the existence of danger, and did prevent Richards's remonstrances from being attended to. Coming to the firemen, Morgan Rowlands, David Jones, and William Thomas, it is not a subject of wonder that, with so much laxity above them, they were not very attentive. The first named, who seems to have been regarded as the principal, says that, on finding gas in a stall, his duty was only to place cross pieces of

wood there and this was done by Jones. He also says that he understood Rule 20 (requiring him to report to the overman any indication of danger,) only to refer to gas threatening a large district, and not to gas in a stall. So stupid and dangerous an interpretation (which is quite contradictory, so far as his case goes, to Mr. Thomas's plea of having appointed competent men.) did not satisfy the jury, who have therefore included him in their verdict of manslaughter, as they have the other two firemen, of whom we hear less.

Taking the evidence of witnesses not connected with the works, and which is chiefly of a general character, we find Mr. Hay declaring that there was not sufficient air, even in his time. Mr. D. Thomas, manager of the Dinas Colliery, thinks the system of ventilation a good one where there is plenty of air, but there is not enough. Mr. Bedlington says there ought to have been separate headings; an explosion would then have been limited, and the loss of life small. John Edwards, a miner, who was deputed to inspect the pit after the explosion, agreed with the other witnesses that there is not air enough. Dr. Dickenson, the government inspector of mines, for the Manchester district, is decidedly of opinion that the ventilation was not sufficient.

Among other details, he confirms the opinion given by Mr. Gray long before (but never acted upon) that the upcast shaft was too small. He observes (what must have occurred to every reader,) that pieces of wood two or three feet long, placed in a roadway six feet wide, are very insufficient indications of danger, and that the rules evidently contemplated a barrier quite across. He only confirms much previous evidence, when he expresses the opinion that the workings had been long foul, and that in violation of the rules (as well, we may add, as of moral duty,) the ventilation had been neglected. This, he remarks, was proved by the frequency of a long cap on the lamp, which the colliers generally ought to have attended to as nature's warning, but which it was the special duty of the firemen to report, and to prevent the men from going in under such circumstances. There is not much gas, he says. Ordinary caution was wanted.

Mr. Mackworth, the zealous and talented government inspector for a neighbouring district (and who had this mine under his charge in 1854,) not only concurs, as to its insufficient ventilation, but adds the weighty

condemnatory fact, that he pointed out, in that year, such insufficiencies - notwithstanding which caution, the mine is now one-third larger, yet no more air is afforded. He, therefore, declares the manager, overman, and firemen are in fault, and attributes the explosion to the absence of the commonest precautions.

Mr. Evans, the district inspector, whose experience has been comprehensive, also declared the ventilation “most inadequate;" and justly remarks that so important a matter, (as well as the large escape of gas from rider coal, mentioned in the evidence), ought not to have been left to ignorant workmen. The manager, he conceived, ought to be responsible. The three inspectors concur that instead of from 12,000 to 13,000 cubic feet of air per minute, this mine, with its six miles of workings, should have 35,000 feet. Such are the leading facts in this case, and it seems to us, that every impartial observer (after making full allowance for the well-known carelessness of miners,) will concur with the coroner, the jury, and the inspectors, that in this fearful sacrifice of human life, there has been much criminal negligence. Of the particular amount of culpability assignable to each person, every reader must form his own opinion, and a Court of Assize must pronounce the final decision.

Colliery Accidents

The ‘*Derbyshire Times*’ of Saturday 23rd. August 1856 commented: - The terrible explosion at the Cymmer Colliery in South Wales, by which 114 souls were hurried into eternity at a single stroke, has been followed by another catastrophe of a like character in the mines belonging to Lord Ward, at Dudley, in Staffordshire. In both instances the accidents were the result of firedamp, and it is much to be feared that lamentable destruction of human life has been mainly occasioned in consequence of proper precautionary measures not being taken to remedy the evil. Both in Cymmer and the Dudley collieries the existence of the deadly firedamp was ascertained before the accidents, and due information given; but in one case the warning is disregarded, and in the other the objection is overruled by the overseer, to whose culpable and wilful neglect must the awful loss of life which ensued be attributed.

We allude to the Cymmer colliery. It has come out in evidence during the investigation into this most disastrous affair that the overseer though warned that a current of firedamp was in existence, did not think it his duty to report it to the manager of the works, so that proper precautions might have been taken to remedy the evil. In the other case to which we have referred - that of the Dudley collieries - a party of nine men descended safely into the pit's mouth, but, discovering symptoms of firedamp, they informed their companions, who were about to follow, and warned them not to bring lighted candles into the pit. Notwithstanding this explicit warning, an overseer and six men went down with lighted candles, and five of them paid the penalty of their foolhardiness with their lives, the explosion also killing five of those who warned them of the presence of the fatal gas.

Surely some steps should be taken to prevent such calamities as these. Such reckless inconsideration as was displayed in both cases we have quoted is perfectly frightful to contemplate. It is hard pit-masters that should be responsible for the deeds of their servants, but, nevertheless, they are bound to see that proper precautions be taken to ensure the safety of their workmen; and it behoves them to place such persons in authority who are discrete and capable of satisfactorily performing their duties. The managers and overseers are the proper persons to see that the mines are in working order, and the workmen honestly believe that if the overseer pronounces all to be right there is nothing to fear.

It is the overseer's duty to see that all is really right, and if he neglects his duty the responsibility resting upon him is terrible indeed. The pitmen themselves are very often guilty of extreme rashness and unwarrantable carelessness; in the knowledge that, according to law, they are subject to a fine of 40 shillings, if they do not employ proper preservatives against danger, does not seem to deter them from running reckless and foolish risks with their lives. It is to be hoped that some efficient remedial measure will be brought into operation against the callousness and indifference which is so extremely manifested in matters of this kind.

Friday, August 29th 1856 Friday

Judge's Chambers – Before Mr. Baron Bramwell

The Queen v. Thomas and others – The Cymmer Colliery Explosion

This was an application to admit Jabez Thomas and the four other defendants, against whom a verdict of manslaughter has been returned respecting the late explosion at the Cymmer Colliery, in Wales, by which 114 persons were killed, to bail until the next assizes for the county of Glamorgan. On a former day a writ of certiorari had been issued to remove the depositions taken before the Coroner and jury into the Court of Queen's Bench, and the present application was supported by an affidavit of Jabez Thomas, in which he denies that the accident had been occasioned by carelessness on his part.

The other defendants, named Rowland Rowlands, Morgan Rowlands, David Jones, and William Thomas, were workmen at the colliery, which belong to Mr. Henry Harvey Insole. The deponent Thomas attributed the explosion to the conduct of two boys named Thomas, who attempted to go into a stall to which a signal had been placed for the indication of gas, the manager of which stall at the time of the lamentable occurrence was at the seaside for the benefit of his health. The manager added in his affidavit on which the application was made, "I consider myself free from any imputation in respect of mismanagement of the colliery, and am ready to attend any indictment and ask to be allowed to put in bail."

A gentleman from the offices of Messrs. Gregory and Sons, of Clement's Inn attended in support of the application, and Mr. Medina, an attorney, appeared for the relatives of the unfortunate men who lost their lives by the explosion. It appeared that the defendants have not been committed on the charge of manslaughter, and were anxious to put in bail in the first instance to save a commitment to prison. Mr. Medina said that he had no objection to the application. All he required on the part of the friends of the unfortunate men was that substantial bail be offered for the defendants to appear for trial. Mr. Baron Bramwell asked the sum required. There was no doubt the men would appear.

Mr. Medina thought that if Mr. Thomas, the manager, entered into recognisance for 150 shillings and two sureties of 50 shillings, it would be

sufficient. On the parts of the defendants, it was urged that the sum asked was too much. With the exception of the manager they were all working men engaged at the colliery. Mr. Madina thought that bail in each case be given for 100 shillings each, and two sureties for 50 shillings. Mr. Baron Bramwell : – "But some of these are working men." Mr. Medina was willing to leave the amount to his Lordship. It was quite clear that the application was made by the owner of the colliery. The clerk of Messrs. Gregory had no objection in leaving the amount to his Lordship. No doubt bail could be found for the men. He believed the sum asked was larger than was generally required. After some further discussion it was arranged that each defendant would enter into the recognisance for 100 shillings and find two sureties of 50 shillings, to appear at the next assizes on the charge of manslaughter. It was also directed that bail had been taken in the county. The indictment would be held at the Swansea Assizes which would be held in March next.

Newspaper Editorial – A new species of inquiry

The protracted inquest on the sufferers of the Cymmer explosion having ended in a verdict of manslaughter against the manager, the overman, and the three firemen of the colliery, we are naturally led to reflect what may be the consequences of such a state of things. In the case where railway calamities are followed by the trial of some party or parties supposed to be to blame, the almost invariable result is a verdict of acquittal.

It seems as if negligence or recklessness has gained the privilege of being tolerated in our courts of justice. It would be the extreme of harshness, no doubt, to suppose that a sane man would wilfully risk his own life, with the lives of many others; dashing into danger as if through love of it – hence the indisposition to return verdicts of murder or manslaughter; but there is a liability, under such circumstances, of facts being overlooked indicating gross neglect or imprudence which a due care for the public safety demands should be punished.

Whenever you tell a person that the driver of such a train, who is believed to have caused the death of some dozen or score of persons, had a verdict of manslaughter returned against him by a Coroner's jury, the answer, almost as a matter of course, is – "Oh, that is nothing; he is sure to be

acquitted at the assizes trial." Now, caution on the part of petty-jurymen is not to be deprecated, but it is consistent with the public security that events which endanger or compromise it should be as a rule entail no penalty, and the return of a final verdicts of not guilty be carelessly and sneeringly, but in all cases confidently anticipated?

A new species of inquiry will shortly be entered upon. The verdict of the Cymmer case must lead the accused being placed on trial in a criminal court, and it will be interesting to watch the progress of the case and the result. We do not remember any previous verdict of manslaughter consequent upon a preliminary investigation. When explosions occur in coalmines, those who could have best told how and where they originated are the first destroyed, and, as the phrase runs, "dead men tell no tales." In the absence of such knowledge, when, whom to blame, the coroner's verdict has ever been "accidental death." In the Cymmer inquiry new elements came into operation.

The awful extent of the calamity concentrated attention upon the inquest, and the examination of the pit by government inspectors both previously and subsequently to the explosion led to the development of a mass of facts such as were never so distinctly ascertained and deposed to before. Mr. Herbert Mackworth visited the mine a few years ago, and he told the jury that suggestions he then made to the owners as additional protectives for the safety of the men, and how far they have been attended to, or neglected, or evaded.

He, and Messrs. Dickenson and Evans, other government inspectors, more than once carefully examined the state of the various stalls after the fire, and, combined what they saw with the evidence given by all who were concerned in the management and working of the colliery, they felt that they could come to but one conclusion, namely, that the ventilation was decidedly insufficient, the quantity of atmosphere air forced into the mine too small, the liability to consequent accumulations of deleterious and inflammable gas unceasing; the report made on the subject by firemen to overman, and by overman to manager was suppressive of the actual facts, and the "care" to have safety lamps used where the burning of candles would be an act of gross imprudence just amounting to the exercise of no care at all.

It was the duty of the firemen, we are told, to report daily to the overman in what condition they had found the mine. It was the duty of the overman to ascertain for himself, to a sufficient extent, that the report of the firemen was correct, then to give his own report to the manager; and it was the duty of the manager to protect all, and satisfy himself at first, that the works were generally progressing according to his instructions; second, that his overman and firemen were duly performing their particular and most important functions.

It may be gathered from the evidence for the parties themselves that the firemen were by no means duly impressed with the variable but to a greater or less extent uninterrupted presence and volume of gas in different portions of the advanced workings; that they gave no sufficiently specific reports to the overman; that the overman was consequently ill-informed so far as their reports went, and made no adequate examinations to supply the deficiency; and that the manager thus would be kept in a state of ignorance regarding the actual condition of the underground workings even if he had been capable of making good use of correct information when furnished him, but that, as it was, the best or the most important information was alike unavailable in his hands, seeing that his knowledge of the complicated recesses and devious operations of the mine was derived from paper plans, and scarcely ever – if ever – from personal inspection. A few lines extracted from the evidence from each inspector will, we are sure, substantiate these conclusions: -

Mr. Dickenson said, “A great deal has been said respecting a cap upon the flame of the candle, which no doubt arose from the air being insufficient to dilute the firedamp. Yet, with this before them, so familiarised with it had the overman and the firemen became, that they and the men seem to have believed that the air was harmless, when in reality it was *nature’s warning passing unregarded.*

Had the firemen been efficient, or had they and the overman attended to the rules which I have quoted, and which they were required to observe – or had the proprietor and manager, instead of leaving the management of the colliery to these men, who seemed to be ignorant of the principals of ventilation, but good enough apparently to properly direct it, called to their assistance in the laying out and carrying on the mine with some competent

mining engineer in whom they had confidence, and to whom they would have entrusted proper power - these *114 lives need not have been sacrificed.*

Mr. Mackworth said: "I agree with Mr. Dickenson as to the great neglect of the manager, overman, and fireman with regard to the ventilation of the part of the colliery beyond the fault*. If any part of the colliery was unsafe, it was the duty of the manager to compel the use of safety lamps.* He thought that the explosion arose from the persons in charge of the pit neglecting the commonest precautions for the safety of the men and the colliery."

Mr. Evans said: - "The person who had charge of the colliery was, it appeared, wholly unacquainted with the changes that had taken place from time to time underground. The extra quantity of gas given off, and the bad ventilation that had prevailed for some time, were matters to which he should have attended, and not to have left them to the mercy of hard-working and but ignorant workmen. If colliery managers were allowed to rid themselves of responsibility by placing such men in charge of extensive collieries, accidents would increase, and the poor fellows would suffer, while the really responsible parties would escape all blame. In my opinion, a manager should be himself responsible for his own bad management. I do not consider that a man who confesses *his ignorance of underground workings* might be manager of a colliery."

After listening to such evidence – the evidence of competent men who had examined the mine for themselves, and heard all the testimony adduced in the case – the jury could not honestly have given any other verdict than which they returned. It will, as already stated, have the effect of placing the several implicated individuals on trial before one of the judges of the land; and we may then (as in recent notorious cases) find scientific witnesses both *pro* and *con* to expound the principals of ventilation, the characteristics of the explosive point, the effect, in mines of atmospheric changes, etc; and to contradict each other to their own contentment; and to the discredit of legitimate science.

We cannot pretend to foretell the result – unless the railway accident precedents are to be extended to colliery "accidents" likewise; but this we

do say, that if, for the sake of the reader and easier working of coal mines, 40, 50, or 100 lives should be accepted as necessarily to be sacrificed upon occasion, in preference to our mines being wrought upon principals and under precautions which, though somewhat inconvenient and perhaps costly, would render explosions almost impossible, the fact had be better understood and the public mind be made up regarding it at once.

It is quite clear that the safety of our miners and the Cymmer system of working a colliery are absolutely incompatible. If parliament will not positively ordain whether safety or convenience shall predominate, convenience will of course decide for itself, and reconsign safety to the tender nursing of such agents as the firemen, the overman, and the manager, who have figured throughout this inquiry.

We have spoken of the contradictory evidence that may be looked for at the trial. A preliminary specimen has been given in the fact that while Mr. Daniel Thomas (manager, we believe, of a neighbouring colliery) thinks that the Cymmer pit might be safely ventilated with 7,000 cubic feet of air per minute, while Mr. Evans, the government inspector, believes that the intromission of 25,000 feet per minute is requisite for its proper ventilation; that is, nearly four times the quantity suggested by Mr. Thomas.

It is strange that such a remark as the following (made by Mr. Mackworth) should be important: - “In every district of a mine where fire-damp is liable to make its appearance in dangerous quantities, the men should work exclusively with locked safety-lamps.”

It is important, nevertheless that if the lamp precaution is neglected or tampered with there is no doubt that the Cymmer pit was “liable to firedamp in dangerous quantities” Yet not a single man worked with a safety lamp even in the most critical gas-charged inner recesses of the mine. We averted, a few weeks ago, to the leading cause of this non-usage, namely, that the necessarily shaded lamp emits less light than the naked candle, and that to enable himself to accomplish more work the miner is in the habit - where, by chance, such a thing is used – of unscrewing or unshading his lamp, to obtain the “benefit” of the exposed flame. For similar motives – profits being enhanced according to the

quantity of minerals sent to "bank" by the miners for sale or exportation – the employers wink at the suppression of the disrelished means of safety.

It is just possible, however, that the dreadful calamity at Cymmer, followed by the renewed remonstrances of the inspectors, may induce some colliery owners to reverse this dictum and to return to the use of the Davy Lamp; in which case they will be glad to hear, from the last *compte-rendu* (report) of the inventions rewarded by the French government, that M. Dubrulle has just perfected a Davy's Lamp by establishing a connection between the burner and the shade, so that if the latter is withdrawn the light is put out. Thus are workmen prevented from exposing themselves to the risks of an explosion.

The relief truth

The '*Bristol Mercury*' of Saturday, September 20th 1956 carried this letter trying to put some truth to rumours that had been spreading in south Wales: -

To the editor of the *Bristol Mercury*

Cardiff Union
8th September 1856

Sir – The attention of the Board of Guardians of this union has been called to statements made at recent public meetings to the effect that some parishes had refused to administer the usual amount of relief to the sufferers from the Cymmer catastrophe, on the grounds that a public subscription had been made in their favour. The parish of Llantrisant, to which belongs a large portion of these unfortunate people, is within the Cardiff Union, and you will observe, from the following facts, that so far as regards this union at least, the statements above referred to are without foundation. Fifty-three persons, of various ages, became chargeable in consequence of this accident, all who were relieved on their first application, and still continued to receive relief, at the following rates: -

Widow with three children ……. 10 shilling to 11 shillings per week

Ditto	Four children	……. 12 shillings	" "
"	Five children	……. 14 shillings	" "
"	Six children	……. 15 shillings	" "
"	Two orphans	……. 7 shillings	" "
"	Three orphans	……. 10 shillings	" "

I am, sir, your obedient servant,
T. Watkins, clerk.

Another explosion

Had there been an improvement in the safety four months after the death of so many men? Apparently not. On Friday, December the 12th 1856, the '*Times*' newspaper carried this report: -

It will be in the recollection of many of our readers that in July last a terrible explosion took place in the Cymmer Colliery, near Pontypridd, by which by no less that 120 colliers lost their lives. Upon that occasion a lengthy inquiry took place which resulted in a verdict of manslaughter against the manager of the mine, Jabez Thomas, and two of the firemen.

It was also proved that the ventilation of the pit was extremely defective, and it was the opinion of Mr. Dickenson, one of the Government inspectors, specially sent down by Sir George Grey to assist the Government assessor, Mr. Poulden, that the ventilation might be improved, if not almost rendered perfect, by the adoption of very simple means. We are not aware whether the suggestions of Government inspectors were attended to upon that occasion, but, whatever may have been the steps taken, we regret to find that they have been ineffective, for another explosion in the same pit took place on Tuesday morning, and, although upon this occasion the accident was not distinguished by those disastrous results which followed that in July, yet two men were burnt, and one of them very seriously.

From the circumstance of the explosion having taken place at 8 o'clock in the morning, just after the men had descended the pit to their work, it would appear that the carburetted hydrogen, or firedamp, had

accumulated in the workings during the night, thus showing a defective system of ventilation; and it would seem also that the duty of the overmen, who ought to go round and visit every stall before a single man has descended, had on this occasion either been entirely omitted, or at best but imperfectly performed.

The subject of the ventilation of coalmines in this district is one which imminently calls for an inquiry, and it was supposed that as a result of the late accident in this pit it would have lead to a commission, it being generally understood there is a great deal of firedamp in the collieries in the Rhondda valley, which is said to be entirely owing to the want of a proper system of ventilation, because the veins of coal themselves are not of the fiery character that distinguish those of the Aberdare districts. A colliery explosion also took place on last Sunday afternoon in the Abernant-y-Gross pit in the Aberdare valley, but fortunately without injury to anyone. It is but right to state that in Aberdare the system of ventilation is very much superior to that in the Rhondda valley, which is, indeed, rendered necessary by the very fiery character of the coal there.

The Queen v. Thomas & others

The '*Monmouthshire Merlin*' of Sept. 6th 1856 reported: - At the judges' Chambers, Sergeant's Inn, on Friday, the 29th ult; before Mr. Baron Bramwell, and application was made to admit Jabez Thomas, and four other defendants, against whom a verdict of manslaughter had been returned, respecting the late explosion at the Cymmer Colliery, by which 114 persons were killed, to bail, until the next assizes at Glamorgan. On a former day a writ of *certiorari* had been issued to remove the depositions taken before the coroner and jury, into the Court of Queen's Bench, and the present application was supported by an affidavit of Jabez Thomas, in which he denied that the accident had been occasioned by carelessness on his part. The other defendants, named Rowland Rowland, Morgan Rowland, David Jones, and William Thomas, who were workmen of the colliery, which belonged to Mr. Henry Harvey Insole.

The deponent Thomas, attributes the explosion to the conduct of two boys, named Thomas, who attempted to go into a stall, to which a signal had been placed of the indication of gas, the manager of which stall, at the time

of the lamentable occurrence, was at the sea-side for the benefit of his health. The manager added, in his affidavit on which the application was made, "I consider myself free from any imputations in respect to mismanagement of the colliery, and ready to attend any indictment, and ask to put in bail."

A gentleman from the offices of Messrs. Gregory & Sons, of Clement's Hill, attended to support the application of Mr. Medina, an attorney, appeared for the relatives of the unfortunate men who had lost their lives by the explosion. It appeared that the defendants had not been committed on the charge of manslaughter, and were anxious to put in bail in the first instance to save a commitment to prison. Mr. Medina said he had no objection to the application. All he required on the part of the friends of the unfortunate men was, that substantial bail be offered for the defendants to appear for trial. Mr. Baron Bramwell asked the sum required, there was no doubt the men would appear. Mr. Medina thought that if Mr. Thomas, the manager, entered into recognisance for £150, and found two sureties for £50 it would be sufficient.

On the part of the defendants, it was urged that the sum was too large, with the exception of the manager, they were all working men, engaged at the colliery. Mr. Medina thought the bail should be given for each, and two sureties of £50 each. Mr. Bramwell: - "But some of them are working men." Mr. Medina was willing to leave the amount to his lordship. It was quite clear that the application was made by the owner of the colliery. The Clerk of Messrs. Gregory had no objection to leave the amount ion the hands of his lordship. No doubt bail could be found for the men. He believed the sum asked was larger than was generally required. After some further discussion, it was arranged that each defendant would enter into a recognisance for £100, and find two sureties of £50, to appear at the next assizes, on the charge of manslaughter. It was also directed that bail be taken in the county. The indictment will be tried at Swansea, at the assizes that will be held in March next.

Note: - When the case eventually went to the assizes in March 1857, the charges against firemen David Jones and William Thomas had been dropped, though no explanation was ever recorded.

The Cardiff Union
Relief to the Cymmer widows and orphans

The monthly meeting of this Board was held this day (Saturday). Present — E. David, Esq., chairman; R. Bassett, William David, Sir G. Tyler (M.P.), Evan Williams, W. Perkins, W. Harries, H. Jones, and H. Lewis, Esquires; the Revs. T. Stacey, R. T. Tyler Jenner, and C. W. Evans; Messrs. E. Davies, W. Thomas, T. James, W. Williams, Thos. Baker. (Reported the Cardiff & Merthyr Guardian of September 27th 1856).

In going over the Cymmer pay-list, objections were raised against the relief granted to these widows, and the following motion was made by Mr. Perkins and seconded by Mr. M. W. Harries, — "That no relief be granted unless the applicant can show that he is wholly destitute," which led to a lengthened discussion. Mr. Perkins contended that the Board was not justified in granting them any relief, as they received an ample allowance from the subscriptions entered into. He considered it illegal and expected that it would be objected to by the auditor. He held in his hand two letters received from a respectable gentleman on the subject, and a clergyman, but whose name he was not at liberty to mention. In the first letter the writer stated that he was rather puzzled how to reply to the question asked him, on account of a statement made at a former meeting of this Board, — that, the subscriptions entered into should not go in aid of the parochial rates.

Further information had been given him (the writer), and in his second letter he stated that as it appeared that the widows received sufficient from the subscription fund, they had no legal claim for relief, and they ought not to apply for it. Perkins said (this gentleman not only subscribed himself, but had gone from house to house collecting subscriptions, and he believed he had obtained nearly £50. He had another letter from Aberdare, stating that relief had been refused at the Merthyr Union, on the ground of its illegality, because the applicant were not wholly destitute. Mr. Perkins also added that the rate-payers in Llantrisant parish, on whom the burden fell, objected most strongly to give the widows any relief. Mr. M. Harries agreed with Mr. Perkins, and objected to the charge, as the widows were amply provided for by the subscription fund. He also knew that some widows had not applied for relief, and it was therefore unjust towards

them that others were relieved. He knew others who had been paid large sums by benefit clubs, towards the funeral expenses, and therefore ought not to trouble the union.

The Chairman took a different view of the matter, and would not support the resolution. No one, he thought, could deny that if those subscriptions had not been entered into, those widows said their families must have been wholly maintained by the union, and if they refused them any aid, then it seemed to him that they would avail themselves of these subscriptions to save the rates, which he considered to be unjust. It appeared that some of the widows refrained from applying to the union, which was most praiseworthy. The committee for distributing the subscriptions might reward such conduct, but this Board could not — the committee might increase their allowance or reduce the others. The writer of the letter read by Mr. Perkins was of the opinion that if they received sufficient from the subscription fund, they ought not to apply to the parish. He (the chairman) thought so also, that if they did apply, he hoped they would not be refused, and told that they must depend upon the generosity of their neighbours for support.

The Vice-Chairman was of the same opinion. He did not think the subscriptions entered into should be taken into consideration by this Board, or it would be very discouraging to the subscribers. He thought the Union ought to give them some assistance, but upon the lowest scale paid to similar applicants he therefore hoped that the Board would not pass a resolution such as the one proposed. The Rev. Mr. Stacey objected to the resolution, and with regard to the club money which had been referred to, said it was their own money saved by their husbands' providence, and the widows ought to have it. A Guardian stated that some had applied here who had contracted to maintain two or three orphan children, and they had applied for additional payments. The Chairman said that no general rule could be laid down for granting relief; each case must be decided upon its own merits, and the case referred to should be enquired into. Sir G. Tyler: - “If I understand the matter rightly, there are persons who receive relief from the subscription fund, and those same persons came here and applied for relief as destitute persons. Have you relieved them?” The Vice-Chairman said they had thus far. Sir G. Tyler: - “Did you learn from them first what they received weekly from the other fund?” The Vice-Chairman:

- “When the relief was first granted they had nothing from the subscription fund, but the board was instructed to revise those allowances were it was necessary.” Sir G. Tyler: - “I should say your first object as Guardians is to ascertain the means a party has of supporting herself from whatever source, and if you find that she has not sufficient you may make up the deficiency. That is my view of the Poor Law. I would suggest that the Committee of the Charity should enter into some arrangement with the Guardians, and give the parties a paper stating what they really do get, and that this Board should make such addition to it as may appear necessary. The Chairman said he gave no opinion as to the strict law of the case, but he felt the strongest objection to withdraw all relief because the public had taken compassion upon those unfortunate people. He also thought that it must be very mortifying to those who had so liberally subscribed to find that any portion of their subscriptions had gone to relieve the rates rather than the poor sufferers from that great calamity. It had already been stated at public meetings by parties who had liberally subscribed, that had they known that the Unions would have refused relief they would not have subscribed a shilling.

Sir G. Tyler: - “Those who subscribed, at least I did myself, expected that their subscriptions would go to the sustenance of those who were left widows and orphans.” E. Williams, Esq., strongly objected to the withdrawal of relief on account of the subscription. The Rev. R. T. Tyler also hoped the Board would continue to relieve the widows. Mr. Watkins said, when the subject first came before the Board they were not aware of any other provision being made for the widows. If they received sufficient from that fund, relief from the Guardians might be illegal, but he thought if a representation was made to the commissioners they would allow it.

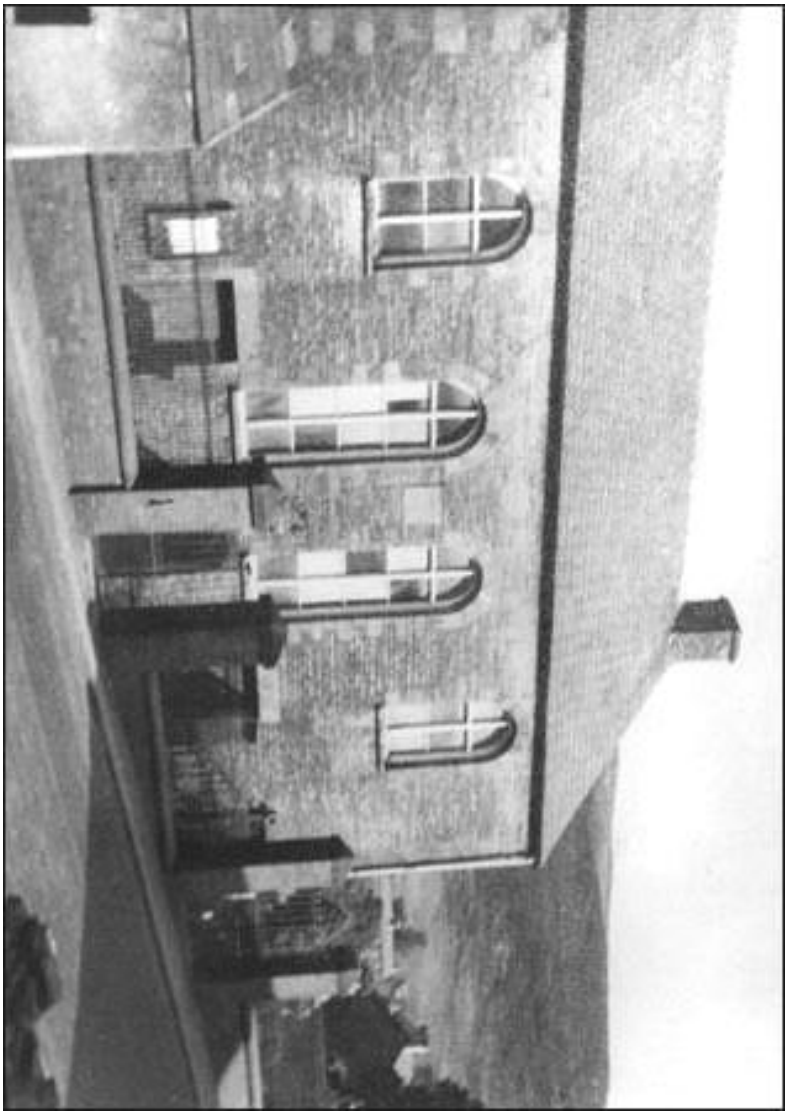
Mr. Perkins hoped the Board would come to some decision. He objected to granting relief to any party who was not wholly destitute, because he considered it illegal. He had no objection to withdraw his resolution if it was the wish of the Board. The Chairman then proposed the following resolution "That in estimating the amount of relief to be given to applications from the sufferers from the Cymmer catastrophe, the full amount of aid received by such persons from the public subscriptions shall not be taken into consideration.” He wished the Board to understand that he did not contend for the present scale of relief because it exceeded the

weekly relief they allowed to other widows; when the widow was in good health they gave no relief for herself, and sometimes she was expected to maintain one child. He added that it had been stated to the Board that the rate ratepayers of Llantrisant strongly objected to give the widows any relief. The ratepayers were represented at that Board by three guardians, and he well recollected when the present relief was ordered to these widows, a Llantrisant Guardian, to his credit, said he thought the amount we had granted much too low; and he was happy to see him now present. The Vice-Chairman seconded the resolution, and he believed the Llantrisant Guardians were still of the same opinion, and approved of granting relief.

Mr. D. Davies (a Llantrisant Guardian) said that the three Guardians from Llantrisant were then present, and fully agreed with the Chairman in granting relief. He was also a member of the committee for managing the subscription fund, and that committee was very dissatisfied because the widows were objected to receive any relief. Mr. Perkins differed from Mr. Davies, because he knew of one or two of the committee who objected to relieve them. Mr. Davies said there might be one or two, perhaps, who objected, but the committee generally complained and some said they were sorry they had subscribed, if the parishes were to have the advantage.

Sir G. Tyler did not feel any great objection to the resolution before the meeting, but thought it unnecessary. The Rev. T. Stacey: - "I do not see how the Board can stand between the public and the recipients from the subscription fund, and put money into their own pockets instead of into those of the poor widows." Sir G. Tyler: - "It rests with the Chairman what course should be adopted, and whether application had not better be first made to the Poor Law Board on the subject." The Chairman: - "I fully approve of an application to the Board in London, but I am desirous that the sense of the Board here should be first taken, which should be represented to the Poor Law Commissioners." The Chairman then took the vote of the Board on the resolution he had proposed, when 13 hands were held up in favour of it, and only 2 against it. The Board then proceeded with the relief lists, &c., and soon after adjourned.

The gravestone at the Cymmer Chapel of victims Enoch and Thomas Morgan.



Cymmer Independent Chapel – Last (almost) resting place of many of the victims of the Cymmer Colliery explosion.

CHAPTER SIX

The Cymmer Colliery case at the assizes - Three men stand trial

On Monday, April 2nd 1857 at nine o'clock Jabez Thomas, Rowland Rowlands and Morgan Rowlands surrendered to take their trial at the Swansea Spring Assizes on an indictment charging them with having feloniously and wilfully killed and slain one William Thomas, on 15th July, 1856.

The counsel for the prosecution were Mr. Evans Q.C., Mr. Grover Q.C., and Mr. Coleridge; for the defence of Mr. Jabez Thomas, Mr. Gifford and Mr. Lloyd; for Rowland Rowland and Morgan Rowlands, Mr. Thomas Allen. Mr. Evans, Q.C., in opening the case, said that it was hardly possible to over-write the importance of the inquiry on which they were about to enter. It involved the safety of thousands of persons who were engaged in the working of the mines in this very extensive mineral region, and therefore he was sure they would give them their best attention in order to ascertain the real truth of the matter.

The inquiry arose out of a frightful catastrophe which took place in the Rhondda Valley, at the Cymmer Colliery on 15th July last year. An explosion of fire-damp took place in that colliery, by which 114 persons engaged in working this colliery were either suffocated or burnt to death. An investigation took place before the Coroner, who gave notice, as the law obliged him to do, to the Secretary of State, and a gentlemen was consequently sent down to assist the Coroner in his inquiry.

The inquest lasted for a period of thirteen days, and the matter had now come before this court, under the direction of the Secretary of State. He (Mr. Evans), appeared on behalf of the government, who desired that the fullest investigation might take place into the circumstances attending the dreadful catastrophe. If it were to be found to result from an inevitable accident, then the public would be satisfied; but if on the contrary they should find that on the part of any persons connected with the management of the colliery there was neglect or inattention, which created the mischief, then they would have to state it by their verdict, and the party guilty of such negligence would be criminally responsible.

The charge was that they had neglected precautions which they should have taken, and that they had disregarded warnings repeatedly given that mischief was about to result - he meant warnings arising from the state and condition of the pit. The points to which the jury would have particularly to direct their attention were these: - Whether it was the duty of these prisoners to exercise that care and precaution he had stated; whether, so, they had neglected these precautions; and whether that neglect had been the cause of the mischief. Now the duties of these parties it would not be very difficult to show, because they depended upon the provisions of an Act of Parliament, and certain rules which had been made for their guidance. The act was the 18th & 19th Victoria, the fourth section of which was read by the learned counsel. Then, again, the first of the special rules for the conduct and guidance of persons acting in the management of or employed in or about collieries, provided as follows: -

"*The manager has the responsible charge of the mine and works, and the direction of all persons employed in or about the same. He has full power, and is required to carry out whatsoever he might consider necessary for safety, and for rendering effective the general and special rules. He is to take care that there are a sufficient number of what he believes to be competent agents to superintend the mine, machinery, and workmen, and he is to see that they clearly understand, and are attentive to their respective duties.*

He is to see that proper and adequate machinery and materials are provided and kept in repair, and to test their efficiency when necessary. He is to lay out the ventilation of the mine, and to make due provision for removing, under ordinary circumstances, all noxious gasses. He is to direct the places where and the manner in which lights are to be used, in which blasting may be permitted, or borings are to be undertaken.

He is to take care that the workmen are made acquainted with the rules (by causing them to be read over when desirable), that penalties are enforced for the infraction of them, and that the requirements of the act respecting special rules, plans, notices, &co., are attended to. A complete copy of the plans, made up at least once in every six months, must be kept at the colliery.

By the 14th rule: *'The workmen shall be prevented from entering the mine, until the overman or fireman shall have been into and examined carefully the working places of the colliery, and until they shall have returned and cautioned the workmen against entering any portion of the mine which may be in an improper condition. Crossed timbers and a board shall placed by them to bar the entrance to every portion which may be defective, or which the workmen were not to enter."*

The 18th rule provided: - *"That the overman or his deputy shall travel the whole of the air courses at least once a week. If any falls or nuisance, or defects, be found in them, they shall be removed forthwith, and a sufficient size maintained for the full and effective ventilation of the mine under ordinary circumstances."*

The 20th rule said: - *"The overman shall report to the manager, and deputy to the overman, all accidents, dangers, or defects that occur in the mine. The overman shall suspend any and all operations attended with unusual risk, until he shall have received a special instruction thereupon from the manager, and shall stop the working or use of any pit machinery, rope, or place, which may appear not safe, until the removal of the defect."*

It was provided by the 22nd rule, *"That no person should descend or ascend the shafts, or go into any other part of the mine other than where he works under any pretext whatever, nor pass any caution mark, except by the order of the overman or his deputy."*

The 23rd rule said, *"That no incompetent or careless person should be allowed to work by himself nor without proper supervision, at any operation involving risk. All air-courses or stowings shall be carried up sufficiently close to the face, according to the directions of the overman or his deputy."*

Having read these extracts from the rules, the learned counsel proceeded to say that it would be observed from them that the legislature had taken care that certain precautions should be taken on the part of persons engaged in the superintendence of mines; and by the general rules a great duty was thrown upon the manager, in addition to that imposed by the special rules adopted to the colliery and signed by the Inspector of Mines.

He now would shortly describe the condition of the mine. The descent was by a pit at the spot he pointed out on the map. The mine was then carried to the southward. The workings had lately been very much increased. The ventilation was carried on through one shaft, which was divided into two parts – one called the upcast and the other the downcast. The air came up through the space in which the buckets descended; there was another open space in which the air descended. The ventilation was carried on through those apertures, but the scientific men would tell them that to the extent the mine had at length had been carried this ventilation was not sufficient.

The main way of the mine branched off in various directions in what were called the headings, and it had to work through no less than three faults – in one of which the seam of coal had taken a dip of sixteen feet, and this was the most remote of all to which the air branched. Now the airways, in consequence of the great increase of the workings which had taken place, being at all times not very sufficient, required more than usual care to work the mine so as to prevent mischief.

Having made this general, but he feared an imperfect statement, which could only be justified by his bringing forward evidence which would make it more clear, he would proceed to call his witnesses, after stating a few of the circumstances connected with the explosion. Jabez Thomas was the manager, Rowland Rowlands, the overman, and Morgan Rowlands one of the firemen.

The firemen were accustomed to going down the first thing in the morning, in order to see the state of the mine before the men were allowed to descend, and after they had gone round they gave a signal either to let the men down or prevent their going down. On the morning of the explosion three firemen, named David Jones, Morgan Rowlands, and William Thomas, divided the mine into districts – one going through each.

David Jones having gone through his district, went to the stall of David Morgan, in what was called the straight heading, and afterwards all three firemen met at the mouth of the pit. David Jones then informed Morgan Rowlands that he had found fire in David Morgan's stall. The firemen then came up, and the men ordered to descend. Among those who went down

were two boys, named William Thomas and Llewellyn Thomas, and they were sent by Rowland Rowlands to the stall of David Morgan, in which David Jones had seen fire.

It was impossible to say how the fire originated, but the jury had those facts, and they would have to decide upon the evidence, whether the fire was actually commenced at that stall, by the boys bringing in their candles to the very place that the fire had been seen by the fireman that morning. Soon after, the explosion happened, and out of about 140 persons in the pit 114 perished.

Now the condition of this mine and the state of the ventilation had repeatedly been brought under the notice of Mr. Jabez Thomas, the superintendent of the mine, employed by Mr. Insole, by Mr. Grey, who only left only five days before the explosion. It was no part of his duty (Mr. Grey) to tend to the ventilation, but he went down to view the mine, and finding it in an unsatisfactory state he spoke to Mr. Thomas, and told him the ventilation was not what it should be. There had been discussions also between some of the men and some of the persons who had been there as managers.

A man named Richards had been employed there, and having discovered fire, reported it to Rowland Rowlands, and this gave rise to a dispute which ultimately came to a fight. They would have evidence as to the condition of the candles in the mine, as it appeared that when a mine became foul it was indicated by the candles having caps upon them. This mine, although the coal was not of a fiery nature, it appeared not safe to have worked it without safety lamps, which prevented such a connection between the air and the candles as would cause an explosion.

He could not enter the details of all the evidence which he was about to bring before them, as he was afraid it would extend to great length. They would have scientific men brought before them, who would depose as to the condition of the pit, and it would be then for the jury to say whether the manager had been guilty of neglect in not keeping it free from noxious gas, and whether steps ought to have been taken to prevent this accident. David Morgan's stall, to which he called their particular attention, had what

was called a fall in it, and it was allowed to remain in that state for a considerable time.

Some of the men had made applications to the have the fall removed, and the stall purified, but this was not attended to either by the overman or the fireman. They attempted to run a communication from another stall into it, but that did not effect the desired purpose. Rowland Rowlands on one occasion came down into the stall, when David Morgan was working there, and Morgan told him not to lift his candle high, as he would be likely if he did so to set the pit on fire.

Rowlands on this ought to have taken steps to prevent danger, but he did not do so. He (the learned council) would not proceed further into details, but would call his witnesses, and after hearing their statements, it would be for the jury to say such a case was made out against the parties as to show that they had been guilty of neglect, and if so, then he did not apprehend there would be much difficulty as to the law on the subject.

The Judge:- "I think there will be very great difficulty on the law of the subject."

Mr. Evans would call the attention of his Lordship to the case of King v Harris. He read this case, which had been heard before Mr. Justice Maule, who had laid down the law to the effect that if any neglect or omission of a plain ordinary duty, which resulted in the death of an individual, were proved against an accused person, and even if this neglect or omission were shared by other persons he would be equally guilty of manslaughter as if the neglect had been his.

The question for the jury to decide would be whether it was the duty of the manager to have directed an air current to be inside this mine, and whether by omitting to do so he was guilty of neglect of ordinary precautions, which had resulted in the death of the deceased; if they were satisfied that it was his duty and he neglected it, then they would find a verdict of manslaughter. His Lordship intimated that he intended to lay down the law that day exactly in the terms of the case alluded to by the learned council.

Mr. Evans proceeded to say that as the Act of Parliament gave Jabez Thomas, as manager, full power to carry out everything necessary for the safety of the workmen, and when he should show that representations had been made to him as to the insufficiency of the ventilation, that it would be no excuse for Mr. Thomas to say that he did not go down the pit. Mr. Evans concluded by enlarging on the importance of the inquiry. The object was to satisfy the public mind, and to satisfy the law. It was not intended to press anything against them that in law was fairly pressed.

Testimony of the witnesses
Evidence of Griffith Williams and Williams Powell, colliers

The learned counsel then called **Griffith Williams**, collier, who said: - "On the 15th July last I went to work in the Cymmer Colliery, but was a little later than usual. I went down the pit, and was proceeding along the level when I heard a noise, which made me stop. I said at once: - "It will take fire." I took fright. As I felt that I turned back, with my head towards the pit. Others who were with me then returned. Just as I had turned, and was about falling, I was knocked down by the explosion – the air squeezing me down; I was not hurt."

"I recollect that a month before the accident William Thomas, one of the colliers, sent me into his stall. I saw there was gas and foul air in the stall. I knew it by the candle. This was in the stall next to me – in Charles's heading, next to Moses's heading. There was a cap on the head of the candle. It was rather blue. After this I told William Thomas not to work in there any further. I didn't try the gas any further. I didn't make any compliant; and never made any complaint to Jabez Thomas of it. I had made a complaint about a month before the fire on account of Rowland, the overseer, having prevented my removing the rubbish from my stall. It happened I was two days idle, and after this Rowland Thomas and myself had to come face to face. Jabez Thomas told me to go back to my work. This rubbish was what had fallen from the top of the stall. It didn't interfere with the ventilation of the stall."

William Powell, collier, said: - "I was at work in the Cymmer pit on the morning of the explosion. I saw Morgan Rowland before the explosion. He gave me a signal for all the men to come down. He gave a signal from the

pit that everything was right. This was about half past six in the morning. I had heard Morgan Rowland say nothing before this. Several then went down and the three firemen came up; they would pass each other in the pit. About an hour and a half after this the explosion took place.

By Mr. Gifford: - "This pit has been open about nine years, come next May. It fired twice at the beginning of the pit. I lost a son myself in this explosion." By Mr. Allen: - "I saw Morgan Rowlands and Rowland Rowlands before I came up. I don't know who made the signal – it was one of the three firemen. The other two firemen were David Thomas and Jones."

Evidence of Henry Marshall, brakesman

Henry Marshall said: - "I was the brakesman at the Cymmer Pit on the morning of the explosion. I don't remember the firemen going into the pit; they came up a few minutes past six, and all three together went some little distance towards their homes. Morgan Rowland came back and sat on a plank on the top of the pit, and three or four colliers came towards the pit. Morgan Rowland went off a little distance, and called one of them to him, and told him not to go in or he would be burnt. I then made a communication with William Powell. This was about three-quarters of an hour before the explosion." By Mr. Allen: "William Powell's son went down this day. I said nothing about it to Morgan Rowlands. Several men had gone down before this. The person to whom Morgan said this has gone to Australia." By a juryman: "This was spoken in Welsh. I understand Welsh. I am a Somersetshire man, but have been in this country 15 years."

Evidence of David Jones, fireman

David Jones, one of the fireman said: - "I went down into the pit on the morning of the accident about a quarter past three. I went towards Moses's heading. I also went to the flue; the fire was very low, and I put coal on it. I went into the straight heading, and into David Morgan's stall. There was a hole in the roof, and half a yard of gas in it. I never saw it before nor since. I had seen a fall in the airway for sometime previously. The air could go, and I saw no alteration of the air in the heading. There was a slight cap over the lamp that morning. I reported what I had seen that morning to Rowland, when we met at the bottom of the pit. I

reported that there was a little fire-damp in David Morgan's stall. He asked me if I put a mark there, and I said I had."

The Judge: - "Did you put a mark there? Witness: - "I did. I put the usual mark – two sticks across each other, and one stick to hold them up. It was the same mark that was usually put there. I cannot say it was according to the rules." By Mr. Gifford: - "This mark for seven years had been considered the mark of danger. The new rules had been in force but a fortnight." By Mr. Allen: - "There were three firemen, and we changed our district every morning. This morning I examined David Morgan's stall. We always met each other at the bottom of the pit, and then reported to each other what we had seen. I was bound to report to Morgan Rowland what I had seen. He himself told me I was always to report to him. I considered Morgan above, but I don't know that any rule of the pit makes one fireman above the others. Morgan Rowland is older than me. I considered it right always to report to Morgan, as both Morgan and Rowland told me to do so. Rowlands told me, when I was appointed fireman, that I was to make my reports to Morgan Rowland.

On this point, when I came to the pit, I did tell him that I had put up the danger signal in David Morgan's stall. I also reported to him that I had dispersed the gas with my jacket. I did not report to him that I saw some men going to or leaving their work. I heard Salathiel in the heading and I told him not to go into David Morgan's heading. There was morning air passing along the face of the stall when the men were cutting the coal. The face was the furthest point worked. I noticed after the explosion, in what is called Arthur's dip - it is called the hollow – a candle. The tallow had melted. A bit of the wick was still left; a long place had burnt. It was about 10 or 15 yards in the dip. The candle had been stuck in a piece of clay, and the door of the dip had been blown out into the level heading." By the judge: - "No dead bodies were found there." By Mr. Allen: - "By Arthur's dip I saw dead horses."

John Morgan said:- "I work at the upper Cymmer pit. Two of my brother-in-laws were killed in the explosion, and I went to see about them after it happened. I asked Morgan Rowlands if he knew where they had gone to work that day, he said he didn't know they were in the works. I saw Rowland Rowlands, and he, 'I wanted them to drive the two horses down in

the pit, and they refused to do so, and I sent them both to the stall of David, thy brother.' He said that he had ordered them that day. Evan Thomas was there." By Mr. Allen: - "He said it was that day he had sent them to that stall to work."

Evidence of the colliers

Evan Thomas said:- "I worked at the new pit at Cymmer. I recollected a conversation on the day of the accident between John Morgan and Rowland Rowlands. John asked where Llewellyn and William had gone, and Rowland said that he had sent them into David Morgan's stall." By Mr. Allen: - "William Thomas and the two Rowlands were very particular friends – like brothers. They did not say what time it was they were sent."

Frederick Morgan said: - "I was at the Cymmer pit on the morning of the explosion. I saw Rowland Rowlands, it might be half an hour or so before the explosion. He told me to go and work with William Thomas in the stall of David Morgan, in the straight heading. It was the William Thomas who was killed. He did not come then. He arrived afterwards, and went down unknown to me."

David Morgan said: - "I worked in the upper stall of the straight heading. I was by the seaside at the time of the accident. I left the Saturday before. Rowland Rowlands came to measure the work. I remember his coming into my stall to measure about eight months before the accident, and I told him not to put his fire into the cut for fear there was a little fire nursing there; but I told him nothing about the stall. I told him this because it had exploded in my candle several times. I did not notice anything in particular the last day I worked there. I had noticed a cap on my candle while working at the upper end of my stall almost always. There was no fall in my stall when I left." By Mr. Gifford: - "This cut is a cut right down from the top to the bottom of the face of the stall. The gas escapes from the cavities." By the court: - "I worked there for eight months. I worked with a candle."

Ebenezer Salathiel said: - "I worked in the straight heading at Cymmer, and I had done so before the explosion. There was a fall there before I went there. It prevented the air a little. I asked Morgan Rowlands a week before

the firing if we could not have a few turns to clear that place. He said he had a good deal of work besides that if he could get men to do it. He said he had work for a dozen of fifteen people at the doors if he could get them. He said he was asking his master every time he saw him, and was asking his brother every day for the men.

The doors related to the ventilation of the pit. I asked him why he did not tell Mr. Thomas that this work was required, and to tell Mr. Thomas that if it was not done he would tell the men that it was not safe for them, and that he ought to consider himself to blame if anything happened. He replied that he had spoken about it until he was tired, but that he meant himself to leave the work. I spoke to Mr. Thomas about what was required, and he told me that he had given notice to the people when they took the office, that if 15, or even 20 men were required to preserve the place in safety, Rowland had the authority to take them.

I saw Morgan Rowland after the explosion, and he desired me to keep what he had told me quiet. I am not sure what day it was after the explosion. It was in that week, and I think about Saturday morning. I worked in the colliery the night before the explosion. I saw no gas, but I saw the candle flagging towards the top about 3 o'clock, it showed "the nature of the fire." Thomas Edmonds and Henry Salathiel were there. I did not see David Jones, fireman, but I talked to him. I examined the current of air – it "walked" as usual.

This was some description of cap on the candle at all times in the heading. I cannot speak as to the state of David Morgan's stall. I did not speak about this heading to Rowland several months before – it was another heading." By Mr. Gifford: - "I complained once, about ten months before, while I was turning my own heading. I was at work ahead of the air. A brattice was then put up. Since that time I have had no occasion to complain of the ventilation. On the Saturday night I was in the straight heading, and I told the pitman behind me that the draught of air was so strong that I was obliged to put the candle behind the timber to prevent it 'blaring.'

On that day we were blasting, and the smoke of the powder blew us. I have spoken of a conversation with Jabez Thomas. It was on the Saturday after the explosion. When I heard of the explosion I said I didn't believe it

was in the old pit. I said so because I thought I was in a safe place, and I didn't think of anything happening. I told Mr. Thomas I thought I was as safe in it as if I were in my own house, and I believe it still! The reason I wanted the rubbish cleared away was to get to the stall. I lost two neighbours in the explosion." Re-examined: - "The rubbish prevented the air getting into the stall. The air worked freely in the face of David Morgan's stall, but it could not have done so, had it not got in."

Evidence of the hitcher

Isaac Williams, one who hitches the trams to send them up the pit, said: "I had worked there more than two years before the morning of the explosion. On this morning I saw nothing more than the usual in the pit. I saw the firemen go up rather early. On Monday morning – the morning before the three firemen came down – Morgan Rowlands said: - 'We have been clearing the clinkers from the fire; perhaps you'll throw a little coal on the fire.' I went towards the flue about three o'clock. There was a fire, but it was rather dead. I closed it as well as I could, and put some coal on it. The only one I had seen that day attend it was boy, who was sent once to it.

Having seen no one else, and it would have been difficult for anyone to attend it without my seeing him, that night, when Rowland Rowland was coming out towards the bottom of the pit, I told him that the fire had not been attended that day, and he immediately went towards it. Sometime the next day he asked me, 'Master, nor anyone else has been asking of you anything relating to the flue?' I said 'No;' and he said, 'For goodness sake if they do, cut them as short as you can. I suppose by master he meant Mr. Jabez Thomas." By Mr. Gifford: - "There was sufficient time at the flue to put coals on it."

Evidence of the former agent

David Grey, miner agent at the Maesteg works, said: - "I was employed at the Cymmer from January to July in last year. I left on the Friday before the explosion. Mr. Jabez Thomas was the manager. I made my agreement with Mr. Thomas. I was to do all the office work, go down into the colliery to measure the headings and to survey the workings, and measure the

thickness of the coal every fortnight. I was to have nothing to do with the management of the underground works. Mr. Edward Hay, preceded me. Mr. Thomas said to me, the greatest objection he had to Mr. Hay was that he was interfering too much with his work. I had no difference or quarrel with Mr. Thomas. When I went down about the business I have spoken of I noticed a cap upon a candle.

I reported this to Mr. Thomas, but only once. It was somewhere about March. I told Mr. Thomas that the air was not good in the fore part of the workings, and I proposed a communication between the two pits, and to make the new pit the down-cast and old pit the up-cast, and make the furnace larger. The reason I made this communication was because I saw it was dangerous for the men to work. I again afterwards told him there ought to be much more air for the colliery than there was. This was April."

"Mr. Thomas was the manager – the overman made his report to him, and the firemen sometimes reported to the overman and sometimes to the manager, Jabez Thomas. I am now the manager of the Maesteg Pit." The judge said, "What were the rules in another colliery could not effect this case. They must prove that Jabez Thomas was the manager by direct evidence."

Witness continued: - "After I had mentioned to Mr. Thomas about the bad state of the air, he told Rowland, the overman, when he came, what I had said, and asked how it was. He said it was as usual. Mr. Thomas then said, 'Does the air blow the candle?' and he (Rowland) said it did. Thomas then said to me, 'How can you complain, if it blows the candle?' Mr. Thomas said no more, but turned round."

"There was a meeting at the office about the ventilation. I had a ground plan, and Morgan Rowland asked me what I thought of the colliery? I told him that in my opinion they had a great deal too little air, and the up-cast shaft was too small. Morgan Rowlands said, 'and the stack is too small as well.' The stack is the up-cast. I told him he ought to complain to Mr. Thomas, and said he had complained before. I asked him why he did not complain again, and he said 'if I were to complain again, perhaps I should be discharged.' I recommended they had certain instruments for measuring the air – an anemometer and pit barometer.

By Mr. Gifford: - “I swear that the nature of my complaint was not merely for the health of the men, but also the state of the colliery. I did not complain at all about the health of the men. I was not supplied with the rules. I was the accountant and surveyor of that mine – nothing more. Mr. Thomas lived in the office above ground, and received reports from Rowland Rowlands. I measured the work and paid the men. The No. 3 Rhondda vein is being worked in this pit. I don’t consider it a very fiery vein.” Re-examined: - “I have seen Rowland come to report to Thomas, and receive orders from him.”

Evidence of Morgan Richards – former fireman at Cymmer

Morgan Richards said: - “I was at one time a fireman at the Cymmer Colliery. I was there about a year and a half to two years. I went there about three years ago, and left about six months before the explosion took place. During the time I was there I made a complaint to Jabez Thomas. This was at the time I left. I asked him if Rowland Rowland had been making a complaint about fire in the work. He replied that he had said nothing to him, and added that if it was necessary to have men to take the danger out, to take a dozen or fifteen people; and the fireman and overmen came to the office and said it was not necessary. Rowland and Morgan Rowland were the two men. Some dispute took place between us.

The cause of the fight was - they said there was no fire, and I said there was. Mr. Thomas was present. I said I would not go to the pit afterwards. I had complained to Rowland Rowland before this. Morgan Rowland and I have been together finding out the damp, we found fifty of sixty yards of gas. I remember, a few days after the explosion had taken place some men from Aberdare came in to examine the work. I told them to look at the third stall in John Caemaur’s heading. The stall had been shut up. It was where we had had the dispute about.

I afterwards went down, and found the place full of fire. After the dispute with Rowlands, I told Mr. Thomas I would not go into the pit again with them. I could see the danger of the men, and having been chosen by Mr. Thomas as firemen, I considered their lives were in my hands, I told Mr. Thomas I left on account of the danger.” By Mr. Gifford: - “The colliers had objected to my being the fireman, because they didn’t know that I was

proficient. I was not on that account discontinued – I left on by own will. I have seen fireman repairing the works since the explosion. Mr. Thomas told us, if there was danger, take a dozen or two men."

By Mr. Allen: "Morgan Rowland was fireman as well as myself. They said the fire was all right. That was why we fought." Re-examined: - "The colliers objected to me a year and a half before this - I heard no complaint afterwards. That had nothing to do with my leaving."

Rowland Thomas Rowland said:- "I was formerly overman and fireman at the Cymmer Colliery in the year 1854. I was there fourteen months. Mr. Jabez Thomas discharged me – I don't know what for. Morgan Richards was the other fireman, and Morgan Rowland. I remember Mr. Mackworth, the Government Inspector of Mines, coming and inspecting the pit. A communication was made to Mr. Thomas. I told him what had passed between me and Mr. Mackworth, and what the gentleman had said about the ventilation of the pit.

I told him Mr. Mackworth wanted to connect the South Wales and John Caemaur's heading and take the doors off the south level heading; to take the air over the level heading so far as we could, and to examine the bags by the side of the south level heading; to make them all safe, and to have the air as strong as possible at the end of the level heading; to make the air so strong as was possible to the top of the cross headings, and to enlarge the windways that went from one stall to another; to keep good windways all round the works, and the windway from one stall to another was to be three yards, - they were before a yard and a half; and to drive also from the old pit to the new one.

I said also that Mr. Mackworth had great objections to the flue, and showed Mr. Thomas a plan of the flue that Mr. Mackworth had drawn. I told him that he had marked on the plan, and that Mr. Mackworth had inspected and measured it; that he had marked on the plan to split the air into four or six slits. There was more general conversation between Mr. Mackworth and myself about the colliery.

I told Mr. Thomas what Mr. Mackworth told me about the various places of ventilation. The first plan was to drive into the heading at the boundaries,

and work backwards. The second plan was to divide the works into branches, and have fresh air for each branch. The third plan was the plan they were then working on. The first two plans were not adopted. The third plan was to work the works in one district, and to take the air round about. During the time I was at the works, Mr. Jabez Thomas had the management of the works, and I was doing according to his orders."

The judge: - "Is Mr. Thomas a civil engineer?" Witness: - "He knows about coal works. I have seen him underground. He was in the pit a few months before I left. I did not see him on that occasion, only he told me he had been. I had no power to make alterations without first consulting Mr. Thomas. I left in February 1855." By Mr. Gifford:- "I afterwards did connect John Caemaur's heading with the South Wales heading; opening windways in many places, and made the windways larger. I believe we made the ventilation good. I do not know why the men objected to my being employed as fireman as I first went there." Re-examined: - "The old firemen had been turned off when I was taken on. The men wanted them back, and objected to me. They did not object to me afterwards." By the court: - "I believe Mr. Mackworth was there in March 1854, I did not see him there afterwards. About half of Mr. Mackworth's directions were followed."

Evidence of the survivors

Thomas Davies, collier, said: - "I worked at the Cymmer pit at the time of the explosion, I was standing near David Arthur's dip. I did not see anything in the dip. When I got into the level, and was sitting down, the fire came along and stunned me. It seemed to come from the farther part of the heading. I did not see it – only felt it." By Mr. Allen: - "I went into the dip for some plates. There was no work going on. I had to open a door to get in. I used a candle. It was stuck in a piece of clay, and I had it in my hand. I did not see the fire - I only felt it. I was in the level heading, outside the door of Arthur's dip, when the explosion took place. I cannot tell which way I was thrown. I felt fire passing over me. William Jones was with me."

William Jones, collier, said:-"I was in the pit on the morning of the explosion. Thomas Davies was with me. I did not come from Arthur's dip, but from inside the workings."

John Thomas, haulier, said:- "I was a haulier at the Cymmer colliery. I was burnt; I was at the time of the explosion at the top of Arthur's dip. William Jones and Thomas Davies were with me. The explosion did not come from Arthur's dip, but from the farther end of the workings.

Thomas Hayman, collier, said:- "I worked at the Cymmer colliery going on for four years. Sometime before the explosion I was going into the work with Evan Lewis. I saw Morgan Rowland, and told him that Evan Phillips had told me that there was fire in John Caemaur's heading."

Evidence of the proprietor

Mr. James Harvey Insole said he was the proprietor of the Cymmer Colliery. Jabez Thomas was the manager, and his duties were specified by the special rule. The under-officers were employed by him. Witness did not remember receiving a letter from Mr. Mackworth in July 1852. Cross-examined:- In the ordinary course of things, Jabez Thomas's duties were above ground, as described in the rule he had mentioned. He saw to the ventilation, and Co.; through under-agents. Grey had to look after the ventilation, and report to Mr. Thomas. Re-examined: - Mr. Thomas was the responsible manager, as described in the rule referred to, witness had nothing to do with the engagement of Mr. Grey, it was done by Mr. Thomas, with whom rested the management of all the under-officers. To the judge:- "Jabez Thomas was not a person skilled as an underground man or engineer."

Evidence of local Inspector of Mines

Mr. Thomas Evans examined by Mr. Grove said: - "I am the inspector of mines for this district. I was not at the Cymmer Colliery before the explosion, having only recently been appointed at that time. My duty was to inspect the whole of the mines in the South Wales district; these numbered 230, and it would take two and half years to inspect them all. On going into the pit after the explosion and when some of the damage had been repaired, I could tell what means had been adopted for ventilation. I did not consider these means efficient. The workings of the mine had been much increased, and required a larger upcast shaft."

"From what I saw, I believe the explosion to have taken place in David Morgan's stall. There were strong marks of gas all along the heading and down the level heading. I measured John Caemaur's heading, and the heading in the down-throw fault; the windways there were not sufficient." His Lordship here said that it would have been well had the witness gone to the colliery before the explosion, and got the defects remedied. Had the prosecution indicted him he would have had a much better case. The inspector said that it was impossible that he could have visited all collieries in the district in the short time that had intervened since his appointment. His Lordship said that very likely it was so. The fault in that case rested with those who made the appointment.

Examination continued:- "The system of having so many doors was a bad one. I can only say that the explosion was due to insufficient ventilation. A large quantity of gas was accumulating in the under-coal beyond the fault." Re-examined by Mr. Allen: - "In Arthur's dip there is a door, and if this were left open it would take away a great deal of air from the main current, and would diminish the supply to the rest of the pit. Beyond that door were the old workings down to the dip."

Evidence of Mr. Mackworth

Mr. Herbert Mackworth, Inspector of the Monmouthshire, Gloucestershire, and Somersetshire district, said: "My district formerly included this district. In March, 1854, I inspected the Cymmer Colliery; the colliery was then about half the extent that it was at the time of the explosion. The area of the up-take shaft was very small – too small for the extension of the colliery. There should have been more air for the wants of the colliery at that time if it were in full work, but it had then been stopped for three months. The amount of ventilation at the time of the explosion was less than when I examined it in March 1854, and was altogether inadequate to the requirements of the pit at the time of the explosion.

The airway was upwards of five miles in length on the one side of the colliery. The main part of the current depended for a considerable length on a loose wall, from four to six yards in width, called a goaf, this allowed the air to leak, and it was about the worse means of ventilation that could have been adopted. More than two thirds of the air was lost by leakages

before reaching the fault. On 6th of September, 1855, I was at the office of the colliery after an explosion at the new pit, and with Mr. Hay, I went over the notes I had made on the former visit.

When I went to the pit in 1854, Mr. Jabez Thomas was ill, but I was told that Mr. David Evans was his representative, and with him and Rowland Thomas Rowlands I went through the colliery. I found no traces of fire-damp then; and the recommendations I made were with a view to the extension of the colliery. When there is six percent of fire-damp in the common air it becomes explosive, and the amount of ventilation was not sufficient to dilute the fire-damp as to render it safe for the men to work.

In my opinion the explosion arose from an accumulation of gas in the part of the colliery beyond the fault owing to insufficient ventilation. Had proper steps been taken I think this gas might have been removed. The most important improvement was the making of a communication between the shaft and the new shaft, because it would be impossible to introduce an adequate amount of air with the present downcast shaft.

Beyond the fault locked safety lamps were indispensable for security. Falls are dangerous by obstructing the air course, and it is the duty of the overman to remove them, or direct their removal. The cap on the candles denotes the presence of extreme danger. The margin between safety and explosion in regard to fire-damp is only about one-fiftieth. When indications of damp are perceived it is the duty of the overman to suspend the works until they are removed. Supposing the fire-damp to be seen by the fireman or the overman, they should prevent the men from going into those places likely to be effected by it."

Cross-examined by Mr. Allen: - "The men should be prevented going down the pit, as the most secure measure. My Hypothesis was that the explosion originated in Morgan Griffith's heading, formed upon the position of the doors. The strongest systems of fire I observed were between Morgan Griffith's and Thomas Ffynnonwen's stall." To his Lordship: - "It is very rare in South Wales that the explosive gas comes out of cavities in the coal."

Mr. Joseph Dickinson, Inspector of Mines for the Manchester district, examined by Mr. Grove, said: "I examined the Cymmer Pit after the

explosion by direction of the government. I consider the ventilation to be insufficient. In the first place there was a bratticed shaft which was objectionable; in the second place the upcast portion of the shaft was too small; third, the airways of the mine were too small. The number of doors in the mine was also very objectionable. Some of the cross headings appeared much too long, Jacob's heading being twice the length it should be. The ventilation beyond the fault had a special defect, as the separation of the intake from the return air depended upon a goaf which was allowed of leakage. The principal explosion was that side of the colliery; the indications show the fire had been very keen there. When caps are observed on the candles it indicates that there is not sufficient air, and the duty of an overman, on observing the caps would be to take measures for getting some more air into the mine." Cross-examined by Mr. Allen: "From my own observation I should have believed that the explosion took place in the Windway heading.

Mr. William Bedlington, mineral surveyor, of Abersychan, examined by Coleridge, said: - "I have had 25 years' experience in my profession. I visited the pit on the day of the explosion, and found the air very heavy. The furnace had been put out, and there was little or no ventilation. I returned the next day, when the furnace was lighted. I measured the air-courses, and found them very small. The doors were blown off in different directions.

I went into David Morgan's stall on 11th of August, and found the face coked. The furnace was too small for a colliery of that dimension, but the most objectionable feature I observed was the smallness of the air courses. David's Morgan's working was thirty or forty yards beyond the air, which I considered too far, especially so near the fault. Cross-examined by Mr. Allen: - "My first impression was in favour of the explosion having taken place in Arthur's dip. This opinion was strengthened by the direction I observed of the doors blown. By his Lordship: - "The system adopted at this pit was the same as at the other pits in the district, but this is defective, and ought to be improved."

The evidence of the Aberdare colliers.

John Edmunds, collier, examined by Mr. Coleridge, said: "I was one of the Aberdare colliers who went down into the pit after the explosion. I thought many of the windways, furnace, the upcast shaft, too small. The ventilation generally was very bad. I measured the airways, and in the smallest place the area was from eight to ten feet, but I think it should have been twenty-one feet, as at the furnace." To Mr. Allen: - "I think the fire first broke out between Morgan Griffith's and Griffith William's heading."

William Rees, another of the Aberdare colliers who went down the pit after the explosion, examined by Mr. Grove said that he found the place very close, and there were several falls there. The airways were too small. To Mr. Allen: - "I found a good deal of fire in David Morgan's stall." Re-examined: - "The airways would not have been sufficient had there been no falls."

Mr. Thomas Evans, the Inspector of the district, was now called upon to prove that the copy of rules produced had been certified by him. This being the case for the prosecution, Mr. Gifford submitted to his Lordship whether there was any case against his client, Jabez Thomas, contending that no particle of negligence whatever was proved against him, seeing that he was the above-ground manager, and acted as regarding to the interior of the mine by agents.

Mr. Evans, Q.C., observed, in reply, that Mr. Jabez Thomas being the above-ground manager made no difference at all. He had a duty to perform, and it did not matter whether he was above ground or underground. The learned counsel then quoted cases in support of this view.

Jabez Thomas discharged

His Lordship was of the opinion that there was no case to go to the jury against Jabez Thomas. The law required that there should be an immediate personal default before a conviction for manslaughter could take place. Now, it appeared that Jabez Thomas had adopted the system of ventilation in use through the district, and although the inspectors and other witnesses stated that an approved system should have been adopted, yet it would be

a strange thing if the law of this country should punish a person who had adopted the system in general use, merely because persons came forward to say another system should be adopted. He was of the opinion that there was no case to go to the jury against Jabez Thomas on the charge of manslaughter, and therefore he would be acquitted. Addressing himself to the jury, his Lordship said that there was no evidence that Jabez Thomas did kill and slay William Thomas, the person named in the indictment, and they would therefore return a verdict of not guilty. The jury immediately brought in a verdict as directed by his Lordship, and Jabez Thomas was discharged.

Mr. Allen then made a lengthened address on behalf of the two remaining prisoners, observing that the prosecution had altogether failed to show where the explosion originated. The way in which the case had been opened was very much as if his learned friend had thrown his bundle of instructions on the table, and said, 'Gentlemen of the jury – find a verdict of manslaughter against the two prisoners if you can.'

He said this because none of the witnesses called had attempted to set up one distinct theory as to the origin of the explosion, but each had brought forward a separate theory. In all there were seven suggestions as to the origin of the explosion – first it was said that it originated in David Morgan's stall – then it was stated that the day previous to the explosion the flue was imperfectly taken care of – against that again that it originated in Arthur's dip – then it was said to have originated in Morgan Griffith's heading, in John Caemaur's heading, in the Windway heading, and between Morgan Griffith's and Griffith Williams' heading.

Admitting, if it were proved the explosion originated in David Morgan's stall, his clients would be in a much more serious strait than they now were. Mr. Allen contended that there was no such proof, and that it was equally consistent to suppose that the fire originated in either of the other places he had mentioned; and that, therefore, there was no case against his clients of the neglect of any particular duty, which it was necessary should be established before they could be found guilty of manslaughter.

The judge sums up – the verdict

The judge summed up at very great length, with much minuteness. He said that the two prisoners at the bar stood indicted with slaying another without malice aforethought, which was manslaughter. The prosecution had been taken up on the part of the Crown, to satisfy the government inspectors and colliers in this large colliery district, and no doubt it was highly proper that such should have been the case, but the jury had nothing to do with these things. Without seeking to please people out of doors, they must faithfully discharge their duty – first, they must take their law from the judge, and then apply it to the evidence that had been brought before them.

The law of the case was that to substantiate the charge against the prisoners there must have been a culpable and gross neglect of duty – not an omission to do what persons of superior education in mining matters would have done, but a gross negligence to perform what a reasonable person in their circumstances and position would have performed. If the jury believed that there had been this gross negligence proved by the evidence, then they would return a verdict of guilty, and if not they would acquit the prisoners. They must find that the prisoners had been guilty of gross negligence of duty, and leaving undone that which any reasonable man in their circumstances would have done, and that such negligence was the immediate and direct cause of their death.

Now, did the facts as they came before them bring the charge of gross negligence, and therefore the cause of death, home to the prisoners? This colliery had been worked for nine years, and the windways, headings, shafts, and flue were the same as they had been for a long time before, during which time the colliery had been worked with safety. In this mine was what was called fire-damp, yet not withstanding this, candles were used by the colliers instead of the Davy lamp, and it was said that this was the usual way of working the mines in South Wales, except by the firemen in the morning, unless more than the usual amount of gas was apparent.

A person at all conversant with mining operations, however, must know that although a mine may for a long time be comparatively free from fire-damp, yet that it would sometimes break out and accumulate in a manner

almost unaccountable in even the best ventilated mines. Now a large portion of the evidence that had that day been given, had been such as was calculated to mislead the jury, rather than to assist them in arriving at their decision. Although this colliery had been in operation some nine years, it was inspected but once – by Mr. Mackworth, the former inspector, in 1854, and the present inspector, who had gone to all parts of his district, had never visited the colliery until after the explosion.

Mr. Mackworth, according to his own account, went to the mine in 1854, and then in September, 1855, although he was in the neighbourhood and walked over the surface, never thought it worth his while to go down into it to see whether the instructions he said he gave when he visited it had been carried out. Now if the Mines' Inspection Act was not to be a delusion and a snare, the inspectors ought to see the shafts, airways, and the whole machinery for the ventilation of the pits and the preservation of life in their several districts should be attended to.

Now what was the way Mr. Mackworth, the late inspector, attended to his duty? He went down into the pit and inspected it in 1854, with one Rowland Thomas Rowland, a man who it appeared from the way he had given his evidence, was an uneducated man, and very imperfectly acquainted with the English language. Now one would have thought that if Mr. Mackworth considered the alterations he recommended at all important, he would have put them into writing, and not have left a verbal message with an ignorant man.

One would have thought that such alterations as he recommended should have been placed in writing; that the owner of the colliery, the manager, the overman, the fireman, and every person having any post in the management of the colliery might have known what they were – for surely it was necessary to have Inspectors of Mines, it was most important that they should perform their duties properly, and not in the slovenly manner in which this work had been done.

If they, looking at these things, were to judge the men according to the way that they had discharged their duty, then he questioned much whether the mines inspectors should not have taken the place of the prisoners in the dock. (Mr. Evans, Q.C., here interposed, he said that he was about to call

for proof that Mr. Mackworth did reduce these instructions into writing, and that he sent them to Mr. Insole, the proprietor of the colliery, but his Lordship interfered and stopped him).

His Lordship: - Well then, taking it for granted that such was the case, did such instructions ever reach the prisoners at the bar? If not then the jury could not convict them of neglecting to attend the instructions that had never come to their knowledge. The two prisoners at the bar stood upon entirely different ground in reference to the charge now brought against them. Morgan Rowland was the fireman, and his duties were to see that the doors, airways, and co., were so kept that the proper ventilation of the pit should be kept up, and that they should go into the stalls and headings every morning before the colliers arrived, to see that the workings were free from gas, and that if there was an accumulation of gas so as to render the stall dangerous, then cross-timbers should be placed at the entrance of such working to indicate danger.

It had been attempted to show that the firemen who inspected the deceased Morgan's stall where the fire originated, did not use the precaution set forth in the new rules, that he put up such kind of signal as to have been used for the nine years preceding, and as these new rules had been in operation only about a fortnight, he left it to the jury to say whether they did not consider the men would understand much better a signal which they had been accustomed to for nine years, than they would a signal they had never before seen, but which had been laid down in the new rules which perhaps many of them had not taken the trouble even to read. But was this in the part of the mine where the fire originated? Because if it was not, then the prisoners were not guilty of the crime of which they stood charged. The jury must bear in mind the origin of the explosion at this point was only offered as a theory on the part of the prosecution, and indeed it was nothing but theory from beginning to end.

To find Rowland Rowlands guilty they must be satisfied that the explosion commenced in deceased Morgan's stall, and that he had been guilty of gross negligence in reference to it. There was often, no doubt, negligence on the part of the overmen, firemen, and managers of the collieries, in respect to the lives of the men, but who could not say that there was not also gross recklessness on the part of the men themselves. Indeed, it was

often found that the more dangerous the employment in which the men were engaged, the more reckless the men employed became.

Now supposing that Morgan Rowland was the principal fireman, that on him rested the responsibility as to the performance of duties on the part of the other firemen, which did not seem to be fully proved, was such a precaution used as would have prevented danger. There were two things that he could have done - either have put up a danger signal, or have prevented the party working in the stall from going into the pit. They had heard the evidence of Jones, and he had told them that he did put up the usual danger signal, and that he had done more than this – he had cautioned the parties working near there not to go into the stall. The deceased whose death they were inquiring into did go into the stall – but would the jury say that the unfortunate man had not disregarded the danger signals, and if death was the consequence, it was in consequence of such recklessness?

There had been five different theories given by the witnesses as to where the explosion originated, but to return a verdict of guilty against Morgan Rowlands, the jury must be convinced that the explosion originated in deceased, Morgan's stall, and that the usual precautions had not been taken, by placing the proper danger signals to prevent the persons going into it with whose death the prisoners stood charged. If they supposed the explosion might have originated in any other part of the mine, they would give the prisoners the benefit of such doubt, and return a verdict of not guilty.

The charge against Rowland Rowlands, was, that he had sent the deceased and his brother into this stall to work; but to convict him they must be satisfied that it was after this inspection of the pit by the firemen, and that knowing there was danger to be apprehended, that he had sent them there. Much had been said about the inadequacy of the ventilation, by the inspectors who had visited the pit after the explosion, but this was indirect evidence. Direct evidence was always the best and most to be relied upon, and the direct evidence which they had was that the workmen who worked in this pit immediately preceding the explosion, saw nothing in the ventilation to complain against but that it was as good as usual, and that the Saturday previously the current of air was so strong that the candle

belonging to one of them was put behind the boarding to prevent it being blown out.

The only person speaking of the imperfect ventilation previous to the explosion was the witness Hay, and he spoke of it more as regarding the impurity of the air than its inefficiency to quantity; but surely if he found that anything was required it was his duty to have attended to it. As for Mr. Insole's evidence it had been shown that he was the underground engineer, whose duty it was to see that everything was properly carried on throughout the workings up till the Friday preceding the explosion; and he thought he might here be fairly asked as such being the case, if the explosion was in reality the result of gross negligence, was it not a negligence on his part, and whether his place might not justly be beside the prisoners?

Another complaint was of the system adopted, yet surely the jury could not say that the prisoners were guilty of gross negligence by adopting a wrong system of ventilation when all the mines in the district were similarly worked. His Lordship having gone through the whole of the evidence, put it to the jury to say whether, according to the evidence, and according to the law he had laid down, they believed the prisoners to be guilty**.**

The jury after a very brief consultation together acquitted both the prisoners. They were then charged with the manslaughter of Thomas Lewis and William Edmunds at the same time and place; but no evidence being offered, the jury found them 'Not guilty' on these indictments also; and the prisoners were discharged. This concluded the criminal business of the assize.

The aftermath of the trial

The people of the community and especially the families of those killed in the Cymmer explosion naturally felt anger and frustration at the verdicts. These feeling lasted a long time. E. D. Lewis, recalled that his great-grandfather, just before the First World War, still remembered the bitterness felt. Herbert Mackworth felt that little benefit came from the verdicts and colliers that had spoken out during the inquest had found it difficult to get employment in the coal industry afterwards.

Herbert Mackworth recounted how one of them with a large family, and who distinguished himself by his courage and activity underground at the time of the explosion, applied to me for pecuniary assistance in consequence of being refused work for ten weeks and more after the explosion. The bitterness was apparent during the Rhondda miners strike of 1857, in which Cymmer workmen took a leading part, but eventually troops were once again called in and the colliers were forced to take a 20 percent drop in wages.

However, there were some improvements brought into effect at Cymmer. The use of naked lights was reduced, though the colliers' still persisted in buying cheap lamps and opening them to get more light, and it was not until the 1870s that the Insoles equipped each collier with a safety lamp and prosecuted anyone tampering with them. However, the renunciation of open lamps and candles at the Cymmer pits and level was a slow process, despite the grim and awful warning of July 1856. Even when eventually, safety lamps were used safety lamp discipline had to be instilled into the miners. Mackworth recounted with horror how the overman appointed subsequent to the explosion to take charge of the Cymmer Colliery, had been concerned with several explosions in the Aberdare Valley. "Such was his recklessness, that, on being sent by Mr. Insole with me into the colliery, three weeks after the explosion, I found him in the most dangerous part of the mine, opening a safety-lamp, which, as there were no locks on the lamps, I had previously carefully tied up, and given him the strictest instructions against opening."

The New Cymmer Pit was connected to the Old Pit in 1857, its shaft becoming the downcast, and later a Waddle fan was installed to replace the furnace system of ventilation.

Those who lost their bread-winner at Cymmer became dependent on parish relief and small payments from 'The Cymmer Widows' and Orphans' Fund.' Some of the widows, especially those with children, found it more convenient to remarry.

A somewhat chastened Jabez Thomas continued for many years as manager of Cymmer Old until he retired through old age.

E. D. Lewis wrote: - After 1856 many coal owners as well as workmen felt that public charity should not be relied upon and that sporadic relief funds were no substitute for systematic compensation. Several schemes were projected, the principal feature of which was state legal action, whereby each thousand tons of coal should be linked to an accident rate, borne by the producer and purchaser in the selling price. Every scheme collapsed in the face of the opposition of the men, who feared that such a fund would lead to less care being taken by the employers.

It was not until 1 January 1881 that the Monmouthshire and South Wales Provident Society, based on contributions from ordinary members, the colliers, subscriptions from coal owners and landlords, and donations from honorary members was finally established. At last a quarter of a century after the Cymmer disaster, a fund was formed to relieve the relatives of deceased members in case of fatal accidents and in cases of non-fatal accidents to make some provision for the sufferers. The Cymmer explosion also marked a turning point in the history of the Prudential and other big Insurance Societies. The urgent need for some respectable insurance company to open branch offices in this coal district was stressed by several speakers at the relief fund meetings held at Pontypridd and Cardiff. Consequently the London insurance companies entered South Wales, as industrialisation began to affect the structure and climate of society.

In 1862 an attempt at Cymmer was made to win the steam-coal seams, but after the expenditure of £500 the venture was abandoned and the colliery continued to work the No. 2 and No. 3 Rhondda seams only. Between 1875 and 1877 the Cymmer Old Pit was greatly deepened to 410 yards and four abundant seams of high rank steam-coal were won. In 1913, the peak year of production, 2,201 men were employed at Cymmer Old, and New, and over 11,000 tons a week were despatched to Cardiff.

The rural and sylvan characteristics of the district had disappeared and Trebanog, Cymmer, Glynfach, Porth and America Fach had merged into an elongated series of adjacent communities dependent for their existence on the fortunes of the greatly enlarged Cymmer Collieries. Older miners living in 1913 still remembered with awe and bitterness the great Cymmer explosion of 15 July 1856, and the cause célèbre of the subsequent inquests and Assize Court proceedings. Herbert Mackworth who had

fought such a protracted and courageous battle against the greed and prejudice of the coal owners and the indifference and ignorance of officials, died a young man of thirty-five in 1858.
The Cymmer Colliery closed as a production unit on the 30th of March 1939 but was then sold to Powell Duffryn as a pumping station to protect Lewis Merthyr. It was used as a pumping station and for ventilation until 1968. The headgear was dismantled in 1970 but the winding house and a lot of the other colliery buildings were still up and these were being used as small workshops. The site was cleared in 1983.

The Cymmer explosion took its place in history as the first disaster in which more than 100 were killed, but also showed the greed of the owner, the incompetence of the management and the failure of Parliament to provide effective control over those exploiting the workforce so blatantly for themselves. Also, the fact that the first language of most of the colliers was Welsh and those within the legal system only spoke English could have only increased the alienation of the workmen.

However, the stubborn ignorance of the colliers concerning the No. 3 seam also seems unbelievable to people today. It is a story that highlights the competitive nature of the coal industry in the booming but ruthless early years of the coal trade. Nevertheless, some of those involved, such as George Overton, Herbert Mackworth, John Owen (the bereaved families' solicitor), and William Bedlington, the veteran mining engineer, showed that there were those in power and influence opposed the outlook and practices of the industrialists of the day. At the least, the Cymmer disaster alerted people outside the coal industry, those willing to listen, to some of the appalling conditions within it.

Victims of the 1856 Cymmer Colliery Disaster			
1.	Thomas Andrews	73.	Walter Miles (brother of Richard)
2.	Dafydd Dafydd (10	74.	Dafydd Morgan
3.	Morgan Dafydd	75.	Dafydd Morgan
4.	Philip Dafydd	76.	Enoch Morgan
5.	Thomas Dafydd Snr.	77.	Isaac Morgan
6.	Thomas Dafydd Jnr. (12	78.	John Morgan
7.	William Dafydd	79.	Morgan Morgan
8.	Dafydd Daniel	80.	Morgan Morgan
9.	Dafydd Davies	81.	Thomas Morgan
10.	Daniel Davies	82.	William Morgan
11.	Hezekiah Davies	83.	Evan Phillips
12.	Thomas Davies (son of	84.	Isaac Phillips
13.	Eli Davies (son of No.	85.	Dafydd Powell
14.	Thomas Davies Jnr.	86.	Aaron Rees
15.	William Davies	87.	Benjamin Rees
16.	William Davies	88.	John Rees
17.	Dafydd T. Davies	89.	Richard Rees
18.	Edward Davies	90.	Thomas Rees
19.	Samuel Edmunds	91.	William Rees
20.	William Edmunds (son	92.	Richards, David (brother of below)
21.	Thomas Edwards	93.	Richards, Zachariah
22.	Benjamin Evans	94.	John Roberts
23.	John Evans	95.	Jechonias Salathiel
24.	John Evans (son of no.	96.	John Salathiel
25.	Matthew Evans (Father	97.	George Solloway
26.	Morgan Evans	98.	Henry Solloway (son of above)
27	Philip Evans (Son of 28)	99.	Dafydd Thomas
28.	William Evans (Father	100	Dafydd Thomas
29.	Benjamin Gibbon	101	Dafydd Thomas
30.	George Griffiths	102	Daniel Thomas
31.	Henry Griffiths	103	Evan Thomas
32.	John Griffiths	104	Gomer Thomas
33.	Peter Griffiths (Brother	105	John Thomas
34.	Dafydd Harries	106	James Thomas
35.	Evan Hopkins	107	Nathaniel Thomas (brother of Daniel)

36.	Thomas Hopkins	108	Llewellyn Thomas
37.	David Howells	109	William Thomas (brother of above)
38.	David Howell	110	Daniel Williams
39.	Edward Howell	111	John Williams
40.	Evan Hughes	112	Thomas Williams
41.	Evans Hughes Jnr.	113	Thomas Williams
42.	John Hughes	114	William Williams
43.	William Hughes		
44.	John Isaac Snr.		
45.	John Isaac Jnr.		
46.	Henry Jervis		
47.	Dafydd Jenkins		
48.	John Jenkins		
49.	John Jenkins		
50.	Rees Jenkins		
51.	Williams Jenkins Snr.		
52.	William Jenkins Jnr		
53.	William Jenkins		
54.	Dafydd John (father)		
55.	Joseph John (son)		
56.	Thomas John (son)		
57.	Henry Jones		
58.	William Jones		
59.	Daniel Lewis Snr		
60.	Daniel Lewis Jnr		
61.	Edward Lewis		
62.	Evan Lewis		
63.	Thomas Lewis		
64	Thomas Lewis		
65	William Lewis		
66	Thomas Llewellin		
67	William Llewellin (bro.		
68	William Martin		
69	Thomas Matthews		
70.	Evan Miles		
71.	Richard Miles		

72.	Matthew Miles		

*Daffydd, the Welsh name for David.

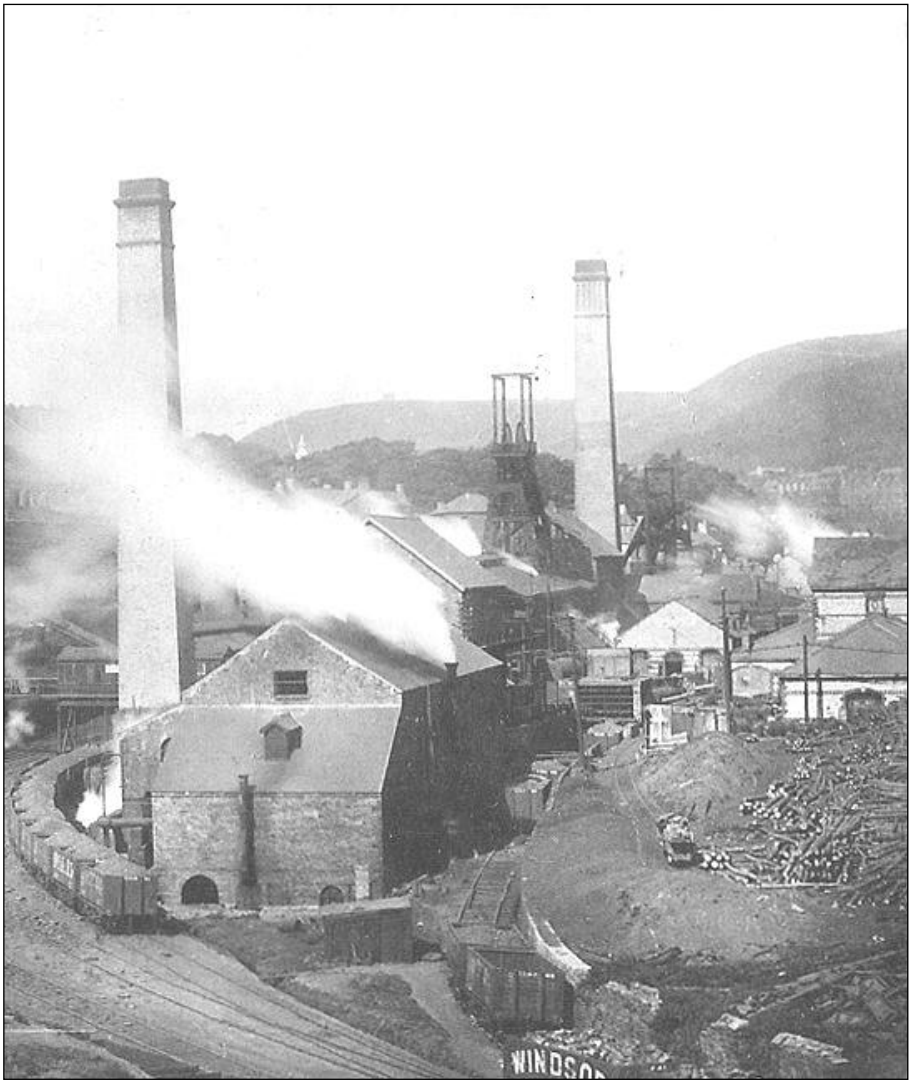
There were several lists of those issued after the Cymmer Colliery disaster, but many were incorrect or only contained numbers around 90-91. Most of the names above are taken from the official inquiry which totalled a number of 114. The name Badway appears in some lists. 112 died on the date of the explosion, and the body of Lewellyn Thomas was discovered the next day. Morgan Evans died on the 17th. Despite intensive research there appears to be no definitive list of those who perished and as such the above list should not be considered as 100 per cent correct.

Accidents in coal mines

Monmouthshire Merlin 12th Sept 1857: - From an analysis of the reports of several government Inspector of Coal Mines for the year 1856, it appears that the number of lives lost in colliery explosions during that period was 1,023, of these 235 deaths were caused by explosions; 403 by falls of roof and coal; 210 by accidents in shafts; and 175 by accidents of various other descriptions. In the South Wales district two explosions – one at Cymmer, where 114 were killed, and the other at Cwmavon, where 12 lost their lives – of a very disastrous character took place and we consequently find the number 136 higher in that district than in any other.

Another fatal colliery explosion

The *Cardiff & Merthyr Guardian* of May 23rd 1857 reported: - An explosion of fire-damp occurred on the morning of Monday week at the Cymmer Colliery, the property of Messrs. Insole' whereby two persons were suffocated by the choke or 'after-damp.' Their names are John Jones and Thomas Jones, brothers. The former has left a wife and three children to mourn their irreparable loss, and the latter had only been married a few months. It appears that the fireman had been in as usual in the morning, and had put the signal of danger, and otherwise warned the men not to enter the pit on any consideration.



The Cymmer Colliery from unusual angle, date unknown

CYMMER COLLIERY, SOUTH VIEW.

VISCOUNT TONYPANDY and the Rev Keith Phillips join in the singing to the great Welsh hymn tune, *Cwm Rhondda*, at the memorial service to the 114 victims of the Cymmer Colliery disaster of 1856.

Valley site holds a store of memories of a great disaster

By DAVID ROWLANDS

NEARLY 700 people turned up for a memorial service yesterday to Rhondda miners who died in underground disasters at the former Cymmer Colliery, Porth.

At Leo's Superstore, which has taken over the colliery site, Viscount Tonypandy unveiled a memorial plaque and colliery tram from the Cymmer Colliery placed in memory of the 114 men and boys killed in an explosion at the colliery on July 15, 1856, and of the many other miners who perished in Rhondda colliery accidents.

The former Speaker of the House of Commons said that while the miners of the Rhondda had suffered many disasters and hardships, these had failed to quench the spirit of the twin valleys.

He told the young people present they were lucky that they did not have to go to work underground. Among the 114 who died there were a great many children aged from seven to 16.

He praised the support the Co-op stores had given to the miners' families in the hard times they suffered during the General Strike of 1926.

"The Co-op allowed their customers to run up £12,000 worth of debt and they (the customers) repaid every penny," he said.

Mr Dilwyn Littlejohns, Co-operative Retail Services regional food manager, said that from the beginning of coal mining in the Rhondda the community had suffered many upheavals.

He said there had been disasters not only at Cymmer Colliery, but also at Dinas, Ferndale and Maerdy. But the scale of the Cymmer explosion had shocked the whole country.

"At 6 a m 160 men and boys went down the pit and only 46 survived."

Prayers were led by the Rev Keith Phillips and the hymns were accompanies by the local Salvation Army band.

After the memorial service, guests including the mayor of Rhondda, Mrs Edie May Evans, were invited to a buffet meal at the Leo's Superstore.

On November 6th 1988 a memorial was erected on the former site of the Cymmer Colliery, now a supermarket car park, to commemorate the 114 men and boys that had died in 1856 explosion.

City tribute to fallen miners

On July 16th 2010 a service to remember those killed in the Cymmer Colliery explosion of 1856 was held in Cardiff. The commemorative event - on the same day of the disaster which claimed the lives of 114 men and boys from Rhondda Cynon Taff - was held in the grounds of Insole Court in Llandaff. Businessman James Harvey Insole built the Victorian mansion in 1856 and expanded it using the industrial fortunes of the Cymmer Colliery.

The Friends of Insole Court dedicated a tree to the memory of those "from whose labour the wealth to build this mansion and its gardens was derived." Group patron Captain Sir Norman Lloyd-Edwards led a short ceremony in between rain showers. The Lord Mayor of Cardiff, Keith Hyde and his counterpart from R.C.T., Simon Lloyd, were also present. Sir Norman told the gathering: "The friends are very much aware of the history appertaining to this house and its links to the history of Cardiff. It is important Cardiff recognises that we built our great city on the coal that was mined in the Valleys."

John Prior-Morris, Friends of Insole Court chairman, added: "Remembering this event in the quiet beauty of these public gardens in Llandaff will serve as a stark reminder of the historic debt owed by Cardiff to the toil and suffering of what has been called 'a vast army toiling underground' in the Valleys to the north." Sam Williams, a pupil at Llandaff Church in Wales Primary School, concluded the ceremony by unveiling a plaque. His classmates were then each given an historical artefact to return to Insole Court's mini exhibition.

A glass cabinet permanently housed in the mansion now holds a pair of lanterns, a pick and coal dating back to the tragedy exactly 154 years ago. Describing Insole Court as Llandaff's "little jewel", Councillor Hyde paid tribute to its founders and the families of fallen miners. He said: - "Some of them, as young as 12 on that fateful day, were just looking forward to another hard day underground - and, of course, it was to be their last. The council recognises the important place that this house and gardens play in the history of Cardiff and Wales as a whole."

John Isaacs, a member of the Friends of Insole Court committee, said the Cymmer miners deserved to be recognised. The former head teacher of Cardiff's Cantonian High School added: - "Part of our aim is to make the younger generation aware of what Cardiff was and why Cardiff was - and the Cymmer Colliery disaster was a significant part of that." Insole Court is a Grade II listed building which has been the subject of a number of funding bids to restore it to its former glory. Now serving as a community centre for adult learning.

Insole Court, Cardiff

Insole Court, a Victorian mansion hidden in the heart of Llandaff, Cardiff, was built in 1856 by James Harvey Insole, who owned Cymmer Colliery in the Rhondda Valley. The production of Rhondda Steam Coal, sold through his offices at Cardiff Docks, made the Insole family extremely wealthy. He spent forty years developing his mansion and extending his parkland. He employed architects and artists who followed the Gothic revival movement led by Williams Burgess, at Cardiff and Castle Coch.

James Harvey Insole (1821-1901) was born in Worcester and came to Cardiff in 1827 with his father George Insole (1790-1851) who became owner of Maesmawr Colliery. The family's success developed with the expansion of the coal industry and George Insole's activity and involvement in the steam-coal shipping trade. George Insole was a promoter of the Taff Vale Railway. J. H. Insole joined his father in business in 1842 and they purchased extensive coal mining privileges at Cymmer and elsewhere in the Rhondda valley. J. H. Insole was a director of the Penarth Dock and Railway and of the Ely Valley Railway. He became a magistrate of Cardiff 1857 and Glamorgan 1867 and was first president of the Cardiff Chamber of Commerce.

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 of 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 pf brick making, also used for the 'stemming' of shot-holes in mines.

Fire-damp – Chemically known as carburetted hydrogen or methane, has a specific gravity compared with air of ·559 and is therefore found near the roof. When fire-damp explodes, after-damp is formed, and consequently, nearly every death caused by colliery explosion may be attributed to gas poisoning.

Fireman - Local name for a deputy. Sometimes the man who looked after the ventilation was also known as a fireman.

Flueman – The man appointed to maintain a fire in the flue.

Furnace ventilation – A method of ventilation in which a fire is kept burning near the bottom of the upcast shaft, to draw air into the mine workings. Also called 'flue.'

Gas - A term normally used for firedamp, but could be any gas found in a mine

Gas drift - In order to prevent an accumulation of gas in the mines, which is the principle cause of colliery explosions, an escape drift should be driven from the upcast into the summit of the goaf, providing the overlying measures are bound by a strong post girdle, which can resist the draw of the goaf to the surface. By this means the gas would escape to the upcast as fast as it was given off, but where the upper measures consists of loose shaly matter, and each fall in the broken section or goaf reach the surface, an escape drift would be of no benefit whatever in this respect, but the gas in this case would find its way into the return airway under certain atmospheric changes, and would in connection with the return current, ascend the upcast. The gas would be drawn up the upcast shaft through the 'gas drift' and bypass the furnace at the bottom of the shaft.

Goaf - The worked out ground of a coal mine

Goit – Drainage ditch (north of England term)

Hard heading - A drivage through rock and coal at an angle to contact a seam for future production.

Haulage engine – A steam, compressed air fixed engine, on surface or below ground. Used for taking into the district trams filled with supplies and returning with a full journey of coal.

Haulage plane – The actual 'run' of a journey into a particular district, its gradients, turns, etc., details that are familiar to the haulage-engine driver.

Heading - A drivage in advance of any coal-face, driven to determine mining conditions ahead.

Haulier - A miner who drives a horse to the coal-face or stall with an empty tram and returns to the 'double parting' with a full tram of coal. He is in sole charge of his horse.

Haulage engine - A steam, compressed air, or electrical type of fixed engine, on surface of below ground. Used underground for taking in a district supplies for the face and returning with a full journey of coal.

Hitcher - A man at pit-bottom who operates the shaft signals which are heard by the winder and banksman.

Inbye - A word to describe the relative position of anyone in a mine e.g. "He has gone in-bye' 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 wire**s.**

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 lecel's initial gradient.

Longwall - A method of mining coal with all the colliers of that district manning one lengthy coal-face. No pillars were left behind in a longwall face and the roof was allowed to 'cave in' behind the line of supports.

Management of mines – 'Official' was the generic term for all levels of management, from agent down to shot-firer. Formerly, in large coal companies one or more 'Agent' would have been in charge of a group of mines. Each mine would have a manager (viewer) who was required in the 1870's to be properly qualified and answerable (but not legally) to the Inspector of Mines. The under-manager (or under-viewer) was generally responsible for the immediate supervision of operations in his district. Overmen were responsible for the provision supplies when needed, including timber for support of the roof. The overmen of the 19th century also had the responsibility for calculating the wages due to each collier.

Master-haulier - An official who organises the tasks of hauliers and checks the shifts of horses in his care.

Manhole - Refuge holes made in a roadway for the shelter of a person from shot firing, or safety from a passing journey.

Ostler – A horse attendant, working in underground stables.

Outbye - Towards the shaft or to the mouth of a level.

Overman – See Management of mines

Packs (see cross-walls) - In long-wall faces, a wall of loose, available stones would be erected, and then packed tightly with loose debris. This would support roadways at the ends of the face and also direct ventilation efficiently.

Pair of timbers - Wooden roof supports consisting of two arms and a collar.

Pillar and stall – A system of mining a seam, by mining the coal in parallel 'stalls' advancing onwards. The stalls would be about 22 yards apart, depending on the roof conditions and height of seam. 'Cross-cuts' would be driven at right-angles

every 25 yards to link up all stalls, this leaving 'pillars' of coal to support the roof of the district. Each stall would be manned by two workmen.

Regulator - Similar to an air door bit with a smaller sliding door on it. You slide the door across to change the area of the opening thus regulating the air flow.

Repairer - A workman employed on out-bye work, repairing and replacing damaged roof supports, and generally ensuring a good state of airways, etc.

Return - A ventilation term. The area of a mine through which travels the foul air and gases from the workings and coal faces, on the way to the upcast shaft.

Rider - A thinner piece of coal above the main seam (sometimes too thin to work). It is often of inferior quality. The tender clod probably means the muck between the main seam and the rider which is of a soft quality so that it often falls when the coal is removed.

Rubbish - A general term for any sort of debris, stone, dirt, etc, to be disposed of.

Safety lamp - see 'Davy.'

Seam - One of a number of beds of coal, normally found throughout a coalfield.

Shaft - The 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 of 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.

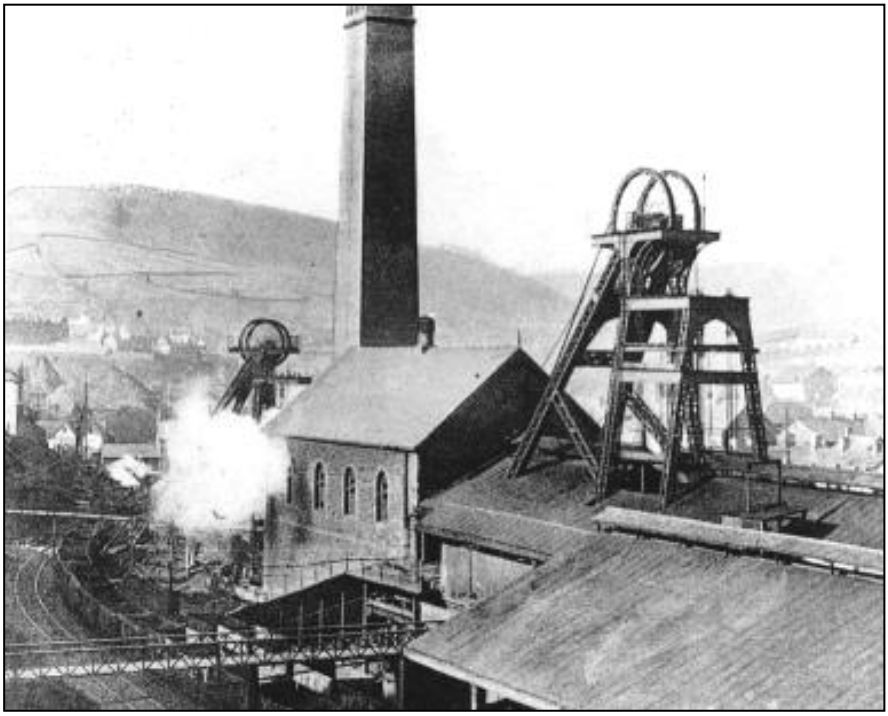
Viewer – Colliery manager during the 19th century.

Water balance – See balance pit.

Water Gauge – Instrument used to determine the pressure difference between either the 2 shaft bottoms, or the main intake and return roadways, thus find out the ventilating pressure. Still used to this day only more up to date magnetic gauges rather than a glass U tube with water in.

Mining disasters in the Rhondda Valley 1850 -1965					
Colliery	**Location**	**Date**	**Year**	**Death toll**	**cause**
Dinas Colliery	Dinas	1 January	1844	12	gas explosion
Cymmer Colliery	Cymmer	15 July	1856	112	gas explosion
Ferndale No. 1 Pit	Ferndale	8 November	1867	178	gas explosion
Ferndale No. 1 Pit	Ferndale	10 June	1869	53	gas explosion
Pentre Colliery	Pentre	24 February	1871	38	gas explosion
Tynewydd Colliery	Porth	11 April	1877	5	flooding
Dinas Middle Colliery	Dinas	13 January	1879	63	gas explosion
Naval Colliery	Penygraig	10 December	1880	101	gas explosion
Gelli Colliery	Gelli	21 August	1883	5	gas explosion
Naval Colliery	Penygraig	27 January	1884	14	gas explosion
Maerdy Colliery	Maerdy	23–24 December	1885	81	gas explosion
National Colliery	Wattstown	18 February	1887	39	gas explosion
Tylorstown Colliery	Tylorstown	27 January	1896	57	gas explosion
National Colliery	Wattstown	11 July	1905	120	gas explosion
Cambrian Colliery No.1	Clydach Vale	10 March	1905	34	gas explosion

Naval Colliery	Penygraig	27 August	1909	6	cage fall
Glamorgan Colliery	Llwynypia	25 January	1932	11	firedamp
Blaenclydach Colliery	Clydach Vale	25 November	1941	7	runaway trolly
Lewis Merthyr Colliery	Trehafod	22 November	1956	9	gas explosion
Cambrian Colliery	Clydach Vale	17 May	1965	31	gas explosion



The Cymmer Colliery date unknown

Addendum

A day in the Rhondda valley – July 1856

As this book goes to print I found the following article by J. N. Allen in the '*National Magazine*' of the time which tells of a trip to the Rhondda a day or two after the 1856 explosion:-

Dr. Mackay told us some time ago that it was unwise to think that there was no poetry in railways. If there is not poetry in them, there is occasionally *on* them; and if there is a poetical railway anywhere verily it is that of the Taff Vale in Wales. Why, it takes its name from the River Taff and the beautiful valley through which that river flows; and for almost its entire length it runs side by side with the gentle Taff, as if it were a lover of hers, and would follow her closely wherever she went. It may be that he appears an unfit suitor, that he is too burly and hard, too much of a big bully, in fact, and she a timid, soft, and beautiful being; but "in joining contrasts lieth love's delights," and Ingomar falls in love with Parthenis, and is happy with her, moreover.

If the river and the rail are lovers in this instance the former is a coquette; and though rail sticks pretty closely and jealously to her, she, in a wild merry way, evades him now and again, and loses herself amongst the thick bushes and beautiful green trees that spread their rich arms over her, as though they understood the fun and would humour her.

On our way from Cardiff to Pontypridd we pass towns and villages besides – Llandaff, Pentyrch, Taff's Well, Treforest. You run at the foot of high wild-looking hills, with cottages midway up them, standing there without falling in some unaccountable manner, and looking down upon dreary iron-works below, at which their occupants are employed. You pass by little white washed cottages with rose trees at the door, and a little garden that has steps leading down to the edge of the river. You get buried amongst thick bushes and avenues of trees that shut out everything else till you get clearly away from them; when a wide expanse of scenery, really natural, though not uncultivated (it will be understood), - breaks upon you.

You catch a glimpse anon of some ruined tower that has a history of its own, and it is now overhung with wild foliage, or on the brow of a lofty hill, that you might be pardoned for calling a mountain, you see an ancient pile of stones erected, whereby hangs a tale, which perchance some fellow-passengers can tell you. During the minute or two you are detained at various stations, you see little groups of very Welsh faces, especially as regards the women, with bodies attired in Welsh

fashion, and with mouths which speak a language that is not English, and makes you feel yourself abroad.

But while I am thus admiring the scenery and enjoying the ride, do not let me forget that my mission is not one of pleasure, and that I am likely soon to be made sad enough, if I have a spark or thought or feeling in me, but there is little chance of my forgetting whither or why I am journeying. My fellow passengers have been talking about what at present occupies all minds here about. During the short time we have stopped at a station, I heard the words "Cymmer," "Terrible colliery explosion," and "Killed," uttered by people on the platform. Last night, at the Inn at Cardiff where I stayed, the people in the bar talked about little else but that accident and it has formed the staple of conversation among the railway passengers.

The train stopped at Pontypridd, and I got out. On proceeding into the town the signs of mourning lay very thick. Cymmer is but three miles off; and it was the day of the funerals. Nearly all the shops in Pontypridd were closed, and the streets were deserted except at certain points, where you saw numbers of working people, with sad earnest faces, proceeding towards Cymmer. From the windows of the several public-houses I saw a black flag suspended, and waving heavily in the breeze, and this, when one saw the dreariness of the town, and remembered that within half-an-hour's walk lay 114 men, who had in one moment been snatched into eternity, had an effect wonderfully appalling for so simple a thing. On inquiry I found that at those houses, such as Foresters' or Oddfellows' flags were hung out as a token of mourning and respect for some of the order who had perished in the colliery, and that it was an old and ordinary custom.

Cymmer is situated in the Rhondda Valley, about 3 miles from Pontypridd, as I have said before; and is almost entirely surrounded by lofty hills, abounding with winding and rugged paths, and exhibiting much of the general wilderness of Welsh scenery. From Pontypridd to Cymmer, besides the ordinary road, which is rather circuitous, there is a tramway along which coal is conveyed from the Cymmer Colliery to the railway station at Pontypridd. This tramway, being the directest cut, is generally chosen by the people for walking upon, in reference to a highway; and along it all day on that Thursday, coffins, at sadly quick intervals, were passing – still passing, being conveyed for burial at Pontypridd or the little villages in the way.

When I reached the village, a short distance from the last named town, and where the Great Western Pit, as it is called, is situated, I met the first funeral procession slowly winding its way, among some of the loveliest scenery the eye could ever behold, to the little church that nestles at the foot of the hill there.

There were two coffins, one containing the body of a father, and the other that of his son; and they were accompanied by certainly not less than 200 people, principally colliers and their wives, most of whom preceded the coffins, which were carried shoulder-height each by four men. Another little procession followed close upon this one, bearing one body; and on the way dark moving masses kept constantly revealing themselves to us as we turned some corner in the road, or ascending some steep hill that gave us a view of the way beyond us.

At the scattered cottages or little clusters of cottages that hung by the wayside, it was evident here and there, from the sorrowful groups around the doors, that death was there, and that they were only waiting to form processions such as those we were meeting; whilst we kept overtaking hosts of passengers on foot, colliers and their wives mostly, who were going to Cymmer to attend the burial of an acquaintance or a friend.

Everybody knows what a picture dreariness and desolation the vicinity of a coal pit is, and the colliery at Cymmer must at any time be a sad and miserable place to look at. I was glad to get away from it. It was not deserted; neither were its frequenters curiosity seeking alone. A couple of days before all its workers had been killed; but above ground there was yet a crowd of busy workmen, who covered the black and dreary spot, and were making coffins by dozens and by scores for the dead. Here, in these two days, coffins almost to the number of the killed had been made; and *such* coffins (?), but anything to be buried in; four deal boards, four brass handles, a little ornamental work to look like silver-lined braid that go round the edges, and a tin-plate to scribble the name and the age of the deceased upon, and it was quite sufficient.

During that day the funerals never ceased. The large numbers that attended each procession, which generally conveyed two or three bodies, were very striking, and gave one a pretty good idea of the vast numbers employed in collieries in and around the Rhondda Valley. I saw a very great number of funerals, and on the average each body could not be accompanied by less than 40 persons. The character of the processions spoke plainly of sudden death and a quick burial, in no respect more so than in the absence of black apparel, particularly as regards to the females, and the relatives of the deceased who followed. It was sad, indeed, to see some of the young women following the body of a father or a brother in attire that betrayed a simple and rude attempt at finery and fashion, and spoke of happy days not long gone by.

Many of the funerals left Cymmer to travel some miles to another churchyard; and in these instances I observed that the mourners proper generally rode on horseback in the pillion-fashion, a man and a woman being on the same animal. I

in no instance saw a vehicle of any kind. The old-fashion custom of singing hymns as the funeral procession travelled towards the churchyard seemed very prevalent; and from all sides some simple sacred melody kept falling upon the ear, chanted by scores of voices that resounded amongst the hills. Every hour of the day each burial ground in or about the village had its two or three separate groups clustered in it, each bespeaking so many funerals; and unceasingly the long black masses were moving slowly up the hills or along the roads in the valley.

Surely not the least saddest of the sights were the appearance of the cottages at Cymmer. There were entire rows of them, not one of which, it appeared, had not been visited by death. Nearly all the doors stood open, and in some, as you passed, you could see the joiners fastening up the coffins; in others the friends of the deceased were gathering ready for starting with their load; and in others, again, a bed was visible, and you could see, not withstanding the white sheet thrown over it, that more than one dead body rested upon it.

Here I will pause. Before I left Cymmer I imagined the poverty and desolation in the village that would follow, and the change that must speedily occur in the population. The place was then filled with widows and young fatherless children. I saw all these swept away, many of them into workhouses and unions; while an entire new class of people came and inhabited their homes. And I also thought, of some men, with great power to do good and remedy either what I saw that day, that when they read of 114 lives "lost in the pit," they would not regard them as so many dry numerals, but as so many men with living blood and souls, snatched with pure suddenness from life to eternity – and act accordingly.

The following contemporary poem, which ends in an appeal for funds for the relief of the sufferers of the Cymmer disaster is the conclusion of this book: -

The terrific Colliery explosion in the Rhondda Valley

Oh, did you mark that fond adieu,
That tender chaste embrace –
The look the miner bent upon
His doating wife's loved face?

A hearty boy, too, bids farewell,
And now they both have gone
To labour at their daily work –
That father and his son.

And did you see the parent look
Bestowed on each small form,
That trotted up to father's side,
To have his kiss so warm?

And now deep in that Rhondda mine,
Far underground are they –
Merrily talking to their mates,
Ere to their work away.

But low! What means this sudden change,
This wild cry of despair –
Those faces with pale terror blanch'd:
The dread fire-damp is there!

A father clasps his only child,
And tries to shield that form
From scorching of the burning heat,
From fate, the grave, the worm.

Yes, - all in vain – the tyrant strides
Triumphantly the ground;
And 'neath his stern unyielding hand,
His victims fall around.

And now those blacken'd forms are drawn
From the dread cave of doom –
All, all, but one young man are found,
To fill their homes with gloom.

Alas! some miss the father's form,
And some the husband's smiles,
Which brighten ev'ry thought of toil –
That dreary hours beguile.

Then, natives of this happy isle,
Oh, ne'er let it be said
The children of these Rhondda men
In want shall mourn their dead.

And now ensues a fearful scene,
An awful rush for life:
Many meet for aye to part –
The mine with death is rife.

A stalwart youth doth strive to reach
His aged father's place;
But ere his loving arms can save,
He's lock'd in Death's embrace.

Now all is still, nor scarce a groan
The solemn silence breaks;
For almost all have felt the "blast."
Imprinted on their cheeks.

Oh, who shall paint the writhing grief,
The sorrow and dismay,
Pervading ev'ry human heart
In Rhondda's vale that day!

The husband and the father now
No more can toil to feed
Their helpless ones. Or succour give,
In the sad hour of need

British men! Be up to aid,
And nobly act your parts –
Succour the homes where sorrow dwells
Thus prove you've British hearts.

(By M. E. M. in the Monmouthshire Merlin 2nd August 1856.)

Closure of the Cymmer Relief Fund

(Mining journal late November 1861)

The fatal explosion at the Cymmer Pit, which occurred on July 15th 1856, and resulted in the death of 114 persons, will still be fresh in the memory and also recollect the liberal manner in which the public subscribed in the formation of a fund for the relief of those deprived of their supporters by the casualty. The committee appointed to distribute the funds thus collected consisted of the Rev. Evan Morgan, of Llantrisant, and Messrs. D.

W. James, Llwyncelin; T. Powell Jnr, the Gaer; T. Fowler, Pontypridd; D. Thomas, Dinas; D. Davies, Gelliwion; and Charles Bassett, Pontypridd. Mr. Richard Evans, of the West of England Bank, Pontypridd, acted as treasurer, and Messrs. E. C. Spickett and Christopher James Jnr. as secretaries. The sum subscribed amounted to £4,204-2s-5d; which, adding £216-3s-11d in interest allowed by the bankers in its distribution, place £4,429-6s- 4d at the disposal of the committee. This amount has been carefully distributed in the shape of weekly allowances of from 7 shillings to 33 shillings per week to each, according to the necessities of the recipients from the date of the explosion until the funds became finally exhausted on Oct. 23rd 1861.

For the satisfaction of the subscribers, Mr. Spickett, the Hon. Secretary, had prepared a balance sheet, showing the manner in which the funds have been disposed of, and whether regarded as an evidence of the amount of good that has been effected, or as an example of good accountantship, too much can scarcely be said in its praise. In addition to the weekly allowances already mentioned, 15 women have received marriage portions varying from £4 to £20, and it is gratifying to find that only 25 continued to be in receipt of relief until the exhaustion of the funds.

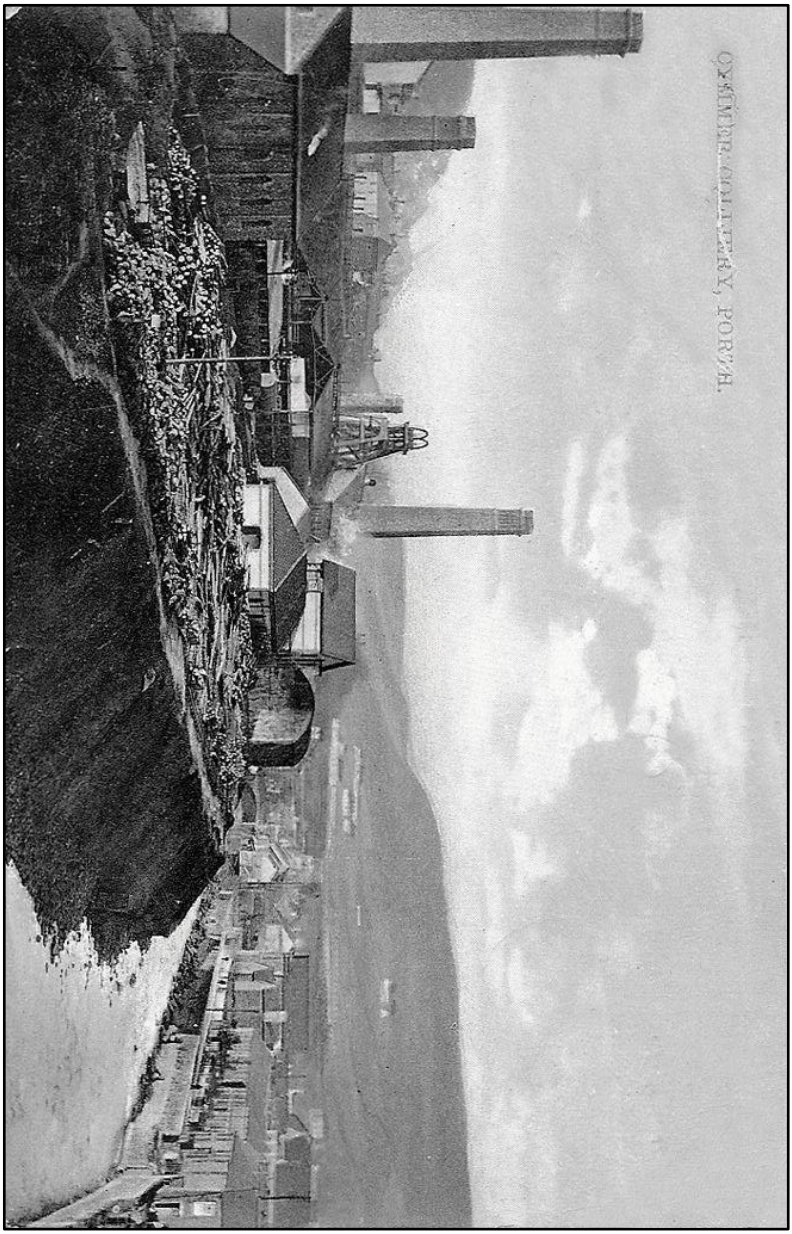
The entire expenses of distributing the fund (which distribution has extended over 5 years) has been but £245-9s-10d; which amount includes £61 to the working secretary, and every outlay for rent of committee-room, printing, advertising, stamps and cleaning, being considerably under £1 per week. We are sure that the gratitude of the recipients will be an ample recompense for the benevolence of the subscribers, and we are equally sure that the subscribers will gladly offer their thanks to the committee for the trouble they have taken, and to see that they are philanthropic wishes should be properly carried out.

Accident at the Cymmer Pit

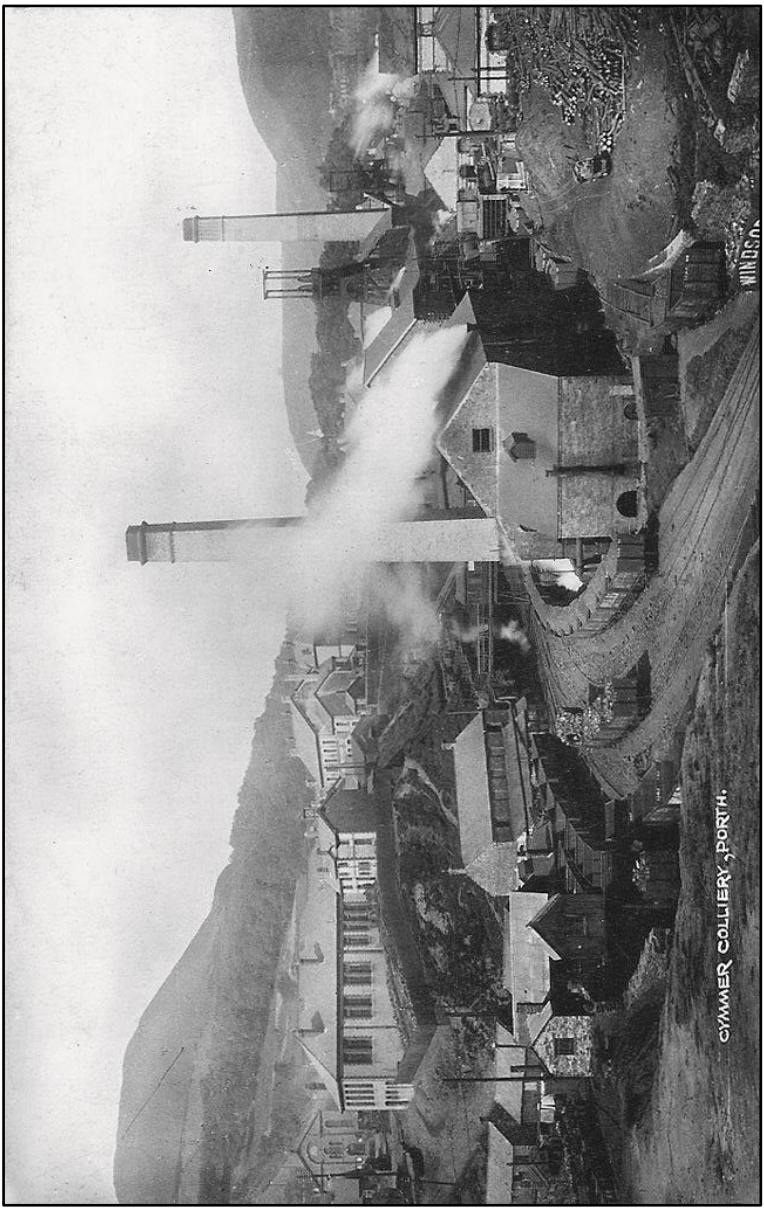
A melancholy accident occurred on July 6th 1859, at the Cymmer Colliery, the property of Messrs. Insole of Cardiff, to a little boy aged 12 years, named James Morgan. It appears that he got entangled between the trams, and was so severely injured, that when taken up, he was quite senseless, and was conveyed immediately to the house of his father, Mr. Morgan Morgan. The surgeon of the works, Mr. H. N. Davies, immediately

attended him. The poor little fellow lived two hours after the accident, when death put an end to his great suffering.

The Cymmer colliery cottages, built in the early days for colliers of the company



Cymmer Colliery C.1901



Cymmer Colliery C.1880

Sources

Newspaper reports are taken from various issues of: -

The Monmouthshire Merlin
The Merthyr Times
The Cambrian
The Globe
Star of Gwent

The Cymmer (Rhondda) Explosion - by E. D. LEWIS, M.A., D.Sc. *

* In researching this book the author declined to look at the above article until he had concluded his manuscript. However, as both authors used the same sources from local newspapers duplication was inevitable. However little paragraphs have been taken from the E. D. Lewis article, and are acknowledged on each page.

Also available from the Pontypridd Museum: -

The Great Western Colliery disaster
The Ferndale Colliery disasters
The Albion Colliery disaster
The Mardy Colliery Explosion.
The Penygraig Explosions
The Tylorstown Explosion
The Dinas Colliery explosions

THIS BOOK TELLS THE STORY OF THE CYMMER COLLIERY EXPLOSION OF 1856 WHEN 114 MEN AND BOYS LOST THEIR LIVES. THROUGH THE YEARS THIS TRAGEDY HAS BEEN OVERSHADOWED BY THE DISASTER AT THE NEARBY TYNEWYDD COLLIERY 21 YEARS LATER WHEN ONLY 12 WERE KILLED.

HOWEVER, WHILE NOT HAVING THE RESCUE DRAMA OF THE ABOVE IT IS INTERESTING FROM LOOKING THROUGH RARE NEWSPAPER REPORTS OF THE TIME TO SEE THE WORKING PRACTICES THAT WERE IN FORCE AT THE TIME AS REGARDS TO VENTILATION AND SAFETY.

FOR ANYONE INTERESTED IN LOCAL HISTORY OR THE EARLY COAL INDUSTRY IN THE RHONDDA VALLEY THIS BOOK WILL BE FOUND VERY INTERESTING.