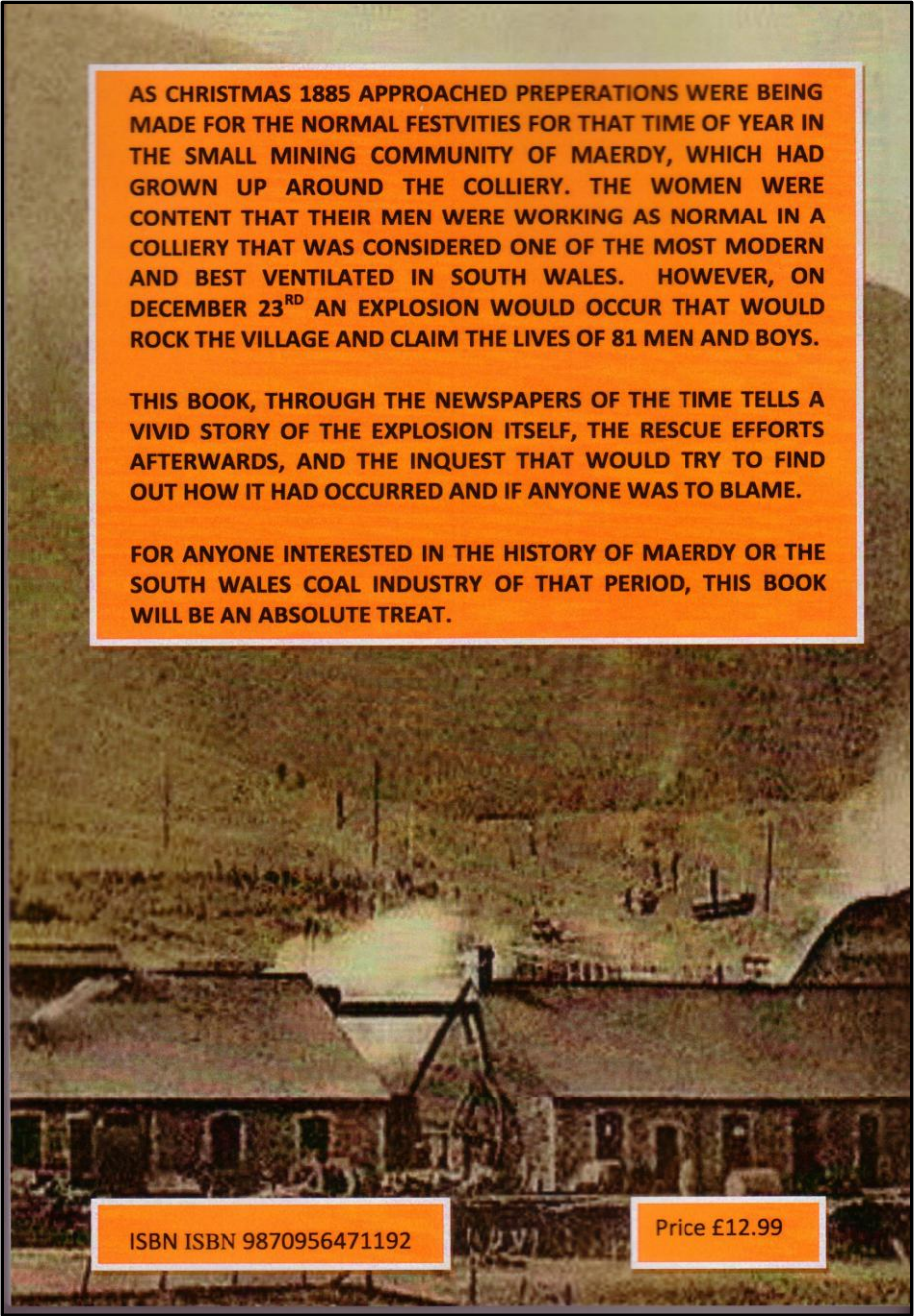


**THE MARDY COLLIERY  
EXPLOSION**

23<sup>rd</sup> December 1885

By Gareth Harris

A sepia-toned historical photograph of a mining village. In the foreground, there are several stone buildings with gabled roofs. In the background, a large, bright explosion is visible, with a plume of smoke and debris rising into the air. The scene is set against a backdrop of a steep, wooded hillside.

**AS CHRISTMAS 1885 APPROACHED PREPARATIONS WERE BEING MADE FOR THE NORMAL FESTIVITIES FOR THAT TIME OF YEAR IN THE SMALL MINING COMMUNITY OF MAERDY, WHICH HAD GROWN UP AROUND THE COLLIERY. THE WOMEN WERE CONTENT THAT THEIR MEN WERE WORKING AS NORMAL IN A COLLIERY THAT WAS CONSIDERED ONE OF THE MOST MODERN AND BEST VENTILATED IN SOUTH WALES. HOWEVER, ON DECEMBER 23<sup>RD</sup> AN EXPLOSION WOULD OCCUR THAT WOULD ROCK THE VILLAGE AND CLAIM THE LIVES OF 81 MEN AND BOYS.**

**THIS BOOK, THROUGH THE NEWSPAPERS OF THE TIME TELLS A VIVID STORY OF THE EXPLOSION ITSELF, THE RESCUE EFFORTS AFTERWARDS, AND THE INQUEST THAT WOULD TRY TO FIND OUT HOW IT HAD OCCURRED AND IF ANYONE WAS TO BLAME.**

**FOR ANYONE INTERESTED IN THE HISTORY OF MAERDY OR THE SOUTH WALES COAL INDUSTRY OF THAT PERIOD, THIS BOOK WILL BE AN ABSOLUTE TREAT.**

**ISBN ISBN 9870956471192**

**Price £12.99**

# **THE MARDY COLLIERY EXPLOSION**



# **THE MARDY COLLIERY EXPLOSION**

**BY**

**GARETH HARRIS**



**First published in Great Britain 2015**

By Coalopolis Publishing

9 Cefn Lane

Glyncoch,

Pontypridd CF37 3BP

Re-published for 130 years anniversary 1885-2015

© Coalopolis Publishing 2015

Printed by: -

Printdomain  
107 High St.  
Thurnscoe  
Rotherham  
South Yorkshire  
S63 0QZ

ISBN 9780956471192

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission in writing of the copyright holder, nor otherwise circulated in any form, binding or cover other than which is published, and without a similar condition, including this condition, being imposed upon the subsequent publisher.

## **Foreword**

By Mr. Cledwyn (Claude) Gardiner  
(Resident of Maerdy / Ferndale)  
Local history enthusiast

I am proud to present the latest book by Gareth Harris continuing the history of the Rhondda collieries. In his previous book "The Ferndale Colliery Disasters" his detailed account in connection with the Ferndale Colliery was exceptionally informative.

I am sure this further extension into the history of the coal mines with this book about the Maerdy No. 1 and No. 2 pits, and the catastrophe that occurred there in 1885, will again be compulsive reading. Gareth's determination and commitment to research and to deliver the true facts about the mining industry is without doubt inspired by the conviction to

**NEVER TO FORGET!**

I wish him well, and may he continue to remind us all of the many hazards and sacrifices made under dreadful conditions during those difficult later years of the nineteenth century.

**Highfield  
Ferndale  
December 2015**

## **Acknowledgements**

A special thanks to David Gwyer at the Pontypridd Museum for checking the manuscript for this book for me once again. Without his help I would never have got this book published. A thanks also to Paul O'Brien and Graham Oxlade, also at the museum for their help with photographs and printing.

Thanks to Claude Gardiner for his kind introduction, and several of the photographs. Many thanks also to Mark Baker for a copy of the Official Report of the disaster, as well as the staff at the Pontypridd, Treorchy, and Cardiff Libraries, who were very helpful in my research.

**Gareth Harris**

## **Introduction**

By the author

Welcome to my second book about colliery disasters in the Rhondda Fach. I took so great a delight in publishing 'The Ferndale Colliery Disaster' in early 2013, and the welcome I received from the local residents that I began to look at further disasters that had occurred in the same valley, and in particular the explosion at Maerdy.

The Mardy Colliery disaster of December 23<sup>rd</sup>, 1885, was another shock to a district that had unfortunately become accustomed to such terrible catastrophes. Indeed, the two explosions at the Ferndale Colliery in 1867 and 1869 when a total of 231 lives were lost, were still fresh in the minds of the local colliers.

The Mardy Colliery Explosion story is told, as are all my books, through the newspapers of the period and told in a way that is not too difficult to understand, though the technical terms for underground workings mentioned at the inquest that followed are a little complicated. A map, though small, appears at the back of the book to help readers see how complicated the underground workings were, and I also include a 'Glossary of Mining terms' at the rear for those unfamiliar with mining terms of the period.

Though not a 'learned man' who never attained Grammar School status, I hope my work will be enjoyed by all that read this book.

**Gareth Harris**  
**March 2015**

## **Chapter One**

### **The founding of the early Mardy Collieries**

In the 19<sup>th</sup> century the economic development in the Rhondda Fach came much later than that in the larger of the two Rhondda Valleys. Thus while the Rhondda Fawr was already building up to be the economic giant of the South Wales coal industry, the Rhondda Fach remained in large part a purely pastoral district. The main reasons for this being the paucity of the bituminous coal reserves in this part of the Valley as well as its isolated and difficult geography. It was the increasing demand for steam coal that eventually led to the transformation of this valley into a densely populated industrial district in the space of some fifty years.

The opening up of the top end Rhondda Fach began in 1857 when David Davies, who had through hard industry obtained a small fund of capital first from a few shops at Aberdare and Hirwaun, became the owner of steam coal collieries at Blaengwawr and Abercwmboi. Expanding his business, in 1857 he leased the rights of 500 acres of Blaenllechau land, two miles south of what would become Maerdy, from the Thomas brothers, and sunk what would be called the Ferndale Colliery. However, after several setbacks it was not until June 14<sup>th</sup> 1862, that the four Feet seam was struck at a depth of 278 yards. It was soon found that the seam was of better quality than the same seam found in the Aberdare valley.

Once production began the output of the Ferndale pit (later known as the No. 1 pit) grew at an astonishing rate from 11,138 tons in 1864 to 94,691 tons in 1868. This was only made possible by the Taff Vale Railway being extended from Ynyshir to Blaenllechau, which opened for its first coal train in August 1862. This colliery suffered from two major disasters, the first in 1867 and the other in 1869, when a total of 231 lives were lost. However, it was not until the 1870s, over sixty years after Walter Coffin had sunk the first pit in the Rhondda at Dinas, that speculator's attentions were drawn to Maerdy. The Ferndale pits were making quite a profit, and others could see the potential of opening other collieries, and one such person was Mordecai Jones.

Mordecai Jones (1813-1880) was the son of Richard Jones, a boat-builder on the Brecon Canal . He was educated at the expense of a coal-merchant

at Brecon, and later succeeded his patron as the proprietor, trading in coal and lime from Llanelly to Brecon by means of boats on the canal. Around 1841 he owned the Brecon Brewery; purchased the Abergavenny Gas Works, and was chairman of the Brecon Gas Works from its beginning until his death. He was also successful in his colliery enterprises, sinking the Nantmelyn Colliery, Cwm-dare, in the Aberdare Valley, in 1866, and the Mardy Colliery in the Rhondda Fach Valley in 1876 . He sent the first load of coal from the latter to Brecon on the day he took office as High Sheriff of Brecknock . He was also mayor of Brecon in 1854 and a deputy lieutenant for Brecknock, and chairman of the Brecon School Board from its formation up to 1879. He was an ardent Calvinistic Methodist from his youth, and did much in promoting the establishment of Welsh and English Calvinistic Methodist churches; he granted freely freehold sites for all denominations on his Maerdy estate. Mordecai Jones died at Morgannwg House, Brecon, on 30<sup>th</sup> August, 1880. He was genuinely mourned as one of the best, kindest, and high-principled of the coal-owners.

In the bleak uplands of the Rhondda Fach Valley very little stirred past Ferndale before the sinking of the original Mardy pits. A notebook written by a precentor of Siloa Welsh Congregational Church in Maerdy, Mr. Daniel 'Eos Dar' Evans, in the early years of the twentieth century, and who worked at the Mardy Colliery, writing around 1909 gives us an excellent insight into the early years of Maerdy as it evolved into a thriving mining township. He explains that Maerdy derived its name from the large farmhouse situated there on the banks of the River Fechan. It was at this farmhouse that neighbouring farmers and shepherds would meet to transact business and attend court for the district. This farmhouse was therefore called the stewards' or mayors' house or Maerdy in Welsh. It was at this house that the first recorded religious services were held in 1877, a joint service of the Calvinistic Methodists and Congregationalists. Some indication of the size of this farmhouse can be gleaned from the fact the service was held in the parlour of the house, a space capable of holding sixty worshippers.

When Mordecai Jones and his partner and financial backer Wheatley Cobb, purchased the mineral rights for 999 acres under the Maerdy farm from the estate of the late Crawshay Bailey for £122,000, it was estimated that this area had a vertical section of 75 feet of coal in total, of which 53 feet was in

seams of two-feet or over. Mordecai Jones had the intention of sinking a pit and constructing a railway to link up with the Taff Vale Railway, and after a trial shaft was sunk in 1875, in December 1876, the Abergorky vein, a mixture of house and steam coal, was struck in what would become known as the No. 1 shaft. The output from this vein was soon one hundred tons a day, and Maerdy soon became what 'Eos Dar' described as an 'Eldorado'. The same year the Mardy No. 2 pit was sunk.

In 1877 a railway from Maerdy to Ferndale had been opened. Privately owned by Mordecai Jones and later by the Locket's company, it joined the Taff Vale Railway at Ferndale from there the coal was then carried to the Cardiff docks. Maerdy did not get a passenger railway or station until 1889. In 1877 Maerdy still consisted of the one farmhouse, 48 houses, and a few huts. Late in 1877, due to ill-health Mordecai Jones leased the Mardy Colliery to Locket's Company. On the evening of 30<sup>th</sup> November 1877 a special messenger arrived with the news that the Mardy Colliery works had been sold and very early, about 5 a.m. on the morning of the 1<sup>st</sup> December, Mr. Rees Jones of Cardiff, accompanied by William Thomas, Brynawel, arrived at the colliery having ridden over from Aberdare and took possession of the colliery on behalf of Messrs. Locket, Jadhkins, and Jones, who then became Locket's Steam Coal Co. in 1879. In 1878 the new owners deepened the No. 1 pit to the rich and lucrative steam coal seams of the Two Feet Nine, Four Feet, and the Six Feet Seams.

By 1880 the influx of workers to the area and their families led to the Rhondda School Board deciding that Maerdy needed its own school. The Maerdy mixed day school was subsequently opened in that year. The opening ceremony included a two hundred strong children's choir and tea and cake for all the children, provided by Mr. William Thomas general director of the colliery. To cater for the leisure needs of the workers a coffee tavern and reading room was opened in 1881. Later in 1905 the Maerdy Workmen's Institute was built on the same ground that the Tavern had stood on. This Institute was to play a central role in the cultural and leisure life of the community of Maerdy for many decades. The new owners had invested heavily to increase production, which expanded from 30,000 tons p.a. in 1879 to over 160,000 tons p.a. by 1884. The colliery was now considered one of the most modern and therefore safest collieries in South

Wales, and the chances of any serious accident were thought very slim, but as it turn out this proved to be a complete mistake.

As Christmas 1885 approached the colliery village of Maerdy, at the far north of the Rhondda Fach valley, was its usual cold wintry self, surrounded by hills broken only by a succession of small cliffs with a small but swift river running along its bottom. But unlike other concerns in the district, which were suffering from a downturn in trade, the Mardy Colliery workings continued as normal.

However, after a comparatively long period of immunity from colliery disasters in the Rhondda Valleys it was once more visited by a mining disaster that would rank in magnitude with some of those terrible calamities which had upon many occasions caused widespread misery and pain in the South Wales district. Without a note of warning, and, as usual, without time for escape, an explosion took place at the Mardy Colliery which in its fatal and destructive character nearly approached the accident which happened at Ferndale, in the same district, seven years before. On that occasion, in the winter of 1867, and within two miles of the Mardy Colliery, 178 persons were killed.

A second explosion occurred at the same colliery in 1869, when 60 lives were sacrificed. Now, in working the same coalfield – but in the six-foot seam, not the four-foot – on December 23<sup>rd</sup> 1885, another frightful accident would take place. The tragic story of the Mardy Colliery explosion and how the deceased met their fate would be told vividly in the newspapers of the time and the following is a chronological narrative of the disaster and the inquest that followed.

\* The name of the colliery was known as Mardy, while the village itself went under the name of Maerdy. Maerdy is the Welsh proper name, but Mardy was the south Wales corruption. The first syllable of Maerdy is the Celtic term for a tribal chieftain, and the second syllable means ‘house.’

## **Chapter Two**

### **Wednesday, December 23<sup>rd</sup> 1885**

At seven o'clock on Wednesday morning some 1,100 men descended into the two Mardy pits, about 800 entering through the downcast cage, whilst 300 more descended to the workings by means of the upcast. Men and minerals were wound up and down both shafts, which occupy situations about 70 or 80 yards from each other. The work of coal getting proceeded in the ordinary way till a quarter to three o'clock, when a terrific report, accompanied by a huge volume of flame belching forth from the downcast shaft proclaiming to the workmen on the surface, and, indeed, to the whole village of Maerdy, that there had occurred one of those terrible calamities which are alike the dread and the sorrow of mining communities.

Maerdy was purely a colliery village, which had grown up with the pits, and most of the male inhabitants earned their bread in Locket's Colliery. The houses occupied by the people almost bordered upon the colliery, and therefore the explosion were distinctly heard by the wives and sisters of those who were hewing coal in the bowels of the earth. Being Christmas time, and market day at Pontypridd, many of the female inhabitants were away from home busy making their purchases in preparation for the gladsome season; but still there were a large number of women by their firesides, waiting for the men who, in the ordinary course, would return to their families at five o'clock. But soon they would be rushing down to the mouth of the pit in excited groups. They knew a report and the lurid flash of flame portended, and their anxiety would be pitiable to see. The '*Western Mail*' newspaper would give this report on Thursday, December 24<sup>th</sup> 1885: -

#### **Terrible explosion at Mardy Colliery**

Upwards of ninety lives lost – The work of rescue – heartrendering scenes

An explosion of gas which occurred at Mardy Colliery in the Rhondda Fach valley on Wednesday afternoon has once more thrown the great colliery district of the Rhondda into great commotion. The last event of the kind which happened in the district was the fearful explosion at Penygraig, when the late Mr. Daniel Thomas, of Dinas, lost his life in the heroic attempt made by him and a few others to rescue some of their fellow-men from the

effects of the afterdamp. That was just a year and eleven months ago, and the neighbourhood has since then been free from any great catastrophe. The late changeable weather has, however, been very much like the seasons which conduce to colliery explosions.

On Wednesday afternoon, about a quarter to 3 o'clock, a loud report was heard, and, it is said, a great quantity of smoke was seen issuing from the Mardy Pit, and it was immediately known that an explosion of a serious nature must have occurred. The terrific roar of the explosion gave the impression that the boilers had burst, but when the officials ran out of their offices and sheds, and cast their eyes on the pit mouth, they saw debris of every kind flying into the air, and a great black cloud of dust rising and spreading around, darkening the whole scene. All the pit top and its gearing were wrecked and as the beholders gazed it was with the conviction that every man and boy in the pit was lost. The carriage at the top of the downcast shaft was thrown with great violence to the top of the pit frame, and was shattered. This being the shaft through which the men usually ascended, there was no means for some time in arriving at any notice of the extent of the damage done in the colliery.

The roar and rush of dust was found to come from the four-foot seam of the downcast shaft. This is the shaft that takes down the current of fresh air driven through the workings; and is to be distinguished from the upcast shaft through which the exhausted or poisoned air is brought up after travelling the workings. It was in the downcast shaft workings where the explosion occurred. One of the officials descended the downcast shaft 120 yards to a seam above the four-foot seam. He soon returned, saying the men were all right there. Meanwhile messengers were hurrying down the valley for assistance.

The resident engineer, Mr. William Thomas, after seeing to their despatch, went with several men to the upcast shaft through the level of the four-foot seam. The men who had been engaged around the bottom of the shaft were found all safe, though very much alarmed. The explorers now started penetrating the working eastwards, finding other men in safety, who received their intended deliverers with cries of delight and thankful hand clasping. Many had taken refuge in the stables. The resident engineer explained what had occurred, and implored them not to move until he

found he needed their assistance. On his summons they stood their ground without moving an inch, while the explorers made their way in the direction of the workings underneath the downcast shaft. The men in the west and north-west workings were next found in safety. Then, arriving at the first separation doors from the downcast shaft workings, it was found that these had been blown out.

Some of the men held in reserve were at once sent to procure and rig up canvas substitutes, in order to restore the ventilating arrangements thus thrown out of gear. This they did and their alacrity was undoubtedly the salvation of many of their fellows. The explorers now began to meet with falls of the roofs and walls. Groups were found retreating from the south-west district of the mine, and struggling through these falls. It was much relief to the apprehension of those poor fellows to be hailed by men who had been able to penetrate from upper air, and assure them that a mode of escape remained through the upcast shaft.

One of these groups was bearing its wounded, and assistance had to be summoned for the bearers were hardly able to crawl themselves. The explorers found more than 60 men hemmed in by an enormous fall on the south-west main intake. Directions were given them how, by retracing their steps, they could escape by another way. Other relief gangs were meanwhile spreading through the workings and struggling to open up passages of escape through the falls. They had no difficulty in procuring explorers, the greatest heroism being shown on all hands.

Rumours reached all parts of the Rhondda during the afternoon that a great explosion had occurred, and there were about 400 men in the Pit that could not be got at. On arriving at Maerdy, however, I was glad to be able to discover at once that hundreds of men had been brought to the surface safely. There were still fears that large numbers had suffered, but nothing certain seemed to be known. Some particulars about the position of the colliery, &co., however, may be interesting here. The colliery is a large steam coal concern, owned by Locket's Merthyr Steam Coal Company, with which Mr. W. Thomas, Brynawel, Aberdare, is connected. It has been working about eight years, and was looked upon as a remarkably well managed colliery. The manager is Mr. Griffith Thomas, of Maerdy.

There are two shafts, both situated at the top of the Rhondda Fach valley, about two and a half miles beyond Ferndale. The downcast shaft is about 380 yards deep and the upcast about 300 yards deep. There are about 800 men employed about the colliery, and the working is divided into day and night shifts, beginning at 7 o'clock and ending at 5 o'clock. The explosion, therefore, happened about an hour before the day fireman and the first batch of workmen would have come up, and there were, it seems, from 500 to 700 men in the Pit at the time. It is stated that the men's representatives made their periodical inspection of the colliery on Tuesday, and declared the place free from gas.

The pit is divided into two sections called the Eastern and Western, locally called the Rhondda and Aberdare sides. The Aberdare section seems to be all right, for about half-past 6 o'clock it was authoritatively stated that 308 men had come up alive, nearly all, if not all, from the Aberdare side. The extent of the damage in the Rhondda side is not yet known, but it is stated that numbers on the entrance of that section have been found dead, injured, or suffering from the effects of the suffocating after-damp.

One man who was brought up said he had passed many dead, while some clung to him and tried to come out with him. They were, however, too weak, and he was himself in a prostrate condition when brought up. It transpired that one of the men who had clung to him was an old workman named 'Bill Aberdare,' well-known in the locality, and an active supporter of the labour candidate in the recent parliamentary contest. Another man who came up said that when making his way along he heard two boys crying out "O mam! O mam!" (O mother! O mother!), and the other "Buth Wnaiff mam' nawr!" ("What will mother do now!"). The piteous cries of the half-suffocated lads touched the man so deeply that he risked his own life in endeavouring to bring the lads up, and I rejoice to say he succeeded.

After hours of heroic searching the last man was got out who could be found with life in him, but the dead were left until the morning. Of the 75 men initially found many died from the affects of afterdamp, and, to judge from their looks, passed away without suffering, for their visages were as placid as in sleep; but in too many instances severe burns and fractured thighs, legs, and heads had previously been suffered, the agony contorting the features. In some cases the injuries were frightful. One fine young

fellow had been absolutely cut in two. The confining of these remains took place as soon as possible after their recovery, so as not to aggravate the misery of their friends.

A large number of local colliery managers have come to the scene ready to render all the assistance they can, and amongst the medical gentlemen present are Dr. Henry Naunton Davies, Cymmer, and his son, Dr. Evan N. Davies; Dr. Ivor Davies; Dr. Parry, Ferndale; Ivor Lewis, Cymmer; William Williams, Tylorstown; Parrot and James, Tylorstown, and Dr. Charles Jones, Tonypany. Hundreds of men are now carrying their lighted lamps across the mountains from the Merthyr and Aberdare valleys. The Mardy colliery is owned by a firm, the chief members of which are gentlemen residing in London, and Mr. William Thomas, Brynawel, is the responsible director. Mr. Thomas had only just ascended from the pit when the thunderous roar and the cloud of dust and smoke suddenly rushing upwards from the shaft told the tale with which the district is, unfortunately, only too familiar, of another disaster.

#### Pit's mouth besieged

It does not take long for such news to spread in a colliery district, and the pit's mouth was soon besieged by a huge crowd of pale-faced, terror-stricken men, women, and children, who, but for the firm discipline enforced, would have hampered the movement of the workers. Many terrible scenes were witnessed; one poor woman fainted, and had to be carried away to her home by her friends. Almost immediately afterwards a touching scene was witnessed which only tended to heighten the excitement and suspense of the great majority of the unfortunate creatures. A woman standing near the shaft pressed forward eagerly on hearing that some men had been rescued, recognizing her son amongst the number, screamed out in her delight, and fell upon his neck, and burst into a passion of tears.

The disaster came as a terrible surprise to most of those connected with the colliery, for the pits are known throughout the district as being fitted with all the latest scientific applications for ensuring a thorough system of ventilation, and, indeed, for securing the safety of the workmen in every possible manner. Only on the preceding evening the works had been

carefully examined by competent workmen representing the colliers. They reported that, so far, at any rate, as a supply of fresh air was concerned, everything was in a most satisfactory state. The depression in trade which has so severely affected some colliery districts has not been so severely felt in this colliery as in other parts of the Rhondda district, and the colliers have, therefore, been kept employed pretty constantly. There was, indeed, a full compliment of men engaged at the time.

Later that evening it was stated that there were now about 40 bodies at the pit bottom, and it is estimated there are 80 or 90 dead in the pit. The exploring parties comprised, amongst others, Messrs Havard, Rowlands, John Thomas Evans (National), Thomas (Ynyshir), D. Evans (Bodringallt), H. Kirkhouse, J. Williams, Ray, and other colliery managers. It is reported that two men, Thomas Morgan and Henry Leyshon, were almost dying. Dr. Ivor Lewis went down the pit, accompanied by several gentlemen and attended them. Telegraphing at midnight, our reporter says that there were 620 men in the pit, and about 21 are supposed to have come out before the explosion. Amongst the dead are: - Daniel Williams, overman; John Evans, fireman; Edward Edwards and his son; David Jones, rider; John Daniel Jones, airway man; Philip Richards, Thomas Davies and his son; George and Thomas Evans of Pentre Road. It is expected that the majority of the bodies will be brought up during the night.

#### Another account

'*Morien*,' living at Pontypridd but originally from Dinas, was a famous '*Western Mail*' reporter who had made his name by reporting on Rhondda colliery disasters, and had this to say about this new one: -

Between 3 and 4 o'clock on Wednesday afternoon the town of Pontypridd was electrified by the terrible tidings sent along the wires that a terrible explosion had just taken place at Locket's Merthyr Steam Coal Collieries, Maerdy, between two and three miles above Ferndale. I lost no time in proceeding in the direction of the calamity. By the time I reached Ferndale, accompanied by colliery officials from all parts of the valley, it was dark. Up we hurried on foot the other three miles to Maerdy. Before reaching that place we met in darkness colliers who had come out of the colliery. Some of these poor fellows were carrying Clanny lamps, while others were in

darkness. It was impossible to get a coherent statement from them as to how things were in the pits; all they seemed to know was that they themselves had escaped in a marvellous manner. They had been in the underground tempest.

On we continued our journey the dark outlines of the mountains running on either side were visible in the light of the stars. Occasionally lights appeared far up in the mountains from the lamps carried by men hurrying from the Rhondda and Aberdare valleys, across the mountains. On reaching the pit the neighbourhood was found crowded with men and women. But the downcast shaft was guarded by ropes and in the centre of the enclosed space was a number of medical gentlemen. Flickering lamps gave a dim light here. In a few short seconds I ascertained that 773 Muesler Safety lamps were given out that morning to men descending the pit. Of the number of men of whose lamps represented as having gone down 302 were said to have come up alive, and about 20 more in addition came up soon after our arrival. Several men were brought up badly injured by burns and otherwise. At the time of writing the most melancholy rumours are floating quickly about.

The colliery is divided into two divisions, named the Aberdare side and Rhondda side. Two separate systems of ventilation prevail, and it is stated that only men from the Aberdare side have come out. It is feared that every soul in the Rhondda side of the colliery has perished. The explosion occurred about a quarter to three o'clock, and the report, as it shot up through the upcast shaft, was, it is said, of a most awful character. Strange to say, the Post Office has not extended the wires to this place, so that tonight it is impossible to send any news any later, except by wire from Pontypridd, for a local Post Office like Ferndale, three miles lower down the valley, can hardly be expected to be equal to the strain on an occasion like the present.

As I close my parcel tales of men having fought their way from the Rhondda side are in circulation. The explorers on Wednesday night were confronted with strange and piteous spectacles. The men incarcerated by falls, and stumbling their way out, rushed towards them and grasped their hands and shook them in a delirium of joy. The air currents were better by far than is usually the case after an explosion. The deadly after-damp did not sweep

over so considerable an area as usual. Apparently dozen of persons who have come out without much permanent injury were prostrated by the fumes, but the restoratives provided by an efficient staff supervised by Dr. Parry, the medical officer of the works, rallied them.

The force of the explosion may be gauged when I state that one of the dead men seems to have been hurled right against a heavy wagon; his body was found cut in two. In one house I am informed there are 11 dead bodies – lodgers and relatives. It is said of one man, know as ‘Phil of Abertawe’ that some of his comrades found him lying helpless on the ground. They entreated him to come with them, but death from afterdamp is the easiest and and most painless of all, according to Dr. Parry, and the man begged to be left alone. Then men had to leave him, and when next seen he was lifeless. This seemed to indicate but too plainly that a dreadful struggle for life is taking place far beneath the surface of these mountains. May God succour the poor fellows.

Mr. William Thomas, Brynawel, one of the proprietors of the colliery, and a number of colliery managers have gone down the shaft. Mr. Lusby, the Cardiff agent, is here. The people are pouring through the darkness to the place from all directions. The pits are 300 and 320 yards deep respectively. The output is about 1,200 tons of coal a day. It is now 8 o’clock.

The ‘*South Wales Daily News*’ of December 26<sup>th</sup> 1885 carried this more detailed report about the first signs of the explosion and the rescue search that followed shortly afterwards: -

#### Narrative of an eye-witness

What an eyewitness says he saw at the time when the explosion happened gives one a pretty clear notion of the terrific force of the concussion and shock. He was standing at the top of the lower pit, just a little distance from the downcast shaft. Suddenly he heard a tremendous report in the direction of the downcast. He gazed, and saw the place enveloped in a huge cloud of coal dirt. He had, too, heard a strange jerk, and on lifting up his eyes to the pit framework, when the dense momentary darkness had passed away, for it reached considerably above the top of the corrugated iron roof of the shaft, the evidences of a great explosion having occurred

were painfully manifest. Pieces of a large size had been torn clean out of the roofing and hurled right up to the top of the colliery. The pit rope was cut, and there the pieces remained for a while, tangled over one end of the long beam of the colliery framing.

The acting wire signal was shattered. The carriage attached to the pit rope fell to the pit bottom. The other carriage which was working in the pit - for one carriage goes down and the other up - was, not, strange to say, damaged much, if at all. This is one of the incomprehensible elements which always characterise such calamities. Mr. William Thomas, Brynawel, the agent of the colliery, happened fortunately to be in the neighbourhood of the pit at the time, and he and others who were in his company heard the explosion.

Their first impression was that the boilers of the colliery had burst, but when the colliery officials ran out of the offices and sheds, and cast their eyes over the pit's mouth, they, too, were convinced that a more appalling catastrophe had happened. There were the same outward phenomena visible as those first recorded, of flying debris and semi-darkness. They went at once to the pit mouth, and quicker by far than it takes to recount the fact, the men, women, and children of the neighbourhood had sped to the same destination with much wreckage above the pit and, much intensity of silence in it.

We came, said another of my informants, to one conclusion - (how could they come to any other?) - that was that every man and boy in the pit was lost. The multitudes came thronging along, and no pen or pencil can depict the agony of grief, amounting in some cases to stupor, and in other less self-contained natures swelling in great sobs of agonised despair, which made the surroundings a crushing reality which will be ever remembered by those who had the misfortune to be present.

#### The first explorer

Mr. Griffith Thomas, the pit manager (a veteran colliery official), had come to the pit with all alacrity, and he and Mr. William Thomas, for both are men of quick action - decided upon immediately ascertaining as precisely as practicable the nature and extent of the disaster. They were reinforced and

aided by a number of other officials, who had hastened to do what they could in so critical an emergency. It was noticed that the boom and rush of dust came from the four-foot seam to the No.2, the downcast pit - and, one of the colliery officials volunteered without delay to go down the upcast and survey the scene and see how the men there had fared. A move was afterwards made there, 755 men had gone down the pit to the various seams during the shifts, and it was imperative that the panic-stricken multitudes should learn whether there was ground for a gleam of hope in the prevailing hopelessness.

The scene at the upcast pit top was striking at that eventful juncture. The men, women, and children were massed together at the pit edge, and subsequently every inch of standing ground was occupied. The local police had with tact effected a kind of cordon by roping the immediate vicinity of the upcast pit mouth. P.C. Llewellyn, who deserved every credit for his tact, and others of the local force kept sentry near. But the surging crowd kept pressing up against the ropes, and every eye was bent upon the men who were deliberating upon the best means and modes of exploration.

Mr. William Thomas, the engineer, thankfully accepted the proffered service of the person who had so nobly volunteered to make a preliminary investigation in the fatal seams - for the four-foot was, as it turned out afterwards, the *locale* of disaster. But Mr. Thomas suggested that a more cautious step should be taken. "Go back," he said, "to the first (the Abergorky) seam - that is, the one 120 yards above the four-foot seam and search." The intrepid fellow went. His name deserves all honourable mention - William Lewis, mechanic. He was delighted to find that all the men in that part were all right. Mr. Thomas was perfectly satisfied beforehand, in his own mind, that the men there, some scores - were not in jeopardy, and he appears to have taken this measure of "open enquiry" and resulted more to calm the current apprehension than anything else. The manoeuvre proved a salutary stroke of homely diplomacy.

The news spread "like lightning" that some of the supposed dead were safe, and hope revived. True, the vast bulk of the men were on the long seam. But then it had been thought at the outset that not one had escaped with life in the colliery, and as events had happily falsified fear, might it not be so again? The emotion was great. The men of subtle colliery knowledge had a

different sort of notion. They had premonitions which were almost a certainty that life had been ruthlessly swept away by the after-damp, and in half whispers circulated the estimate of the probable dead, the numbers varying between 300 and 400.

### Examination of the mine

It was decided by the authorities to get the men who were alive up to the bank of the pit through the upcast, and meanwhile Mr. William Thomas made a detour around the upcast, and finally he and Lewis managed to get into a cage, and again, amid breathless excitement, dived down into the dark recesses. They reached the bottom, but no further. Their ingress was stopped by the impediments which blocked their way. They had to re-ascend. What had hence-forth to be accomplished for the living and for the dead must have the upcast for the centre of operations.

Down the upcast then Mr. Thomas descended. With him was his faithful ally, Mr. Griffith Thomas. They proceeded past the Abergorky seam landing stage down to the four-foot seam landing stage, and there they halted. The condition of affairs fortified the opinion that there was the nucleus of the explosion. There was danger that the gaseous after-damp would penetrate through the workings and retard and even peril the exit of the living below and above, so a brattice was put up and the currents of ventilation thus improved. There were 200 men in a lower pit still, 400 yards deep. Mr. Griffith Thomas descended to where they were. Mr. William Thomas waited in the four-feet seam for his return, which was not prolonged. He found the 200 workmen there alarmed but safe and all right. Later on in the evening these men filed up in the pit cage up to the bank of the pit, and so did the men in the Abergorky seam. They were hailed with acclamations of joy by their waiting relatives and friends, and indeed by thousands of neighbours and visitors.

Mr. Griffith Thomas, Mr. William Thomas, and Mr. David Evans, general agent of the Ferndale collieries - that gentleman had come up "sharp" - made a third descent down the upcast. They were down for hours, and when it was known that they were exploring the four-foot seam, the intensest excitement - for it cannot be called anything else - set in. The fate of about 500 men would soon be made known. The pit tops had been

lighted up with flaring gas jets. The colliery walls were crammed with faces - the timbering was packed like galleries; persons of all ages crushed up to the verge of the pit's mouth - they swayed hysterically up against and across the ropes at the times of acutest tension - when they scanned, for instance, the faces of those who ascended the pit. Women were moaning, and even fainting; one poor haggard and distracted female ran up along the line from Ferndale to see what had become of her husband. Some passers by took pity on her, and sought to assuage her woe but she was inconsolable.

Lights streamed along the mountain heights as far-off dwellers which had heard of the Mardy fatality, ran down their steep sides to get at the "latest." The larger number of the Mardy workmen lived at and near Mardy, but numbers also resided at Ferndale, and took in other places. The exploration of the four-foot seam occupied, as already intimated, a very considerable while, and the three gentlemen named had afterwards the competent assistance of Mr. Kirkhouse, Tylorstown; Mr. William James, Pentre; Mr. Thomas, Ferndale; Mr. Jenkin Meredith, Ferndale; Mr. Isaiah Thomas, Dinas; Mr. Moses Rowlands, Penygraig; Mr. John Howard, Dinas. Mr. William Abraham, M.P., agent for the district, came up to the colliery in the interest of the men, and Mr. Evan Owen, permanent fund agent, was in attendance. Mr. Fred Davis, Ferndale, also, I am told, showed his sympathy with the popular grief by his presence, and offered to do anything he could for facilitating aid.

#### Discovery of uninjured

The explorers penetrated the workings through the return airway, and found the first separation doors blown out. They went around through the end of that opening to the bottom of the upcast pit. There they found several men all right. Thence they wended their way to the south and north-east side of the shaft. They discovered a number of other men in the stables, or rather in one of the stables. They welcomed those whom they regarded (as indeed they were) as their deliverers. Mr. Thomas asked them, "Will you do what I tell you?" They replied, "Yes." "Well," said Mr. Thomas, "I want you not to stir, but to sit here every one of you. Don't budge until I send for you. For you are safe." They obeyed "like men," as I was told by one of the explorers "not one of them," he added, "budging."

Some men at the bottom of the upcast had been discovered also safe. Penetrating the next side, the explorers found another batch of men out of danger. The same pleasing discovery was made in the north-west district. A large number of the men there had emerged unhurt, and the explorers were assured that the whole of the workmen there had escaped.

Further arrangements were made to right the colliery ventilation, and expedited exploration by getting canvas fixed up close to the separation doors. The canvas was rigged up well and promptly, and the explorers have no doubt that this timely action saved the lives of 120 men, who were thus enabled to breathe purer air than they would else have had in the extreme interior of the gas-flooded workings. Mr. Griffith Thomas and Mr. William Thomas made joint and strenuous exertions to get over a considerable fall in the main south-west district. They succeeded in getting a long way ahead across it, when they met with another fall totally blocking up the intake and the travelling way. But the wind "screened" over and through the fall and the ventilation got better subsequently, and both explorers were eventually enabled to go round the south-west seam, and travel a distance of 900 or 1,000 yards. This was a great feat so soon after the explosion, and in the undoubted part of the colliery where the explosion had occurred.

#### The last man out

Two or three groups of men were passed - scared but self-possessed - by the explorers, making their way towards the blocked intake. When the explorers reached what is known as the four and half heading, they found it also blocked up with a gigantic fall, and a group of men huddled together were unable to go further. Their relief was great, and so was that of the explorers who told them, "Go out in the same way as we came in."

Two men were very badly injured by the explosion at that point in the workings, and one of them, Gomer Morgan, has since died. The other, Henry Evans, continues in a precarious state. The less affected there by the after-damp and the direct effects of the explosion volunteered to aid in bringing their wounded comrades out, and further measures were acted upon for the succour of the distressed. When the explorers came back to the first crossing, or from the intake to the return, they found 60 men

inside. An enormous fall on the south went to the main. The explorers told them to immediately retrace their steps and come back to the means of exit through the return. They did so, and then obedience and self-possession had its substantial reward, for they all came out of the pit alive.

These men, it seems, had been working from the inside of the fall trying to make their through by helping one another, but that was all, for as soon as the cry was sent out, "How is it?" down came more debris. The explorers then sent men around each of the other districts to see if they could find any more live men. None could be discovered, and the exploration party, which Mr. William Thomas headed, came up the bank at 10 to half past 10, after the last live man in the pit had been got out.

How these last were greeted by their trembling relatives has already been pointed out. Some were very badly burnt, others less so. But there was a staff of surgeons, under the leadership of Dr. Parry, the pit medical officer, ready with restoratives and oil, and there were plenty of ready helpers at the pit top ready to take the wounded home.

The bravery of Mr. William Thomas cannot be too highly extolled. He exhibited truly remarkable heroism and risked his life more than once. But for Mr. Griffith Thomas, his companion in danger, he might have succumbed, I am credibly told, to the effects of the gas, which was in parts of the workings over-powering. Mr. Thomas decided that the bodies should be sent up to bank without delay and by 7 o'clock on Thursday morning every body had been sent to its home, with the exception of the lad found on Friday morning. But there was no definite certainty, apparently, even on Wednesday night, and rumours were flying about that more dead would be found, and these were estimated at figures varying from 100 to 200. Another of the first explorers in the upcast states that his party found eight bodies in the bottom of the pit. The other dead bodies were found in the North Deep and the No. 2 district and they were speedily removed. "The ventilation," he says, "was uniformly very good under the circumstances."

The explorers passed over a good many falls on the main roadway. To test the air currents Mr. William Thomas (Brynawel), Mr. Kirkhouse and David Evans (Bodringallt), and one or two others went "against the air," and found it "good beyond question." The terrific crash of the explosion was

experienced in the number two seam, North Deep. There were numbers of men and horses alive between the two places, although the explosion is assumed by theorists in these matters to have swept that way - and this is another of the strange explosion facts. There were four more men found behind a big fall by this or a neighbouring exploring party. The explorer says that he does not know of any person found in the workings disfigured beyond recognition.

#### Distinguished visitors

On Thursday morning Sir William Thomas Lewis, one of the members of the Royal Mines Commission, came up to Mardy, and held a consultation with the managers and other officials, and also went down the upcast pit. Afterwards Sir George Elliot, Bart., another member of the Mines Commission, arrived at Ferndale, and Mr. Abraham, M.P., and the Mines Inspector and Deputy-Inspectors, Mr. Wales and Mr. Randall. These gentlemen all proceeded together latterly into the pit to view and investigate. They were accompanied by Mr. Griffith Thomas, Mardy, the manager; Mr. Wm. Thomas, Brynawel, the mining engineer and agent; Mr. David Evans, Bodringallt; Mr. Harris, of Fforchaman, and others.

After going some way, Sir George Elliott and Sir W. T. Lewis retired, as they had to leave by train. The remainder of the party continued their search which was made as thorough as possible. They visited the bottom of the downcast, and they saw signs of a strong blast. They went into the Aberdare side of the pit - the explosion took place on the Rhondda side - and not far from the pit found a heavy fall. They found too a dead horse singed. In another place they found 18 horses all right, and here let me say that there were in all 10 horses killed.

The examiners next went to the bottom of the pit, and towards the North Deep, where they passed some heavy falls, and these had caused large cavities in the roof. It was with some difficulty that the party got over the falls and these had caused large cavities in the roof. Having passed them, however, they came towards the place where the masons had been working - arching at the time of the explosion. They went from there to the hard heading - the cross measure heading - which was driven towards the four-feet. There were there four bodies. Full in the face they noticed that the tools were there on the mode, as if no blast whatever had come that

way. If there had been, then it was conjectured it must have been very slight. A box of cartridges was near. It seemed to have been put there out of the way by the men in their ordinary way of work.

Next the explorers went into the faces and down the North Deep, where they found a journey of trains. That journey had evidently been coming up the Deep on the occasion of the explosion. Part of them on the occasion of the explosion. Part of them had been unhooked and left at the bottom. They had tumbled there, and there were near several of the killed horses.

The explorers concluded their investigations by a perambulation of the entrance of the old workings, which, in some places, would have afforded safe refuge. The explorers were down several hours. Exploring parties continued in the colliery all day, and have been working overnight with ardour. The falls are being cleared. The ventilation is being restored to its normal state.

#### Cause of the explosion

What was the cause of the explosion is a natural and oft repeated question which is heard here all over the valley and beyond it. Well, it is a delicate subject. The Government Inspectors are positively silent, a thing necessary to their position. The gentlemen who have inspected the workings have an informal seal of secrecy on their lips. Several of the officials in the colliery at the accident have perished in the explosion. Those who were not in work, however, are loath to say anything for self-evident reasons.

But every circumstance which I have had brought to my notice tends more and more to show that the probable origin of the calamity is to be found in the masons working with the comet lights. These men were the only ones not engaged working with locked lamps. Not one of them is said to have come out alive, and just at the place where they were engaged the archings have large falls. There was, it is surmised, an effusion of gas - sudden or slowly oozing, as it always does ooze from the steam coal - when it reached ignitable quantities the naked light flashed it into fierce flame, and all were lost.

## Touching incidents

Touching episodes and incidents are coming to the fore. At Ferndale a poor man working at Mardy had his wife ill and two children dead on the morning of the explosion. He left home for Mardy broken enough in heart in all conscience, telling his wife that he was going to work, and at night would bring enough money home to bury the children. For poverty as well as disease has fastened its stern and inflexible grip upon this profoundly afflicted household. He came back; no, he was brought back hours later than his poor wife had expected him, and then a corpse. There they lay beyond the reach of poignant pangs of hardship father and two children dead. The widow and childless mother is still racked with grief for her dead; and the stings of poverty have yet in her case to be effectively and permanently alleviated. Will some one help her, I have been asked, and willingly comply, to make this direct appeal to the benevolent public.

In another case whilst the public were in uncertainty who had died, a body was brought up and carried to the street, where it was thought the deceased resided. It was rejected, I am told, at house after house. The silent shadow watching over all has cast a spell of horror over the people in the neighbourhood, and as the dead were not theirs they dreaded having a strange body amongst them. It would have been they appeared to think be a "boding of ill." Seven or eight houses had to be passed by before at last a man gave the corpse shelter. Let it be distinctly understood that the people of Mardy were not averse to doing a deed of kindness for the dead. But they in this case seemed to regard a dead body as an apparition.

Phil 'Abertawe' had a hapless fate. I am told by Dr. Parry, Ferndale, who, with his medical coadjutors, deserves truest recognition for efficient aid, that the fatal fire-damp is the means of painless death. The gasses have such a peculiar effect that the affected drop into a state of pleasing semi-consciousness, and unconsciousness. In the delirium which intervened Phil 'Abertawe' was asked by some men who were passing beside him to come with them. His reply was "Leave me alone." He was too tired to move, and he had to be left. It was a case of every man for his own life. He was true man, a genuine Welshman, and a person of most unselfish and affectionate disposition.

## The little boy and his dog

The little boy and the dead dog is another anecdotic feature. A little boy was found by the explorers with a dog under his arm. The dog had descended the colliery with him, and had stuck to him. Probably in the after-damp he had darted away impulsively from the lad, and came back to drop helplessly by the lad's side. But the lad was as true to the dog as the dog was to him, and the dog and the lad were not parted till the rescuers came, and the living child, unconscious, was found with his canine friend - the dog - under his little arm.

Another affecting circumstance came to light. A man was found alive near his dead horse. How to account for so strange a fact is beyond my power. As one of the onlookers said, "One would have fancied the contrary, the horse alive and the man dead." But the actuality is that which the explorers had, I am glad to say, to confront. In a third case a dog was found whining solitarily. Not a living soul or body stood near. The animal had been stunned, it is thought, by the explosion - for the moment petrified with affright. The men who stood by him had run away - to destruction. Had they stayed with the dog - quiet, they would, it is thought, have saved the lives which they lost.

## Sergeant Llewellyn's story

Sergeant Llewellyn, the only policeman in Mardy, and residing at a distance of some 150 yards from the pit, says: - "I was sitting in my house on Wednesday afternoon, and precisely at 17 minutes to three by my watch, I heard a loud report. It was in sound much like a clap of thunder, but in power - well, I never heard anything like it. I verily thought that the whole surface of the earth was torn up. When I went to the pit, however, all I saw was one dense black cloud of smoke and coal dust rolling up and when it went away it left nothing that was changed except the broken framework. When the people came rushing down, the women many of them nearly frantic with excitement, and several men of the eight shift only partly dressed, Mardy, in less than two minutes, was in such a state of excitement as I never remember before. But in a wonderfully short time the people calmed down to the practical requirements of the situation. When the bodies were raised to the bank I went to the stores a little behind the pit to

receive all that were not identified at the bottom and carried direct to their homes. They came in by twos, mostly with intervals of only a few minutes between one burden and the next. I had them put side by side with the head nearest the wall, and afterwards allowed the people to come in by fours to identify whom they could.

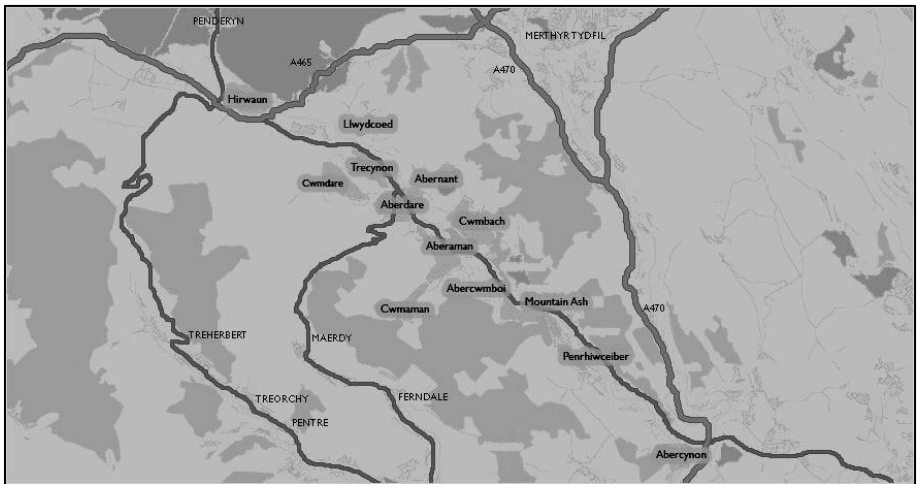
One after another was recognised, and at once I got men everybody was not only willing, but most anxious to help to take them away. It was sad enough I can tell you to see how the people were trying to keep down their grief. But they all behaved splendidly - all with one exception, he was an Irishman, and he had lost his son. He fell down upon the body, kissed and cried over it, lost to everything but his feelings. It was with difficulty I could get him away. The viewing parties gave me no trouble. They were too stricken for that. They simply came in when I let them, and walked out again, perhaps re-entering shortly after as another body was brought in. We never had more than 24 bodies in the place at any one time. The dead were mostly Welshmen, but there were a few Englishmen from Bristol way.

I went yesterday round with an inspector to get a correct list of the killed. I think you would have been touched to see what I saw.

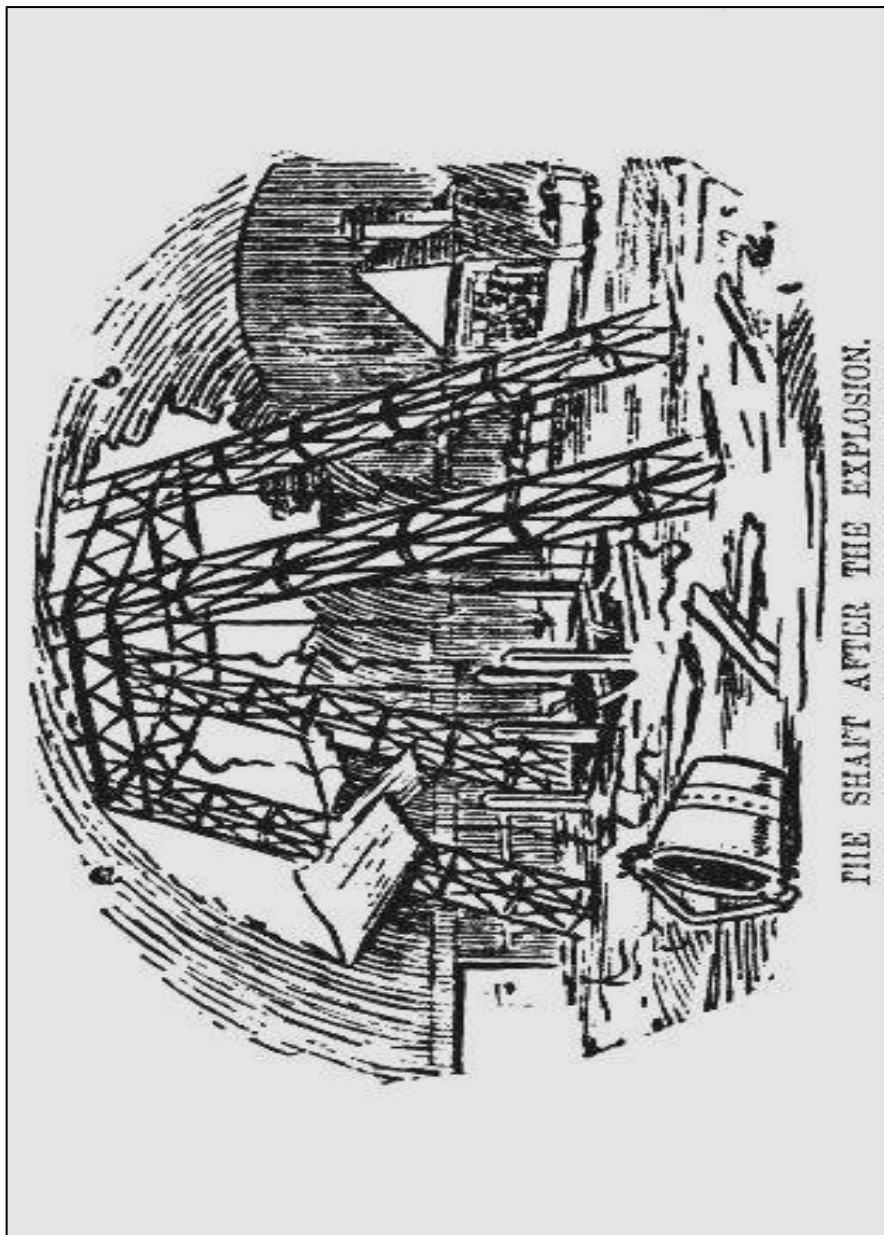
You know that Welsh people think a deal about their dead. Under such circumstances they can't do too much to show their affection. House to house that we visited, it was pretty much the same. All were decently laid out for burial. Many of the corpses were covered with flowers. Nearly all had the white death-cloth over them, and many had hangings of white cloth. The dead were contained in from sixty to sixty-five houses, there not being more than two or three in any one house. I hear that several relatives want to have the dead buried in North Wales, and some are at a distance from here. Perhaps you will let me say this, that knowing, as I believe I do, nearly all the men by appearance, and most by name, I can call to mind only one among the killed that was not very respectable, and most of them were so in the highest degree.

Maerdy is a distinctively colliery village, situate at the upper end of the wild yet picturesque Rhondda Fach, four miles from Aberdare, and two from Ferndale. The village stands for the most part on the lower slope of the acclivitous Treorky mountain, and commands all the view possible of both

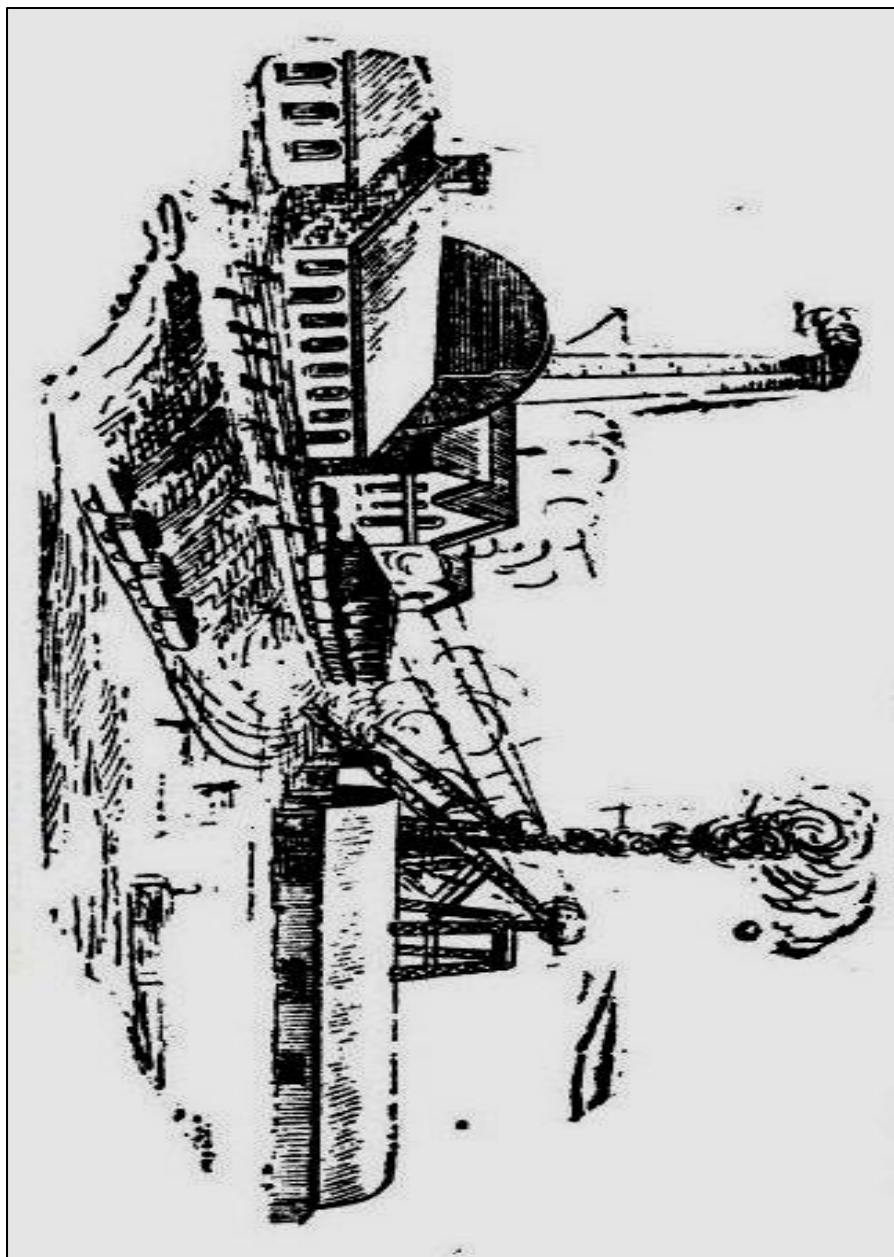
reaches of the valley. The population, till the sad disaster of Wednesday, stood almost exactly at 3,200. All the men folk, excepting some 50 working at Ferndale, and about a like number engaged elsewhere, are employed at the colliery. The houses are all of stone and excellently built, while the sanitary arrangements are most complete. There is a flourishing institution in a library of some five hundred volumes, in addition to which many leading magazines and newspapers are regularly taken. The library is the colliers own, the men contributing a farthing in each pound of their earnings. In much of its internal economy and arrangements the village bears a, strong resemblance to the famous model village of Saltaire, in Yorkshire. The inhabitants are, as a rule of thrifty habits, and by the admission of the police generally good conduct.”



**The Northern end of the Glamorganshire coal field.**



Contemporary drawing as per local newspaper



Scene of the explosion

## Chapter Three

### Thursday, December 24<sup>th</sup>

None who were in the village throughout memorable Wednesday night will ever be able to efface from their memory the thrilling incidents of this awful time. Distressing cries and hurrying too and fro were heard in the gloom of that night. Frequently groups of men, carrying miners' lamps, might be seen coming from the direction of the colliery. On a nearer approach one found that they carried ghastly burdens from the pit. The sad task of conveying the dead to their late homes was done early on in the morning.

When the sun rose over the mountains on Thursday morning, what a scene it revealed! Rows of neat cottages, with white blinds drawn across every window, indicating the presence of death in each dwelling everywhere met one's view. I silently - yes, tearfully - visited some of the stricken homes, to find the surviving members with their faces buried in their hands. Occasionally wails of anguish and the indescribable pathetic words, "O, nhad anwyll!" ("O, dear father") fell on one's ears - I had almost written - on one's quivering heart. Let the good Samaritans of Christian Wales and England bind the wounds of the poor stricken ones.

Happily for the bereaved families, the passage of the Employers Liability Act had led in this district to the establishment of what is called the Permanent Fund, subscribed to by both men and masters, and out of this widows would get £5 for burial expenses, 5s. a week as long as they did not marry a second time, and 2s. 6d. for each child until he or she reaches 14 years old; in the case of single men the benefit was a lump sum of £25. Another correspondent wrote: -

The recovery of the last body - Widespread effects of the disaster

It was most painful to walk through the streets of the village on Thursday afternoon. For a time one could scarcely walk six yards without meeting with a coffin borne on the shoulders of friends of the deceased men. Some idea of the widespread nature of the disaster may be gathered from the fact that in one street, out of nine houses each adjacent to the other, only one was without the woeful sign of drawn blinds, which told the sad tale of bereavement.

About 10 o'clock on Thursday night the last body was recovered. It was that of **Ephraim Hughes**, a shackler, who was engaged in the neighbourhood of the pit bottom when he fell a victim to the explosion. He was found buried beneath the cage, his foot being first seen after the workmen commence clearing the rubbish. It may here be remarked in further proof of the desire to do everything as effectively as possible that the whole of the bodies were brought out at night, those brought to bank on Wednesday night being carried home between 10 o'clock and daylight. To do this with 74 bodies was a task unprecedented in the colliery annals of the district. It appears that Mr. W. Thomas, assisted by Mr. Griffith Thomas., Mr. D. Evans (Bodringallt), and others, superintended the carrying of the bodies to the 'partings,' where they were taken care of by men under the direction of Mr. Thomas Junior, who saw them taken to the pit bottom, and thence conveyed to their houses as soon as they could be indentified. There is amongst the men killed one man who had been employed under Mr. Thomas for 35 years.

### **Visit of the Government Inspector and the members of the Mines Commission**

Early on Thursday morning Sir William Thomas Lewis arrived, and soon afterwards went down into the colliery. Later on Sir George Elliott, another member of the Mines Commission, arrived, and also Mr. T. E. Wales, the Government Inspector of Mines, and Mr. Randell, the sub-inspector. Mr. W. T. Lewis, and Sir George Elliott, with the inspectors, Mr. W. Abraham M. P., Mr. Griffith Thomas, and others, then went down the colliery. The party divided into two sections, one of which (Mr. W. Abraham included) remained down for several hours.

It will be observed with satisfaction that the above commissioners, of the Royal Commission on Accidents in Mines were amongst the first to visit the Mardy Colliery, a commission in whose investigations much is expected. The labours of the commission have now extended over six years. Some people are inclined to grumble at the length of the inquiry, and to throw doubts as well on the accuracy of the promises that have been given to publish the report before the meeting of Parliament. But the critics of Sir Frederick Abel and his colleagues ought in justice to remember that the task they have had in hand, is almost Herculean in its proportions. It is not to

explosions alone they have to turn their attention, but to other matters which after all, do most to swell the record of mortality in collieries. For every death caused by an explosion it may be safely asserted – and the interesting table of statistics published elsewhere clearly proved this – that three or four are due to further causes which attract little or no public attention.

The great bulk of the accidents in mines are without question brought about by the perils which surround the miner in the ordinary pursuit of his vocation – such as falls of stone and coal in the mine workings. In order to find a remedy for these the Commissioners have been led to investigate the methods of operation and the mechanical appliances provided for exploring and breaking ground. They have also made experiments with coal-cutting machines, and have gone exhaustively into the whole question of safety lamps.

The latter alone would constitute an inquiry of its own. An increase in the illuminating power of the lamps used by the miner would assuredly prove one of his greatest safeguards. Whether this is to be obtained by an improvement on the present oil-lamps, or the adoption of the electric light, is a question left to the Commissioners to answer; but it cannot have escaped observation that Mr. Swan's most recent descriptions of his electric lamp appear to indicate that this form of illumination is rapidly approaching to something very like perfection.

The Commissioners might not be able to say what is new on this topic, for the great advance made in the ventilation of mines during recent years is well enough known to all who pay the least attention to these matters, but they will at all events be expected to hold the balance between opposing systems, and to give us the benefits of the results derived from their own practical experience. The question of how far the fire-damp in a mine is influenced by barometric changes is also one with which the commission must deal with in their report. It has at the same time a most direct bearing on the explosion that has just occurred at Mardy. During the last few days miners have been warned of the variations of atmospheric pressure in progress, and have been urged to adopt precautions that might prevent any danger arising from accumulations of gas and coal-dust.

It would be interesting to know how far these warnings have been attended to. Were they well regarded for example in the Rhondda Valley? If not, then the fact may be due to the circumstance that these warnings proceed from someone whose name or authority is unknown to the miners. A recommendation from a body like the Mining Commission would probably be treated with more respect, so that these gentlemen ought to lose no time in giving the public the benefit of their observations on this and other features of their work.

### **Sir George Elliott and Sir William Thomas Lewis on the condition of the colliery.**

“Morien” writes: - “To the no little gratification of the authorities of the Mardy Colliery, Sir William Thomas Lewis arrived on the spot by the first train on Thursday morning. He was accompanied by his brother, Mr. Henry Lewis. Sir William made it known to the principal officials that Sir George Elliott would arrive presently from Newport. It is hardly necessary to state that the tokens of sympathy these facts implied conveyed comfort to many sad hearts, including those of the principal responsible officials of the works, men entitled to public sympathy, and much in need of it at the present moment. It is well known that no plan which modern science has devised with a view to protect the lives of underground workers had been neglected here, and all the men felt as safe in the workings as they did in their own houses. This was stated to me by David Bowen, one of the examiners into the condition of the colliery appointed by the men themselves, and who performed their task the last time on Tuesday last, when everything was found in perfect order. Bowen himself has lost an only son, nineteen years of age. The father had stopped at home that morning due to a sore hand.

I regret to say that Sir William Thomas Lewis met with a painful accident, but not, I am glad to say, of a serious nature. He was climbing one of the great heaps of stones, which had fallen from the roof and was lying on one of the principal roadways, when his foot slipped and his face came into violent contact with a sharp projection. For a moment it was feared that his right eye had been injured, but nothing more serious is now apprehended than a somewhat severe black eye. Later in the day Sir George Elliott, Bart; accompanied by Sir William T. Lewis, Mr. William Abraham M. P., Mr.

Wales, the Government Inspector, Mr. William Thomas (Brynawel), Mr. Herbert Kirkhouse, and Mr. Griffith Thomas (manager), descended into the shaft. This was Sir George's first visit. After the return of the company to bank they entered a train waiting for them.

I am able to state that Sir George, whose experience of coalmining extends over more than half a century, expressed himself as surprised to have found the workings so little damaged, comparatively speaking. It seemed inexplicable that so many lives were lost with so slight a damage done to the fabric of the workings. The airways seem already to be restored into perfect order, and the air current winged its way through its proper channels. Sir William T. Lewis kindly sketched for me the aspect of matters below. He quiet agreed with what Sir George had observed.

Sir William went on to describe what he saw below. There were traces at the bottom of the downcast shaft of the fire having flashed into the pit itself. Close to the bottom a report book had been partially burnt by the explosion. It was quite evident by the aspect of the shaft that a most terrible storm had shot up to the surface. The gearing of the pit, two cages, ropes, four guide ropes (each nearly 400 yards long), and other materials, were lying together at the bottom in an inextricable heap.

Still, what seemed more surprising was that, notwithstanding all this evidence afforded of the terrible character of the explosion, the interior arrangements of the colliery remained almost intact. It seemed, judging by what Sir William stated, that the various avenues of the workings remained almost as perfect as cannons after shots have been fired from them. This was pointed out as reflecting the highest credit to the engineering skill of Mr. William Thomas, C. E., Brynawel, in designing the plan of the colliery and in carrying it out. One remarkable feature of the plan is - and Sir William attributed to it the saving of at least 100 precious lives on Wednesday afternoon - that all the cross roads in the colliery are driven through the solid, and not, as is usually done, constructed with pillars of timber and stones. In the centre of the workings are several roads crossing each other at right angles. All these are constructed through the solid, so that they are as firm as the mountains themselves to withstand any storm. Had it not been for them, there is little doubt the whole fabric of the

interior would have collapsed before the awful storm, and every man would have perished.

The view of the plan of the colliery Sir William deemed so very important that he repeatedly reiterated it to me, with a view, apparently, of having it made known as a guide to all other mining engineers. There were several considerable falls lying about other roadways through which the current had shot with awful force in the direction of the shaft. In no part of the colliery was there found an indication of shot-firing as having taken place that day, and the cause of the explosion is a complete mystery. The very fact that the colliery is favoured with an exceptionally good current of air lent additional force to the explosion. Before the air became explosive it required a corresponding quantity of gas to reach an explosive point. Another point which seems to have occurred to Sir William T. Lewis as extraordinary was the sign of some of the wide dissemination of the storm that raged about the workings, with indications that it had varied in force in different localities. In one locality, where from its position in the plan of the colliery one might have expected the full force of the explosion to have raged, and the archway in course of construction, was undisturbed. Even the supports of the arch were unmoved; a ladder, which the masons were using at the time, stood up against the wall, and the tools were left undisturbed.

The various stages of force in the explosion, as it darted from place to place through the workings, seemed have been of a phenomenal character, and quite beyond the skill of all to understand. I do not think I shall be doing wrong in stating the Sir William Thomas Lewis told me with sympathetic tears welling in his eyes, that he never in his life felt prouder with anything he was connected with than he did at the moment of the Miners' Permanent Relief Fund. Fifty of the poor fellows who had lost their lives at Maerdy were members of the fund, and the result will be that their families need not apply for assistance to the public nor to any parochial authority in the world. He mentioned pointedly the names of Dillwyn Llewelyn, Penllergair, and Colonel Turberville, Evenny Abbey, as having warmly and substantially supported the fund from the beginning. He referred too, to the noble generosity with which the Most Noble the Marquess of Bute had aided the fund, also Lord Tredegar. I was given to understand by Mr. Evan Owen, the secretary of the fund, that, by Sir William Lewis's instructions, he

had brought to Maerdy that morning from Cardiff the sum of £200 to distribute amongst the families of the members who had been killed.

I must mention too, that Sir William had made himself personally responsible to the bank for that sum so that no time should be lost before bringing up the relief. Several of the men were members also of the Swansea Liver Benefit Society, and on Thursday Mr. William Williams, agent of the society, paid visits to the homes of the bereaved families of members, and distributed relief.

#### A generous offer

On Thursday afternoon Mr. William Abraham M. P., received a message from Mr. Ellis Laver of Manchester, a gentleman who always takes the greatest interest in matters affecting the safety of collier. It was as follows: - "Sorely grieved at distressing news. Should special funds be required for bereaved and injured, my seven children will contribute a Christmas offering of £50 in memory of their mother." Mr. Lever also suggests that the newspapers should call for special Christmas contributions towards any fund that may be formed. Mr. Abraham replied by wire and subsequently wrote in reply.

#### Morien's report for Thursday

The '*Western Mail*' correspondent '*Morien*,' was still on the scene and gave this moving description of the situation the day after the explosion: - There is something terribly sad in a Christmas time such as that which the people of Maerdy, and, indeed, of all the adjacent Rhondda districts, are spending at the present moment. Instead of mirth and good cheer, the mountain village of Maerdy is today by far the saddest, this festive season, of all the villages of Wales. Instead of being the scene of happy family reunions, here have been long partings, and many eyes have been, and are still, dimmed with tears.

The armchair is vacant in many a humble home in this sadly stricken locality. It was deeply touching to see the tobacco pipes, relics of those that have gone, lying on the corner of a mantelpiece, where they had been left before the the owners made their last descent into the mine.

The poor fellows will be missed, too, in their chapels, where many of them had their family pews, and where they, and their wives, and sons, and daughters, were to be seen, aye, and heard too, joining in the hymns of prayer Sunday after Sunday. The outside world knows but little of the vast number of intelligent, religious, and sober Welshmen inhabiting our valleys.

It is too prone to judge of the character of the mining class by the noisy few, who, boiling with lively spirit, occasionally break out after their toil underground. Maerdy colliers are not behind the rest of their fellow-country men in their love for religion. There was poor David Jones, Deacon at Zion Chapel, Maerdy. Morgan Davies, Maerdy Cottage, was amongst others, with him on Wednesday afternoon – struggling to get out of the workings. The poor old Deacon felt his strength giving way, and concluded that he was about to pass away. Morgan Davies heard him fervently praying and placing himself into the keeping of the Eternal while he was saying, "O Arglwydd, maddau fy holl bechodau" (O, Lord, forgive all my sins). "I heard him fall heavily to the ground," said Davies. He did not stir again, but was picked up, later in the evening, by some explorers, cold and dead. From the dark mine this soul had passed away to beyond the realms of earth.

The experience of Morgan Davies itself was most touching. I had heard, from a small doorboy named David Mandrey, who, although bearing an English surname, spoke Welsh like a native, of the wonderful escape of Lewis Davies, another doorboy. I made my way to the cottage of Lewis's parents, situated close to the Maerdy farmhouse. The first to come to the door was Lewis's mother, carrying a baby in her arms. In answer to my inquiries, she told me the "Bachgen Bach" (Little boy) was in the back room, and there I followed her.

He was was lying in a temporary bed, and gazed sharply at me, with a strange, puzzled expression in his eyes. "How are you my boy?" I asked. "I am middling" he replied, meekly. "Do you recollect the explosion yesterday?" I enquired. He regarded me with a puzzled look, and, after a little while, spent, apparently, in considering, he answered, hesitatingly, and as if doubtful as if he had understood me, "No, I don't," or, in his own words "Nag W'i." His mother here observed, - "He does not remember anything about it." I tried again. "What were you doing yesterday?" He

looked at me earnestly, and then at his mother, and then asked her, "What was I doing yesterday? Was I cutting coal yesterday, mother?"

A little brother of about eight, who stood by listening, here interposed with a smile, and said, "You were dooring boy, were you not?" The sufferer looked at the little speaker with an air of bewilderment, but made no answer. "How old are you?" I now asked. He replied instantly, "Between twelve and thirteen, sir." His mother now remarked, "He went underground for the first time last May. We lost another boy, years ago, by being killed who had only been three months underground." "What standard were you when you left school?" I asked. He replied with alacrity, "in the fifth standard, sir."

By this time the father had returned from the surgery with medicine for the poor little fellow. He then related to me a touching story. He himself worked, at the time of the explosion, far in the interior of the workings, and his little boy was usually with him. On that day he was dooring, of which were, it seems, the lads were rather fond, enabling them, as it does, to run with the horses. He (the father) was alone in his stall when a sudden terrible commotion was heard reverberating through the colliery. At the same instant there was a sharp report near at where he was at work "like something missing a mark."

He instantly understood an explosion had taken place, "and" said the father "my first thoughts were of him," at the same time nodding in the direction of the small bed in the corner. After the noise he ran out of the stall into the heading. There he met about 14 other men employed in the adjacent nine stalls. Most of them had time to put on their coats. He then made for the shaft, but 12 of his companions fell dead during the attempted journey. The after-damp was so thick that the lamps they carried emitted but the dimmest light in the thick gloom. He, however, struggled on, closely followed by the boy's little dog, in quest of his son.

He had some notion as to the direction in which the lad would be found. After traversing a distance, as near as he could guess, 500 yards, he heard a voice he instantly recognised as that of his boy, calling out "Oh, mother, mother, mother!" Paternal affection and despair seemed to lend him strength. While strong men were failing to rise no more about him, the

brave miner, fought with death itself to reach and succour his boy. On his way he came to a tram. Lying partially under was a labourer, Richard Davies. The horse was on the ground in front of the tram, kicking fearfully, and between the hindquarters of this prostrate and furious animal he found his boy. He succeeded in rescuing him. "I carried him," said the father, "to the side of the roadway. There I sat down with him pressed against my breast. I wetted his lips with the contents of my water can." While thus engaged he heard the voice of David Jones in prayer. He seems to have immediately after lost all consciousness himself, and to have, while in that condition, let his boy fall to the ground, and to have wandered listless away; luckily, however, in a right direction. He remembered finding himself suddenly walking alone, and breathing fresh air. He could not say whether or whence he had come, where he was, nor what had become of his little son. Rescuers then came and conveyed him out of the mine. Later in the night other rescuers, to the unspeakable joy of the mother and father, came with the lad home, alive.

I ascertained that his driver, Richard Davies, commonly known by the name of "Dick Blanch," had also been recovered. I went to the house of his parents, near the Maerdy Hotel. He was terribly burnt, and was lying on a bed on the floor of a back room, his swollen face completely covered over with oiled bandages. Several of his friends, including his father, were in the room silently watching over him and attending to his wants. The father having said I could speak to the sufferer, I knelt by the side of the bed and gently drew from him the following narrative.

He himself and Lewis Davies, the little boy referred to previously, were accompanying the horse drawing the trams, when they were startled by a terrific report, and he, with the boy holding on to his coat, began to run in the direction of the shaft. Almost at the same instant he beheld the fire, filling the heading, coming towards them. Instantly he was hurled back on the top of that horse that must have been thrown down by the blast a second or two before. The horse kicked the lamp out of his hand, striking him also with its hoofs. He knew nothing at the time as to what had become of the lad, but, most strange to say, while this poor fellow and the animal were shockingly burnt, the lad had no marks of fire whatever upon him.

The probable theory is that the boy, being behind the driver, was sheltered and blown into the hollow space between the hind quarters of the animal and the tram, and that the fire passed over him, leaving him untouched. Possibly the fire spent itself before reaching him. Sir William Thomas Lewis related to me, as a passing stranger that he saw dead horses lying on the roadways and only partially singed. In some instances, however, every hair had been burnt off their bodies, except that of the head which had been left untouched by the fire.

In other cases parts of the horses had escaped the fire, while the rest had been scorched. It would appear that several small patches of gas had been fired in rapid succession along the mine, or that the coal dust had been ignited here and there, with the strange result referred to above. But in the case of Richard Davies, he distinctly says he saw the fiery blast rolling towards him in an appalling manner.

The experience of **Evan Thomas**, 3 North-Terrace, Mardy, was most exciting. Evan had been in three previous explosions, and had thereby gained an unenviable experience, which, however, was now very valuable. He was far in the interior when the explosion took place. In a short while a company of sixteen men gathered and groped their way to a double parting, where they saw several dead bodies lying about, as well as three horses standing and one lying dead. The after-damp and coal dust were extremely thick, and even counselled a retreat to the place they had just left. This they succeeded in doing. Then all sat down and proceeded to discuss what was to be done. Evan urged all to stay where they were, the air being less impregnated with the after-damp in that place.

His conclusion was that the explosion had occurred between them and the bottom of the shaft. He believed that by staying where they were time would be given for some of the after-damp to float out into the up-cast and thence into the open air. He looked at his watch as coolly as Wellington on the field of battle. It was now nearly four o'clock. His companions grew impatient, and all left him to seek a way out other than the one attempted already without success. Resolutely he remained where he was while the others hurried away. At five o'clock he decided to make another effort, and had the satisfaction to find, as he had anticipated would be the case, the after-damp was much less, and he reached home about six o'clock. But

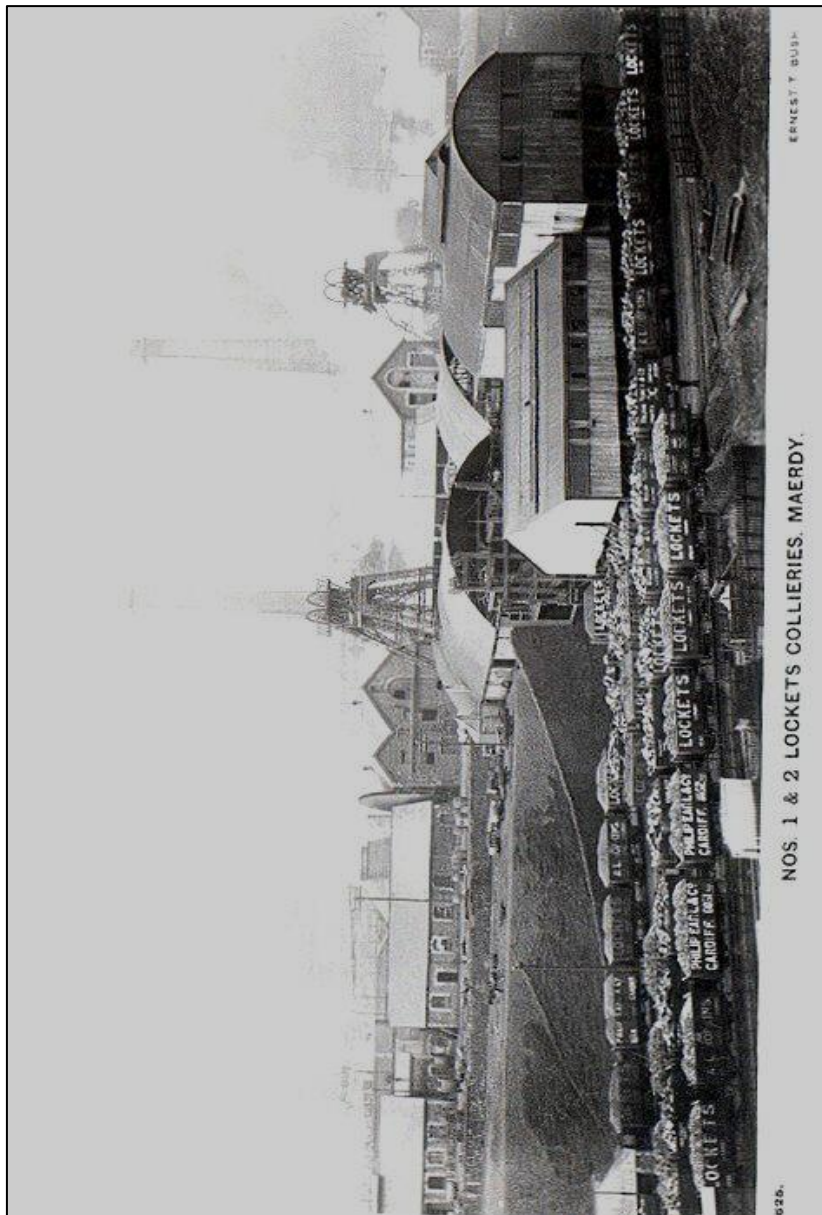
where were his late companions? No one knew. All the time they had been wandering from one place to another in the interior of the workings, where they had been joined by other wanderers. They were very much exhausted by their exertions and the effects of the after-damp. Hope of deliverance was diminishing every moment. But when despair was staring them in the face, Mr. William Thomas, Brynawel; Mr. David Evans, Bodryngallt Collieries (Chief Agent of the Blaengwawr, Ferndale, and Bodryngallt collieries); and Mr. Herbert Kirkhouse, came to them. Who can realise the joy of those poor men when they saw the well-known faces of these intrepid heroes of the mine?

The three rescuers were – and to their great honour it may be mentioned – carrying injured comrades, and among them if I am not mistaken, the small door-boy, Lewis Davies, who they had picked up along the way. They were all speedily guided to a place of safety, from whence they were taken out of the mine by relays of other rescuers. Let me here mention that the small dog of Lewis Davies was found dead under the head of a door-boy named David Evans.

Doubtless he had, in common with little Lewis, showed kindness to “Try,” and with true canine fidelity, it had clung to the boy until both had perished together. On Thursday the explorers saw another little dog, which could not be caught, running about the inner workings. It is said also that a horse had been found alive and well in the interior. The origin of the explosion is still a mystery, neither the previous examinations nor the official inspection having revealed anything that would tend to explain its cause. The lamps discovered are said to be in perfect condition.

Among the strange incidents of Wednesday afternoon it is said that **John Evans**, fireman, was heard crying out to some colliers, “Boys, here is fresh air,” and in the next instant fell down as a corpse. Among those who gave valuable assistance on Wednesday afternoon, and whose names have not been mentioned, are Mr. James Thomas, Brynawel; Mr. Thomas and Mr. Davies, Ferndale.

At 8.30 on Thursday night, **David Jones**, 20 years of age, Maerdy Road, died from his injuries. This brought the total to 77. There would be others.

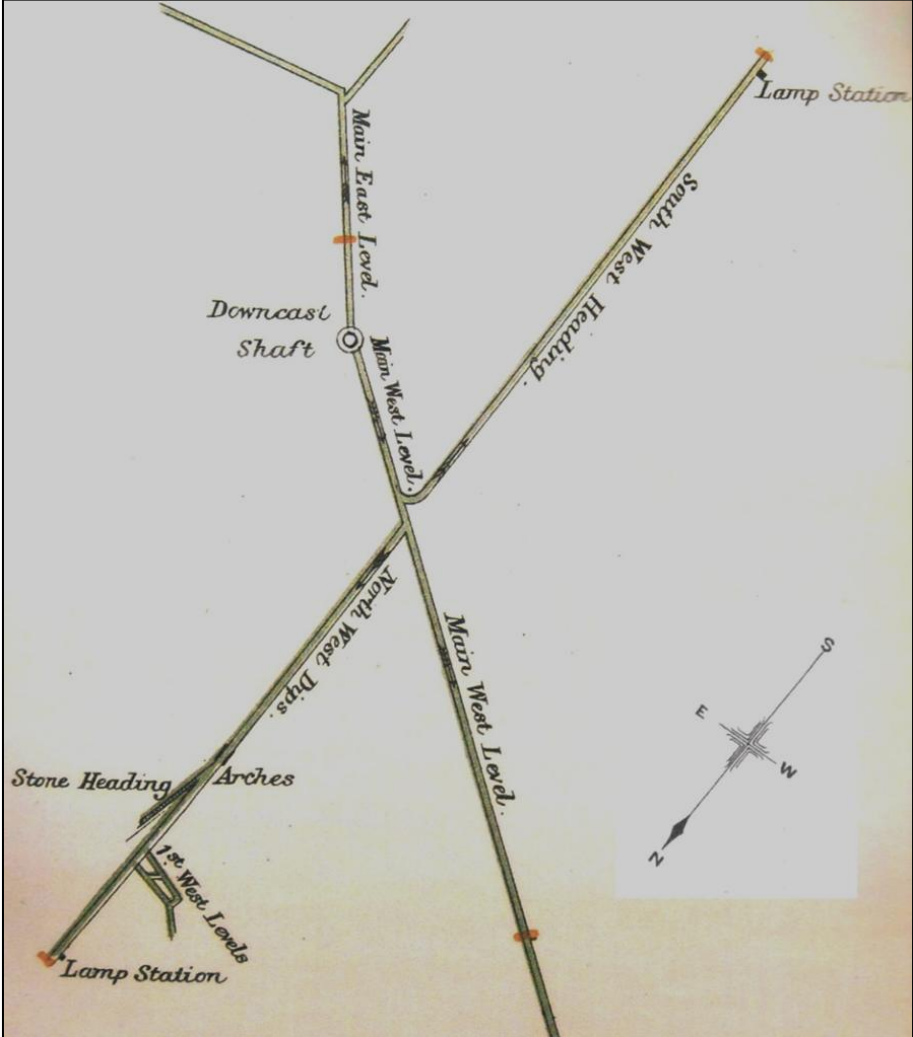


ERNEST T. BUSH

NOS. 1 & 2 LOCKETTS COLLIERIES, MAERDY.

626.

Mardy Colliery No. 1 & 2 shafts C. 1909



Simplified map of the No. 6 seam in the Mardy Colliery where the explosion took place. (A full map of the seam appears at the rear of this book).

**Chapter Four**  
**Ferndale, Friday, December 25<sup>th</sup> 1885**

**TERRIBLE EXPLOSION IN THE MARDY PIT – OVER 77 MEN KILLED**

List of the dead – scene at the pit's mouth  
Narrative of survivors and explorers

There being no work Christmas day, crowds had been coming up the valley and over the mountains from the neighbouring mountains and valleys to visit the scene of the disaster. The purpose of many individuals had been to claim their dead, or to endeavour to console relatives who had been bereaved. The doctors had been unremitting in their attention, not only to the ten or dozen who were seriously injured, but also to the many others whose burns and conditions were comparatively slight. The surgeons had also been engaged in that more detailed examination of the dead which was necessary before the inquest.

In the village the air was still filled with wailing for the dying and dead; wives and mothers are wringing their hands and piteously moaning in every other house. However, with most of them the 'spring of tears' had now dried up, and they presented an aspect of stricken sorrow even more pitiful than those who still had the relief of weeping. The women who were not themselves bereaved drew their breaths convulsively as corpses passed, and shuddered to think of the calamity they had so narrowly escaped. For many hours nearly all these poor creatures had been victims of the sickening apprehension, and if many more than was expected had emerged from the 'valley of the shadow of death' their torched souls were all the more sympathetic for those whose fears have become dreadful realities.

Of the 76 victims, 46 were single and 30 married, the proportion of the former to the latter being much higher than the average ratio. The children left orphans by the catastrophe number 72. The bulk of the deceased subscribed to the Permanent Fund, but it is proposed to raise a supplementary fund to provide for the women and children of non-members on the same scale. To this the Marquess of Bute and several of the principal mineral and colliery owners in the neighbourhood have intimated their readiness to contribute.

It is estimated that from £10,000 to £12,000 will be required to carry out this scheme. This is the first special strain that has come upon the Permanent Fund, and it must be eminently satisfactory to the chairman (Sir W. T. Lewis) and the other founders to know that the machinery for the administration has proved quite equal to the occasion. A number of the deceased men were insured in the Prudential and Pearl Assurance Societies, and over £170 paid out before noon on Thursday by the agents of these companies. Mr. W. Abraham, M. P., has kindly complied with a request that he should become a member of the local committee having charge of the arrangements for the distribution of relief.

#### An official statement

An official of the colliery, in an interview with one of our reporters, made the following statement: - "The explosion occurred about a quarter to three o'clock, and Mr. William Thomas, the general manager, who happened to be on the spot immediately made arrangements to go down. The downcast shaft could not be used in consequence of the cages having been smashed and the guides broken, and he, therefore, descended the upcast, accompanied by Mr. Griffith Thomas, the resident manager, and two or three other gentlemen. On going to the east side they found about 40 men in a stable, and they were naturally anxious to come up at once, but Mr. Thomas advised them that it was necessary that they should remain there for some time, and they loyally consented to stay until they were able with safety to leave.

It was then found that the air was making a slow circulation, owing to a pair of separation doors having been blown to atoms, and some brattices were obtained and put up, this undoubtedly being the means of saving a large number of lives, which must otherwise have perished. Subsequently Mr. James L. Thomas, son of the manager, with the assistant viewer, and the managers of the Ferndale Collieries, made an exploration, and relays of trusted men were sent down, the result of their exertions being that many were saved from death. In some of the headings in the South-west and North-west districts there were several heavy falls. Every living person in the pit having been brought up, a start was made shortly after 10 o'clock to bring up the dead, and by 5 o'clock 74 – all in the pit except one, believed to be under a fall – had been recovered and taken to bank.

The greatest credit is due to the men who assisted in this work, for never did colliers display more devoted energy than they did on this occasion. The bodies were first taken to the store-room and, after identification, conveyed to their homes. The majority of victims succumbed to after-damp, but some were badly burnt, and there were two who were literally blown to pieces, the only means by which they could be recognised being by articles of clothing which they wore. Considering the colliery turns out on an average of 1,000 tons of large coal per day, and that there were down at the time 733 men, it is a matter of consolation that so many succeeded in escaping with their lives. The highest praise is due to the officials of other collieries for the assistance they rendered, and to the relief parties for the valuable aid which they so willingly lent." The following is a list of the killed and injured: -

### **Killed**

**Daniel Williams**, 43, overman, 33 North Road, Maerdy, married, seven children.

**John Evans**, 45, fireman, 32 North Road, Maerdy, married, six children.

**John D. Jones**, 51, bratticeman, 74 Mardy Road, Maerdy, married, one child.

**Thomas Davies**, 49, collier, 1 Thomas Street, Maerdy, married, five children.

**Thomas Davies**, 13, collier-boy, 1 Thomas Street, Maerdy, single.

**Evan Roberts**, 28, roadman, 23 North Terrace, Maerdy, single.

**David Evans**, 18, collier-boy, 64 Maerdy Road, single.

**Thomas Evans**, 26, collier, 21 Pentre Road, Maerdy, married, three children.

**David Jones**, 59, cogman, 1 Pentre Road, Maerdy, married, eight children.

**William Jones**, 13, collier-boy, 21 Thomas Street, Maerdy, single.

**Isaac Davies**, 33, repairer, 44 Warrant Place, Maerdy, Married, two children.

**Richard Lewis**, 46, collier, 6 North Terrace, Maerdy, married, one child.

**Robert Griffiths**, 34, haulier, 7 Hill Street, Maerdy, married, four children.

**Griffith Scourfield**, 19, labourer, 36 Maerdy Road, Mardy, single.

**John Morgan**, 16, haulier, 19 Hill Street Maerdy, single.

**James Sutton**, 25, labourer, 13 Pentre Road, Maerdy, single. \*

**Morgan Watkins**, 14, doorboy, 6 Oxford Street, Maerdy, single.

**Thomas Watkins**, 17, haulier, " " " " " .

**John Powell**, 23, hitcher, 7 Rowley Terrace, Maerdy, single.

**Thomas Evans**, 26, haulier, 17 Pentre Road, Maerdy, widower, one child.  
**Evan Davies**, 29, collier, 5 Rowley Terrace, Maerdy, married, one child.  
**William Thomas**, 19, collier, 38 Pentre Street, Maerdy, single.  
**Thomas Jenkins**, 25, cogman, 52 Maerdy Road, Maerdy, single.  
**Thomas Phillips**, 25, haulier, 11 Thomas Street, Maerdy, single.  
**John Williams**, 25, collier, 52 Pentre Road, Maerdy, single.  
**John Heard**, 22, collier, 28 Pentre Road, Maerdy, single.  
**David Thomas Ward**, 19, collier, 4 Maerdy Huts, Maerdy, single.  
**Benjamin Phillips**, 40, roadman, 2 Pit Row, Ferndale, married, six children.  
**James Thomas**, 27, collier, 108 Maerdy Road, Maerdy, married.  
**David Jones**, 27, collier, 23 Thomas Street, Maerdy, married, two children.  
**Thomas Thomas**, 24, collier, 29 Pentre Road, Maerdy, single.  
**John Edwards**, 13, collier-boy, 22 Thomas Street, Maerdy, single.  
**Evan Pugh**, 17, doorboy, 32 Oxford Street, Maerdy, single.  
**William Davies**, 25, collier, 35 Ferndale Road, Ferndale, married, two children.  
**Michael Stokes**, 17, haulier, Maerdy huts, Maerdy, single.  
**John Evans**, 25, collier, 6 Rowley Terrace, Maerdy, single.  
**William Harries**, 29, collier, 43 Maerdy Road, Maerdy, married, four children.  
**David Lewis**, 40, collier, 43 Mardy Road, Maerdy, married, four children.  
**Daniel Phillips**, 50, mason, 11 Thomas Street, Maerdy, married, five children.  
**Edmund Morgan**, 27, collier, 52 Pentre Road, Maerdy, married.  
**Henry Pullin**, 23, hitcher, 25 Maerdy Road, single.  
**John Evans**, 55, labourer, 2 Rowley Terrace, Maerdy, married, three children.  
**Levi Williams**, 40, roadman, 89 Maerdy Road, married, three children.  
**David Rowlands**, 27, collier, 19 Oxford Street, Maerdy, married, three children.  
**William Griffiths**, 18, collier, 69 Oxford Street, Maerdy, single.  
**James Parry**, 20, hitcher, 107 Mardy Road, Maerdy, married, one child.  
**John Collins**, 40, collier, 109 Maerdy Road, Maerdy, single.  
**David Lake**, 35, collier, 40 Pentre Road, Maerdy, single.  
**Philip Richards**, 45, labourer, 83 Maerdy Road, Maerdy, married, six children.  
**David Bowen**, 13, collier, 21 cemetery Road, Maerdy, single.  
**John Bevan**, 23, haulier, 28 Hill Street, Maerdy, single.  
**John Davies**, 17, colliery boy, 113 Maerdy Road, Maerdy, single.

**John Lewis**, 19, collier, 2 David Street, Ferndale, single.  
**Owen Tudor**, 32, miner, 2 Rowley Terrace, Maerdy, married, three children.  
**Evan Davies**, 19, collier, 6 Hill Street, Maerdy, single.  
**Edward Edwards**, 16, miner, 42 Oxford Street, Maerdy, single.  
**Joseph Liaber**, 17, collier, 61 Maerdy Road, Maerdy, single.  
**Edward Edwards**, 52, contractor, 42 Oxford Street, Maerdy, married, nine children.  
**John Spiller**, 22, collier, 120 Maerdy Road, Maerdy, single.  
**Thomas Hughes**, 33, shackler, 5 Ceredwin Street, Maerdy, married, two children.  
**David Jones**, 55, timberman, 25 Pentre Road, Maerdy, married, one child.  
**Isaac Jones**, 23, collier, 12 Thomas Street, Maerdy, single.  
**Joseph Jones**, 40, miner, 82 Maerdy Road, Maerdy, single.  
**Richard Evans**, 24, collier, 120 Maerdy Road, Maerdy, single.  
**John Jones**, 42, collier, 11 Hill Street, Maerdy, married, four children.  
**Edward Thomas**, 23, rider, 24 Pentre Road, Maerdy, married, 1 child.  
**Evan James**, 21, collier, 18 Pentre Road, Maerdy, married.  
**David Jones**, 27, collier, 5 Oxford Street, Maerdy, married.  
**Messecr Phillips**, 32, mason, 75 Oxford Street, single.  
**Lewis Davies**, 32, mason, 41 Mardy Road, Maerdy, married, three children.  
**Philip Hutchings**, 35, hitcher, 90 Maerdy Road, Maerdy, married, one child.  
**Arthur Boozey**, 21, spragger, 5 Oxford Street, Maerdy, single.  
**William Jones**, 12, Collier's boy, 11 Hill Street, Maerdy, single.  
**Owen Powell**, 29, collier, 20 Llewellyn Street, Pontygraith, married, two children.  
**Gomer Morgan**, 20, haulier, 21 Maerdy Road, Maerdy, single.  
**Ephraim Hughes**, 20, spragger, 52 Maerdy Road, Maerdy, single.  
 Total 76.

Note: - \* James Sutton is a mistake and does not appear on the official list.  
**James Lockston** was one of the killed, but was omitted from the same list.  
 Alterations are also made to ages from information from the county death register. An official and definitive list appears at the rear of this book.

### Injured

**Harry Isaac**, 101 Maerdy Road; 21, Haulier, burns on head, hands and body; delirium yesterday; very bad case.

**John Jones**, 90 Maerdy Road; burns on head, face and hands. Progressing favourably.

**David Martin James**, (20), rider, 56 Maerdy Road, in a critical condition.

**Richard Davies** (28), Ceredwin Street, burns on head, face, hands and body; a bad case.

**John Henry Thomas** (23), engineer, 9 Thomas Street; burns on head face and hands; progressing favourably.

**William Williams** (33), 13 North Terrace; burns on head, face, hands, back and legs; very bad case.

**Gomer Rees**, the Huts; burns on head, face, hands and body; serious case.

**John Williams**, 24 Oxford Street, burns on head, face, hands and body; serious case.

**William Henry Lewis**, 127 Maerdy Road, slight burns on hands and face.

An examination of the death list showed a great preponderance of typical Welsh names, nearly all the people speaking the language of the Principality. The ages were generally those of young men, or men in their prime of life. As a consequence the record of the families that they had left behind was very melancholy – “wife and four,” “wife and six,” and “wife and nine,” occurred here and there, and the record was saddened occasionally by the entry, “widower left four,” and “widower left eight.” The reoccurrence frequently of the same surname and address shows the depth of some families’ mourning. At the time of the accident 773 men and boys worked in the colliery. About 1 in 10, had been lost.

#### Clearing the gas – remarkable discovery of horses

In one portion of the colliery the falling of the roof and the general disturbance had let out a considerable quantity of gas, upon the danger of which it is unnecessary to dwell. On Friday night, by the direction of the manager, a fence was put around the pit top, enclosing a considerable area, within which no light, lamp, or pipe was allowed. The fire in the lamp-room was extinguished, and every precaution taken to prevent harm. Then the fan was put to work at its full force causing a tremendous amount of air to pass through the place in which the accumulation of gas had occurred. The result was that when the place was tested on Saturday morning it was found clear. Strange to say, a subsequent exploration of this part of the pit led to the discovery of two horses alive, thus reducing the loss of horses to

sixteen. These two horses had been in the midst of the gas from Wednesday night until Saturday morning; yet they were alive. They are now under the care of the veterinary surgeon. Of course, there was no after-damp in this part of the colliery.

#### A painful task

Inspector Jones, of Porth, with other officers, visited the houses in which the whole of the deceased persons were in order to prepare the above particulars. And the scenes they witnessed in some of the afflicted households were most heartrendering, more especially in those dwellings where father and son were lying side by side in the sleep that knows no waking. Wives and mothers of the departed exhibited a grief which was distracting and their hearts, like that of Rachel for her loved ones weeping, would not be comforted. The bodies of Philip Hutchings and Henry Philips presented pitiful spectacles, the former having been severed in two and the other having the head attached to the trunk only by the skin at the nape of the neck. Both of these men were evidently in the very focus of this explosion.

When the night came lights may be seen through the blinds burning in the chambers of death, in accordance with a venerable custom in Wales, and, where the inmates had been able to procure any flowers were to be seen strewn on the winding streets. In some instances the evergreen Christmas decorations of the cottages had been utilised in lieu of flowers. In some small front parlours two or three inanimate forms may be seen thus laid out ready for burial, bearing simple but touching old-world emblems of another life bloom in a hereafter.

#### Narratives of other survivors

**William Bray**, haulier, and **David Watkins**, who heard the shock, says: - "We are hauliers, and took the report to be a large fall, but being in the first current of air, we now experienced a depression in breathing. This was because of the rush of afterdamp. We left our horses where they were and made our way back to the double parting. On our return we met another horse and tram, the haulier having made his way for the pit bottom. On coming to the parting we felt ready to drop. Meeting others, we enquired

what had happened and where; we thought it was an explosion at once, and made the best of our way to the pit bottom, in the hope of meeting the cage to make our escape to the pit mouth. But on our way we met with a journey of trams. The rider lay dead alongside of it.

On making further progress to the pit bottom, we found a heavy fall of roof and timber and trams intermixed. We scrambled over these as best we could. We experienced when we reached the pit bottom great disappointment at finding the guides of the pit in one mess. We were quite disheartened. We heard groans, but we were almost unable to render any aid, and sat down for a few moments to recover a little. We then ascertained that some of the hitchers lay under our feet dead. We also found that the fireman's lodge in the back slum emitted a great smoke. We tried to ascertain the reason, and found that the firemen's clothing (the firemen escaped) was on fire. I then heard, says Bray, a familiar voice shout out, "For God's sake help me." I then wetted the end of my cravat or neck scarf and made my way to him to the pit bottom to the fresh air. He was John Henry Thomas, one of the underground drivers, still alive although with charred hands. Many had joined me then, and we rushed to the engine house.

Some of us thought of holding a prayer meeting as we had given up all hopes of escape, but in the course of an hour or so I heard the familiar voice of Mr. Thomas, Brynawel, inquiring, "In the name of God, is there any one alive?" I answered "Yes." He humbly thanked God for the sound. He asked what part of the working we had come from, and we told him. He next asked us if there were any men we thought within reach that could be moved. I then told him there was nothing to harm them on the Aberdare side with the exception of sulphur, as the roadways were clear and the air travelling. Would anyone, he inquired, volunteer to go with him to find them? I said I felt myself recovering, and I would volunteer to go with him. We then went over the fall, and on reaching the first stable; 100 yards from the pit bottom, we met the bulk of workmen coming to meet us from the different headings on that side, the air having cleared. Mr. Thomas shed tears of joy, and exclaimed, "Thank God they are safe" and begged of them to remain in the stable till he could send an official to bring them safe to the pit bottom, as they were at the pit doing all they could to convey us to the pit mouth, and this was eventually accomplished.

**Morgan Davies**, son of Amos Davies, Llwyncoed, Aberdare, says: - "I was working at heading No. 5, and heard the report of the explosion, which spent its force four yards from my working place. The place was clouded with dust, and we could see nothing. I then went to search for the clothes which I had taken off. I put them on, and I cried to the men near me, "It has fired somewhere, surely, boys." "Yes," they replied. "Well, let us go back," I answered. Back we went along together to the double parting. This was the Rhondda (and fatal side, probably). We reached there. The first thing we heard was men screaming for their lives. First I came across Richard Davies alias Dick Blanch. He was shouting for life. I went to catch hold of him to see whether I could be of aid. I understood that he was free from encumbrance, but that a tub was over him. His head protruded through the tub.

I afterwards heard Lewis (my own son) calling out "mother." I left Richard and went to my own boy. He, too, was under a tub, a horse being by his side. I clutched him to the side. My light went out, and we were in the dark. Shortly afterwards John Evans, foreman, came on the scene. "What is the matter, boys?" he shouted. "I don't know," said someone. There was a general scream. David Jones, cogman, was by my side praying, and as he was uttering his prayers, down he dropped dead. He was uttering in Welsh at the moment - (he was a Baptist deacon) - "I beseech Thee, Oh God, to forgive me all my sins." These were his last broken accents.

I heard John Evans, fireman, call out next, "Boys, here is a little fresh air coming now." I called John Evans, "Where is the return?" I had no answer. I thought he was dead, but it was dying he was. He was got out later, but a corpse. I was there in the dark still, my lad grasped in my arms, and his head on my heart. For a long while not a sound was audible. My little terrier dog had died by the side of David Evans, a lad who was 17 years old, and a door-boy. They had, boy and mule, died side by side.

I got unconscious almost, but staggered out I don't know how. I was forced to leave my boy as I was so weak. Ebenezer, a friend, and a second friend passed by, and got hold of the little lad and carried him to the fresh air. He was rescued. In five hours I, too, was brought out alive. All those who came in and went out with me from the working place are all dead. Isaac Davies,

John Evans, John Jones (traffic man), David Lewis, Thomas Davies (the boy), William Harris, Thomas Davies, David Jones, and others.

**Daniel Thomas Howell** says: - "I heard the puff after the explosion, and the men below me asked "What is the matter, Daniel?" I replied, not to frighten my two sons John and Thomas, "Oh, perhaps the door on the dip is chocked. Don't be frightened." But I knew better. I knew there was an explosion, for this was my fifth explosion. A lad came near the dip and shouted, "Daniel, come quick, they are all falling on the double parting." Up I went, and told my sons to prepare to come up after me. After going back to the door I said to my sons, "Now, boys, we have only caution to exercise to save our lives." They wanted to rush back, but I stayed them. Then John Thomas, haulier, came to meet me and said "No one can stay on the parting I have had to fly back." Then I went without the lad with John Thomas to the double parting, and came back and told the colliers in the place to wait a spell at all events.

I went back to the double parting a second time. Then Benjamin, the fireman, came to meet me and John Harding. Benjamin told me we had better go back directly, and back we went to the pit parting, the lads now with me. Then I heard David Jones cry for help. I went to the colliers near, who called out, "Stop back, for the place is all alive." Daniel Davies was with me. I went back and asked the boys "Why do you stand like this, hearing the lads cry for help?" I and Daniel crossed the fall and found Daniel Jones (who has previously died) dead under a tub. I called for help, and John Harding came. We got David Jones free. He said, "There now, I am right." I caught him, but his clothes were ashes. They went out of my hands a heap of black dust. I went back under the pit to see its condition. In what is known as the back slum the lodge was on fire. I had to turn back, I could not stand the smoke accumulation in the lodge room. I went back again and found numbers burnt. We went back to the return, I and two others, and my children safe now, thank God, and we were brought up. I went and aided in the rescue of the dead. I did not leave till six next morning. I helped to bring up about 26 or 27 dead. I was half stupefied when I went home from the pit top. I was as in a dream.

**Thomas Williams**, of 13 Hill Street, Maerdy, says: - "I was working in the far end of the Rhondda side when the explosion occurred. I did not, however,

see or hear any of the effects in my working place, and knew nothing about it until a young man came to inform me that there was something the matter. I went back towards the bottom of the shaft, and then at a considerable distance from that spot I came to some loose timber lying across the road. Nearer to the bottom of the shaft I saw great stones that had fallen from the top, and I then thoroughly understood that an explosion had happened. Of course, I could partly judge before that was what had occurred, for I noticed as I came along that there was a smell of fire. There was a considerable amount of debris about the roads that I passed over – timber, stones, tangled wire-ropes &co. I did not pass any dead bodies. There were none on my way. But I saw some injured. I saw them going towards the No. 1 pit to go home. I accompanied one to the pit bottom, and there parted with him, he going up on the cage, which was too full for me to go up in then. I came up in the next cage.”

**Benjamin Lewis**, collier, who happened to be in the north deep Rhondda side, says that he heard the earth tremble, and about 15 men soon came together. “We failed to get to the double parting, so we had to go through a return. We saw the doors blown to pieces. We soon came to the main road, and walked through the falls for about 100 yards. Then we had to stop. We waited for a while, and at last the roof fell, and some 120 tons came down. We then had it fair until we reached nearly 20 yards from the pit’s bottom. A fall of rubbish was there. Mr. Thomas, Brynawel, who was with us, order us to extinguish some canvas which was on fire. After which we crossed the fall, and saw three corpses and some injured men. We brought the wounded men to bank.”

**Evan Jones**, collier, said: - “I was in No. 2 heading, Aberdare side. Hearing a slight shot, I told my friend that the roof had fallen in somewhere. In half-an hour’s time we smelt sulphur strongly. We at once wended our way towards the pit. We reached the stables and the workings of our district. We awaited orders from some of the staff, and when they came we started. The first obstacle was the journey of trams blown in a heap on each other. We were then about 50 yards from the pit. We crossed them and saw a corpse between us and the pit. We found trams, rubbish, and ropes mingled in a heap. We could not ascend the pit and had to go through the back slum\* to the Rhondda side. Another body lay near the corner of the

slum. We had to go through No. 2 heading, so that we could ascend through No. 1.”

\* A slum was a road which went from the back of the pit where the empties and supplies would be taken through to go into the various districts.

**Roderick Williams** said: - “I am an assistant fireman on the west side, and was in the far end of the workings when I felt a shock. With others I went to No. 2 heading. The roof had fallen in at some places. I saw one corpse. I then failed to reach the top of No. 2 heading. There were many of us in the way. I failed to reach three persons where a heavy fall had taken place between us, but could hear them, and did our best to extricate them until friends came to release us.”

#### A narrow escape

**Mr. W. R. Williams**, also of 13 Hill Street, Mardy, and a son of the last narrator, said: - “I was foreman of the hauliers at the two-feet incline and off the road. I was called to give assistance to put some trams on the road, so I left my horse in the four-feet and went to the two-feet nine about ten minutes previous to the explosion. When righting those trams I heard the report of an explosion, and I was knocked down at the bottom of the incline. I was badly bruised by falling, my side being hurt, and coal knocked against my eyes, so that they are sore now. I tried to make my escape into the four-feet double parting, but could not. I went into David Griffith’s heading, and went from there into Moses Griffith’s heading; down again straight to the No. 2 heading, and down the double parting, where I met the fireman, still alive.

He asked me if I would go to the top of the fall in the double parting. I said, ‘There is no air!’ He said, ‘We will go along.’ I said it was full. He went on. I leapt into the horse’s water-bosh and wetted my cravat, and put it around my nostrils. I told others to do the same. Thomas Jenkins did the same. I saw Robert Griffiths, haulier, and spoke to him. He said he would do it also. John Evans and John Jones, the bratticeman, were the two men I saw alive last before I renewed my efforts to escape. The after-damp affected me in a way that I felt my limbs become weak and my stomach was affected badly. However, after going some distance I found I could go no further,

and I stood there until I was dragged to the old workings with other men. I do not remember more, except that I found myself with Mr. Williams, the surveyor, and Mr. Williams Roberts, the night gaffer of No. 1. I am told I became unconscious. At any rate I do not remember how I was brought out of the pit, and I don't know anything that took place until this morning."

### Touched by the Angel of Death

In addition to the incidents mentioned in the course of my account, it would be well to give a most remarkable escape. The words "hairbreadth escape" might suggest an unseemly jest, but Dr. Parry, the medical officer of the works, who, with his assistant, Dr. Griffiths, has been indefatigable in his attention to the sufferers, told me a patient of his whose escape was something marvellous. He was doing something in a "manhole" on the side of the main roadway when the explosion occurred. He merely peeped out of his safe place when the blast came by and burnt him about the head and forehead. Beyond this he sustained no injury, and he may be with truth be said "the Angel of Death passed him by." Had he been in the roadway he would, no doubt, have been killed.

### Narrative of the explorers

A gentleman of experience in colliery matters states: - "I went down with the first lot of explorers and I need scarcely say that we found the place much cut up. We saw eight bodies in the neighbourhood of the bottom of the shaft. The other bodies were in the North Deep and the No. 2 district. I do not remember the number that were seen - we were in too great a hurry to get them carried away by the explorers to the bottom of the pit, so as to be ready for taking up. We had to pass over a number of falls on the main roadway. The ventilation was very good, under the circumstances. Of course, some of the ventilating doors had been interfered with by the force of the explosion, and the current would be somewhat weaker, but it was remarkably good. Mr. Thomas, Mr. Kirkhouse, and Mr. Evans (Bodringallt), went against the current, and found it exceptionally good.

The great force of the explosion seems to have been felt in the No. 2 and in the North Deep. In the place between these two there were no signs of its violence, horses and men being found alive there. How that was is a

mystery to me. We went along some hundreds of yards further, simply exploring. In the one place there were 70 or 80 men behind a fall. We could have rescued them by digging, but it would have taken a long time, so arrangements were made to get to them around the return airway, and they were all got out alive. About half-past ten or eleven p.m. all the living had been got out of the pit, and by four o'clock in the morning (Thursday), all the dead were up except one, who is said to be under a fall. That is the only one known to be missing. The fact that 700 men were got out in this short period of time – and the condition of the ventilation was almost normal within a few hours after the explosion – shows that the colliery is well managed. I do not know of any bodies that were disfigured beyond recognition. I have no theory to offer as to the cause of the explosion.”

#### The damage to the pit

In conversation with Mr. Jenkins, the general manager of the Ocean Collieries, one of our representatives was informed that the damage to the pit was not so great as might have been expected – not so great as it usually is when the unfortunate explosions happen – and there is every possibility that work can be resumed on Tuesday, and that at the end of the week at the furthest the falls will have been cleared.

#### Narrative of Mr. W. Abraham M.P.

Mr. W. Abraham M.P. (the Rhondda Miners' Agent) was one of the gentlemen one of our representatives saw after the official inspection. He said: - “As you desire a narrative of some kind from me, I will say a few words as to the general outline of the inspection we made of the colliery. But, of course, there are details in connection with all matters of this kind, as you are aware, which would not be well for me, as a representative of the miners of the district, to enter into a narrative for the newspapers. However, I went down in company with Sir George Elliott, Sir W. T. Lewis, Mr. Jenkins (Ocean), Mr. D. Evans (Bodringallt), Mr. Kirkhouse, Mr. Wales, Mr. Randell, Mr. Griffith Thomas, Mr. W. Thomas (Brynawel), Mr. Hands (Fforchaman Colliery); and a few others.

We visited the bottom of the downcast, where there were visible signs of a very strong blast. Sir George Elliott and Sir W. T. Evans then returned, the

last named gentleman having previously been down the pit. We went into the Aberdare side, and not far from the pit bottom we found a heavy fall. Then we went as far as the stables and saw about 15 horses uninjured, none of them having been harmed by the explosion. In another stable, however, there was a horse slightly singed. We went towards the bottom of the pit again, and then into the No. 2. In going down towards the North Deep we had to pass over two very great falls, in which the debris had run very high, and the cavities in the roof were very large, and it was with some great difficulty that we got over two or three of these.

After passing those we came to a place where the masons were said to be arching at the time of the explosion. We went in from there to the hard heading and cross measure heading, which is driven towards the four-foot Seam. We had pointed out to us a place where it was said four bodies of men working in this heading had been found. There was a tram of rubbish, full, in the face – as far as the railroad went – and there were tools laid on the side of the drift, as if no blast whatever had come that way, or, if there had been it must have had very little force. We found the box in which the workmen keep their cartridges for blasting purposes lying on the side of the road, as if put there out of the way by the men as they carried on their work in the ordinary manner.

We returned from there and proceeded towards the interior. In the North Deep we passed a journey of trams that must have been going up the incline at the time of the explosion. The greater portion of the trams had been unhooked by some means, and had run back to the Deep, where we found a lot of trams lying about tumbled over, and there were several horses dead.

We then went some 400 to 500 yards along the entire face of the workings and there found a horse alive and a little dog. The poor little dog was evidently frightened, as it would neither stand or walk, and when taken up in the arms of some of the party it whined piteously. We could not help bringing it away, and its presence brought forcibly to our minds the fact, which is now clear enough, that if the poor fellows who had worked in that place had only the presence of mind to remain where they were their lives would have been spared.

They, however, had, in their endeavour to escape from the peril they feared, rushed into a place where danger was more certain and where they were afterwards found lying dead. In pursuing our journey I mused over this, and, if we found it difficult to pass over the highest falls before, it was still more difficult now as I carried on my arm the pet dog of some of the brave fellows who had fought for life near that place the previous day.”

#### Christmas day at Mardy – Another account

Another correspondent in the '*Western Mail*,' of Saturday, Dec 26<sup>th</sup> 1885 reported: - This is a very sad and sorrowful Christmas in many a home in the Rhondda Fach valley. Instead of the enjoyment of festivities, there is little to be seen in the neighbourhood of the Mardy Pits except deep sorrow or loud lamentation, for it is now known that about 75 persons were killed by the terrible explosion which occurred on Wednesday afternoon, and it is also said that of the injured several have since died.

The remarkable rapidity of the arrangements for bringing out the men, living and dead, allayed in less than fourteen hours the anxiety of those living in the immediate neighbourhood, and brought gladness to the hearts to see many of the 773 who entered into the pit in the morning coming out alive and well. At the same time it brought only the sad certainty to others of the fact that relatives had been hurled into eternity by the terrible holocaust in the mine.

As I stated in my late telegram on Wednesday night, the last of the living were brought out about half-past 10 o'clock that night, or a little later. News was brought up that there were two men almost dying, and Dr. Ivor Lewis, of Cymmer, immediately went down with some explorers to render what assistance he could. He had not penetrated far into the workings before the party lost their light, and had to stop. The suffering men were presently brought to them. The doctor attended to the two men and eventually came up with them. Amongst others he saw down there was a little boy lying with a broken arm with his pet dog lying underneath him. The exploring party brought up the lad. The majority of the dead by this time had been brought to the bottom of the pit, and all that were alive, whether injured or not, having been taken home, the sorrowful task of

bringing up the corpses was proceeded with and by 4 a.m. 74 bodies had been brought to the surface.

At the time of writing there is still one person missing, and he is supposed to be under a fall. Strange to say, unless there are others not yet missed still beneath the debris, this is about the only case in which men were buried, as it were, in the falls. The pit has, it is said, not been damaged so greatly as might be expected when one considers the force of the explosion.

Though it is very sad to find 75 were killed, there is room to be thankful that there are many more when it is remembered that there were 773 lamps given out in the morning, and that of the persons using them only about 21 are supposed to have left the pit before the explosion. The current of ventilation must have been very good, or the workings could not have been cleared of foul air as they were in time for the exploring parties to proceed with their task within a very short time after the catastrophe. Some of the men say the current was, of course, weaker, some "doors" having been interfered with by the force of the blast, but they were surprised by the purity of the air so soon.

Another remarkable fact connected with it is this: The first marks of the explosion are seen at the bottom of the downcast pit and for some distance towards the north end of the Rhondda side. Then there was a portion of the colliery discovered by the explorers in which men and horses were found alive and practically unhurt, and again, further in, people were killed, while beyond those again, in the far end of the Rhondda section, there were men who did not know that an explosion had happened until others went to call them away.

#### The scene at the top

A workman who stood near the upcast shaft at the time of the explosion says he heard a terrific report, and the noise was increased by the rattling and the ripping of the corrugated iron roof which formed the shed covering the workers at the pit top. The roof was broken and bent, the carriage was sent to the top and damaged, the wire rope was thrown tangled about the place and broken, and the knocker, or signal, was damaged. A dense cloud of smoke and coal dust shot up to about twice the height of the pit frame,

and immediately afterwards timber &co. descended all round. The cages were, he said, about midway between the top and bottom when the explosion occurred. Only one cage was damaged. The workmen about the top of the pit ran away frightened, but of course, returned at once when the cloud cleared away. The report is described as being very loud, and it was heard at Pentre.

**Mr. W. Evans** (Alias "Curwan"), checkweigher, was in the weighing house at the top when the accident happened, and he states that the report was the loudest he had ever heard, and the black cloud sent up obscured the light entirely for a time. The window of the weighing house was smashed by the concussion, and the roof rattled fearfully. Falling debris, such as timber, stones and bricks struck the roof also and he and those with him thought they would be crushed. They got under the desk for protection. Presently the cloud cleared, and when they could see they went out. He states that bricks were found propelled as high as the top of the pit frame, and that some had lodged on the standards of the wheels.

Another person pointed out to me that it was a mistake to suppose that it was the carriage at the top that was damaged. One carriage was evidently lower than the other in the pit and the force of the explosion sent it up one shaft some distance, and then, when it dropped again, the rope, of course, broke and whipped about.

The only person injured at the top of the pit, so far as I can ascertain, was the sawyer, who sustained some bruises by being struck by some of the material that fell like iron hail. I am informed that Mr. Griffith Thomas, the manager of the colliery, had only just come up from the pit when the explosion occurred. He left everything safe, as he thought, and would no more have dreamt of an explosion there than is his own house. However, he heard this report, and turning to his daughter, said, "The boiler has burst." That was his first impression, and he at once started to the scene, and there learned the fact that the pit "had fired," as the men usually say.

He and Mr. Thomas, Brynawel, went down the upcast shaft, and gangs of men were in a wonderfully short time organised to render assistance. There was here, as elsewhere, the readiness to face death to save others which characterises the Welsh collier and the difficulty was not to get men,

but select who would go first to venture their lives in gallant attempts at rescue which were very often successful. Some of the incidents related today show that if these intrepid explorers had not been at their work in time very likely others in the worst places would have perished from the suffocating effects of the insidious after-damp.

#### Telegram from the Home Secretary

The following telegram was received on Friday morning from the Home Secretary: - *“To manager of Mardy Colliery, Pontypridd, South Wales. Sir R. Cross expresses deepest sympathy with relatives of the sufferers. Requests information as to nature of assistance which would be most useful.”* – **Secretary of State, Home Department, Whitehall.** A reply was immediately forwarded.

#### Telegram from the chief proprietor

Mr. G. Locket, of Highfield House, Mill Hill, London, principal proprietor of the Mardy Colliery writes to us as follows: - “Will you kindly allow me to express, through the medium of your newspaper, my deep regret at the accident at Mardy, and my sincere sympathy with the relatives of all the poor fellows who have lost their lives, and also to thank those that have rendered assistance in recovering and tending the sufferers.” The Ferndale Post-office, which, by the way, has acted admirably in the face of the most discouraging conditions, had been deluged with most pathetic messages sent by wire from all parts of Wales from people inquiring after husbands, fathers, and brothers.

#### Help for the sufferers

Mr. George Edward Wood, one of the directors, who visited the pit with Mr. Jenkins on Friday intimated to the members of the press that the Lord Mayor of London would probably consent to open a Mansion House Fund for the relief of the bereaved families, to which the City Corporation, of which he is a member, would, in all likelihood, subscribe 1000 guineas. The work of organising the relief required to meet the immediate necessities of the women and children and the payment of the funeral allowances was proceeded with on Friday, the arrangements being under the charge of Mr.

Edwards, the local secretary of the Monmouthshire and South Wales Miners' Permanent Provident Fund, who was assisted by Mr. Dyer, secretary of the Ferndale branch, Mr. Evan Owen, general secretary of the fund, and Mr. George I Campbell, its consulting secretary and secretary of the General Association For Relieving Distress by Accidents in Mines. Each household had been visited, and payments made on account of the money to which the relatives of members of the fund are entitled. In addition to the Permanent Society, a club in connection with the colliery exists, from which, in the case of death, the relatives are entitled to receive £3, the funeral allowance from the Permanent Fund being £5, with an additional £15 for single members, and 5 shillings a week to each widow, and 2s 6d to every child until it attains the age of thirteen.

### **Saturday, December 26<sup>th</sup> 1885**

Latest details – explanation by the coroner

The funerals – conditions in the pit - coffins depart

By Friday, the non-arrival of the coroner was deeply aggravating the relatives of the deceased, and arrangements were made for the Taff Vale Railway on Saturday to carry away some of the dead to their distant home. A great deal of confusion arose whether they had permission from anybody, but on Saturday morning at an early hour - in fact before dawn - fifteen coffins were brought down to the little platform at the Maerdy Railway siding, and by the flaring light of "comet" lamps the dead were placed on trucks to be taken away to distant places, while the solemn crowd of bereaved friends made their way into the accompanying railway carriages. This is how one newspaper reported it: -

The miners here have 'snapped their fingers' at the coroner and his arrangements. Without waiting any longer for him, they removed 15 bodies this morning for internment at a distance. The swollen condition of some of the corpses was such that had they been kept any longer in open coffins the lids could never have been got down. The police had told relatives they must not remove them before the coroner had given permission, but they had to stand aside and look upon while relatives – who have come here from places at a distance carried them off. The surgeons had admitted that in cases of some immediate burial was urgent for sanitary reasons, so that what has been done has met with their sanction.

The miners have been astir during most of the night, and the scene early this morning after body after body was carried forth from houses on biers to the landing stage of the colliery (railway) line, the way being lighted by hand-lamps – was deeply impressive and sad.

At the landing stage flaring naphtha lamps are fixed on stakes, and coffins are laid in rows to wait for their turn. A great crowd of miners and women and children were gathered round. A special train came up the colliery line from Ferndale. Four flat trucks and one closed van had been provided for the bodies. On to these fourteen were lifted – a few on each according to their destination. Those that lay on open trucks were covered with tarpaulin; the fifteenth meanwhile was being carried over a neighbouring mountain to take a train at Aberdare. The relatives got into accompanying railway carriages, one or two elderly women, overcome by their vigil and grief, having absolutely to be lifted in. The train moved off with its melancholy burden, whilst the crowd stood gazing silently at its departure. Day was just breaking as the journey began. The carriages and trucks were joined onto the first train from Ferndale at the station, and continued the journey by the Taff Vale Railway.

#### The burial certificate difficulty

Superintendent Matthews and Inspector Jones have been indefatigable in their attention, and the police generally have done their work admirably. In the matter of obtaining burial certificates, the officers named were continually applied to for information and assistance, and they communicated with the coroner, but were, of course, unable to supply full details until Friday. They could only state that they were waiting to hear from the coroner, and, in reply to threats that bodies would be buried without certificates, could only say they sympathised with the people, but could not advise them to do such a thing.

#### Opening the inquest – a formal adjournment

On the arrival of the coroner by the 12.30 train, Mr. T. Williams, the inquest was at once opened at the Commercial Hotel, Ferndale. Mr. Superintendent Matthews, Inspector Jones, and Sergeant Lewis was present, and a few friends of relatives who had been killed. List of the jury: -

Mr. Richard Thompson, schoolmaster, Ferndale (foreman); Messrs. David Thomas, grocer, Ferndale; Jeffrey Jenkins, grocer, Ferndale; the Rev. John Rees. Curate, Ferndale; The Rev. George Griffiths Cule, Baptist minister; James Davies, draper; David Davies, gentleman; Thomas Davies, tailor and draper; Morris Morris, builder; John Richards, collier; John Richards (second) collier; John Thomas, collier; William Jones, collier; Joseph Price, collier; David Thomas (second) grocer; William Jones (second) collier; John Evans, grocer; and John Evans, boat manufacturer.

The jury having been sworn the coroner said: - "You are now sworn to enquire into the circumstances surrounding the death of some 77 persons who met their death on the 23<sup>rd</sup> of this month at Mardy Colliery. It appears that on the 23<sup>rd</sup>, which would be last Wednesday, there was an explosion of gas, and this was the primary cause of the occurrence. I may mention that today we simply meet here for the purpose of viewing as many of the bodies as we can in order that the burials may take place at the convenience of friends of the deceased. Of course, it is absolutely necessary that the inquiry should re-adjourned , and I have arranged already with the Home Office to make the first adjournment until the 12<sup>th</sup> of January. I may just incidentally remark that I see by the papers and heard in coming here that there seems to be some degree of dissatisfaction that the inspection of the bodies did not take place earlier. But when I explain the circumstances I think you will agree with me it was a matter of perfect impossibility to make arrangements for it at an earlier period.

I was in the neighbourhood – as near as Porth – on Wednesday night, when I heard of the explosion. The first thing I did on Thursday morning was to telegraph to the manager of the colliery, asking if he would be good enough to give me some details, and I have not had any reply up to the present time. I desire it to be made public that those connected with the management and ownership when this explosion occurred neglected in the excitement what they were under obligation to do – to inform the coroner, so that he may make arrangements accordingly. On Thursday I received a telegram from Superintendent Matthews asking me to come here. Well, I had no details whatever – I did not know the name of any man killed – so I could not make out a certificate or do anything. It was only last night, at 7 o'clock, that I received a list of those killed. I sat up until nearly 1 o'clock

this morning to make out the certificates. I think it is only due to me to mention these circumstances. I have acted as coroner or deputy for something over 25 years, and never had complaints about me, and when I saw the remarks in the paper I felt aggrieved.”

The coroner proceeded to say that the jury would now go to Maerdy to view the bodies, then adjourn until 12 o'clock on Tuesday, the 12<sup>th</sup> of January. They would also view the body of David Solomon, who had been found drowned in the river at Ferndale on Friday. Mr. Thompson, the foreman, asked if the coroner would give instructions to get each juryman supplied with a copy of the rules of the Mardy Colliery, so that they may be read in the interim. The coroner assented.

Upon the suggestion of Superintendent Matthews, certificates were sent after these the moment the coroner had adjourned the inquest.

The removal of the dead has engaged the thoughts of nearly everybody in the district during the past two days. This explosion differs in one point from nearly every other like catastrophe: the dead were in previous cases interred near the place of explosion. But here at Mardy there were many single men killed, others who met with a like fate had their families residing a long way off; in a third set of cases the relatives desired to send the deceased to be buried at home." Mardy is, comparatively speaking, a new district, certainly not over attractive in its surroundings. Hence very many worked there who wished to shift back again to the associations of their earlier years when times improved and now that they have been snatched away out of life, their friends have expressed anxiety that in death, at all events, they should not be divided from family ties. Here are some of the destinations of corpses for which certificates of burial have been issued, and they must serve as a sample of numbers of the distances to which the rest of the deceased at Mardy Colliery have had to be taken : -

David Bowen, taken to Glantawe, Ystradgynlais.

Thomas Thomas, taken to the same place.

David Thomas Ward, to Cefn.

John Herd, to Maesteg.

William Thomas, taken to the same place.

Evan Pugh, to Escalrgeiliog, near Machynlleth.

David Lake, to Ammanford, Carmarthenshire.  
Evan Davies, to Tregaron, Cardiganshire.  
David Rowlands and William Griffiths, to Kidwelly, Carmarthenshire.  
Isaac Jones, to Aberystwith.  
John Evans, to Llanfaircludygan, Cardiganshire.  
John Evans, to Llangwryfon, Cardiganshire.  
Richard Evans, to the same place.

From these illustrative particulars may be deduced the reason for the growing indignation felt by the relatives of the deceased, and, indeed, by the general public, at the unfortunate delay which took place in holding the inquest. Here were men killed by the explosion on Wednesday afternoon. Their bodies lay in the dark workings for hours, gas in one pernicious form or another shooting through many rifts and falls. The corpses were recovered and left over Thursday and Friday in the houses where the dead had resided, the dead dwelling among the living and jeopardising the lives of the living. Then the corpses had to be sent to the heart of South Wales and North Wales, where railway facilities are limited, yet there was no certificate of burial on Friday night. At the workmen's meeting at the Mardy Hotel, on Friday night, passionate protests were made against the delay caused by misunderstandings or circumlocution in official or semi-official quarters. "It is not the first time we have had reason to complain," said the man. "Nineteen communications were sent to the coroner," said another.

A vote of censure was suggested and supported with great feeling by one or two but the men were averse, even under what they thought such aggravation of wrong, to injure anyone unnecessarily, and the resolution which was eventually agreed to assumed a more modified form "*That we, the workmen of the Mardy Colliery, express our deepest indignation at the inhuman delay which has occurred in the matter of burial and the holding of the inquest and request the Home Secretary to investigate the matter and send a reply.*" Of course, the dead could not be interred without a certificate, and this is usually granted by the coroner, who, in this instance, is Mr. Thomas Williams, of Merthyr. A message came during Friday evening that Mr. Williams would be up next day. But corpses had to be sent off to distances varying from 50 to 100 and 120 miles (approximately) on Saturday

morning, and by first train, and, moreover, burial was imperative on sanitary grounds.

The people came crushing to the of the Commercial Hotel stairs. The workmen's committee had appointed men to act as janitors, and these sent up the applicants for burial certificates one by one. Dr. Parry, with whom was Dr. Griffiths, his assistant, only granted certificates to those who were sending away bodies by the first train. Perhaps it was as well in the interest of peace that these certificates were given; had they been withheld, Saturday morning might have witnessed the public - the outraged public as they claimed - coming into collision with the authorities for the possession of the dead. Fourteen corpses were taken from Mardy to the Ferndale station by rail to meet the seven o'clock morning train. The emotion of the people who accompanied them was profound, and the harrowing scene of leave-taking is one which, to use a hackneyed phrase, may be better imagined than described.

The coroner came to Ferndale by the train leaving Pontypridd ordinarily at 11.20 a.m. but as it was the day after Christmas it was later, and Ferndale was not reached till one o'clock or so. By the same train some hundreds of visitors to the locality of the explosion also arrived, and there was a perpetual pilgrimage to Mardy during the rest of the day. To-day has witnessed a renewal of the same pathetic circumstance the pedestrians since ten o'clock have been almost numberless. They take a bird's-eye view of the grim coal pit, with its upcast and downcast shafts and speed leisurely past the houses, all of which have their upper curtains drawn down; pay visits of condolence, and in other ways show that in times like this humanity is not limited by considerations of race and that truly we are of one blood."

After the Coroner's jury had made a hasty view of each body, the relatives, into whose hands orders for interment were at last delivered, proceeded to the burial of their dead. In Maerdy the scene was most distressing. Outside every other door almost in the main street a bier stood, and a coffin was brought out and laid upon it. Then a few verses of scripture were read in Welsh, and a hymn, always used on such occasions was sung - "Bydd Myrdd o rbyfuddodau" - to a tune so woeful and dirge-like as to draw tears to every eye. The tune was painfully sad, and was sung with quavering voices. Widows, mothers, and children, whose grief hitherto had been

concealed the privacy of own homes, were now led out, leaning on the arms or shoulders of their remaining friends, and with steaming eyes. They were clothed in mourning, the simplicity of which was sometimes touchingly suggestive of their poverty. The men in many cases had long black bands tied around their hats, of black sashes looped round their shoulders; but a great many came in their ordinary off-work clothes.

From group to group the ministers went, holding their little services in Welsh, and then one by one the biers were lifted upon the shoulders of the men and borne away down the valley to the cemetery, lying midway between Maerdy and Ferndale. The long procession formed one of the most melancholy spectacles ever held. The road is uneven, and had only recently been covered with Macadam. The bearers had consequently to be frequently relieved, the way was long as well as hard.

Twenty-one corpses followed each other at intervals in a long procession. A wreath or two lay on the lid of each coffin. The long train of weeping women and more composed, but still deeply distressed men, and the strains of the funeral hymn rising from the village and cemetery, and echoed back from the barren mountains which shut in the valley from the rest of the world, all added to the impressiveness of the scene. In the cemetery on the open mountain side, on the West side of the narrow valley 30 graves had been opened.

At the arrival at each body at the cemetery there was another short service as the hour was so late that there was no time for the ordinary service, so the Hymns had been sung on the way by the crowd of mourners; and touching "Bydd Myrdd o rbyfuddodau" had its melancholy refrain renewed over and over again. The Church of England curates read their Order of Burial Service over a few, and the ministers of the many dissenters offered a short prayer and joined in a hymn over each of their flocks.

A few words of comfort were spoken to each group of mourners, and the following plaintive favourite funeral hymn was sung:

Bydd Myrdd o rbyfuddodau  
Ar doriad boreu wawr,  
Pan ddelo plant y tonau

Yn fach o'r cystudd mawr;  
Oll yn eu gynau gwynion,  
Ac are u mawydd wedd,  
Yn debyg idd en Harglwydd  
Yn dod l'r ian o'r bedd.

A rough translation of the above hymn is as follows: -

At the break of the day of Doom  
Millions of wonders will appear,  
Then the children of adversity  
Shall come up from the great tribulation;  
All robed in white garments  
And they themselves renovated.

Such are the sentiments of the Welsh Hymn, arranged in exquisite cadences. The tune is arranged in four parts, and when it is sung thus by a thousand or more Cymric vocalists, as I have often heard it the effect is indescribable. It seems to lift all present on the wings of eternal hope. Such was the character of singing over the open graves in the Maerdy Cemetery today. Some of the funerals went over the mountains to Eglwyswynno (Llanwonno). All day long the road between Maerdy and the cemetery was thronged with mourners.

I met more than one sad group having in the centre of it some poor widow supported by her relatives; otherwise she would have been unable to move along. Never can anyone who saw them forget their woebegone expressions. They seemed as if they had left all they had held most dear on earth behind them in the cold, cold ground.

Two more funerals will be taken to the cemetery on Sunday and six on Monday. That will complete the number to be interred there. The remains of the two sons of Thomas Watkins, who was killed in the Dinas explosion were taken to Dinas. Mr. J. Stone, of Cardiff, received an order for coffins at 10 o'clock on Wednesday night, and by 10 o'clock on Thursday morning had sent up 50.

## Another funeral report

The '*South Wales Daily News*' reported the funerals thus: - Funeral after funeral was seen passing through the street on Saturday to the adjoining cemetery, or along the mountain side of Llanwonno to Llanwonno churchyard. At Ferndale the people crowded to the windows to see the gloomy march. The pall-bearers could be seen rounding the mountain curves, patiently and silently trudging along. Some were taken across Aberdare way to bury. Inspector Jones, who deserves, like his superior in office (Supt. Mathews) all praise for fidelity to duty under critical and trying circumstances, sent in one case a messenger across the mountain on horseback with a coroner's certificate. Between Mardy and Ferndale the burials yesterday were incessant, and there have been some today. There was little formality observed. Twenty- two bodies were interred at the cemetery.

Occasionally came from the cemetery precincts, or the open streets with its melancholy procession, echoes of the grand old Welsh hymn '*Bydd myrdd o ryfeddoclau.*' The hymn is practically a resurrection hymn. *There will be myriads of wonders On the Resurrection Day, When the children of the stormy waves Come unharmed from their great tribulation, All clad in robes of white, And with transfigured face Coming up from their dark graves, Like to their risen Lord.* This is an imperfect, hasty rendering of the original; but the hymns of Pantycelyn were meant to be sung, not translated. Sung the hymn was as well as it could be, for when grief found voice in this fashion, the pent-up tears would find vent. Men tried to stem them, but they were resistless as forms which would be no more seen on earth passed quickly out of sight.

The sorrow was infectious as well as affecting, and universal were these voluntary and involuntary tributes to the memory of the dead. Singularly touching were the circumstances attending the burial of Edward Edwards and his son. Edwards was a contractor, and with his son lost his life in the calamity of Wednesday. The family numbered 14, and one child is only two years old. Two of the other children and daughters are married. Edwards and the dead boy were the mainstay of the household-and whilst the others have been spared they have been taken. The widow was seated on a chair in a trap. By her side sat another overpowered relative - said to be poor

Edwards' mother and there were two of the little ones looking on in the hush, hardly realising their fatherless condition. And yet in the higher and more permanent sense not fatherless.

The scene at Mardy Saturday morning, when the 14 dead were removed by rail to Ferndale, was profoundly affecting. The bodies had to be taken to catch the first train for their distant destinations. Mr. Richards, Taff Vale Railway inspector, supervised the arrangements. The hour was very early half-past five. Hundreds of lights flashed in the dense darkness. These were the extempore torches of the throng who had come to assist in the transit of the dead from their lodgement to the railway carriages on the Mardy loop line. 'Bydd Myrdd o Nyfeddodau' was sung by the multitude, and every heart was strained to its utmost tension.

In comparative silence the dark freights were put in the carriages, which then proceeded to Ferndale, from which place they were taken elsewhere. Lights gleamed too on the mountain near, for some had to be taken across the mountain Aberdarewards. Three corpses were during the day taken to Aberdare, and one had to be interred at Treorky. John Jones and William Jones, 11, Hill Street, Mardy, father and son, were taken to Llanwonno Churchyard today. There was an extraordinarily large concourse. It is estimated that the cortege which went there was fully three-quarters of a mile long. Eight more have been sent for interment to Aberdare to-day, and two have been buried at the Mardy cemetery. Altogether there appears to have been interred now or sent away for interment about 50 bodies. There are several local interments to take place Sunday.

#### Operations in the pit – Examination by the workmen

The work of clearing the falls at the Mardy Colliery was carried on busily all day on Saturday, and coal was brought up for the North and South-east in the downcast pit on Friday. Some of the horses were also brought up. It was stated on Saturday by Mr. Griffith Thomas, the resident manager, that in three days they expected to clear all the falls. The examiners appointed by the Workmen's Committee continued their inspection of the works on Saturday, and there was a meeting of the men held in the afternoon to receive their report. It was stated that after the examiners' report the men would all resume work.

There is one sad case which has not yet been mentioned in the newspapers among the consequences of the explosion. A lad named Lewis Davies, who was in the pit, sustained no particular outward and visible injury, but the shock was such that he has not yet recovered, and his head seems badly effected. He is said to wander about aimlessly and every now and then to start, lift his hands to his head, and act as if he was going through the horrors of the explosion again.

Today four horses were found alive, and comparatively well, in the inner parts of the workings, having been without food and drink since Wednesday afternoon. But so thick was the after-damp near that some brattice cloth had to be placed in position to direct additional air to them before they could be reached. It is surprising how they survived. It is stated that when the first footsteps approached they made their presence known by neighing. These underground horses, being constantly with men, are, it is said, marvellously "knowing." I was today in the company where a man referred to some of his horses by name. "Is little Bob alive?" "Yes," was the answer, "and Warrior too," that being the name of another favourite quadruped in Mardy Colliery. It seems that Little Bob and Warrior could never be induced to work night turns.

How they were able to distinguish night and day in the mine no-one can understand. All that is known that both have ever positively declined to "do a stroke" of work after sunset. Neither force nor coaxing had any effect in inducing them to change their stubborn resolution. This unflinching sense of fair play and sticking to their resolution have made both little Bob and Warrior immense favourites in the lower world they inhabit.

They afforded amusement in the monotony of the daily life of the mine. Satisfaction, therefore, was felt when it was ascertained that these two animals had escaped. It seems that about twenty horses were killed in the explosion. Today it was found that one of the animals restored to the stables had gone "neighing" mad in his stall, though he was quiet enough when taken there the night before. To employ the words of one of those that saw him today, "he was roaring like a lion, and quite as frantic as one in a rage." No-one dared go near him, even with water and food, and it was found necessary to fence him in with beams.

One of the men rescued, and who had escaped with a few burns, had gone to the trough used for watering the horses. In total darkness he was engaged in having his tongue in the cold water when he heard a maddened animal stumbling down a slight incline towards the trough. Before he could get out of the way the horse fell against him, then apparently died at once. The man was for a long time jammed between the horse and the trough. Eventually, however, he succeeded in extricating himself.

Many touching incidents are mentioned in connection with the calamity. During the hurry which prevailed in conveying the dead bodies home on Wednesday night, two bodies, those of a father and son, were taken home to a house in Hill Street, and deposited on the kitchen floor. The carriers then left hurriedly to convey others.

Now, it happened that the only persons in the house were the little children of the dead man. His wife, and mother of the little ones, had recently eloped with another man, and she was residing at Cwmparc. When she heard of the explosion it seems that the old affection re-kindled, and over the mountains she came through the darkness, to find the children alone with the dead.

Here is another story related to me by a female friend of the family to whom it refers. One of those who lost their lives was somewhat addicted to drink, and, when under the influence, he was in the habit of using very disagreeable expressions towards his wife. She had seen better days, having been in respectable service as a domestic servant. They had two little daughters. One day, during one of his drinking bouts she took him at his word and went away. For two years he knew not what became of her. Whenever he heard of someone resembling her had been seen, it did not matter how far away, he would proceed thither as quickly as he could. In this way he visited many distant parts of South Wales.

One day, three months ago, he heard she was in the service of a lady near Risca. The grass did not grow beneath his feet before he was at Risca "inquiring after Ann." He, however, had to come home without her. On the way he met my informant, and with joy beaming in his eyes told her "I have found Ann. I went into the kitchen of the place where she is in service. I saw her jacket hanging on the wall, and I felt I could eat it!"

“But,” he continued, “I had to wait two hours before she would come to me, and when she did, she refused to come home with me.” For two months he journeyed to Risca frequently, but Ann did not obdurate. One day a happy thought occurred to him. He dressed their two little daughters as best he could with a white pinafore and small turnover each. Like Caeriog’s “Alun Mabon,” he said to himself in reference to their mother: -

Ni fedru di, na ne o’th fach

Ddi’styru gweddi, plentyn bach,

Yn llefain am ei fami.

You can not, or anyone of your lineage

Disregard the invitation of a little child

Who is crying for his mummy.

To Risca he took them, and no sooner did Ann see her little girls than everything was forgiven on the spot, and home together the little family returned. Sad to say, the reconciliation had not taken place more than a few weeks when the explosion killed the father. Another man killed here was known as “Tym–yr–Adgyfodlad” (Resurrection Tom). Some time ago, while employed in another colliery, he induced his friend to write to his friends in West Wales, stating he was dead and buried. His friends, knowing that he was in a club, came for the money, and thereby found Tom alive. The men at Mardy Colliery heard the story, and so nicknamed him.

#### Formation of a Mardy Relief Committee

##### Issue of an appeal by Sir W. T. Lewis

A meeting was held at Maerdy on Saturday for the purpose of constituting a relief fund. Mr. W. Abraham M. P., occupied the chair, and resolutions were passed that a fund be opened, and that Sir W. T. Lewis be appointed chairman; Mr. W. Abraham M. P., vice-chairman; Mr. Stuckey, of the Bristol and West of England Bank, Cardiff, treasurer; and Mr. Edwards, the local secretary of the Permanent Relief Fund, hon. secretary. It was decided, for the purpose of immediately relieving distress, that an extra £2 be paid in all cases in addition to the relief granted by the colliery fund, with such further payments, until the next meeting, as the vice-chairman should direct. A letter was read stating that Sir George Elliott would act upon the committee. It was decided to invite the co-operation of a considerable number of influential residents of the district, and the chairman was authorised to make the following appeal: -

## To the editor of the 'Western Mail'

Sir - While to a considerable extent the distress caused by the disastrous explosion at Maerdy, which resulted in the death of 76 persons and the serious injury of others, will be met by the funds of the Monmouthshire and South Wales Miners' Permanent Society, unfortunately there were amongst the sufferers many who had not availed themselves of the opportunity of making the provision the society affords to its members. In order, therefore, that all the widows and orphans and dependant relatives may be placed in receipt of a small weekly allowance, it is necessary that a supplementary fund be raised. A local committee has been formed, of which Mr. Abraham, M.P., has kindly become a member. The machinery of the Permanent Society will be utilised for distribution purposes and any balance remaining will be handed over to its funds.

I may be permitted to mention that the Permanent Society, although this is the first occasion on which it has had to deal with an accident causing many deaths, it already maintains 110 widows and 190 children. This large family has been gathered from the single accidents constantly occurring in our coalfield, of which the public seldom hear, but which in the aggregate cause far more suffering and distress than large disasters. May I remind your readers that at this season of festivities they have, by contributing to the fund, an opportunity of helping to lighten the gloom which has darkened our Christmastide in South Wales. Subscriptions may be paid to Mr. G. F. Stuckey, treasurer of the "Mardy Colliery Explosion Relief Fund," Bristol and West of England Bank, Cardiff, I am &co. **William Thomas Lewis, Bute Estate Office, Aberdare, December 26<sup>th</sup> 1885.**

**Sunday December 27<sup>th</sup> 1885**

Death of another 'survivor'

This afternoon a sufferer named **William Williams**, 33 North Terrace, Maerdy, died. His case was well-nigh hopeless from the beginning. Another sufferer is in an extremely critical condition. Early today seven or eight funerals went over the mountain to Aberdare. About two o'clock this afternoon two funerals – those of John Jones and William Jones, father and son – went to Eglwyswynno (Llanwonno), attended by an enormous

number of people, who sang hymns all the way. Two funerals went by rail, and two to Maerdy Cemetery.

The young widow of Philip Hutchings, shackler, who lodged at 90 Maerdy Road, came today from Haverfordwest, to claim the body of her husband, but only to find that he had been buried yesterday at the Maerdy Cemetery. She only heard yesterday of his dreadful death. Accompanied by her brother and two other relatives, she today visited his last resting place. In the very many places of worship in the locality, and in the Rhondda district generally, prayers were offered up today on behalf of the widow and orphans left desolate by the explosion. Rapid progress is being made in getting the pits into working order. The total number of deaths is now 78. Telegraphing at a later hour on Sunday "Morien" says "It is reported that two more of the sufferers are in a critical condition"

#### Sunday funerals

There were several funerals on Sunday, and references to the sad disaster were made at religious services held in the chapels and churches of the neighbourhood, many of the departed being members of some religious community or another. As one local gentleman remarked, "Some of the dead were the finest fellows in Maerdy; splendid men, highly respectable for their position in life." The ministers of religion had been moving to and fro, now summoned to some bedside, where it was feared death was at hand, and now to some house of mourning, to console the widows and orphans in their sorrow.

The great majority of the miners and their families are dissenters. Every congregation has lost some of its members and adherences, but the Baptists most of all, three of their Deacons, besides other estimable men have been among the dead.

The principal proprietor of the colliery, Mr. Locket, and his wife visited the place on Sunday, and attended some of the funerals - a touching mark of fellow-feeling which went straight to the hearts of many of the bereaved. Throughout South Wales sympathy with those at Ferndale was very apparent and these are just a few incidents that happened that weekend: -

### A sympathetic audience

At a Pontypridd Eisteddfod on Saturday, the President (His honour Judge Gwilym Williams) referred to the catastrophe at Maerdy, and asked the crowded audience to show their sympathy with the bereaved by standing with uncovered heads, and by singing, with the intense feeling which often pervades Cambrian audiences, the soul-stirring hymn 'Bydd myrdd o ryfeddodau.' The vast audience complied, and, the choirs leading, the singing was so pathetic and touching that many were moved to tears.

### Pulpit references to the calamity

Touching references to the sad explosion in the Mardy valley were made by several clergymen in the neighbourhood of Vaynor on Sunday. At the parish church the rector, preaching from the words "From year to year," dwelling upon the uncertainties of life, called special attention to this calamity. Although there was a quite, peaceful agricultural parish, it was, as it were, within a stone throw of the great iron and coal industries, and on some future Sunday he might ask them to show sympathy with the widows and orphans in a practical way. Two of their chief landowners, Sir W. Thomas Lewis and Mr. Herbert Kirkhouse, had been indefatigable in their efforts among the explorers, and some of the dead were resting in their great cemetery.

### Relief Fund in Cardiff

We are desired by the Mayor of Cardiff (Dr. Jones) to state that he will have the pleasure in receiving any subscription from the inhabitants of Cardiff in aid of a fund for those that have been made widows and orphans through the terrible explosion.

Comment: - As after many of the disasters that struck the South Wales valleys at this time, the local newspapers were full of advice from those involved or interested in the coal industry. This is just one of them: -

## The prevention of explosions

**To the Editor** of the '*Western Mail*.' Sir, - Considering the appalling disaster which has happened at Maerdy I trust you will allow me a portion of your valuable space for the purpose of drawing the public attention to matters of stern necessity. Unhappily for Wales colliery explosions are a frequent occurrence, and have been the means of hurling a vast number of hardworking men into eternity at a very short notice. Time was that the calling of a sailor was considered to be the most dangerous, but since, we have been taught by sad experience that that of the poor collier is far less safe. Carrying his life in his hands, as it were, the collier is ever exposed to the utmost risks, and continually threatened with premature death. Whether the effects of a colliery explosion be due to defective ventilation, and accumulation of fire-damp, or any other cause, the result ends invariably in bringing misery upon hundreds of families and injury to trade.

If, then, anything can be done to alter this lamentable condition of things, we should go about it immediately. It appears to my mind that, if a number of intelligent Welshmen were commissioned to inquire into the causes of explosions, and to endeavour to formulate an improvement in the management of matters appertaining to collieries, we might hope that good results would follow.

It is evident that immediate steps should be taken in this direction, and any benefit, however small, which may accrue will at least be a welcome service to thousands of miners. One important question which has been discussed several times, but not sufficiently, is that of the fine coal dust which is found floating in the atmosphere in collieries and lying in roadways and airways. The fine, dry powder is very easily exploded, and, without doubt most colliery explosion are enormously intensified by the presence of it. Suppose that a small quantity of fire-damp takes fire and explodes. Then the surrounding air undergoes a sudden expansion, and arises a cloud of fine coal dust, which explodes in its turn.

The second explosion produces a like effect upon the adjoining portion of the atmosphere, and thus the effect is carried through the workings, but so rapidly that it overtakes many a victim on its course. Coal dust, in a state of free division and dry, is alone a source of danger, but in workings where

fire-damp exists the chances of explosion are much increased, and when an accident does happen the consequences are aggravated. How then can this cause of danger be obviated? Its danger lies in the fact that the dust is dry also in its fineness and the ease in which it floats in the air.

Perhaps the precipitation of the coal dust by the use of water-spray, or the fixing up at different stations of screens coated with some moist, viscid substance. Then, again, the lamps should be carefully sealed to avoid them being tampered with, and each man should undergo a thorough search before entering the pit, and prevented from carrying down pipes, and matches. Such precautions may appear trivial to some, but we must not overlook the fact that colliers, as a class, are most careless in their habits, and rarely experience fear of death until it becomes too late. Now is the time to investigate these matters while the circumstances of the late disaster are still in our minds. Science should accord this important subject her most earnest consideration, and I would gladly contribute any help in my power, for which purpose I leave my name with you, sir, for the use of inquirers. **'Marsh Gas,' Swansea, Dec. 26<sup>th</sup>.**

#### Touching scene in the stable

Two more deaths have taken place on Sunday, making the number of those killed by the Mardy Colliery explosion 78. One of the victims is David Jones, 20, Mardy Road, who was frightfully burnt. The other is William Williams, North-terrace, collier, aged 30 years, and married, but without any children. He had been badly burnt. Another of the injured lies in a very bad condition, but the rest are doing very well. The readjustment of the workings has proceeded apace. On Friday night the manager, Mr. Griffith Thomas, had the lights put out in the lamp-room and other places, and the whole force of the air passing through the colliery was directed to the parts which had the gas percolating along them. This step proved salutary. By Sunday morning the workings were perfectly clear. The work of repairing the pit has been so energetically carried on that it was possible this evening to begin winding up the rubbish and the carcasses of the dead ponies. There were about 85 ponies at work in the pit, and about 20 of these were killed.

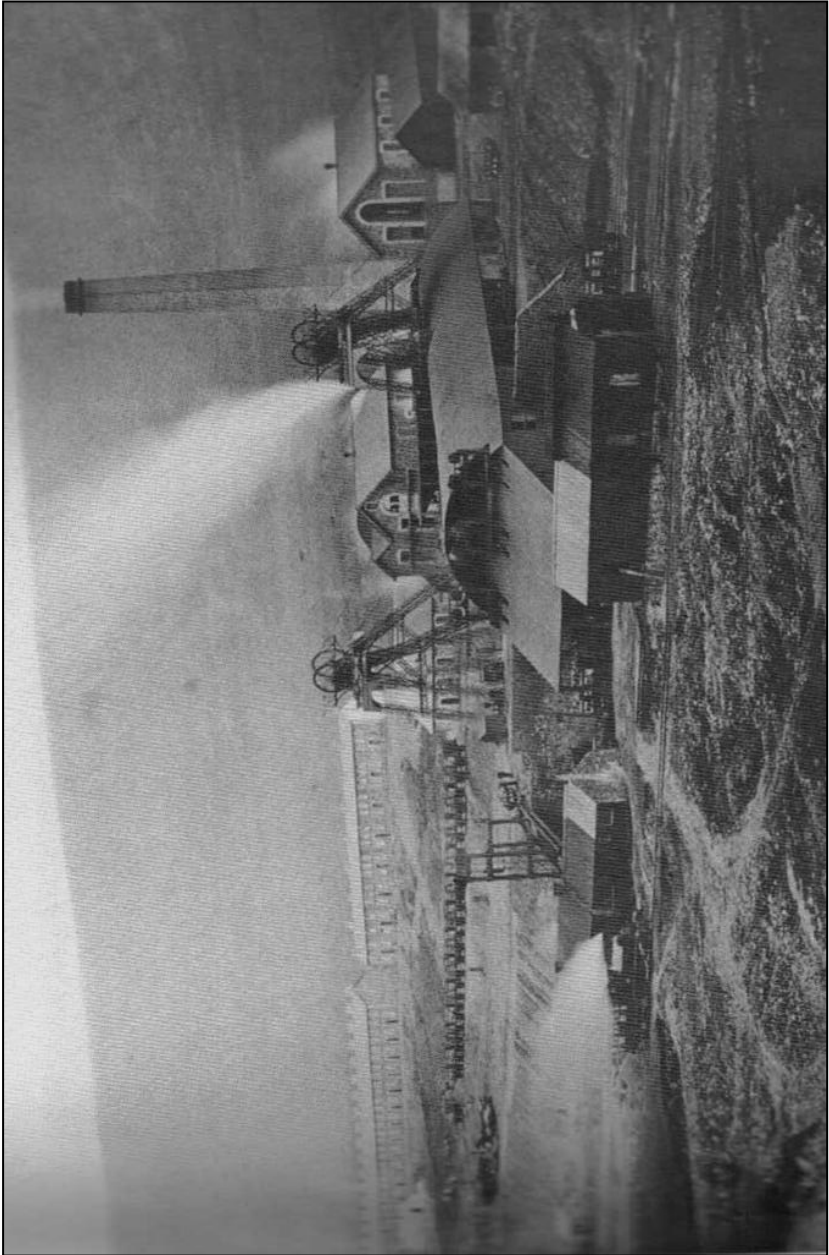
One poor brute still alive was found to-day attached to a tram. It had been fasting since the accident on Wednesday, but when led away to its stable

and offered food and drink, it turned from these to kiss and whimper over its stable companion. Its demonstration of delight indeed at finding itself by the side of its mate were rather affecting, and when at last it did put its head in the manger it showed extreme nervousness lest it should be again left alone. Mr. Griffith Thomas is under the impression that the general clearance will have been completely effected by to-morrow (Monday) morning. The debris will then be carried away, and there is every reason to think that by the end of the week the pit will be all right. The following letter appeared in the South Wales Daily News: -

The South Wales Miners' Permanent Provident Society

**TO THE EDITOR** - Sir, While to a considerable extent the distress caused by the disastrous explosion at the Mardy Colliery, which has resulted in the death of over 76 persons and the serious injury of many others, will be met from the funds of the Monmouthshire and South Wales Miners' Permanent Provident Society, unfortunately there were amongst the sufferers many who had not availed themselves of the opportunity of making the provision the society affords to its members.

In order, therefore, that all the widows and orphans and dependent relatives may be placed in receipt of a small weekly allowance, it is necessary that a supplementary fund be raised. A local committee has been formed, of which Mr. Abraham, M.P., has kindly become a member. The machinery of the Permanent Society will be utilised for distribution purposes, and any balance remaining will be handed over to its funds. I may be permitted to mention that the Permanent Society, although this is first occasion on which it has to deal with an accident causing many deaths, is already maintaining 110 widows and 190 children. This large family has been gathered from the single accidents constantly occurring in our coalfield, of which the public seldom hear, but which in the aggregate cause far more suffering and distress than the large disasters. May I remind your readers that at this season of festivity they have, by contributing to this fund, an opportunity of helping to lighten the gloom which has darkened our Christmastide in South Wales. Subscriptions may be paid to Mr. G. P. Stuckey, treasurer of the Mardy Colliery Explosion Relief Fund," Bristol and West of England Bank, Cardiff.- I am, &c., **W. Thomas Lewis, Bute Estate Office, Aberdare, Dec. 26, 1885.**



**Mardy Colliery No. 1 & No. 2 pits c. 1909**



Beautiful photo of the Welsh coalminer – Colliery and date unknown. Awaiting their wages.

**Chapter Five**  
**Monday, December 28<sup>th</sup> 1885**

Another death – touching incidents – no further bodies in the pit

From the ‘*Western Mail*’ reporter : - Henry Isaacs, one of the sufferers, died from his injuries today. Another is in a critical condition. Seven funerals, attended by an immense number of sympathisers, took place today at Maerdy Cemetery. Among them were the remains of Mr. Daniel Williams, overman. On his coffin the proprietors of the colliery placed a costly wreath. He was a most able servant for seven years and was held in great esteem by his employers. He leaves a widow and seven children. His obsequies were attended by Mr. William Thomas, Brynawel, the company's agent, and Mr. George Locket, son of the Mardy Colliery Company directorate.

Rain came down in torrents during the whole proceedings. Five funerals left Ferndale station this morning, viz., three for Aberdare, one from Tylorstown for the same place, one for Llandoverly, and two for Port Talbot. One left for Cardiff on the evening train on Saturday night. It seems that some of the remains sent to distant parts of Wales were those of farmers’ sons who had come to work in the mines during the winter months. In some cases as much as seven guineas were paid for the transit of remains. Among the donations received today by Mr. Edwards, clerk of the Mardy works, for the widows and orphans were the following sums: -

Mardv Colliery Company	..... £350-0s-0d
Marquess of Bute	..... £210-0s-0d
Sir William Thomas Lewis	..... £50-0s-0d
Messrs Tylor and Company	..... £50-0s-0d
Mr. J. R. Cobb, Brecon	..... £25-0s-0d
Mr. Frank James, Merthyr	..... £10-10s-0d
Messrs Bill &co. Oil merchants, London	..... £3-3s-0d
Mr. J. C. Locket Jnr.	..... £5-5s-0d
Lieutenant-colonel Capel Miers.	..... £5-5s-0d

I should have stated that the following clergymen officiated at the funerals today in the cemetery, viz; Revs Mr. Rees, Ferndale; Roderick, Maerdy; Enoch, Tylorstown; and the following Nonconformist ministers – Revs. T. Davies (B.), and Joseph Henry (L.).

Being frequently asked the question whether there is any probability of other bodies being recovered, I inquired of Mr. Griffith Thomas, the resident manager, what he thought. His reply was: - "No, I do not see that there is any possibility of it now. In looking over the books we cannot find that there is anyone missing; and we have had no inquiries made for persons who might be in the pit. Every endeavour has been made to find out whether any person is missing, and we cannot find out if there is." This reply, therefore, seems to me to do away with the probability of any further bodies being discovered in the colliery. The prompt action of the officials of getting up from the pit the remains of the unfortunate victims of explosion prevented the terrible suspense which sometimes hangs over the households of the men who happen to be, alive or dead, left in the colliery after the gas and after-damp have done their terrible work.

People who only judge the colliers by the rough specimens of Bacchanalian rovers to be seen occasionally about the streets of large towns are prone to think that they are all thoughtless spendthrifts and jostling fellows, with an inherent tendency to pugilism, and without a redeeming quality. Those that come in contact with them in their homes in the valleys and on the hillsides of Wales know better. Even the "Shoni Hoy" has almost always the recommendation of dauntless bravery.

But there is amongst them hundreds of steady, sturdy men, highly respectable in character, and combining with intrepid fearlessness which enables them to face death to save their comrades the tenderness of the finest nature. The anxiety shown at Mardy to "save the boys" is an instance. The action of another in sending the injured man up first and remaining himself in the exploded mine is another. Here I may be pardoned for introducing an incident told to me a day or two ago -

One poor fellow working at Maerdy had a wife and family down in Carmarthenshire, and for a few days prior to the explosion had been looking forward to a Christmas visit which intended paying to his "home." He had his lodging at Mardy and "a home" as well to keep, so that he had not much money to spend on gaudy trinkets. But he bought four little loafs - one for each of his youngsters - for "a little tea party," and having left them at his lodgings he went to work on the morning of the explosion, and

amongst those that day slain in the cavernous depths of the earth was the fond father who had brought Christmas presents for his children.

Mardy Monday night  
(by Morien)

Of the 63 horses down in this particular pit at the time of the explosion fifteen were killed; the others escaped relatively uninjured. There are twenty horses in the other pit, in which, although the explosion was felt there, no one was injured. Mr. Thomas, the farrier of the colliery, related to me today that there are employed in this pit five Welsh mountain ponies, being selected for particular work, owing to the smallness of their height. Two of these named "Jack" and "Terry" respectively, are noted for their fondness for each other, and are lodged in the same stall. Yesterday tidings came up that "Jack" had been found attached to a tram in a rubbish stall. He (Mr. Evans) proceeded to the place indicated with three firemen, and found that it was poor "Jerry" and not "Jack," that had been found.

Leaving the party with the other pony, he proceeded a distance of 500 yards, and there found poor "Jack" also attached to a tram, the hauliers having left both as they were found and succeeded in making their escape. The poor pony was unfastened and led back to where "Jerry" was. The moment the two came within hailing distance of each other they set up the most tremendous mutual greeting. When they came near enough they literally kissed each other over and over again. They then caressed each other many times with manifestations of the warmest affection. They then began to eat the food placed before them. They left it off suddenly and proceeded to caress each other as vigorously as before notwithstanding that they had been without food and drink since Wednesday afternoon. The four men watched the animals with the deepest interest and sympathy.

The gearing of the shaft had been restored by 4 o'clock on Sunday afternoon, when the work of clearing the debris was at once proceeded with. By tonight the wreckage at the bottom of the shaft had been sufficiently cleared to enable the work of clearing the falls from the roofs in the workings to be proceeded with. And at 7 o'clock tonight I was at the works, and saw Mr. Griffith Thomas, manager, give final instructions to a considerable a number of men who were about to descend the shaft for

that purpose. Mr. Thomas Wales, Her Majesty's Inspector, and Mr. Randell, deputy inspector, were in the colliery all day today making a thorough examination of the workings.

The statement in circulation has been made, to the effect that it (the mine) was fired by the mason constructing an archway underground, is said to be untenable, inasmuch as everything there was undisturbed by the explosion. The tools &co. were where they were left. The arch itself, being in a half-finished condition as it was, would have been thrown down had the explosion occurred there. The condition of the arch and everything about it proved that the explosion did not even touch that part of the colliery. The cause of the disaster is really, down to the present moment, as profound a mystery as ever.

I think that I ought to state that the thanks of the press are due to Mr. Davies, Maerdy Hotel, for the readiness he evinced in according facilities for its members to perform their duties under exceptionally difficult conditions. Mr. Richards, the Ferndale stationmaster, deserves mention for similar readiness to do all with his power to facilitate matters in the same direction.

It seems that Hutching, Haverfordwest, who met with such a dreadful fate in the explosion, occupied in the said town an independent position. Having spent all his means, he came to remote Maerdy to earn a living as a shackler underground. I asked his widow - who one could see had known better days - if her late husband was a member of the Miners' Permanent Relief Fund. She replied that she did not think he was on the 14<sup>th</sup> of this month. At the same time she took out of her purse the poor fellow's pay ticket of that date which he had sent down to her in Haverfordwest. The road between Maerdy and Ferndale is lonely enough tonight, only a few colliers going home from work at the Ferndale Collieries to be met at long intervals on it.

This afternoon the funeral of Joseph Baker, son of Mr Baker, barber, High Street, Merthyr, and of David Thomas Ward (whose name appears in the list as David Thomas), son of Mr. Ward, moulder, Tram-road, Merthyr, took place at Cefn Cemetery. Ward was a member of the Merthyr Volunteer Corps, and it was resolved that his funeral should be military in character.

Accordingly a large number of the volunteers turned out under the command of Captain Arthur James. The procession, headed by the Rifle band, which played the "Dead March," left the house at three o'clock, and at the top of High Street the funeral procession of the other deceased young man fell in. At the cemetery the coffin containing the remains of Ward was carried into the Nonconformist Chapel. It was covered with the Union Jack, and the deceased's helmet was placed on the top. The service was conducted in Welsh by the Rev. Thomas Rees, Calvinistic Methodist, Cain, formerly of Pontmorlais Chapel, which deceased used to attend. The service on the Church side was performed by the Rev. Mr. Richards, curate of St. David's, Merthyr.

### The cause of the explosion

A correspondent writes: - "I have just had an interview with one of the men who escaped from the very middle of the fiery blast. He was untouched either by flame or after-damp. But he spoke like one in a trance. He was mentally dazed, for he had been in the thick of the fight.

He described the suffering to me as falling like snowflakes under the influence of the 'damp.' They wandered in a hasty purposeless kind of way, with outstretched arms; and you heard the thud, thud of falling bodies – falling never to rise again. I asked him about the cause, and he gave it as his opinion that it was the Comet light which the men were using in 'arching.' To him the cause was simple enough.

A fall takes place for yards, and in the hollow thus made the gas congregates, and if there is any depression in the atmosphere, down it goes to the light, and an explosion follows. Of course, when a question is *sub judice*, it is a delicate matter to hint at causes, especially when issues have been so grave; but here is the modest opinion of one who was saved.

The collier, in reply to my question, said, with a smile, "O yes, I am going down, of course, to work in the same pit." He had no fear. Such is the quality that won us Alma and every battlefield story. A calm indifference. Onward to death; but bread must be won for wife and children.

## Miscellaneous items

Propose relief concert at Merthyr - The special performance in aid of the bereaved families which Mr. Herman's "Uncle Tom's Cab" Company, had intended at giving at the the Merthyr Drill Hall on Monday, did not come off, so few persons attending in consequence of the wretchedly wet weather that a postponement was resolved.

Mr. Alderman and Sheriff Evans will move at the next sitting of the City of London Court of Common Council that 100 guineas shall be paid out of the city's cash towards the fund for the relief of the widows and orphans of the men killed at the recent terrible explosion at Mardy Colliery. The Lord Mayor of London announces that he will gladly receive subscriptions towards the funds for relieving the widows and orphans of the men killed in the Mardy explosion.

Colonel Tuberville on the best mode of alleviating the distress

To the editor of the '*Western Mail*.'

Sir, - Referring to the letter from Sir W. T. Lewis that that appeared in your issue on the 28<sup>th</sup> inst. in reference to the "Monmouthshire and South Wales Miners' Permanent provident Society," and the action of making provision for the sufferers by the recent deplorable explosion at the Mardy Colliery, will you permit me, through your columns, to address a few words to those disposed to aid in alleviating the distress caused as to the best mode, in my opinion, of doing so? The above society was only started a few years ago, and at first was not very favourably received by those whose help it was promoted, but since that time a very large and an ever increasing number of men have seen the benefit, and become members of it, both in this and other counties.

This society has hitherto carried out its work in a quite, unobtrusive way, and provides for the widows and orphans in a very large number of cases, as may be seen by reference to Sir W. T. Lewis' letter. Those who have been relieved, as shown in that letter, cases caused by small accidents, in which the lives of one of two men have been sacrificed – noticed, perhaps, in a paragraph of a few lines in the local newspapers and then never heard

of again, and un-helped by the public at large, though, in the aggregate, the suffering entailed by such accidents probably amounts to much more than that caused by the sensational accidents such as the flooding of the Tynewydd Colliery, for which money flowed in from all quarters, in fact, much more than was necessary for the circumstances of the case, in which the loss of life was comparatively insignificant.

The society referred to has not, until the Mardy explosion, had to meet the circumstances of any case where the loss of life has been so appalling, and in its present condition this must put a very heavy strain on its funds, it having so recently been established. My object in writing is, therefore, to ask those intending giving their aid to consider the best way of doing so. Should a large fund be raised and distributed without careful discrimination it may result in giving more relief to the families and widows of men who were not subscribers to the Provident Society than those of the men who were, and must do mischief in two ways – first by leading those men who had not joined it to believe that their wives and children will be just as well provided for if they abstained from doing so, and, secondly, leaving those who do subscribe to think that they may as well keep their money and leave the public to bear the burden, as it seems willing to do so in certain cases.

I would, therefore, earnestly ask all intended subscribers to follow the advise contained in Sir W. T. Lewis's letter, and give their money in such a way that the distribution of it should be under the supervision and under the control of the Permanent Provident Society, and any surplus applied to their funds, which, under existing conditions, need and deserve all that could be spared. I may say that when the last explosion took place at the Naval Steam Colliery, at Penygraig, I was applied to by the local committee for aid. After full consideration I refused, but sent £25 (the amount I should have subscribed) to the Miners' Provident Society, as I believed it would do more good in the end, and I believe it did so, as I heard subsequently that it led to a meeting amongst the men at Penygraig on the subject, and that several of them, in consequence, became members of the Permanent Provident Society. I am, & Co., **T. Pickton Tuberville, Ewenny Priory, Bridgend.**

Note: - Many of the miners of south Wales were initially reluctant to join the Provident Society as members had to contribute a certain amount, as

well as the colliery management, but many had concerns that the society was run exclusively by coal owners or other businessmen, who they distrusted, and the society had no collier representation at all. As the years went on the Provident Society did all in its power to grab any funds raised for for such disasters from locals funds, further alienating them from the people the fund was set up to support. The public could not understand that the Society paid a weekly amount, no matter how much was raised, as was the case at Cilfynydd a few years later when the Society ‘appropriated’ almost £39,000.

### **Tuesday, December 29<sup>th</sup> 1885**

Another death – operations at the pit – the coal-dust theory

Another death is reported today, viz., that of John Henry Thomas, 9 Thomas Street, Maerdy. He was a young man, 23 years of age. He had been delirious since yesterday. He had sustained some burns – not heavy ones – but he had had a shock to the system. This makes the 80<sup>th</sup> death from the explosion. The other injured men are in about the same condition as yesterday – some of them in a rather critical state.

Amongst the funerals that took place today was that of William Williams, of 13 North Terrace, who died on Sunday. He leaves a widow, but no children. He was buried at Aberdare, the body being taken across the mountains. The weather was bitterly cold, and owing to the fact that some of the men had begun working the cortege was not so large as it might have been. There were a few other funerals.

Mr. Edwards, the Hon. Secretary of the Relief Fund has received a number of letters. A communication from the Vicarage, Llanfihangel, Borth, states that Mary Hughes, of that parish, whose husband, Thomas Hughes, had been killed at Maerdy, was in great distress. It was out of the question for her to come to Maerdy, and it was to be hoped that the company would bury her husband. In another letter came an offer to give give entertainments towards the relief fund at the Prince’s Hall, Piccadilly. Sister Harriet Lloyd, the Lady Superior of a Children’s home at Hampstead wrote, condoling with the bereaved, and offered to take there two little girls over eleven years of age.

Mr. W. Abraham, M. P., the vice-chairman of the Relief Committee, visited Maerdy today, and, in company with Mr. Edwards (the secretary) and others, proceeded to distribute the money so kindly coming in. Amongst those that have visited the neighbourhood to show their sympathy are the son and daughter of Lord Aberdare.

Maerdy, Tuesday  
(By 'Morien')

'*Morien*,' was also still on the scene on Tuesday and gave this report: - Snow fell on the mountains of Maerdy today, and, at the time of writing, the weather is bitterly cold. The locality is rapidly assuming its ordinary appearance, and the rattling of the machinery at the Mardy shafts as empty trams are lowered into the pit and others loaded with rubbish from the falls caused by the explosion are brought rapidly one after the other to the surface, and then wheeled out and tipped over the rubbish tips in the neighbourhood, is again heard.

The blinds of the cottages are lifted, and the daily life at Maerdy goes on as heretofore. Still, it is too easy to picture the sadness which reigns supreme in the homes of the people. The men about the works wear a sad, serious and woebegone expression. But work must be done, and money must be earned for the needs of their families. There is something very touching in this aspect of affairs, that men are compelled by circumstances over which they had no control to face dangers in the midst of which so many of their friends have just perished. The miners are so enamoured, however, with the duties in which they have been all their lives daily engaged that it would be extremely difficult to induce them to engage in any other mode of earning a livelihood. Like the rest of the world, habit to them has become second nature.

I am told that people at Ferndale have been much annoyed by the persistent manner in which some writers have used the name "Ferndale" as being the place where this explosion took place. It is only right to mention that Mardy Colliery is no way connected with the Ferndale Collieries, the property of Messrs. David Davies and Sons. The last named extensive collieries have, since 1869, been totally free from explosions of any kind.

The following mining engineers, well-know for their great skill, and to whom the lives of many thousands in the two Rhondda Valleys are entrusted daily, have made a minute inspection of Mardy Colliery, viz.: - Mr. David Evans, Bodringallt, Ferndale, and Blaengwawr collieries; Herbert Kirkhouse, Tylorstown Collieries; Mr. William Jenkins, Ton, Cwmparc, Bwlfa, and Ogmre Valley collieries. Sir Williams Thomas C. E., Brynawel, Pentre, Gelli, Ty'nybedw, Glyn Mardy, and other collieries together with Mr. William James and Mr. James Thomas, his assistants.

On the west side they found considerable falls lying in the roadways. They ascended to the summit and examined the cavity above each and found the place free of gas. In the north division (4 ft.) were arches in course of construction, to which reference has frequently been made. They did not find any gas there, but in the cavities above the arches they found a small quantity of gas.

In the west hard heading they also found a small quantity of gas, caused by the ventilating doors being blown down by the explosion, and a fall of rubbish near the face, the extreme limit opened. In the drift and near the double parting, where 36 dead bodies were found, they saw traces that the blast had exhausted itself there. But everything was perfectly safe there at the time of the examination. It also may be mentioned that ten dead horses, out of a total of fifteen killed by the explosion, were found in this locality. This is found to to have been the centre of the area of the explosion.

But now comes the most extraordinary discovery made by the examiners. They found all over the colliery, roadways, headings, stalls, and &co. – a layer of exceedingly fine brown soot, lying everywhere and upon everything. It is quite evident that this burnt dust had performed a dreadful part in the work of destruction which had taken place. It was as fine as flour and perfectly free from grit, proving that as long as the substance of the coal-dust continued to hold out it was so much food for the fire. I believe that this is the first instance when mining engineers have paid close attention after an explosion to the aspect of coal dust. I believe also, that Mr. Galloway, the late Deputy-Inspector of Mines for the Government, was the first to direct attention to coal dust as being a most important factor in the work of destruction during explosions. It is the opinion of these

engineers that on the fatal day of the explosion at Mardy one of the "comets," in which paraffin is burnt openly at the bottom of the shafts, fell accidentally, and the fire oil quickly set the coal dust on fire; that burnt like lightening, and produced instantly such heat, carbon, and, consequently, air expansion, as result almost immediately in an explosion.

It is patent to all the whole of the fine coal dust in the mine was consumed, for its dregs are to be seen in the brown soot lying everywhere. This most interesting discovery may have a very important effect on the future of coalmining; for there is little doubt that if it shall be conclusively proved coal dust is the most dangerous factor mining engineers have to deal with in guarding over the safety of those men under their care, the Government will make some periodical watering of all parts of steam coal mines compulsory. The mining engineers gathered a significant quantity and brought it with them out of the workings.

Mrs. Hitchings, who is writing to get the permission of the Home Office to have the remains of her late husband, Philip Hitchings, exhumed and removed to Haverfordwest, has heard twice from that department. It is anticipated that permission will be granted in a day or two. Just as I am closing this report it is announced that another of the injured has died. His name was John Henry Thomas, 28 years of age. It is reported that the works will be sufficiently restored by tomorrow (Wednesday) morning to enable coal to be raised from parts of the colliery.

#### The management and the coroner

The '*South Wales Echo*' of this date reported: - It will be remembered that great dissatisfaction was expressed last week at what was regarded as the outrageous delay in holding the inquest, or, rather, in opening it. On Saturday Mr. Thomas Williams, Merthyr, who is the coroner, explained the position of affairs to the jury, and urged that the management, although early communicated with, had not sent any reply to him, and that he was not furnished with a list of the dead till Friday night. Mr. William Thomas yesterday evening wrote a letter to Mr. Williams on the subject. Mr. Thomas said that he had been told that Mr. Williams was put to considerable inconvenience through the management not having informed him by wire on Wednesday afternoon of the sad accident, which took place

at Mardy. Mr. Thomas was sorry if Mr. Williams had suffered from any remissness on his part or on the part of Mr. Griffith Thomas, the manager. Mr. Thomas said that he was within 30 yards of the pit when the accident took place, and was, as Mr Williams would very anxious under the circumstances that not a moment should be lost in rendering all the aid that could be given to the poor fellows below. He immediately ran to the weighing machine, and wrote a telegram to Mr. Randall, the assistant inspector of mines. He did not take time, and, indeed, could not afford time, to write a second telegram to Mr. Wales, the chief inspector. He then wrote a telephonic message to his wife, and sent a messenger to Ferndale asking Mr. David Evans, from whom he had just parted, to come over at once. While Mr. Thomas was doing this the lamps were being got ready, and they started down through the upcast in about 11 minutes after the accident occurred.

Mr. Thomas gave the coroner this detailed explanation in order to show him that the omission to wire Mr. Williams was not intentional. On Friday Mr. Thomas was urged to wire to Mr. Williams to beg him to try and hold the inquest that evening. He did so both to Mr. Williams's office at Merthyr, and to his house at Troedyrhiw. Subsequently by the 8 o'clock train Mr. Thomas received a letter from Mr. G. Williams complaining that he had not received a list of the killed. Mr. Thomas was then at Aberdare, but immediately communicated with the Mardy colliery by telephone, and found that Police-inspector Thomas had sent Mr. Williams the list. The first thing Mr. Thomas did on Thursday morning was to send two men around to take the names, age, and residences, &c., of all the poor fellows who had met with their deaths. That list was handed to Inspector Thomas or Inspector Jones for the purpose of compiling the official list for Mr. Williams. Mr. Thomas trusts that any remissness on their part will be passed by under the painful circumstances under which they were then labouring.

### **Wednesday, December 30<sup>th</sup> 1885**

The coal dust theory – preparations for resuming work – Letters of condolence

From a '*Western Mail*' reporter: - The work of clearing the debris in the Mardy Colliery is being proceeded with in a highly satisfactory manner. It

was understood that a portion of the colliery would have by today been repaired and brought into condition as would enable the workmen to resume their avocations there. The Workmen's Committee have thought that before re-commencing their work they ought to have their inspection of the places made by representatives of their own choosing, the manager (Mr. Griffith Thomas) was spoken to, and he at once fell in with the suggestion. The committee met today, and the inspection will be made tomorrow, so that in the No. 1 operations will no doubt, be commenced on Friday. The committee, I understand, selected 12 men to undertake the inspection.

**Mardy, Wednesday evening**  
(By Morien)

The startling discovery made in the Mardy Colliery, viz., the immense quantity of burnt coal dust lying everywhere about the mine, has been much discussed in the district today. Thoughtful men amongst the workmen point out that in a place, for instance like the Mardy Colliery, where there are 773 men employed and 83 horses, there was a constant and immense consumption of air heating power. It is well known that in the morning the mine is fresh and cool. But at the close of the day it is much heated, the atmosphere being some times oppressively hot. The men point out that at the close of each day the fine dust, owing to the heated atmosphere, is much inflammable, and as dangerous as powder. It is said that when a pit has only been recently opened and the space of the workings limited only a certain number of men are allowed to be down at the first time, it being deemed dangerous to have too many down together to consume the oxygen. It is alleged that this rule is ignored after the workings have been opened to any extent. The men will tomorrow (Thursday) appoint a number from amongst themselves to descend to examine the district already cleared of falls with a view to resume operations for getting coal on Friday morning.

Last evening Mrs. Hutchings received an intimation from Mr. David Rosser, Pontypridd, that the Home Office declined on sanitary grounds to permit the exhumation of the remains of her late husband; and this morning she received a letter from the Home Secretary to the same effect. This evening Mrs. Hitchings returned to Haverfordwest.

It has reached this locality that Mr. Dillwyn Llewelyn, Penllergare, near Swansea, has sent £100, and Mr. Charles B. Jones M. P., £25 to the Miners' Permanent Relief Fund, to meet the additional strain which the Mardy calamity has placed on its resources. It is interesting to know, as indicating the frugal habits of those who lost their lives, and also those of their families, that, so far, but very few of those entitled to relief from the fund have applied for its assistance. But, of course, their little hoards cannot last long. I think it should be clearly understood, as showing why the majority of the men here and elsewhere have been slow to enrol themselves, that it is universally believed by them they would, by doing so, be debarring themselves from the benefits of the Employers Liability Act. In addition to immediate pecuniary benefits from that Act, workmen held, doubtless erroneously, they would be removing, by contracting themselves out of it, one of the incentives for employers to take all the precautions in their power to guard against the safety of those in their employ. In justice to the men, they gave this reason for the hesitation manifested to join this excellent fund.

#### Letter of condolence

The Permanent Relief Fund was at this time receiving many letters with contributions from many corners of the United Kingdom. Mr. William Abraham M. P., Pentre, Rhondda, had also received a letter from the daughter of Mr. Ellis Lever, of Manchester: -

#### ***Bowden, Cheshire, Christmas Day 1885***

*Dear Sir, - My dear mother, who entered into rest on the 29<sup>th</sup> of October last, for many years had been deeply interested in the welfare of the miners and their families. The melancholy catastrophe at Mardy Colliery on Wednesday last, with its attendant desolation and misery in so many homes at this sacred season, would have excited her warmest sympathy for the sufferers and her willing help. As she is no longer spared to us, may I ask you to receive the enclosed as a "Christmas offering" in memory of their loving and departed mother from Kate, Ada, Gertrude, Alice, John, Charles, and George, children of Mr. Ellis Lever.*

*I shall be glad if you will kindly distribute the amount personally, as you proposed to do, giving to each of the widows £1, and the balance in equal*

*proportion to the children who have been left entirely orphans by this sad explosion. In the event of there being none of the latter, kindly let the balance go to any aged, infirm, or other dependent relatives of the unfortunate victims. Assuring you of our deep regret in this last sad calamity, and praying that God may defend and provide for the fatherless children and widows and all that are desolate and oppressed. I am, dear sir, with much sympathy, yours sincerely Alice Maud Lever.*

The manager returns thanks

The same issue of the 'Western Mail' on December 31<sup>st</sup> 1885 carried another letter that read: -

*Dear Sir – I should be obliged if you would kindly allow me space in your valuable paper to express the most sincere and grateful thanks to all the collier officials and workmen who so kindly and readily came to our assistance at Maerdy on the afternoon and night of Wednesday last, after the deplorable and, as yet, unaccountable accident which occurred there on the afternoon of that day. I am much tempted to single out neighbouring colliery officials and workmen belonging to Mardy and other pits, who worked so indefatigably in succouring those who were alive, and then recovering the bodies of the poor fellows who met their doom in so sudden a manner. But I believe, indeed I know, I shall be consulting their feelings better by writing to them privately, and abstaining from parading their names in the public press. Again thanking them heartily, one and all, for their most valuable assistance, and deeply regretting the necessity for it. I am &co. William Thomas, Brynawel, Aberdare, December 30<sup>th</sup> 1885*

**Thursday, December 31<sup>st</sup> 1885**

Another death – the condition of the colliery – the workmen's inspection

I regret to say that another of the poor fellows injured by the explosion at Mardy Colliery has succumbed, thus making the 81<sup>st</sup> in the list of the dead. His name was John Williams, hitcher, of 24 Oxford Street, Maerdy. He was a single man. The deceased was a native of Llanddewi Brefi, Carmarthenshire, and his remains will be taken there on Friday for interment. The funeral of John Henry Thomas, whose death was reported before, takes place today also, the burial being at Aberdare.

### Additional donations

Mr. Edwards, the Hon. Secretary of the Mardy Relief Committee states that amongst many additions that have been received were £100 from Lord Tredegar and £100 from Mr. James Lewis, Miss Mordecai Jones and Mr. Mordecai R. Jones, son and daughter of the previous owners of the Mardy Colliery. There had also been a further £100 subscribed by the Locket's Merthyr Steam Coal Co. (limited), who included Mr. Cobb, and are the owners of the Mardy Colliery.

### Sympathetic workmen

We are glad to hear that at a meeting of the workmen of the Harris's Navigation Colliery, held on Wednesday evening, it was decided that each man at the colliery should contribute one-shilling and each boy sixpence to the Mardy Explosion Fund. These workmen were also amongst the first to contribute to the fund for rebuilding the University College of Wales after the late disastrous fire. Too great praise cannot be accorded the men and manager for their prompt and thorough sympathy in these matters.

### The operations at the colliery

The workmen are still busily engaged in clearing the falls in the pit, and remarkable progress is being made. Mr. T. Wales, the Government Inspector of Mines, again visited the colliery on Thursday, and was in consultation with Mr. W. Thomas, Bryawel. Both gentlemen left by the 3.30 p.m. train.

The most important event on Thursday was inspection of the colliery by the 12 workmen selected by the Workmen's Committee. A good deal of interest was taken in the affair, as upon their report, to some extent, depended the time for commencing work again. I understand, however, that in any case there would not be very much work until Monday. At 7 o'clock in the evening the Workmen's Committee met, at the Maerdy Hotel assembly room, to receive and consider the report of the 12 men who inspect the colliery on their behalf. The proceedings were, of course, private.

## Saturday, January 2<sup>nd</sup> 1886

### Operations in the pit – Examination by the workmen

The result of the examination of the Mardy Colliery by the workmen's representatives were eagerly awaited. The '*Western Mail*' reported: - We have been requested to publish the following: - "*We, the undersigned, appointed by the workmen of the Mardy Collieries to examine the workings, began to say that we did so, and found the same in good working order, and with no accumulation of gas in any part of the collieries. This was announced at a General Meeting of the workmen, over 700 in number. It was put to the vote and unanimously carried that all will resume work on Monday morning with perfect confidence.*" **Dated 2<sup>nd</sup> January 1886.**

**Signed:** *Evans Evans, chairman of the committee; John Davies, William Thomas, Daniel Howells, John Davies, John Richards, Morgan Davies, Edward Powell, Joseph Jenkins, Evan Jenkins, William Evans, William Jones, and Daniel Thomas, examining colliers.*

At a meeting of the Relief Committee at the Maerdy Hotel on Saturday, announced that the subscription list now stood at £1,800. Amongst those making contributions were Messrs. Bass & Co. (Limited) the eminent brewers, of Stoke-on-Trent with a cheque for 10 Guineas.

The '*South Wales Daily News*' of this day reported: - Now that the first shock of the explosion has passed out of the public mind, many little points of interest are cropping up. David Jones, the cogman, and his four children were working at the pit at the time of the explosion. The sons all escaped, the father only lost his life. The mother-in-law of Thomas Evans, widower, a dead haulier, would take charge of his little child of four years old. David Jones had only worked nine days at the Mardy pit before he met his death. He had intended to spend Christmas Day with his father, wife, and children at his home at Ystalyfera, near Swansea. A man known at the colliery as John Bevan was really named Jones. He was a haulier who had escaped from the militia ranks. David Evans, another of the dead and only 16 years old, was the principal supporter of his mother and four little children. Joseph Jones was known in bardic circles as 'Deiniol Ddu.' William Griffiths, had only been at Mardy a fortnight before the explosion. The father of Thomas Watkins had perished in the Dinas explosion, and his body had

been four months below ground before it was got at. The shackler named Spiller had only worked 15 turns at Mardy, his brother was also in the pit when the explosion took place, but he was safe.

### **Monday, January 4<sup>th</sup> 1886**

#### Resumption of work

Work was virtually resumed on Monday, January 4<sup>th</sup> 1886 at the Mardy Colliery, reported the '*Western Mail*.' All the men went in to look at their working places, and some remained to go on with the duties. Others worked a short time, while many were content with a glance at the place, so that they can begin their work Tuesday. Mr. William Galloway, of Penarth, visited the colliery on Monday.

#### Relief Measurers

The Bishop of Llandaff has forwarded to the Rev. W. Lewis, Vicar of Ystradfordwg, £10 towards the relief of the Mardy sufferers. Mr. Herrmann's "Uncle Tom's Cabin" Company, now appearing at the Merthyr Drill-hall, proposed to give a special performance today in aid of the sufferers, and half the gross receipts of the Merthyr Circus tomorrow (Wednesday evening) is to be devoted to the same object. At the Eisteddfod held at the English Baptist Chapel, Abercarn, on Christmas day, a vote of sympathy with the bereaved families at Mardy was moved by Mr. F. J. Davies, and seconded by the Rev. E. E. Probert and passed. This was supplemented by a collection in aid of the Mardy Explosion Relief Fund, when upwards of £4 was realised. The following letter appeared in the '*Western Mail*' on Monday, January 4<sup>th</sup> 1886: -

#### Mardy Colliery Relief Fund

To the editor of the '*Western Mail*': -

Dear sir, - Speaking generally, the circumstances under which it has been to make an appeal for aid in dealing with the distress occasioned by the terrible accident at the Mardy Colliery have been made public by my letter to you on the 28<sup>th</sup> ultimo. But at a meeting of the local committee this morning some statistics were present which may influence the charitably disposed, and which I was asked to communicate to your columns, in the

hope of obtaining contributions from persons outside the immediate district. The tale toll of the dead has risen to 81, 5 deaths having occurred since the explosion, and there are 31 widows, 70 children, 9 dependent relatives, and 8 persons severely injured, making a total of 113 needing to be provided for. It is earnestly hoped that the claims of the sufferers by this sad disaster, which happened at a time when the sympathies of all are moved towards the unfortunate, may have prompt and generous consideration. Subscriptions may be forwarded (or remitted through any bank) to the treasurer, Mr. J. F. Stuckey, Bristol & West of England Bank, Cardiff. I have the honour to be, sir, your most obedient servant, **W. Thomas Lewis, chairman of the Local Committee, Bute Mineral Estate Offices, Aberdare, January 2<sup>nd</sup> 1886.**

#### A complete and technical inquiry required

The secretary of the Permanent Relief Fund, Mr. E. Owen, visited Maerdy on Tuesday with £500 in his possession to meet all present claims upon his society.

Over the signature of "Experience," a correspondent writes to us to suggest that there should be a more complete and clinical inquiry into the nature of the strata, in which the coal seam immediately lies embedded. The coroner should require not only the plan of the colliery to be produced, but also vertical sections showing (1<sup>st</sup>) the strata of the unwrought coal, with the subjacent (underlying) ground of 5 or 6 yards, and also the immediate roof and the the superincumbent layers of ground; (2<sup>nd</sup>) Sections showing the relative position (as to vertical distance apart compared with the unwrought ground) of the roof and floor in several different places, more especially in the locations of the great falls, and indicating what had been done in these parts to procure height for the horses and men – whether ripping the roof or cutting the bottom.

The object of these sections is to show what had taken place consequent upon the extraction of the coal; for instance, if the thickness of the seam of coal extracted be 5 ft., and it is found that six months after (either more or less) there is only 3 ft. between the original layers of the floor and roof in the pack-walls and gobs, this would show beyond all cavil that there is a cavity of 2 ft. overhead in the roof or in the floor, or divided between them;

though most generally the bulk of the cavity will be in the roof. As a matter of fact, it is well known to those engaged in coal mining that, where the coal is got by the system known as 'longwall,' these chambers do exist in the roof as a consequence of the extraction of the coal, and often over very large areas.

These cavities are not vacuums, but they will, in strata yielding fire-damp be almost invariably filled by gas of a more or less explosive proportionate ratio. And these cavities will very often contain more than enough to blow the whole colliery, and all it contains, to atoms if by some means it is ignited. These cavities in the roof are well-known in collieries to be every day giving off little streams of gas, with greater or less rapidity, under the name of 'blowers,' and when an extra 'squeeze' comes upon a panel of the workings, by the breaking down of another stratum of the ground overhead upon that already resting upon the gobs, this gas is forced through the joins and small breaks of the roof with so much greater rapidity as to become such a source of immediate danger to all the men working there that operations in the panel of workings so affected have occasionally had to be suspended in consequence for a day or two, and after the roof has again become quiescent the extra danger generally caused from these blowers they then resume their operations again as before.

Imagine a shot fired in such a roof as this, and the risk and danger are often terrible; and if the hole so drilled should happen to touch one of the small joints in the ground so that the flame from the powder can streak through it upwards the disaster which would almost invariably follow would be far more terrible. There is incomparably greater danger of explosion in a colliery with what is known as a 'good roof,' whether it is a rock or a good 'cliff,' than in having a bad roof which readily breaks up under pressure, and if a close investigation were made of it, I believe, be found that the great bulk of disastrous explosions have taken place in the workings of the seams of coal that have a comparatively good, strong roof and are worked by the 'longwall,' system.

The simple reason is that with a bad roof there are no great chambers formed as a consequence of the extraction of the coal, but the gas and fresh-air are in far more ready intercommunication with each other, and the gas simply cannot find such lodgement as it does where the roof is good

and where the big chambers are, as a consequence, necessarily formed. And further (to increase the danger and sense of security at the same time) these accumulations are out of the reach of the ordinary sweep of the air-current, and mostly out of the reach of the fireman's lamp when he is making his examination.

These are primary points that should form the groundwork of the special efforts of experienced experts to adjudicate the true causes in every inquiry respecting colliery explosions. The explosion will take place as much, perhaps even more, in the cavities in the roof as in the working ways underneath, and will blow down the roof at the points where the force is greatest.

Comment: - How and why the explosion occurred was still being debated in the newspapers, but others, were trying to reward those that took part in the rescue missions, despite the fact that some were liable to prosecution over the event. However, their story did give extra information about events immediately after the 'accident.' The '*Western Mail*,' of Friday, January 8<sup>th</sup> carried the following story: -

#### Heroism at the Mardy Colliery – Desperate courage and loyal devotion

Peace has its victories as well as war, and its deeds of heroism and daring are not less numerous, though seldom recorded, than those performed on the field of battle. A colliery explosion generally affords opportunities for a display of desperate courage and loyal devotion to duty, and in this respect the recent disaster at Mardy added several names to the long list of noble spirits who have risked their lives for others without the hope of glory and reward. A few facts bearing on this may not be without interest to your readers.

At the time the explosion occurred (2.45 p.m. on Wednesday, the 23<sup>rd</sup> ultimo.) Mr. William Thomas, the engineer and manager of the concern, happened to be fortunately on the spot and was engaged in the office; Mr. Griffith Thomas, the manager under William Thomas, had just gone home for dinner, and on hearing the report they both rushed down to the pit, thinking one of the boilers had burst. Seeing that something more serious had occurred, Mr. W. Thomas ordered the book-clerk, named Richards, to

descend the upcast shaft as far as the first seam that is worked, which the brave fellow did not hesitate to do.

Having provided themselves with lamps, the two Thomas,' with a collier named Llewelyn Pritchard, also went down the same pit, passed the upper seam, in the face of the after-damp caused by the explosion, and succeeded in reaching the four-feet seam, where the accident had taken place. No one knew better than the men themselves the fearful risk they ran of being overcome by the deadly gas; but no thought of their own safety seems to have entered their head; knowing that they alone understood what must be done to save the lives of the poor fellows then in the pit, no danger to themselves could deter them from attempting to carry it out.

They experienced the greatest difficulty in entering the workings, for they encountered all the foul air that was being drawn out by the fan. As they expected, they found the separation doors which stopped the air passing direct from one pit to the other and turn it into the workings, blown away, and in order to restore the ventilation throughout some substitute must be devised at once. Pritchard was despatched up the pit for canvas, &co., while the other two proceeded to explore further. Several men of whom they found unhurt set to work without demure, in spite of what they had already undergone, to help Pritchard rig up the temporary doors, and others beat out a fire in the stables with their coats.

While Mr. Griffith Thomas endeavoured to clamber over the falls to the remoter parts of the workings, Mr. William Thomas and David Hughes, the night overman, undertook the delicate and extremely dangerous task of remaining at the separation doors and regulating the supply of air. The object of this door was to clear the workings of foul air, but the result would be to send all the after-damp along the only way by which people could travel to and from the surface; so it was absolutely necessary that sufficient air should be allowed to pass to dilute the foul air. Both Mr. Thomas and Hughes were seriously affected by the noxious gas they inhaled, but they stuck to their post, and it is undoubtedly due to their devotion that a single man came out alive from that part of the pit.

From 3 o'clock till 10 did Mr. W. Thomas and Mr. Griffith Thomas remain in the deadly atmosphere, and at one time the former would probably have

succumbed to its effects but for the assistance of his companion. At a distance of a least a mile from the pit bottom he was seized with weakness and faintness, and could scarcely stagger twenty yards without resting. It was only his knowledge that his presence was necessary to cheer and direct his brave assistances that gave him strength to persevere.

While Mr. Thomas and his companions were braving the choke-damp in the upcast shaft, Lavis, the head mechanic, descended the downcast shaft, which had experienced the full force of the explosion. He found the bottom of the shaft blocked with debris, and the cage could not be lowered all the way owing to some of the guide ropes &co. being broken. He accordingly swung himself out of the cage by one of the guide ropes, slid down to the bottom, made a minute inspection of the damage, and clambered back into the cage without assistance.

“Surely such deeds as these deserve some further recognition than the gratitude of those who are indebted to them for their lives. We cannot but see and appreciate the courage displayed by the crew of the lifeboat and the members of a forlorn hope; but too often the heroism that is displayed in the bowels of the earth fails to receive due recognition; and it is in the hope of stirring the countless hearts which always glow at the tale of noble deeds that I have ventured to trespass on your space.”

Comment: - Meanwhile, the appeal for funds issued by the appeal committee were not being as successful as they would have liked and even the Mayor of London’s ‘Mansion House Fund’ had not been successful. ‘*The Standard*,’ newspaper of Saturday, January 9<sup>th</sup> 1886, reported: -

#### The Mansion House Fund

At the Mansion House yesterday, the Lord Mayor, addressing the representatives of the press said: - “In regard to the appeal I ventured to make the other day in aid of the sufferers of the recent colliery accident at Maerdy, in south Wales, I desire to acknowledge the receipt from various donors of sums amounting to the aggregate of £170; which I have forwarded to the local Relief Committee. The comparatively meagre response which has been made both to my appeal and to that of the committee in Wales is no doubt to be attributed to the intervention of the

holiday season, and to the many charitable applications which are made throughout the country at this time of year; but I desire again to bring the pitiful condition of the widows and orphans of the Welsh miners to the attention of the benevolent public, and to repeat the pleasure it will give me to be the medium of remitting any donations which the citizens and others may feel disposed to subscribe to the Relief Committee in Wales." A total sum of £3,000 had now been collected towards the distress fund, in which is included a £250 contribution by the Taff Vale Railway Co., and the £170 from the Mansion House Subscription, and £50 from Mr. Talbot, Lord Lieutenant of the County.

With the inquest due to start soon, and the miners not having the funds to employ legal aid, it looked as if, as was usual in such events in South Wales, they would be unrepresented. However, the '*Western Mail*' reported: - The Rhondda district miners have authorised Mr. William Abraham M. P., to engage legal assistance if necessary to watch the Mardy explosion inquiry on behalf of the bereaved families.

#### A noble example

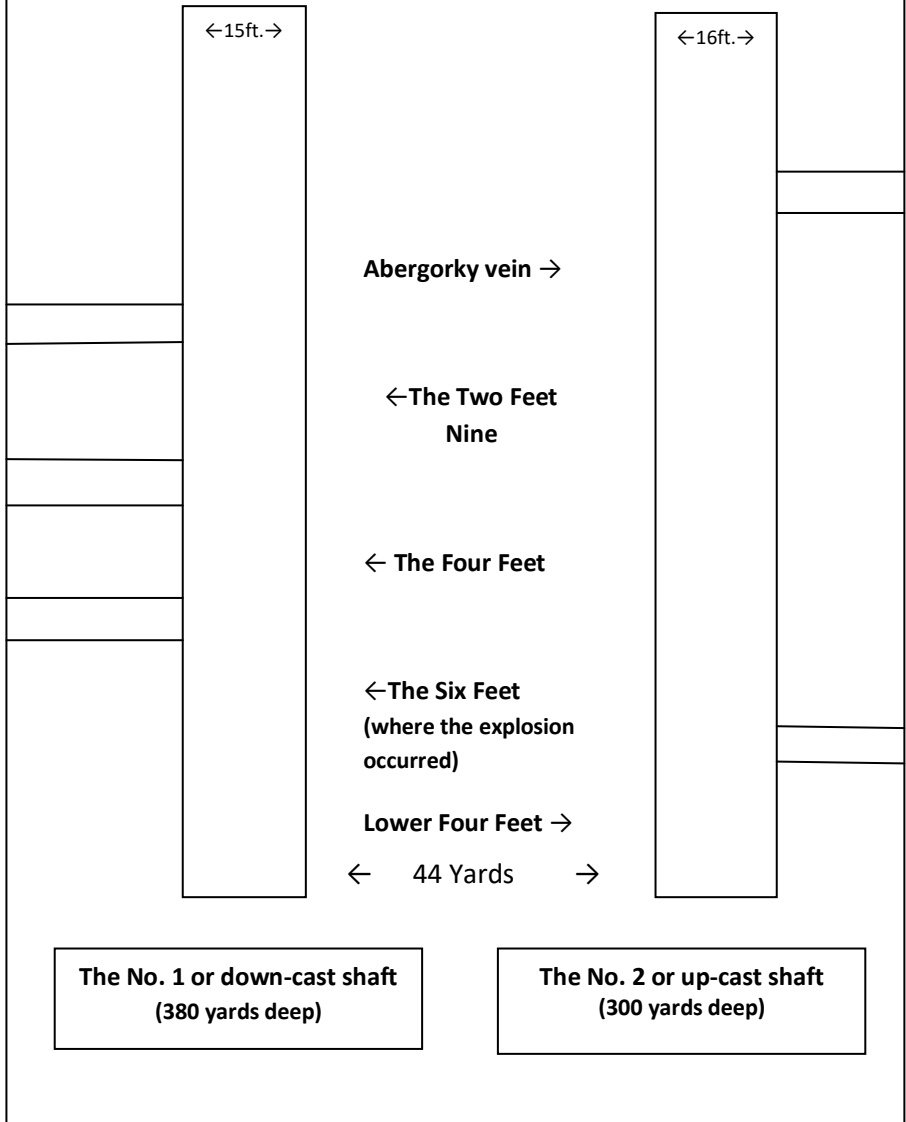
A meeting of railway men, representing all grades of the Ferndale branch, Taff Vale Railway, was held on Sunday, January 10<sup>th</sup> 1886 at the Ferndale railway station, at which a goodly number attended, the object being to consider the best means of assisting the Mardy Explosion Relief Fund. Mr. J. Richards (inspector) presided, and Mr. Thomas Bates (fitter) was elected vice-chairman. Resolutions expressing sympathy and condolence with the bereaved ones were passed unanimously, and canvassers were appointed to collect amongst the men, a desire being expressed that other sections of the Taff Vale Railway should do the same.

Comment: - And so with the workmen ready to return to work the Mardy explosion went into history, and there was only the inquiry left to keep the village in the spotlight. It would perhaps last for days, during which time the jury would have to decide how the explosion occurred and who, if anyone, was to blame for the catastrophe and if indeed, anyone had neglected their duties.



As unknown mining family from the Rhondda Valley, showing what a dusty life was led by the collier and his family. Names & date unknown.

**The seams working at Mardy Colliery at the time of the 1885 explosion**



**Chapter Six**  
**Tuesday, January 13<sup>th</sup> 1886**  
The inquest

The inquiry into the circumstances attending the deaths of Daniel Williams, overman, and others killed by the explosion at the Mardy Colliery, Mardy, Rhondda Fach Valley, was resumed at the Assembly-room, Mardy Hotel, on Tuesday morning, January 13<sup>th</sup> 1886, before Mr. T. Williams, coroner. Amongst those present were: - Mr. Liddell, representing the Home Office; Mr. Simons, Merthyr, for the colliery proprietors; Mr. Locket, chairman of the propriety ; Mr. W. Thomas, Brynawel; Mr. J. L. Thomas, Nantmelyn; Mr. Griffith Thomas, resident manager at Mardy; Mr. Lusty, Cardiff; Mr. T. E. Wales, Inspector of Mines; Mr. E. W. Randall, Deputy-inspector; Mr. E. Owen, Secretary of the Miners' Permanent Provident Fund; Dr. Parry, Ferndale, and Mr. D. Evans, Bodringallt.

The inquiry practically opened on Tuesday, though previously opened in a formal manner, and excited less attention in the immediate neighbourhood than such inquiries usually do. There were few present beside those directly concerned. One reason is that the colliery in which the explosion occurred was looked upon as a splendidly managed one, and there are no startling revelations expected unless they happen to be of a scientific character. The evidence called was mainly of a technical character. The coroner first of all went through the list of the dead, and the evidence of identification, and therefore, took a considerable time. Then came the testimony of officials as to the general arrangements of the colliery and the state of the ventilation prior to the explosion and immediately after it.

The coroner's address

The coroner, in opening his address, said that they were met that day to resume the inquiry into the circumstances attending the deaths that resulted from the explosion at the Mardy Colliery on the 23<sup>rd</sup> ult. The jury were formerly sworn to inquire into the death of Daniel Williams, overman, but the evidence that would be given upon that case would be equally applicable to all the others as to the immediate cause of death.

The cause of death would be under three different headings – burns, suffocation, and deaths from violence other than burns. He proposed to adopt the following course of procedure: - First of all to call evidence of identity, then evidence as to the immediate cause in each case. This would be followed with formal evidence of the explosion on the 23<sup>rd</sup>. ult. They would then proceed to familiarise themselves with the working of the colliery, plans of which would be produced; and following that they would investigate the method of ventilation, and also the efficiency of the ventilation of the colliery. He should then take evidence as to the condition in the mine for some time previous too, and as shortly a period as possible prior to the explosion. They would hear the evidence of some of the persons who were in the mine at the time of the explosion, and who would describe to them, as far as they were able, the incidents of the explosion. They would then hear the evidence of the rescuers, who would be followed by scientific evidence, including the evidence of the Inspectors of Mines for the district. The latter would speak as to the probable cause of the explosion. He was very pleased to find that the Home Office had sent down counsel to aid them in the investigation, and he trusted that the inquiry would result in a true solution of the cause of the explosion.

**Joseph Williams**, 17 North Terrace, was then called to give evidence as to the identification of his brother, Daniel Williams, overman, 38 North Terrace, Mardy. Inspector Jones and Police-constable Llewellyn, stationed at Porth, and Police-sergeant Lewis, stationed at Ferndale, were then called to give evidence as to identification of the remainder of the bodies. Mr. Liddell said that as there was nobody present representing the men he would suggest, after the coroner had concluded with a witness, Mr. Simons, who represented the lawyers, should next question the witness, and put any question which he might think fit afterwards. The coroner concurred with the suggestion, and said that he had received a letter from “Mabon,” (Mr. William Abraham M. P ) sent from Gloucester, stating that he expected to be sworn in as a member of Parliament that day, and, if so, he would intend the inquiry on Wednesday morning (to unofficially represent the men).

**Dr. Parry** was next called. He said Daniel Williams’s death was due to suffocation. He was slightly burnt. The list of the killed was proceeded with, and the witness described the cause of death and injuries in each

case. He and Dr. Evan Jones, Aberdare, examined the dead together, and they both agreed. He then went on to describe the condition of the injured persons not killed.

**Taliesin Edward Williams**, book clerk and surveyor at the Mardy Colliery stated that he remembered the colliery explosion on the 23<sup>rd</sup> ult. It happened about twenty minutes to 3 o'clock in the afternoon. He was about ten yards below the office, near the pit. He heard a loud report, and at the same moment saw a large cloud of dust and smoke rising from the downcast pit (No. 2). He did not see any flame or fire or sparks of any kind. He instantly ran down to the top of the pit. As he passed by he looked at the fan and saw that it was travelling all right, so far as he could judge. He then hastened to the top of No. 2 pit. The gates and the protecting rails at the sides were blown out, and the sheet-iron roof was blown off. He met Mr. William Thomas, Brynawel, agent, there.

Arrangements were then made to go down the No. 1 pit. Witness went down first, in company with Daniel Thomas and hitcher Jones, as far as the Abergorky seam. He found a large current of air coming from the Abergorky seam which was different from which it ought to be. He went into the workings, and as he got back from the landing he saw a lot of men had come back from the face. He asked if anyone had been hurt, and they said "No." He was told that the doors were blown away, and several went with him, and they indeed found the doors blown away.

He found one of the repairers doing what he could to dam up the air so as to restore the natural ventilation of the downcast pit. He came back to the bottom of the pit and waited until all the men had gone up except those engaged in the work mentioned. He then went up to the top in order to go down to the Four-feet landing. He went down to the Four-feet landing, and finding no one there, all of the men having gone out, he remained there a couple of hours. The Four-feet landing was about 100 yards below the Abergorky (seam).

**John Rees Williams**, assistant to Mr. William Thomas, said that he prepared the plan of the colliery from which the lithographs which had been handed to the jury were produced. It was copied from the working plan of the colliery. The plans were put all right up to within three weeks of the

accident. By Mr. Wales: - He was last down the pit about three weeks before the explosion. He had never seen a naked light anywhere in the North dip, except in the lamp station.

**Griffith Thomas**, manager of the Mardy Colliery, said that he had been manager there since October 1878, there were two shafts. No. 2 was the downcast and No. 1 the upcast. The depth of the downcast was nearly 280 yards, and depth of the upcast was the same to the Four-feet. They worked two seams from the upcast and three from the downcast. The witness then gave details as to the positions of the different seams. The colliery was ventilated by a Waddle fan. He reckoned to get 200,000 cubic feet of air a minute from it. The air was divided into eight splits in the No. 2 pit. The 200,000 cubic feet of air all came first to the Four-feet landing. Into the No. 1 something like 90,000 feet of gas went, so that there would be about 110,000 feet left for the other workings. There was about 600 men employed in the Four-feet, Six-feet, and 2 ft.-9 in. seams. He found that volume of air ample for the working of the colliery.

It was steam coal, and in some places gave off large quantities of gas. The colliery was rather dry and dusty. It was worked with safety lamps. On the main intakes up to the lamp stations they used naked lights. When they had been constructing an archway in the pit previous to the explosion they used safety lamps. There was a "comet" on the ground. He thought it was right to have a naked light there, so that the men might see overhanging stones. He was in there on the day of the explosion, the first thing in the morning. The "comet" was then just above the mortar. In the Stone drift they used only locked lamps. They did the repairing by night, and sent up very little coal. They had shots fired there by day or night, but especially by night.

By Mr. Simons: - He had tried for gas many times near the archway, where falls had been, but had never found any. By Mr. Liddell: - The ventilation was arranged as according to a plan of his own. He had been manager of the Cwmaman Colliery, which was adjoining. The same kind of coal was cut there as at the Mardy Colliery. Before that he was manager of a colliery in Carmarthenshire. It was anthracite coal in that colliery. The barometer was in the fan engine house. He had two overmen under him, who were responsible in his absence. They had been with him ever since he had been at the Mardy Colliery. They could both read and write. He went down into

the pit every day the first thing in the morning. The ventilation was measured monthly by his assistant, the book clerk. They had had blowers reported during the last 12 months, but there had been no heavy accumulations, and the men had not been withdrawn at all during that period. No naked lights would be used without his permission. He gave leave daily. On the day of the explosion his leave was asked, and he gave it. The lamps were locked in the lamp stations at the bottom of the pit by the fireman. The coal was very dusty. The dust was cleared out daily from some parts of the colliery, but there was no record kept of the different places as they were cleared. The dust was frequently watered. Experiments had recently been made showing that dust was a very dangerous element in coal mines. He had been present when shots were fired. They did not raise gas to any great extent. The inquest was then adjourned until today (Wednesday) at 12.30 p.m.

**Wednesday, January 13<sup>th</sup> 1886**

Conclusion of the Manager's evidence  
Examination of the day fireman – recognition of bravery

The inquest upon the bodies of the persons killed in the recent explosion at the Mardy Colliery was resumed on Wednesday at the Mardy Hotel assembly rooms, before Mr. T. Williams, coroner. The same persons appeared as well as Mr. William Abraham (Mabon) M. P., who was there to represent the men. The official evidence was again proceeded with.

Mr. Griffith Thomas, manager of the colliery, stated that the work at the arches was commenced about four months ago. They tested the cavities before the ventilating hole was made. He and the fireman consulted as to the permission to use naked lights. The permission he gave in regard to the arches was for those attending masons to use the "comet" on the ground, and not to take it higher than the lower stage. The fact that they made a ventilating hole proved the place to be dangerous, but he relied upon the airway for taking gas out of that location. There had been in that part no falls of any magnitude within three months of the accident. There were no cavities of any size between the arches and the pit bottom.

Witness was in the Stone heading within a week of the accident. There had been no trace of gas reported there. Prior to the explosion they had a

sheet put there to carry air up to the very top. The shot-man was David Edwards, who is alive. He had general authority. There was a fire in the air-pit going up to the Four-feet seam in March. There was a blower in the vicinity – 10 or 13 yards below – but the shot ignited some hay before it ignited the blower. The blower was so small that he thought it quite safe. He gave permission for the firing of the shot. Not more than 4 lbs. of cartridges were allowed to be taken down. Did not authorise any naked lights in the South-West heading. There were fixed naked lights between the partings and the pit bottom. The lamp-station in the North was about 770 yards from the pit bottom, but he was not certain without referring to the plan; that in the South-west was nearly 900 yards; in the Main-West 600 or 700; North east about 500, and South-east something similar.

Mr. Liddell remarked that Mr. Wales had added up the distances and made out that there were 2,680 yards of ground where naked lights might be used in this colliery, and in such a dusty and gaseous mine did not Mr. Thomas consider that a rather dangerous limit for the use of naked light? Witness: - “No, I do not.”

Mr. Liddell: - “Is it in accordance with your experience in south Wales?” Witness: - “I have seen them much further than that, even a mile, and always safe.” Mr. Liddell said the witness could not, of course, tell as to the safety, but again asked whether in a mine of this character, where, of course, in the heading there was a large amount of dust constantly found owing to the passage of trams to and fro, he did not consider it dangerous having 2,680 yards of the dusty part of the mine in which naked lights might be used?

Witness: - “I do not call it at all dangerous.” Proceeding, the witness said there were men employed in laying the dust. There were instructions given to render the place as safe as possible. Watering was done wherever necessary. It had been done ever since he went there as manager, and before. He had a barometer in his house, but, being in a hurry, did not look at it on the morning of the explosion. That was an oversight, he supposed. He had formed no theory as to the origin of the accident.

By Mr. Wales: - “Two shots were fired wherever required and it was safe. There was no place in the colliery that he had ever heard of as being unsafe

for firing when that was necessary.” By Mr. W. Abraham, M. P., witness said he went into the colliery on the morning of the explosion and visited the arches. The “comet” was then hanging on the post at the side, above the mortar. Did not have the “comet” in his hand. It was taken off the nail while he was there. The stage was about 6 ft. from the ground. There was a sheet on the “in-take” on the inside of those arches previous to the explosion. It was there while they were about the arches. There was only a part of a sheet there on the morning of the explosion. His attention was not called to any gas at the arches except after the explosion. Was not aware that the sheet had been moved at any time previous to the explosion in order to throw air up to the cavity. There was an extra sheet put on after the explosion in order to “sweeten” the Stone drift. The ordinary appliances were not sufficient to clear the gas that accumulated after the explosion. The explosion blew away the sheets.

In reply to the Foreman of the Jury (Mr. Thompson), witness said that one man employed at the arches at the time of the explosion was there from the beginning. Neither the men then employed there nor their predecessors ever complained of gas there. By Mr. Simons: - “After the explosion, and in consequence of it, there were several blowers and accumulations which I had never before seen.”

**Daniel Hellesy**, fanman, described what he heard and saw at the time of the explosion viz., a report and a cloud of dust. The explosion did not affect the revolutions of the fan.

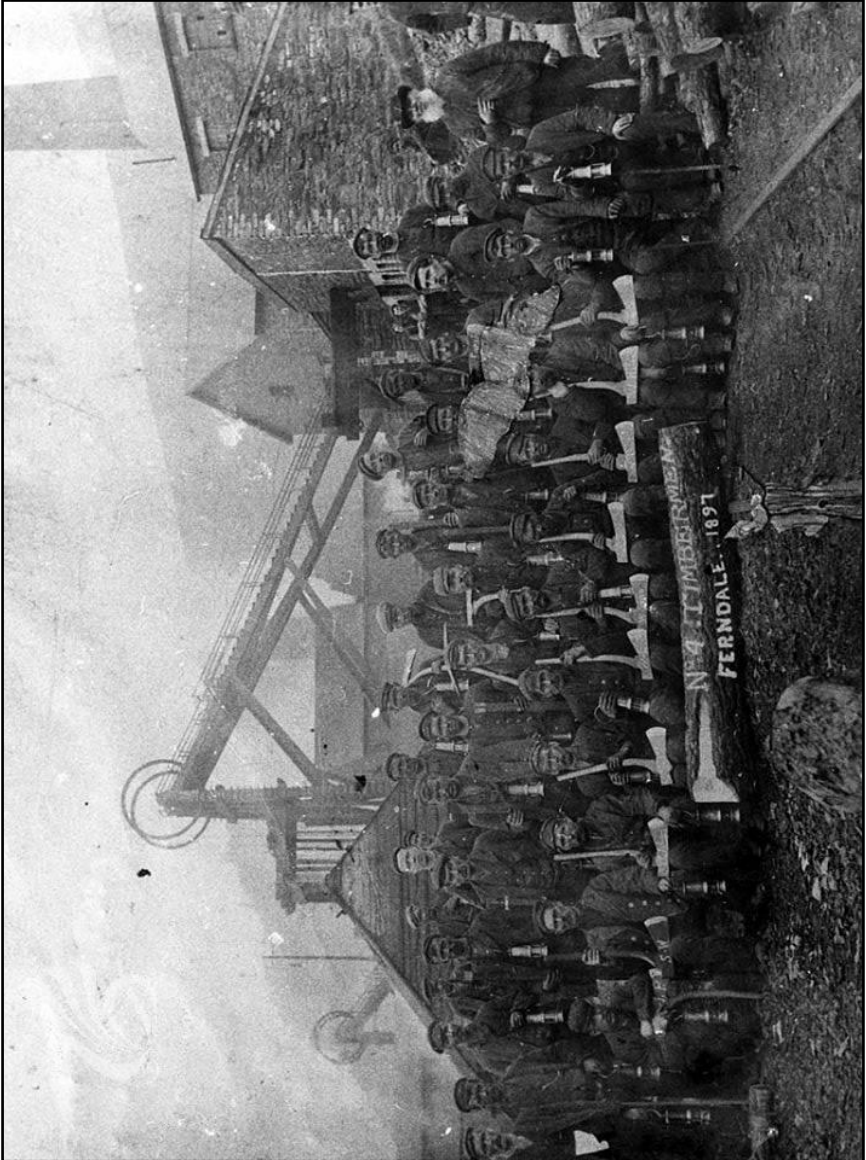
**David Edwards**, day fireman of the North-west district, who gave the greater portion of his evidence in Welsh, had occupied that position since two years last March. His district only included the North-west and four three-fourths in the South-west. (The report book was here handed in). An entry in the report book showed that they found a small blower in the first West level, off second North-west dip on the 19<sup>th</sup> of December, four days prior to the explosion, also in the fifth stall, first West dip, but without accumulation of gas. He frequently found more quantities of gas in different parts of the pit. When going around the pit he marked the places with chalk - the date - and, if unsafe, he put cross timbers there as well as a mark. He visited the North-west district on the morning of the explosion and found it safe. Shots were fired in the Drift dip - day and night. He fired

those during the day. Did not fire any shots on the morning of the day on which the explosion happened.

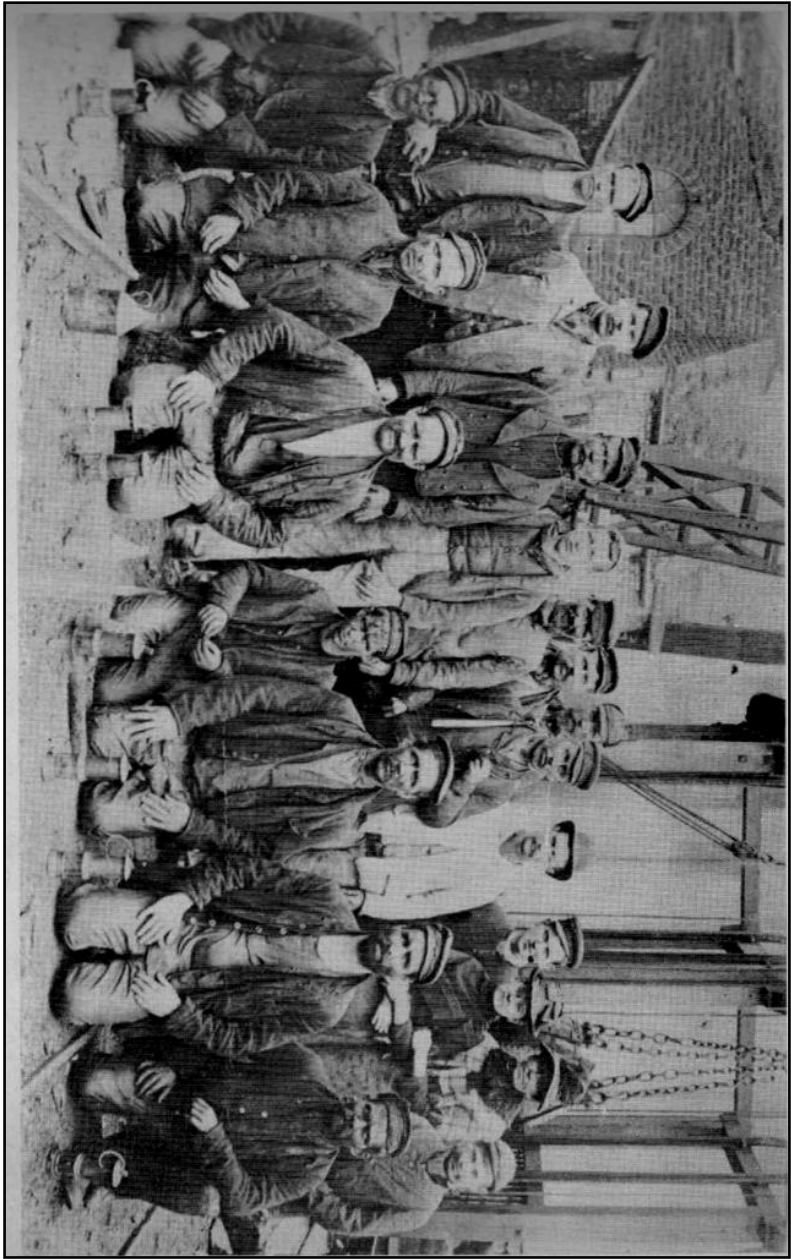
Was in the Stone dip about a quarter past eight. Noticed two holes there that had been fired. Did not see any other holes that had been prepared. He knew where the arching was. They had been at it four or five months. Examined the cavities in the holes above the arches. Never found any gas in the Stone drift. Then, as to the arches, he examined them by reaching up a lamp on a stick. The stick was left at that spot for the night fireman. The airway was put there ready before there would be any gas. That was done as a precaution. This was done because it was high, and those were places in which gas would be likely to accumulate. There was a piece of a sheet used there. The men used a naked light on the ground there. Did not see it alight, but it was on the ground. The masons and the labourers at the arch in the North-west dip used locked lamps – those working up in the arch.

Had the permission of the manager to use a “comet” there also. Would not have done it without his instructions. Had found gas in that arch after the explosion – about a week later. Before firing a shot he examined the place with a safety lamp to see if it was safe, and sometimes watered it, but could not say whether he had done the latter six times during the last year. The overman had charge of the watering as a rule, but he (witness) did it in the absence of the overman sometimes. Gave assistance to the overman, that was when he asked for it. There were not two shots a day fired; they put down one.

By Mr. Simons: - For some days before the explosion there had been a ladder for use in the cavity above the arches. He used it on the morning of the explosion. There had been “dribbling” there about the day of the explosion and the rubbish had to be cleared. Found no gas in the airway or the packing above it. There was a tram of rubbish in the Stone heading at the time of the explosion. No one had a right to fire a shot there in the day time except himself. He gave no permission, and knew of no preparations for it. There was a hole there now. The black of the powder would be found even in the stump of a hole. Had found new hole in the facing of the Hard heading. It had never been fired. Had only seen it since the explosion. It had not been fired, for it was not blackened with powder.



**This fabulous picture of the timbermen of No.4 Ferndale pit shows what a hard and dirty job working in the mines was.**



Rhondda Valley colliers C.1880

It was up a hole in the top. When the hole was fired he and the other firemen withdrew the men into a place of safety. When the explosion occurred he (witness) was in the face of that heading. Noticed a change in the air, which indicated that something had occurred. He gathered the men from the district and turned down to the four doors. Came across the straight into the stables, and found the doors blown in. Close to the return there was a horse and a tram. The horse was suffocated. Found he could not go up the in-take. He then retired with the men into the return, and took them to the main door, where he left them safely. Told some of the men to follow the incline and go up. Then went back. His son lost his life. Remained in the bottom district until he saw every man come out alive that could. Went to the other side and found the men coming out. Eventually, all he thought were alive were sent out. Five or six men came after. The main door was just outside the arches. He afterwards met Mr. Thomas and went to the surface.

Mr. Simons: - "I think it well for you to know this man's cold courage under the circumstances." The witness continued: - "The four doors in the return had been blown down." On his way he passed Phillip Richards, who was failing, and had to leave him there to die. Before witness got to the lamp station the return had begun to be very foul. Had remained in the foul air for some hours. Had found the men dead at the arching before that.

He (witness) was the first to go down the intake to the arching after the explosion, and saw some of the bodies there. Saw also a ladder there by a heap of mortar. It was standing, not knocked down. The ladder was also in its position. The woodwork, timbering, and packing were all in the same condition as in the morning. There was no fall in or dribblings from the cavity. There was only some dust there. There were three or four bodies this side of the place where the persons were working, and two or three on the other side.

Some of the timbers leaning towards the pit were in the same position as before the explosion. The borer of the hole in the roof was found afterwards close to the hole. There was a powder can also close by. No borer could have fired a shot with the powder can close by. In reply to Mr. Abraham, the witness said that perhaps three months previous to the explosion he found some trace of gas in the cavity, but was certain he was

aware of no sheet having been put up there to clear the gas. He tried it three times on the day he now referred to, and the first time it showed a blue cap, but the second or third time he tried it there was none. By the coroner: - He did not find the "Comet" at the arch after the explosion. Did not think it had been found.

By Mr. Liddell: - "The 'comet' was used in the roadway underneath where the trace of gas was found, but when the rules to naked lights being used within three months after the discovery of an accumulation of gas was pointed out to him the witness remarked that this was not an accumulation. The dust was watered with a bucket, and sometimes they had a cask. It was the overman's duty to see to the laying of the dust, but he assisted occasionally, removed the dust from the headings every day. By Mr. Wales: - "The dust in the unfired hole was white." Mr. Wales said that he had examined it himself and could find no difference between that and that of the other holes. By Foreman: - "The stick used to put the lamp in the cavity was about two yards long, and enabled him to reach the top. The inquest was then adjourned until Thursday.

#### **Thursday, January 14<sup>th</sup> 1886**

The adjourned inquest – Further important evidence

The inquest into the circumstances attending the deaths of the persons killed by the recent explosion at the Mardy Colliery was continued on Thursday morning at the Mardy Hotel assembly rooms before Mr. T. Williams, coroner. Mr. A. G. C. Liddell, barrister, appeared for the Home Office; Mr. W. Simons, solicitor, Merthyr, appeared for the colliery owners; and Mr. William Abraham M.P., appeared on behalf of the workmen. Amongst those present, besides those connected with the colliery were Mr. W. Jenkins, General Manager of the Ocean Collieries; Mr. H. Kirkhouse, Mr. D. Evans, Bodringallt, &co.

The evidence to be adduced on Thursday was that of a night fireman, a workman who was engaged in the hard heading on the night before the explosion, the manager, who was recalled, and some other officials, and it was intimated the testimony of persons who found the bodies would then be taken. A considerable amount of the men's evidence was interpreted from Welsh into English by Mr. William Abraham, M. P., whose practical

acquaintance with mining terms and idioms of the Cambrian tongue proved useful. Inspector Jones also interpreted some of the evidence. As will be noticed, a good deal of cross-examination goes to try to elicit information in regard to the shot-firing and coal-dust theories. There were a number of workmen present during the afternoon and evening.

#### Evidence of the night fireman

**John Thomas**, night fireman in the North-west dip district, and South-east, said he found gas in the North-west district sometimes. He found a small blower in the face of No. 1 road West district the night before the explosion. It was in the level. "Saw a little in the face of the 10<sup>th</sup> stall, first South-east heading, and North-west district. Made the last examination previous to the explosion on the night before. (Report put in). There was no accumulation of gas. Had found a small blower in the first West district before. It had been there several nights. Appliances had been put there to clear it. It had been there about a week or more. We put some iron pipes on to it. This was the same that he saw the night before the explosion. There are only two roadways worked there – both were "on stop," then. They had both been stopped about a week before the explosion. One was in advance of the other."

"There was an air-hole from one to the other, with canvas pipes connecting them. The reason they had stopped, he believed, was that the coal was too poor, but he did not ask the manager. They had been shut up by cross timbers beyond the crossing from the one to the other – not at the entrance into the dip. They were on the two levels. One was close to the pointers, and the other beyond the crossing.

There was no accumulation of gas there. There was a small blower. Found gas in the first West on the parting of the fourth stall. It was not there when he examined it the night previous to the explosion, because a night or two before they had put up a sheet to clear it away. On the 20<sup>th</sup> of December he reported a blower at the fifth heading, first West dip. That is the one just referred to. Examined the Stone drift. Found no gas there. He was there the night before the explosion. There was none there then. Fired shots that night. Did not remember how many. Did not know when, but when they were ready. Fired one when he went down at night. There

was not much rubbish to come down there. There was only a little bit to come away. Believed he fired four holes. Four trams of rubbish, he believed, went out that night altogether. There was a little rubbish left behind for the day men.

Examined the place where they were making the big arch. Did not find any gas there at all. Went to the top of the ladder. That place was high to reach. Could not reach the top, but could reach within a foot of the top with the aid of a long stick. According to his judgement it reached within a foot of the top. The stick was kept there for the purpose. There was no gas there the night before the explosion. The men did not work at night at the arches, except two unloading stones at the bottom – nobody on the arch. He had instructions to fill the coal-dust continually. There were no special men or times for removing the coal-dust. He fired the shots at night in his district, as many as there were. Looked as if the place was safe. Satisfied himself by seeing if there was gas, and, watering the dust, if there were any. Believe he fired shots that night in the stalls – in the North-west – could not say where without the book.

This was in cutting top – not in the coal. Used one cask of water that night – down on the No. 2 dip, he believed. Used the water to dampen the dust. Water was brought by the haulier, John Hopkins. Saw him at the parting. It was a common thing to bring water down. The cask was brought down in the first journey of empties, as usual. Applied the water himself with a bucket. Fired shots; sometime one of two a night; sometimes three or four. Used water as was necessary; could not say how many times a night. Used it sometimes, when necessary; but it was not often necessary to use it in the stalls, and did not use it except when required. The place was kept soft.”

By Mr. Simons: - “The dust was always removed when necessary, men were appointed some days to do it. The overman gave orders, and I picked the men.” By Mr. Abraham: - “There was a sheet at the archways always. It was a whole sheet, but did not reach within three foot of the ground. Their area over the arch is 14 yards in length. The distance from where the masons worked to the place where the air-way leads into the heading is 14 yards. Knew some of them who attended the masons. Knew Scourfield. Did not know anyone else who was there on the day of the explosion. They

used locked lamps. There was a “comet” on the ground. It was usually suspended on a nail. It was in a moveable position.”

Mr. Abraham: - “What class of men were these labourers attending the masons – were they practical men?” Witness: - “I can’t say. I was in bed. The only one I knew was a labourer.”

Continuing, witness said in answering Mr. Liddell: - “Only commenced these duties in July last. Was previously a repairer in this pit. The permission to use a naked light between the pit bottom and the lamp station at night must be obtained from him.

Gave permission to anyone going to the first West level to use a light, except the ‘comet’ for loading and unloading stones. Had never seen the ‘comet’ beyond the first West level. Had never seen a naked light beyond that point, nor unlocked lamps beyond the first West level and the lamp station, except the two riders. They used a Mueller (lamp) without a tube - unlocked. When the west workings were stopped pipes were not removed.

Looked over the report book to see if the day fireman reported gas, and wrote down what he saw himself. There were no masons on the arch the night before the explosion, but the men unloading stones had a “comet” behind them. Every time he saw it, it was on the post. In the hard heading there was no dust in the face. The night before the explosion there was a tin of cartridges with the men. They had removed it back when he was there to get more powder. They took it home night and morning. Did not know whether they used all powder.”

By Mr. Wales: - “Fired shots with saltpetre paper when there were two holes, and with wire when only one. Always used a Davy lamp.” By Mr. Liddell: - “The tram in the hard heading was, he believed, nearly full when he left. Was there about half-past four a.m. This was when he fired one shot. He had first fired three others at different times. Could say if a hole had been blown out. One would have black dust in it and the other white. A hole in blowing out made much dust. Not many sparks were usually seen. Some of the holes were upwards and some were downwards.”

By Mr. Wales: - "A blown out hole usually raises more dust than one properly fired. Could not describe the reason."

By Mr. Randell: - "Boring a two-foot hole would not take more than two hours. A tram of rubbish would be filled in half an hour." By foreman: - "Have never found any matches or waste in this district. Had not reported men to the manager for an infraction of the rules." By a juror: - "The 'comet' was lighted and brought down the pit every night. If the light went out they lighted it with their lamps."

Mr. Griffith Thomas re-called

Mr. Griffith Thomas, the manager, recalled and examined by Mr. Liddell: - The pipe to clear the gas found was put up after the air-way at the top of the arch. There were appliances always put on to clear an accumulation of gas. The sheet having been blown away by the explosion, and the place having been left alone until the inspectors came, there was an accumulation. The pipe was put on extra to clear this trace. They carried naked lights as far as the lamp-station, and, as a rule, no naked lights were taken past the first West level. There were unlocked lamps taken, and for splicing ropes they sometimes used a naked light. The blower from there was so small that he did not consider it at all dangerous. The fireman did not tell him that a trace of gas had been found at the arches."

By Mr. Abraham: - "It was because the ventilating arrangements had been interfered with by the explosion that this trace of gas was found. Had restored the old arrangement before the men's examiners discovered the trace of gas." Mr. Liddell: - "If the ordinary arrangement was restored, why was the pipe necessary?" Mr. Thomas: - "Because the sheet had been blown down. It did not affect this corner." Mr. Liddell: - "Then, I take it, it did not touch that corner before?" Mr. Thomas: - "I cannot say as to that."

**Ebenezer Davies**, now a miner, said he worked in the hard heading in the Mardy Colliery for about two months prior to the explosion. Never saw gas there. By Mr. Liddell: - "They did not leave their powder canister in the pit" By Mr. Wales: - "Did not leave holes for the next shift to fire." Taliesin Richards, book-clerk, proved the signatures to the special reports of the workmen after the explosion.

## Evidence of another fireman

**William Jones**, a night fireman in the South-west at the time of the explosion, said that on the night before the explosion he found a small blower in No. 1 stall, No. 5 dip. He spoke of finding some of the bodies in the pit. Fired shots, sometimes, but not very often, because it was unnecessary. Previous to firing shots he examined the heading for gas, and threw water on the dust when there was any. Cleared the roads generally on Saturday nights. He went down the pit soon after the explosion with the manager and others. He then described the finding of some of the bodies.

By Liddell: - "The riders were allowed to use unlocked lamps between the double-parting and the lamp station on the South-west level. The hauliers could not keep the tops of the lamps off, for the air would blow the light out. Mr. Wales: - "Then I cannot see the utility of the unlocked lamps." Ebenezer Davies recalled, said he had that day visited the colliery, and noticed no difference except there was a fresh uncharged hole." By Mr. Liddell: - Believed it had not fired because it had not been scorched.

## The evidence of the foreman

**Edward Edwards**, foreman of the shift working in the Stone drift on the night before the explosion, said he had been there that day. Found very little difference. The hole ready for charging and that he saw it had not been fired.

## Evidence of men who suffered

**Thomas Thomas**, the master haulier, said he was knocked senseless by the explosion. He saw no flame. **William Evans**, check-weigher, said the men's examiners' report dated 22<sup>nd</sup> of December was written by him. It was the regular monthly report. **John Williams**, roadman, was about 300 yards from the bottom of the pit, on the Aberdare side, at the time of the explosion. A puff blew him against the rib. He was on the East level. He crept along to the bottom of the pit. **Benjamin Jeremiah**, fireman in the main West district, did not feel the explosion at all. Was in the face of No. 1

heading, off the the main West. Saw some of the bodies in the No. 2 South before they were removed.

**Benjamin Lewis**, collier, Mardy, was in the pit on the day of the explosion in the North-west heading. Had been in two previous explosions, and noticed a shaking and ringing in his ears, he thought the pit had fired. Made his way to the bottom of the pit. There were no flames there then. Saw one dead body – could not say who it was. Went into the “gaffer’s” little cabin and put the fire out, and put the books &co. in water. By Mr. Simons: - Saw the fireman give a light near the arch to a man at the arches. He afterwards locked the lamp. Did not see a ‘comet’ there. This was about half-past 8 o’clock. By Mr. Abraham: - “Did not notice if the masons had a large light or a small one. It was not true that he had told other people he saw a naked light. Was certain he did not say that, unless someone asked him before he had fully recovered. He was unwell for hours. The inquiry was then adjourned until Friday.

### **Friday January 15<sup>th</sup> 1886**

Evidence of Mr. W. Thomas, Brynawel – important testimony

The inquest into the circumstances attending the deaths of the persons killed by the recent explosion at the Mardy Colliery was continued on Friday morning at the Mardy Hotel assembly rooms before Mr. T. Williams, coroner. Mr. A. G. C. Liddell, barrister, appeared for the Home Office; Mr. W. Simons, solicitor, Merthyr, appeared for the colliery owners; and Mr. William Abraham M.P., appeared on behalf of the workmen.

The evidence on Friday would of undeniable importance and the statements in regard to the coal dust theory will be read with interest. In relating the events immediately after the explosion – such as the finding of the bodies at the pit bottom – Mr. W. Thomas, Brynawel, was deeply affected. His evidence was, however, given with admirable clearness. The testimony of some of the workmen was interpreted again by Mr. William Abraham M. P., and Inspector Jones. It may be mentioned that some of the jury, who were working colliers, asked to visit the hard heading and other parts of the colliery. Permission was immediately granted, and these jurors will now visit the pit on Saturday.

**John Jones Lloyd**, repairer at Mardy Colliery, knew where the arching was going on. He worked there for six months, and went away on the Saturday before the explosion. There was a "comet" there on the ground. He never saw gas there. He always went up before the men to see if the place was right. He never saw a lamp full there. By Mr. Liddell: - He was not examining the place for gas, but simply to see if it was safe for the workmen. He went up with a locked lamp. By Mr. Abraham: - He was with the masons when they commenced the arches. When they were working in the daytime he was always with them. The masons never failed to work for one minute owing to gas.

**Richard Davies**, Haulier in the Mardy Pit, said he was there on the day of the explosion. He was on the double-parting in the Rhondda side on a journey – by the lamp station. He saw nothing but was knocked down and burnt. He saw a flame, but could not say the direction whence it came from. He fancied it came from the direction of the pit. There were five of them together at that spot. He walked out between two. By Mr. Liddell: - Before being knocked down he smelt some dust, but felt no inconvenience in breathing from it.

**Daniel Howells**, collier, was working in the face of the work, No. 9 dip, West side, main West level. He felt a stoppage of air. He told his boys to dress up, and went to the door at the back of No. 8 dip. He smelled sulphur and dust in the double-parting, but after a time the air cleared a bit, and he had no difficulty in getting to the downcast pit along the West level. He saw a lot of people on the double-parting on the downcast under the pit. He came to the fall and heard David James cry out for help from under the tubs. He went to him and found him alive under one of the tubs, held fast by his leg. He was badly burnt, but not dead. James was a rider. He died on the Friday night. Witness saw others he did not know, and one with coal blown over him.

By Mr. William Abraham: - He saw the rope changer, William Williams, in a manhole. He said, "Dear, dear, the fire is coming up from the North dip." Witness told Williams to remain there and they would take him away as soon as they could. By Mr. Liddell: - The lodge was burning in the "back slum."

**Llewellyn Pritchard**, repairer, was not in the pit on the day of the explosion, but went early afterwards with Mr. W. Thomas, Brynawel and Mr. G. Thomas down the upcast. The top of the upcast was not damaged. He went to the lower seam first and found all right there. He then went up to the four-feet. He did not see any men on the landing. He went to the intake and found the separations doors blown down. Mr. Thomas, Brynawel, and Mr. G. Thomas consulted, and they put up a canvas. He then went along the No. 2 main road, along the South-west heading. There were large falls in the South-west heading, and timbers blown out. So far as he noticed, they appeared to have been blown in the the direction in which the air was travelling. He got over the falls, and to within 30 or 40 yards of the double-parting, where there was a large fall, over which they could not get, and had to return for help and tools. He and several others got to the lamp station by going through the return. He then saw several bodies. The double doors beyond the lamp station were blown down towards the return.

**James Miles**, overman of the No. 1` pit bottom coal, said: - After the explosions he went into the workings of district No. 2 South, and afterwards to the North-west dip. He went with William Davies, fireman into No. 1 pit, up the Stone drift. He knew the men working in the Stone drift, and found them there, all dead. There was a tram in the face, and the body of Edward Edwards Jnr., outside it. The others were within a few yards. It might have been about 5 o'clock then. There was no smell of powder there. By Mr. Simons: - "William Davies was carrying the light. Edward Edwards were a very careful, steady man of long experience." By Mr. Liddell: - He saw some clothes at the entrance to the heading. They were slightly burnt. He saw three or four drills in the face of the heading. He saw no traces of fire on the tram, but did not examine it then. There was not much dust there. By Mr. Wales: - He could not tell how many trams were in the heading. There were some bodies on the inner side of the trams. By the coroner: - There were clothes in the heading, but they were not burnt.

**David Edwards** recalled, described the position in which other bodies were found. By Mr. Liddell: - The timbering was blown towards the pit. There was no gas in the arches on the morning of the day on which the workmen's examiners found gas there. A small blower having been seen in the first west level for a week, he would still consider it practically safe to

fire shots in the hard heading, because the distance – 130 yards – was sufficient. There would be men working in the North-west dip district when the blasting was going on.

By Mr. Wales: - Authority to fire shots in a particular district was obtained from the manager. But in the day-time he was only authorised to fire in the Stone drift. By Mr. Liddell: - He must have authority before he could fire a shot in any new place in his own district.

**William Williams**, collier, deposed to signing the workmen's report. The "amended working" report written by Mr. William Evans, checkweigher, was the the same in substance, and the addition it contained as to there being "No accumulations" was quite right. **John Davies**, collier, examined the North dip workings on the Thursday after the explosion, and also on the 2<sup>nd</sup> of January. (Report put in). In reply to Mr. Abraham, witness said he saw gas in one place, and estimated its volume to have been about 3 foot wide by 4 to 5 yards long and about 4 foot high.

**Mr. W. Thomas**, Brynawel, the consulting engineer and agent, said the seam was reached in 1879, and the workings were laid out under his directions. He was satisfied with the working arrangements. He did not think the lamp stations were in any case too far removed from the bottom of the shaft. Between the bottom of the pit and the lamp stations, under certain circumstances, lamps were used with his permission. He was aware that blasting operations were carried on, amongst other places, in the Stone drift. They also met with his approval. It could not be avoided; they could not work the Stone drift without. He was aware that the men were in the mine when shots were fired. He appointed Griffith Thomas manager just at the start. Witness visited the colliery on an average of once a week, but scarcely a day went over without his having a consultation with the manager, and sometimes with the overman by telephone. The four-foot seam was steam coal. It was dusty. He was at the colliery on the day of the explosion and the day before, he had not been down since. When he was down last before the explosion everything seemed to be in order. He never saw it better.

When the explosion happened he was in the lamp-room, close by the top of the pit. He went down, and first through the South-west. Mr. Griffith

Thomas and Llewellyn Pritchard were with him. He sent Pritchard back for canvas, and left Mr. Thomas to fill up with whatever he could. He went down the main West, there found some men, who assured him the main West was all safe. He made his way to the pit bottom, where he saw the blocking engine-house in flames. He called for help to put the fire out, and men came, who beat it out with their jackets. He went to the pit bottom, and there found several dead bodies. He afterwards went along and found bodies and portions of bodies. Subsequently he got some of the injured out. Since then he had been around the North-west dips, South-west heading, and the East, and was satisfied that the effects of the explosion were at those points. It was chiefly in the pit and at the pit bottom – in the North-west dips, South-west heading, and, slightly in the East. He was satisfied that there were flames at the bottom of the pit near the arches, but as to whether the hot air would be sufficient to scorch the men he was not scientific enough to give an opinion. The principal falls were just outside the South-west double-parting. There were several others on the North-west. They were all outside the arching.

#### The coal-dust theory – The use of tobacco

Replying to the coroner's question as to whether he had formed an opinion as to the focus of the explosion, Mr. Thomas said that he had not been able to form one satisfactory to himself. He was totally unable to make up his mind. If he could possibly satisfy himself that there was gas anywhere in the neighbourhood of the pit bottom he would not have had the slightest hesitation in coming to the conclusion that it occurred there, but he had no evidence of the existence of gas there. The coroner: - "Then, with the evidence we have, you are unable to form an opinion?" Witness: - "Yes I am."

Then, proceeding, in reply to the coroner, the witness said he was satisfied that coal dust played an important part in explosion. He was more than ever convinced of that. By Mr. Simons; - "There was nothing in the general rules or special rules to regulate the distance of lamp-stations from the pit bottom, nor to prevent the use of naked lights between the lamp-station\* and the pit bottom; but they did as little as they could of it. The sites of the lamp-stations were regulated by such considerations as convenience, and also the use of tobacco by the workmen. By placing the lamp-stations in a

place where the men could go to smoke it prevented them going to out of the way places to smoke.

\* 'General' rules were those drawn up by the latest coal mines act, while 'special' rules were made up by officers at individual collieries that had to be approved by Mines Inspectors.

The coroner: - "Then tobacco has an influence on the fixing of lamp stations?" Witness: "It has with me." By Mr. Simons: - He never lost more than one life by explosions before in collieries in which he was connected. Mr. Abraham: - "Having regard to the effects of coal dust in explosions, do you think it would be well that in all steam coal collieries there should be a periodical and systematic water of sides, roofs, and doors?" Mr. Thomas: - "I would say this, if you will allow me to add to it, I think a great deal more of coal dust and its effects now than I did before." Mr. Abraham: - "You are of that opinion now?" Mr. Thomas: "I am of the opinion that it is necessary to water." Mr. Abraham: - "Periodically and systematically?" Mr. Thomas: - "It would be a very difficult thing to do, but something will have to be done."

By Mr. Liddell: - "There was no machinery for the purpose. Having regard to blowers, it was advisable to have a short distance only for allowing naked lamps to travel, having regard to the general safety of the men under his charge, he thought the lamp stations were best where they were. The man acting as a labourer was an experienced man. He considered the Stone heading a safe place in which to fire shots. In that case the "part of the mine" from which men should be withdrawn would be, in his opinion, the hard heading. He would not fire a shot in any mine unless he considered that it was absolutely necessary. He agreed with the other witnesses that an unexpended shot was likely to mark the hole.

In reply to Mr. Wales, the witness did not say the explosion was due to coal dust. He did not know what to attribute it too. He had had correspondence with Mr. Wales upon the question of lamp stations in another colliery, and they disagreed. By the foreman: - He thought teaching his colliery rules to the schools of the district would be a very good thing. He would not advocate inspectors of mines being appointed from among working men. He looked upon an inspector just as a captain in the army looked on his

general; he should like him to be a man he would have confidence in, both in his practical and theoretical knowledge. He wished to goodness the day would come when there would be an inspector for every pit; it would give him and others great assistance. The inquest was then formerly adjourned until Monday.

### **Monday, January 18<sup>th</sup>**

#### Important evidence of experts – The origin of the explosion

The inquiry into the circumstances connected with the recent explosion at the Mardy Colliery was continued on Monday at the Mardy Hotel before Mr. T. Williams, coroner. The same representatives were there and the largest attendance of the general public than on any previous day. The evidence was almost entirely that of “experts” and officials, and never before was the coal dust theory so fully admitted in evidence to have been the principal destructive agent in an explosion in a South Wales colliery. It is evident that those connected with a large steam coal colliery have obtained new, or at all events, additional light upon the subject through this sad catastrophe.

#### Re-examination of Mr. William Thomas

Mr. W. Thomas Brynawel, recalled by Mr. Simons: - “The indications of the explosion were inwards from the pit.” By Mr. Liddell: - “That would be contrary to the statement by one of the witnesses that a man, since dead, had told him the fire came from the North-west dip. The man referred to was found near the pit bottom, and it would have been impossible for him to know where the fire came from.” He had a very great objection to give out safety lamps except in the charge of some person. He had never seen Davy lamps hung to light the roadway in a pit. Coal frequently cracked in the faces, both from gas and pressure – pressure chiefly.

#### Evidence of Mr. David Evans

**Mr. David Evans**, Bodringallt, colliery agent for Mr. D. Davies & Sons, the owners of several steam coal collieries, said he knew Mardy Colliery. Was down there on the day of the explosion after the explosion. He heard of it at Ferndale, and went underground about 5 o’clock. Had not formed an

opinion as to where the explosion originated. He went over the workings with a desire to find out on the following day and on the Saturday following. He went each day to the hard heading, and saw the shot-hole that had been bored. In his opinion it had never been charged. Saw a tin of powder there, some tools, and a tram. In his opinion coal-dust was the principal element in the explosion. He fully appreciated the dangerous character of coal-dust, and tried to guard against it by watering. Used a cask sometimes. He believed the lamp stations in the districts affected by the explosion were in safe positions.

By Mr. Simons: - The character of, and appliances at the colliery were very satisfactory. The general character of the colliery must have been very good, or they would not have been able to travel the distance they did so soon after the explosion. There were "blowers," big or little, constantly coming off, and, so they were diluted, and the colliery was considered safe. By Mr. Abraham: - In his opinion, it was necessary for every steam coal colliery to be systematically and periodically watered. By the coroner: - He had heard of a machine for watering, but he had also heard that it was not practical because of the hose clogging.

The witness added that he thought watering the floors sufficient without watering the roof and sides. By Mr. Liddell: - Did not think every occasion on which there was a blue cap on the lamp should be reported in the book; not if it was only occasioned by a jet. In collieries in which he was connected the ventilation was measured oftener than once a month – sometimes by the manager and sometimes by the deputy. He considered it quite safe to allow it to be done by a deputy. He thought it perfectly safe to allow the use of the "comet" below the arches, but would not think it safe to take it above the current of the in-take. Did not think it at all risky to hang safety lamps on engine planes. By Mr. Wales; - The practice with regard to shot-firing at the Ferndale Collieries was similar to that at Mardy.

The foreman of the jury: - "Would it be advisable, in your opinion, to appoint a number of sub-inspectors from the more intelligent class of colliers, who should be required to pass an examination as difficult, if you like, all less difficult, than that to prepare for a colliery manager's certificate, to act under the direction of the senior inspectors, as to secure a more constant and regular examination of the collieries?"

Witness: - "I should not object, personally, to having in inspectors every day, but I should like to have as inspectors such men as could give me information. I should not like them to be men that knew less than myself. If superior men were appointed I should be very glad.

Mr. William Jenkins in the witness box

**Mr. W. Jenkins**, agent of the Ocean Collieries Co., said that they had five collieries. He visited the Mardy pit the morning after the explosion. He formed no opinion as to where the explosion originated, further than that it must have originated in the in-take somewhere. The effects, as far as any force was concerned, were confined to the in-takes of the colliery and the down-cast shaft. His opinion was that coal-dust must have had a good deal to do with it; that is, small coal lying on the roads. It had a great deal to do with it, if not wholly. He considered that systematic watering was necessary. At the Ocean Collieries they would probably deal with this in a different manner in future, though they watered now.

By Mr. Simons: - Mardy was a very well laid out colliery; skilfully designed, and well found. Most of the ventilation crosses were through hard ground. By Mr. Liddell: - Did not think it was dangerous just to authorise the use of a "comet" in the road beneath the arches. He thought the ventilating holes above the arches are sufficient to take away the gas.

The managers at the Ocean Collieries made their own monthly measurements of the air, but they had a book-clerk with them. By Mr. Wales: - When shot-firing they withdrew the men to a place of safety, but not out of the pit. By Mr. Abraham: - They were withdrawn from the part of the mine in which the shot was fired. The coroner said that it had been decided that the men must be taken out of the mine altogether.

Evidence of Mr. Kirkhouse – The coal-dust theory

**Mr. Herbert Kirkhouse**, mining engineer, colliery agent, and colliery shareholder, said that at present he was connected with only one colliery – Tylorstown – but acted as consulting engineer to others. He had never been down the Mardy Pit before the explosion. Went down about 5 o'clock

on the day of the explosion. Travelled through the South-west side, with Mr. Evans and Mr. William Thomas, looking for men. Subsequently travelled through all the districts affected by the explosion. Could come to no definite conclusion as to where the explosion originated. It was confined to the in-takes generally. The principal destruction element of the explosion was coal-dust. He considered coal-dust a most dangerous element in coal mines, and he was of the opinion that steam coal collieries should be periodically and systematically watered.

He thought the sites of the lamp stations were perfectly safe and well selected. He considered it quite prudent and safe to use "comet" on the pit side of the arches in the roadway, especially when there was no gas above the arches. The conclusion he came to was that the force of the explosion was, in all instances, from the pit. There was very little indication of a very great blast down the North-west dip. The ventilation was ample.

By Mr. Simons: - Could not say whether the explosion could be attributed to gas; the principal agent was coal-dust. A blower, was, if diluted, not a dangerous thing. The greatest danger, he thought, was from the ventilation containing an undue quantity of gas. By Mr. Abraham: - Having regard to the size of the falls, he still considered it was a small blast. Neither of the falls had much room for gas. He thought, even with a possibility of gas coming down with the fall, it was safe to use a "comet." If he knew a fall was going to happen, and a large issue of gas, he would not have authorised the use of a "comet."

By Mr. Liddell: - The nearest fall was 176 yards from the arches. He would not have authorised the use of the comet under the arches higher than a chair for the loading of trams or something of that kind. It was not likely men would have been allowed by their fellow workmen to take the comet into the arch. Men were very particular, for their own sake, in this district. He had no theory as to how the coal-dust in this colliery was ignited.

The main west level had very less dust than the other part of the pit. The indications of the blast were slighter in the main East than in some others, and that was a moister place. He thought it would be found that men were more burnt at the tail end of the explosion than where it started. By Mr.

Wales: - There was not a third of shot-firing here than there were in other collieries.

#### Mr. Galloway's evidence

Mr. William Galloway, mining engineer, residing at Penarth, had been connected with collieries in this district for about ten years, and had formerly been Assistant Inspector of Mines. The whole question of explosions in collieries had engaged his attention very seriously for about 15 years. Some experiments he had made showed that the flame was propagated through a mixture of coal-dust and air simply, with the pressure of any fire-damp. Had been conducting experiments for the Royal Commission on Accidents in Mines during the last six months. He knew the Mardy Colliery only from a short visit that he paid it on the fourth of January. Went through that section of the colliery over which the explosion had extended. He was accompanied by Mr. W. Thomas, Mr. G. Thomas, and Mr. E. W. Randell. The explosion was entirely confined to certain sections of the main West levels, North-west dips, and South-west headings, all in the intake headings.

The flame travelled 4,510 feet – altogether about a mile in length, besides excursions to some side places. Fire-damp could not have played more than a very subordinate part in the explosion, and he instanced by way of illustration experiments he had made, in which gas and air covering only 10 of 15 feet had ignited coal-dust, which carried the flame for over 1,000 feet. In the present case he thought there was a flame of larger or smaller extent somewhere above the arches. On the day of the explosion he had come to the conclusion that the roof of this cavity was uneasy and threatening, and the men were unable to work there continuously. The ignition of gas here would account for what took place. The somewhat erratic watering carried on was the means of confining the explosion to its limits. By the coroner: - The statement that the roof of the arches became uneasy was an opinion he had formed. The force of the explosion would not show itself so much where it ignited as further on.

#### Examination by Mr. William Abraham M. P.

Mr. Abraham: - "Seeing that Mr. Galloway has found by experiments that a flame has been propagated by coal-dust and the volume of air, would that

not show that any naked light in a steam coal colliery is dangerous.” Witness: - “No, you cannot get an explosion of coal-dust and air without some violent disturbing cause. A small naked light would not do it.” Mr. Abraham; - “A comet, would that do it?” Witness: - “No, without a large mixture of gas and air. It would take one per cent of gas, at least, to render the coal-dust explosive.” By Mr. Randall: - “There would be no ‘cap’ on the lamp.” By Mr. Wales: - “The flame from a blown out shot would travel 8 or 10 foot. An open lamp would not fire coal-dust without the presence of gas and a large flame, depending upon the quality of the coal-dust.” By the coroner: - “There would be a great deal of coal-dust necessary to carry the flame. It could not be obtained without the force of a blown-out shot or a fall, or something of the kind.”

#### Evidence of Mr. E. W. Randall

**Mr. E. W. Randall**, Assistant Inspector of Mines, said the Mardy Colliery was well laid out and well ventilated. He believed the explosion occurred at the arches. Believed coal-dust played an important part in it. Would have preferred the lamp stations being at the top of the pit, though that would be difficult. By Mr. Simons: - Had not made any recommendation respecting the lamp stations. Did not think the bore-hole in the hard heading had been shot. By Mr. Abraham: - He would not have used a comet light where there was a large opening in the roof. If a person took the comet on the stage at this arch he would not consider him a judicious person. By Mr. Liddell: - Had never seen a man fire a shot with a full tram in the face. He thought the present provision as to shot-firing should be strengthened.

#### Mr. T. E. Wales’s evidence

Mr. T. E. Wales, Inspector of Mines for the South Wales and Monmouthshire District, said the ventilation at this colliery was well conceived and carried out. Shot-firing was permitted whenever required during the night, when there were some 200 men in the colliery, but during the day it was only allowed in the hard heading in the North-west dip district. To his mind this was a most dangerous practice, and clearly a violation of the 8<sup>th</sup> general rule. As to the cause or origin of the explosion, he was decidedly of the opinion that it was chiefly or entirely due to the

ignition of coal-dust lying in the roadway between the down-cast shaft and the North-west dip. In all probability one of the open lights was the cause of the ignition, the dust being raised by the ignition of a small quantity of gas or the concussion caused by shot-firing. He had from time to time, after these explosions, called attention to this matter of shot-firing, but he regretted to add that his recommendations on this matter had not been adopted. He thought there should be a strict enactment prohibiting the use of gunpowder or other explosives in these mines, and prohibiting the use of naked lights except a few yards from the shaft, and directing that pits should be watered. To his mind the adoption of other means so long as these dangerous practices were allowed, could only lead to disappointment.

By Mr. Simons:- “My opinion is that the hole referred to had been charged and fired.” By Mr. Liddell: - “In my opinion the fireman committed a breach of the rules in not reporting a blue-cap on the lamps. My opinion is – but it is only an opinion – that the shot caused a concussion, which raised the dust, and that it was ignited by the comet. The coroner said that this closed the evidence, unless someone else wanted to call witnesses. The inquest was then adjourned until Tuesday, when the coroner would come up to the jury, and the inquest will be concluded.

### **Western Mail, Tuesday, January 19<sup>th</sup> 1886**

#### **Conclusion of the inquest – Coroner’s summing up – The verdict**

The inquest into the bodies killed by the explosion at the Mardy Colliery was continued at the Mardy Hotel on Tuesday, before Mr. T. Williams, coroner. The coroner at the outset asked if there were any further questions that it would be desirable to put to any of the witnesses. Mr. Liddell, Mr. Simons, and Mr. Abraham, replied in the negative.

#### **The summing up**

The coroner then proceeded to sum up. He said it was unfortunate that the Royal Commission appointed to report upon accidents in mines had not yet reported, for such report would undoubtedly deal in an exhaustive manner with the question of shot-firing in mines and the subject of coal-dust and its contingent dangers. It was only a few years ago since the explosive

character of coal-dust was publicly ignored, and, where accepted, only received very qualified acceptance. Now, however, scientists and owners, and managers of collieries appeared to be agreed that coal-dust played a most important part in connection with explosions underground. In fact, it had been proved by demonstration that if coal-dust was set in motion violently, and thus diffused in atmospheric air, all that was required to produce an explosion was contact with a flame, and that where a pit was charged with coal-dust in exceptionally large proportions, and was also charged with gas in such small proportions as to be unobservable by the tests usually employed to detect the presence of gas in mines – Mr. Galloway said from one to three percent of gas – simple contact with the flame was all that was required to produce a like result. Again it was invariably found that when an explosion took place in a coal mine falls from the top occurred, and gas was released and discharged itself in far larger quantities than usual. These remarks were, he said, general.

They would not proceed to consider the evidence given in the case they were then investigating. He would simply direct their attention to what he conceived were the most pertinent points for them to discuss and deliver judgement upon. The explosion, which occurred on the 23<sup>rd</sup> of December, in the Mardy Colliery, was of an exceptional character, from the fact it was confined to a limited area in the main in-take, and did not extend to any of the working faces or return airways. In fact, it was confined to the south-west headings, north-west dips, and the entrance to the main east level. To his mind there naturally arose out of the evidence adduced three theories.

The first was that it occurred at the bottom of the downcast shaft; the second, that it occurred in the hard heading to the four-feet, which was being driven off the North-west dip; and the third was, that it occurred at, or near to, the arch which was being erected on the North-west dip near the entrance to the hard heading of the four-feet. All that appeared to him to have been advanced in favour of the first theory was that at the downcast shaft were found evidences of the greatest force of the explosion, together with the most distinct evidence of burning. This reason must, however, be based upon the assumption that the greatest force was exercised at the point of ignition; but past experience and the evidence of Mr. Galloway and Mr. Randell negated that assumption. The only suggestion offered as to that was one by Mr. William Thomas, Brynawel, in

reply to Mr. Simons, and that was that a blower might have appeared suddenly and unexpectedly just previous to the explosion, but it was not known that such a blower had been found or even searched for.

Passing on to the second theory, that the explosion occurred in the hard heading on the four-feet, and originated by the firing or blowing out of a shot, it was a theory that only found favour with Mr. Wales, the Government Inspector, who contended that it was impossible to say, from subsequent examination, whether a shot-hole had been charged and blown out, and suggested that the shot-hole now found was charged and blown out, raising the coal-dust and occasioning an explosion there. The hard heading was driven in a distance of 50 yards to the North-west dip, and on the roadway there was little or no dust, and the shot-hole referred to was drilled at such an angle as to necessitate the force of a blown-out shot being expended upon the bottom, at a point near to the face; and Mr. Galloway had told them that the flame from the same would not extend more than 12 feet. The witnesses called were against Mr. Wales in regard to the shot-hole in question. Then, to be taken for what it was worth, was the finding of the tram, boring tools, powder tin, and powder, close up in the face, a spot where no sane person would permit them before firing a shot.

In regard to the third theory, that the explosion originated at or close to the arching in the North-west dip, where there were cavities in the roof and were the places to be dreaded, and where exceptional precautions were necessary. It appeared that at the point of arching there was some considerable force, and six months ago the arching there was commenced, and at the time of the explosion the cavities in the roof extended upwards for a distance of about 30 feet from the rails. In fact, the stratification at this point was disturbed, the four-foot seam being thrown up a distance of some 25 yards. That that was being done at this place was undoubtedly the proper thing to do, but the work was of an exceptionally dangerous character. After the explosion it was found that all the masons, attendants, and labourers were more or less severely burnt, and the clothes of some of the deceased, hanging up near, were also found to be burnt, and also some clothes hanging up at the mouth of the hard heading, so that it was clear the fiery blast was present at this spot, a little on the out side of the arch was found the body of the overman (Daniel Williams), whose death they

were now sworn to investigate; near him that of Benjamin Philips, the ropeman, and still nearer the arch, the body of David Jones, the repairer, who all died from the effects of minor burns and suffocation.

From the evidence it would appear that gas had only been found on one occasion above the arch, and that was by the fireman, David Edwards, some considerable time before the explosion. But he (Edwards) regarded it of such small importance that he did not report it, and his superior officer did not seem to have been made acquainted with the fact. Gas was found above the arch the day after the explosion, and the fireman, being informed of it, went and saw it for himself. It also appears that on the 21<sup>st</sup> of December, from workmen's special report, a strong blower was found on the top of the arch, firing the lamp 23 foot 6 inches from the rails. It further appeared from the workmen's report books that a small blower was found in the first West level for some days previous to the explosion. The arches referred to had been turned some 16 ft. or 17 ft. in length, and the staging was about 16 ft. from the ground.

It appeared the masons and those actually engaged in the arching had locked safety lamps, and that the masons' attendants and labourers were in the habit of using a comet light, as it was alleged to facilitate unloading materials and to better judge the security of the roof. Their directions were that the comet was to be used only below the staging. The management appeared to have appreciated the dangerous character of the work by providing an airway over the arch, but still a considerable space was left above the archway. Two daily inspections of the space above the arching appeared to have been made by the fireman, but, having regard to the height, the means employed were far from satisfactory. It was alleged that a stick was used, the lamp being attached to it, but he left them to judge what extent that examination could be regarded as satisfactory, for the bottom of the lamp would necessarily interpose between the line of vision and the flame of the lamp. It appeared to be admitted that the comet light was used regularly at the archway, and was in use at the time of the explosion, and it did not appear that any of the masons were up on the arches when the explosion happened.

The body of Griffith Scourfield, masons' attendant, badly burnt, was found at the foot of the ladder. The natural inquiry upon this was, where was the comet? It was alleged that it could not be found. The fireman's walking

stick was found, and Benjamin Phillips', ropeman's lamp was found. Everything asked for was forthcoming except this particular comet. They must draw their own conclusions. Now, it became his duty to direct their attention to that which was offered in opposition to the theory that the gas was fired at that point. It was urged that if the explosion took place there greater damage would be manifest, where as the archway, although unkeyed, remained intact, with the ladder of the stage occupying its wonted position; that the bucket of mortar rested, balanced against the side, filled with mortar; that the workmen's tools were found in the position in which they had evidently been placed by the men. It had been conclusively explained by Mr. Galloway and Mr. Randell that they would not expect evidence of violence at the immediate point of contact with the flame.

The coroner reviewed in detail some of the evidence, and afterwards said if they came to the conclusion that the explosion happened at the bottom of the downcast shaft he did not see how the occurrence could be regarded other than as a purely accidental occurrence, which no amount of human foresight could have forestalled. If they thought it occurred in the hard heading by reason of shot-firing, then, if the shot was fired by the fireman with the knowledge – he meant the general knowledge – and consent of the manager (which he admitted), he did not see how they could, in the face of the provisions of General Rule 8 of the Mines Act, 1872, be exonerated from the dire consequences of that disaster. If they thought the explosion originated at, or near, the arches by reason of an open comet light being used there, it was for them to say whether, under the circumstances of the case, the management (by which term he included the agent, certificated manager and fireman) were reasonably justified in permitting its use there. It was admitted on all hands that the volume of air was ample, and the workings were well laid out. The evidence in that case clearly indicated that the removal of coal-dust and the watering of the mine was, if he might be permitted to use the term, too haphazard. Nobody was specially appointed to clear dust or water the mine, and neither operation was systematically and periodically performed.

In conclusion, he referred to the judicial decision re: the prohibition of firing in mines while the men were in the pit, and considered that by firing shots in the hard heading in the daytime no less than 700 lives were jeopardised. He added that the position of the lamp stations must be left to the

inspectors and the managers. The absence of a barometer from the top of the pit for a fortnight was declared to be a breach of the 28<sup>th</sup> Rule, and the coroner expressed surprise the manager should have stated that he was in too much of a hurry to look at the barometer on the morning of the explosion through having overslept himself. And the fireman, David Evans, omitted to report gas that he had found above the arch some considerable time before the explosion, and which was indicated by a blue-cap on the flame of the lamp. This rendered the report-book useless, and tended to deceive his superior officers, and was without justification.

### The verdict

The jury consulted for about an hour, and then returned the following verdict: - "We find that an explosion of gas occurred in the Rhondda district of the Mardy Colliery, on the 23<sup>rd</sup> of December, 1885, whereby Daniel Williams, overman, lost his life, but how or where the gas ignited sufficient evidence has not been produced to enable us to determine. We are, however, convinced it did not occur from shot-firing in the the hard heading." The jury would append the following suggestions:

1. That efficient means be taken to allay and then remove coal-dust from the mines generating explosive gases.
2. That boys attending the Elementary Schools of a colliery district be instructed in the rules of the colliery or collieries near which the school is situated.

The same verdict applied to the other cases, but the deaths were divided into three sections – viz., those from burning, suffocation, and other injuries. Mr. Simons thanked the coroner for the care and attention he had shown during the inquiry. The coroner thanked the jury for their patience and attention. This brought the proceedings to a close.

### The verdict of the Jury – An opinion

The day following the last of the inquiry, 'Pendragon' in this 'Local Jottings' column in the 'Western Mail' gave his views on the conclusion of the inquest: -

The result into the inquiry into the cause or causes of the Mardy Colliery explosion is as unsatisfactory as the majority of similar inquiries are. Nearly 100 unfortunate people have lost their lives and a good many more deprived of their means of sustenance, and yet, after much searching and the production of every piece of evidence that could be produced bearing upon the unfortunate calamity, the coroner's jury has only been able to give a general verdict, to the effect that it was impossible to tell how the explosion occurred. I don't find fault with the jury, far from it; they could, in my opinion, have come to no other conclusion upon the testimony which was produced before them. What concerns me is that these terrible calamities frequently occur, and we find it impossible to elucidate the cause. The coal-dust theory may be a convenient, but is it a legitimate one?

When I know that amongst there a reckless fellows who, in the fiery chasms of the earth, think no more of lighting their pipes with matches than they would if using their tools, and I am forced to the conclusion that more accidents are caused by the culpable thoughtlessness than we are willing to concede. The old saying is that there cannot be smoke without fire, and, mind you, I argue as a non-expert, that there could be no explosion of gas without a naked flame. I am concerned about these things, because, not devoid, I trust, of human sympathy, my heart not only bleeds for the victims, but for those also who are plunged into the most poignant grief and sometimes life-long distress by the deplorable catastrophes. May I ask without wishing to be impertinent, no laxity in the examination of the garments of the "shifts" before they enter the cage to fulfil their ordinary employment? I do not believe there can be too much inquisitiveness in such a proceeding, and I should like some rules to be devised whereby those who are responsible should be drastically dealt with when a man is found in the pit with a pipe or matches in his pocket. I am not going to assert that the Mardy explosion was due to this cause, but, as no other is forthcoming, there is a suspicion that it might have been.

Note: - This subject was always brought up whenever a colliery explosion occurred, and undoubtedly a few explosions were caused by this, but more often than not it wasn't. However, there were many cases of men being found with matches or pipes down a mine, and eventually men started to be prosecuted and fined, but it was know that sometimes groups of colliers that smoked would make a collection amongst themselves to pay the fine

of anyone caught. Eventually offenders were sent to jail, but smoking still continued outside the areas they were allowed.

**Sunday, January 24<sup>th</sup> 1886**  
Another opinion on the verdict

The *Reynolds's Newspaper*, of the above date, which had covered the disaster extensively, also gave a very similar reaction to the verdict: - The public at large will be profoundly disappointed by the verdict of the coroner's jury on the Mardy Colliery accident. We had never had a very profound respect for "crowners' quest Law," and the Mardy verdict would, if he had lived, given rise to further criticism from the gravedigger in "Hamlet." The jury were sworn to inquire, and they have not inquired beyond the point at which they were puzzled.

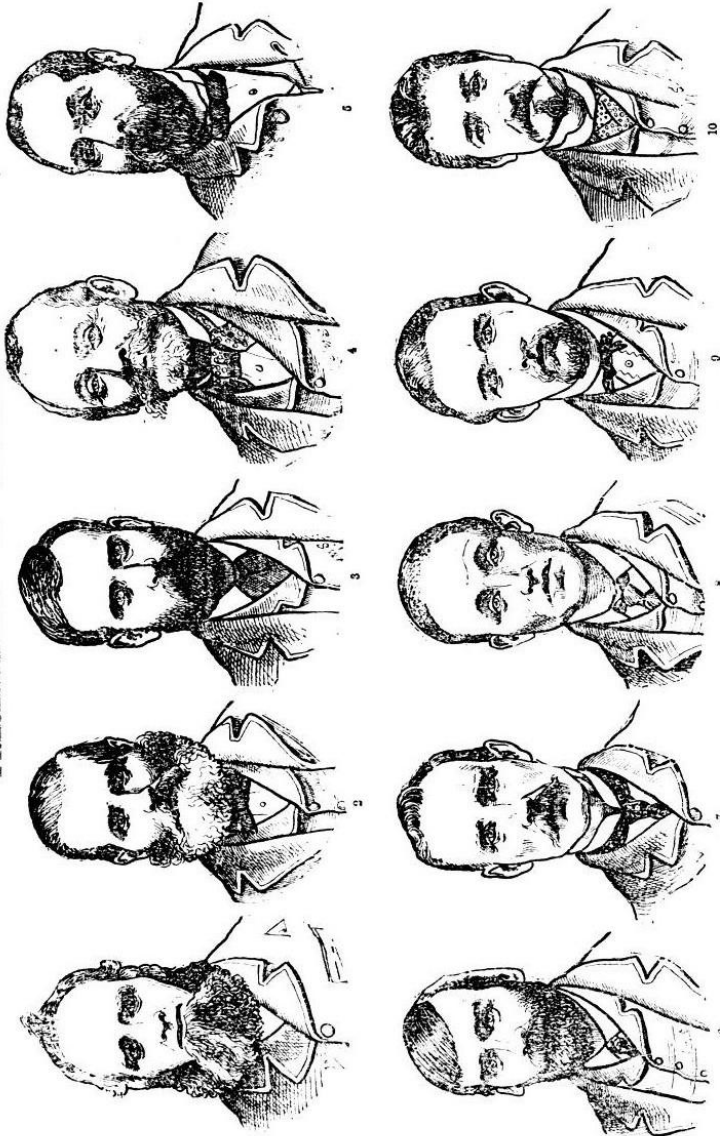
They find that the explosion did not arise from firing shots, and that the ventilation was all that could be desired. The jury leave us to believe that either the death of over 80 of our fellow-creatures was due to supernatural or undiscoverable causes. It is impossible to accept such a verdict, and we hope that Sir Richard Cross, whose is a humane man, will cause an inquiry to be made by a competent person who will not accept the fact to commence with, either that a shot did not cause the explosion or that the ventilation was perfect. It is a fact that an explosion may be looked for when air and gas are mixed in certain quantities. Either there was too little air or too much gas. If there was too little of the one and too much of the other it ought to be understood how that result was produced. We do not for one moment say that anyone was to blame, but what we say is that perhaps we are likely to learn from this disaster some new phase of contingency which might be averted to save life in the future. It is to the credit of the colliery that an examination made by men appointed by colliers found everything all right not long before the explosion. That, however, renders it all the more necessary for us to understand what took place afterwards and before the explosion. We fear that coroners and their juries in the coal-fields do not accurately appreciate the shock that is given to the public mind by an explosion attended by a great calamity of human life.

The public are appealed to for subscriptions to keep the widows and children away from the workhouse at least. This gives the public the right to inquire into the cause of every calamity, and it is no relief to the public mind to be referred to such an ambiguous verdict as that of the Mardy jury. It is certain that we have now come to the time when we must have some sort of insurance which will operate as a penalty on the owners, the viewers, and the superior officers concerned in the working of a colliery. In the pursuit of profit a capitalist so conducts his business as to bring a great calamity upon 100 colliers, and it is supposed that this unexpected accident, which ought not to be called an "accident," gives a claim to bereaved widows and orphans upon the public. While we hope that the charity of the benevolent will never be refused to the unfortunate survivors, we do not see that this should be used as a relief to the owners in a claim upon them. The principal of the Employers' Liability Act requires to be extended, so that every capitalist and viewer shall have it made in his interest, as well as his duty, to ventilate and to work a pit in such a way as to reduce calamity to a minimum. We know that the practice of firing shot is pursued in coal pits in spite of all the warnings which experience and science has given, and until the practice is given up, or, where it cannot be given up, it is conducted by firing parties when the miners are not in the pit, we shall have inexplicable accidents, and juries will continue to be perplexed, even when they desire to arrive at the truth.

When Sir Richard Cross was Home Secretary before, the Inspectors of Mines were directed to hold a conference on the subject of firing shots. It due to a large portion of the inspectors to say that they were opposed to the system then in use, but unfortunately a great influence prevailed to prevent a recommendation to the Home Secretary legislating in a proper direction. The experience in the last ten years has only added an additional weight to what was said by the opponents of firing in mines, and we do not believe that the abolition of the practice would be opposed by the miners. They are brave to a fault, but they do not care recklessly to waste their lives; and now that they have half-a-dozen of their own in Parliament, it is just possible that life in mines may receive some attention at the hands of the legislature. The miners deserve that attention, for they have borne uncomplainingly and heroically the calamities that have swept hundreds every year out of this world; but ought men so brave and so good be sacrificed to profit?

THE MARDY COLLIERY EXPLOSION.

PRESENTATION OF MEDALS.



PORTRAITS OF THE RESCUERS.

1. David Edwards, 2. David Hughes, 3. Taliesin E. Richards, 4. Mr. Griffith Thomas, 5. W. Thomas, 6. W. Clew, 7. Mr. Daniel Thomas (1.), 8. Richard Jones, 9. Daniel Thoms (2), 10. David Roberts. (See profiles Page 151-3)

1886 DEATH in the Sub-district of MARWOLAEATH yn Is-ddosbarth									
ystadysfodwg yn the County of Glamorgan									
Columns:-	1	2	3	4	5	6	7	8	9
Colofnau:-	1	2	3	4	5	6	7	8	9
No. of Birth	When and where died	Name and surname	Sex	Age	Occupation	Cause of death	Signature, description and residence of informant	When registered	Signature of registrar
	Prwyd y bu farw	Ewraig a chywir	Rhyw	Oed	Gwaith	Achos marwolaeth	Llofnod, disgrifiad a chymharol yr hyspwydd	Prwyd cofrestrwyd	Llofnod y cofrestrwydd
4	Tuesday Third December 1885	Sohn Spinker	Male	22 years	Shackler	Death from burns and other injuries consequent on an explosion of Gas in the Hardy Colliery	Certificate received from Thos Williams Overseer for Glamorgan Fingert held 14th January 1886	Thirty First January 1886	Geo Williams Deputy Registrar
1	Hardy Colliery Hardy U.S.D.								
6									

Copy of a death certificate of one of the victims

## Chapter Seven

### Medals for rescuers

In the middle of February 1886, the following item was printed in local and national newspapers: - The Chapter of the Order of St. John of Jerusalem at a meeting held at St. John's Gate, Edward Perrott presiding, presented silver medals to Mr. William Thomas, mining engineer; T. E. Richards, L. Pritchard, G. Thomas, D. Thomas, R. Jones, W. Clee and E. Edwards, for conspicuous heroism displayed by them in taking measures to avert further destruction of life at the disastrous explosion at the Mardy Colliery in December last year when some 400 lives were saved by their exertions.

#### Mardy Colliery Relief Fund

A meeting of the supplementary committee appointed to administer the above relief fund was held at the Angel Hotel, Cardiff, on Saturday, March 6<sup>th</sup> 1886. Present: - Sir William Thomas Lewis (in the chair), Messrs J. T. D. Llewelyn, L. Tyler, W. Thomas (Brynawel), W. Simons, Dr. Parry, W. Evans, Evan Evans, Thomas Williams, G. L. Cambell and Evan Owen. Letters for non-attendance were read from Mr. William Abraham M. P., Mr. Locket, and Mr. W. Edwards.

After some discussion, it was resolved to place the widows and children of deceased persons who were not members of the Provident Society on the same footing as those that were entitled to support from the society, but than an additional grant of £5 be given to the widows of members belonging to the society.

It was also resolved to pay the injured men at the same rate as those who were members of the Provident Fund, viz., 8 shillings per week. In the case of deceased single men who did not belong to the society it was decided that the relatives should only receive £5 each. A number of special cases were also referred to the committee, and orders were made as to how they should be dealt with. A hearty vote of thanks to Sir William brought the proceedings to a close.

Report on the Mardy Colliery explosion\*  
Thursday, April 22<sup>nd</sup> 1886

The official report on the Mardy Colliery explosion, drawn up by Mr. A. G. Liddell, has just been issued as a blue-book (reported the '*Western Mail*.') It will be remembered that the gas explosion at the Mardy steam coal colliery in the Rhondda Valley occurred in the afternoon of December 23<sup>rd</sup> 1885, and by it 81 lives were lost. The coroner's inquest, after a formal opening, lasted from the 12<sup>th</sup> to the 19<sup>th</sup> of January inclusive. Mr. Liddell was present during those six days on behalf of the Secretary of State. The jury could not account for the explosion, nor could they say where the gas ignited. They were convinced, they added, that the explosion did not occur from shot-firing in the hard heading. Two suggestions were appended to the verdict – that sufficient means should be taken to taken allay and then remove coal-dust from the mines generating explosive gases and that boys attending the Elementary Schools of a colliery district be instructed in the rules in use at the neighbourhood colliery.

Mr. Liddell begins his report with a minute description of the colliery and his workings. The ventilation and arrangements had already been described by Her Majesty's inspectors as 'amply sufficient,' and with that opinion Mr. Liddell expressed his agreement; he notices that no fatal explosion had taken place since the colliery was opened. Mr. Liddell, however, points out that the provisions of the Coal Mines Regulation act 1862, had not been in all cases strictly carried out, and that the constant care and watchfulness necessary in so in so fiery and dusty a mine had been in some cases relaxed.

Mr. Liddell next proceeds to examine the question of the locality of the explosion, and he comes to the conclusion that it occurred in the north-west dip, more than 170 yards from the parting, where was found a large fall after the explosion. In this he does not concur with the suggestion of the management that the blast began at the bottom of the shaft. His description of the spot where they seemed to have taken place renders intelligible the two theories of the cause of the explosion which have been brought forward. One is that of Mr. Wales, who supposes that the explosion was caused by the ignition of coal dust by the comet lamp used at the arches; and that the dust was raised by the concussion of a blown-out shot in the heading. The other theory was that of Mr. Randell and Mr.

Galloway, who thought that the explosion was caused by an accumulation of fire-damp in the cavity above the arches and ignited by one of the masons raising the comet lamp into the gas.

The arguments for and against the two theories are set down in length in the report. In any case, Mr. Liddell thinks it was a dangerous error of judgement to allow the use of the comet lamp in the way supposed in the second theory. To allow a naked light, he says, in the hands of ordinary workmen on the ground in a few feet of the staging where it is considered advisably to use locked safety lamps is to incur a risk where certainty might be insured. The following passage from the report contains Mr. Liddell's final judgement in the matter: -

“Before concluding this report, I think it right to draw attention to the exceptional character of the explosion to which it relates. As it has been said, the flame and violence were practically confined to the intakes of mine, where it is impossible that any large volume of gas can have accumulated. Even if it be admitted that the cavity in the roof of the arches was filled with gas, it is impossible to think that the explosion of such a comparatively small quantity would, in extent and violence, approach in any degree to that which took place at Mardy.

In the opinion of Mr. Galloway there could not have been one percent of gas in these intakes. There is therefore no escape from the conclusion that the explosion, however originated, was propagated in its entirety by coal-dust. I would therefore submit for the consideration of the Home Secretary that the recommendation of the jury as to the removal of coal-dust be carried out and that a regular system of watering and removal of coal-dust in mines be instituted, and put under a competent officer. I also submit that it would be advisable to prohibit shot-firing in dusty parts of a mine without a previous watering of all places to which the flame of the shot might extend.”

He concludes by expressing the opinion that there is a case for a prosecution under the Coal Mines Regulation Act of 1872. A large and elaborate map of the colliery will enable the reader to follow all the details of the report and to see at once the place where each body was found after the explosion. \* The full report appears to the rear of this book.

## Prosecution of the agent and manager

Mr. Liddell, however, must have recommended to the Secretary of State that the management of the Mardy Colliery be charged with various offences. The '*South Wales Daily News*' of Thursday, March 11<sup>th</sup> 1886 reported: -

At the Pontypridd Police court on Wednesday, Mr. Thomas Williams, coroner, Merthyr, addressing the Bench (Messrs I. Williams and W. Jones), said: "I am instructed by the Secretary of State for the Home Office to make an application for a summons against Mr. William Thomas, agent of the Mardy Colliery, and Mr. Griffith Thomas, the manager, for violations of the 8<sup>th</sup> and 26<sup>th</sup> general rule. The 8<sup>th</sup> general rule has reference to the use of gunpowder while the men were employed in the mine; and 26<sup>th</sup> general rule provides that a thermometer and barometer should be placed above ground in a conspicuous position near the entrance of the mine. At the time of the explosion at the Mardy Colliery there was no thermometer or barometer at the top of the mine, and shots were also fired previous to the explosion whilst the men were in the mine. The Bench granted the application, and fixed a hearing for that day fortnight, but it was understood that it would again be further adjourned, as Mr. Wales, the Mines Chief Inspector (an important witness), was unwell. (Mr. Wales passed away the middle of May 1886)

### Accidents in Mines – Recommendations of the Royal Commission

The final report of the Royal Commission on Mines, which has been so anxiously looked for (after 6 years!), was issued on Saturday, April 10<sup>th</sup> 1886. It occupies 110 pages of a large blue book, and gives the general results of elaborate scientific experiments made for the purpose of determining the best methods and appliances for increasing the safety of mines. Not much is recommended in the way of mere legislative changes; but the scientific recommendations of are most interesting and important. For example, with reference to the difficult question of the best method of firing shots in mines, they state that "electrical exploding devices present very important advantages from the point of view of safety over any kind of fuse which has to be ignited by the application of flame to its exposed extremity, as the firing of shots by their means is not only accomplished out

of contact with air, but is also under the most complete control up to the moment of firing. Their simplicity and certainty of action has been much increased of late years, while their cost has been greatly reduced, and but little instruction is now needed to ensure their efficient employment by persons of average intelligence. The use of electrical arrangements for firing shots in mines where the employment of powder for blasting is inadmissible should be encouraged as much as possible."

Again they state that: - "It has been shown that mines that have hitherto been considered free from fire-damp may have the air which passes through them vitiated to such an extent corresponding to about 2 per cent of its volume of marsh-gas. The air in many such mines may probably never be entirely free from explosive gas, at all events in the neighbourhood of freshly cut faces of coal and in the return air ways. It has been demonstrated in our experiments that when the atmosphere contains 5 to 5½ per cent of marsh gas it becomes highly explosive. We have even obtained explosions which, though less violent, may be nevertheless destructive of life if they occurred, on the large scale possible in a mine, when the air contained only 4 percent of marsh gas.

It will thus be seen that air which would appear free from gas if tested in the ordinary way may become, by the addition of only about 2 percent of marsh gas, capable of propagating flame and causing destruction, while the addition of about 3 per cent can verge in a highly explosive mixture. Air, which would appear quite free from gas, if examined by a lamp flame may become explosive when laden with fine, dry coal-dust. Appliances now exist by which very small proportions of marsh gas in the air may be readily detected, and which can be used for examining the atmosphere of a mine. With Livings' Indicator, gas present in the air can be estimated with sufficient accuracy for all practical purposes, even when the proportion is as low as ¼ per. cent."

That it is most important that all mines should be carefully examined by means of indicators capable of detecting as small a proportion as 1 percent of gas; such examination to be made before the commencement of each day-shift, and, in case of an interval, also before the succeeding shift. That in all dry mines the air may be laden with coal-dust, and where fire-damp is either known to be given off from the strata, or may from experience be

reasonably suspected to exist, the Secretary of State may require safety-lamps to be used, unless the owners and workmen of such mines prove, to the satisfaction of a Court of Arbitration to be appointed by the respective parties, that less liability to accidents, generally, will be involved by the working of the mine with open lights than by the use of safety-lamps. It should be a special instruction to such courts that the circumstances of each mine be taken into consideration with reference to the following points: -

- (a) The mode of working. (b) The nature of the coal seams and of the roofs and floors of the same and of the adjacent strata. (c) The proximity of the seams to each other. (d) The omission of gas from the seam, and the liability to blowers or outbursts of gas from the coal, roof, or floor. (e) The order of working the seams of coal.

For the system which prevails in some places of working with mixed lights, that is, with open lights and safety-lamps intermixed in the same sort of workings, there is no justification, and this practice should be strictly prohibited. We are of the opinion that, in mines where safety-lamps are required, the position of lamp-stations, or places where open lights are allowed, in reference to the possibility of access of vitiated air, should receive much more attention than at present. It is desirable that at convenient places near the working faces, reserves of lighted and locked lamps be kept available for exchange with those extinguished in the workings. It has long been known that if the atmosphere becomes inflammable the Davy and Clanny lamps, and in a less degree the Stephenson lamp, are unsafe in currents having velocities much below those encountered in well-ventilated mines. Our experiments fully confirm this. The ordinary Davy lamp becomes unsafe before a velocity of 400 feet per minute is obtained. The ordinary Clanny lamp will almost certainly cause an explosion in a current having a velocity of 600 feet per minute. A Stephenson lamp will frequently cause an explosion in a current with a velocity of 800 feet per minute.

The information supplied to us by your Majesty's Inspectors of Mines and others, currents having velocities of more than 400 feet per minute are now

frequently found in working places. The current sweeping the longwall faces have very often higher velocities, in main air-ways current velocities approaching 2,000 feet per minute are recorded, and considerably higher velocities are encountered at regulators and in narrow places, or when large falls occur. It is thus obvious that, in the present improved ventilation of collieries, ordinary Davy and Clanny lamps have ceased to afford protection from explosions, and that the Stephenson lamp, though more secure than the two former, cannot be relied upon. We felt it our duty at an early stage of our investigation to draw the attention of the Secretary of State to the danger attending the use of the ordinary Davy and Clanny lamps, and our subsequent experiments have made this danger still more conspicuous. We have no hesitation in stating that these lamps should be prohibited, unless they are enclosed in cases capable of effectually preventing the gauze from being exposed to the full force of the current of air.

Many lamps now exist which are able to resist, in highly explosive atmospheres, current velocities up and to even exceeding 3,000 feet per minute, at all events for several minutes. Ample time is thus obtained for bringing into operation a "shut-off" appliance for the extinction of flame produced by both the illuminant and by ignited gas within the lamp. We consider that all safety-lamps should be provided with such an appliance. Four lamps seem to be deserving of special attention, as combining a high degree of security with fair illuminating power and simplicity of construction. They are Gray's lamp; Marsaut's lamp; the Bonneted lamp Mueseler lamp; and Evan Thomas's modification of the Bonneted Clanny lamp, described as No. 7 in our report. In our experiments the last lamp has given upon the whole the best results.

It will seen, however, from our experiments that many other lamps exist which are simple in construction, and almost, if not quite, as safe as the above. They generally, however, yield an inferior light in consequence of the flame being surrounded by gauze, but from this method of construction they derive the advantage of not being entirely dependent on glass for their security. To make a particular lamp compulsory would be unwise, and calculated to throw difficulties in the way of introducing improvements which will no doubt arise in the future, but we think it desirable that some control should be exercised in reference to the descriptions of lamps

employed in coal mines, and that only those lamps should be used which are authorised from time to time by the Secretary of State.

A lamp may be of the safest pattern and yet small defects in the fitting of its parts may entirely deprive it of its power of affording protection. In preparing a large number of lamps for use in a mine it may happen, even with the greatest care on the part of the lamp-men, that a lamp in an imperfect condition may be allowed to pass. The detection of these imperfections by simple inspection is in many cases almost impossible, and we are convinced the only way of avoiding the introduction into a mine of a dangerous imperfect lamp is to test every lamp in an explosive mixture of air and some inflammable gas before it is allowed to descend the shaft.

Though we have good reason to believe that practice of surreptitiously opening safety lamps in the workings is much less prevalent than formerly, it is still necessary that such lamps should be locked. We have examined many appliances for this purpose, and we consider that the plan of fastening the oil vessel to the other part of the lamp by a riveted lead plug, impressed at each end with marks or letters varied from time to time, is the simplest, the most efficient, and the only one most likely to lead to the detection of any attempt to tamper with the lock.

The power and uniformity of illumination given by a lamp can be notably improved by using, as the illuminant, vegetable or animal oil mixed with about one-half of its volume of a petroleum oil of safe flashing point. The use of petroleum spirit or benzene as the illuminant in safety lamps, instead of vegetable or animal oil, is attended with some advantages, but it is also liable to introduce new sources of danger. Special care is needed in the filling and trimming of lamps, and in the arrangement of lamp-rooms, to avoid the ignition of the highly explosive mixture formed by air with the vapour arising from this spirit.

The selling of petroleum spirit, or of spirits of similar character as to the volatility and the designations which are calculated to mislead in regard to the nature of the illuminant is a proceeding fraught with danger, unless all vessels contained such illuminants bear a prominent label, indicating the dangerous nature of their contents. Stringent regulations as to the conditions under which illuminants of this class are to be used and stored, are necessary. The advantages in point of convenience and efficiency

which attends the employment of electric glow-lamps, for illuminating the pit bottom and roadways immediately adjacent to it have already been demonstrated at several collieries, where this utilisation of the electric light has been combined with illumination at the surface by arc-lights.

In applying electric glow-lamps to underground illumination, to the extent indicated, through the medium of conducting cables leading from the generators to the pit bottom, it is essential to safety, as well as to permanent efficiency of the installation, that the cable should be placed in position where they are thoroughly protected against possible accidental injury. It is also essential, in all mines where fire-damp has been known to occur, that the glow-lamps should be excluded from direct contact with air of the mine, in one or other of the ways indicated in this report.

Portable, self-contained electric lamps have been devised, which will furnish, for several successive hours, a light considerably superior to that of the best safety-lamps, and which at the expiration of eight hours and upwards will still give a light fully equal to that of a freshly lighted Davy lamp. These lamps are perfectly safe, but, as they do not afford any indication of the condition of the atmosphere in a mine, their employment, even if special fire-damp detectors are used, cannot in any case entirely dispense with the necessity for the use of some safety-lamps. For exploring purposes after accidents, or in foul places, these lamps must prove very valuable even in the present condition of their development, and as auxiliary lights they cannot fail to prove very useful. The great progress which has recently been made in the construction of portable electric lamps affords a promise of a speedy utilisation of such lamps to an important extent in coal mines.

Whilst we think that the safety hooks at present available may have contributed to prevent fatalities from over-winding, we believe that the best appliance for the purpose is an automatic steam brake attached to the winding gear, and we think it desirable that such brake should be introduced where practicable. We consider that measures should be adopted to deal more systematically, and if possible, more expeditiously, with casualties resulting from the various sources of accidents dealt with in this report. Collieries or mines should be required to provide an ambulance and stretchers for the purpose of conveying to their homes sufferers from

injuries received while in the discharge of their duties. Arrangements should be made for the establishment of centres in mining districts, where additional appliances for succour and relief, and also special appliances for exploring purposes, should be maintained in a efficient condition, so as to be ready for use in the shortest notice. It is most desirable that facilities should be afforded for the instruction of men in the use of special auxiliary appliances for exploring purposes, and in simple measures connected with the provisional treatment of injuries. We attach great importance to the systematic inspection of each mine by the workmen, as provided for in General Rule 30 of the Coal Mines Regulation Act 1872, and we recommend that this provision should be generally and regularly acted upon.

#### Not to be forgotten - Letters to the editor

The '*South Wales Daily News*' of Tuesday, May 12<sup>th</sup> 1886 carried the following correspondence: -

**Sir** – *I noticed in your newspaper of the 7<sup>th</sup> inst. that the men who rendered assistance to saving life on the 23<sup>rd</sup> of December 1885 at the Mardy Colliery will be presented with medals for their bravery on the 13<sup>th</sup> inst. There is just one instance to which I beg to throw attention of Messrs. Locket – the case of the engine driver, who so gallantly stood to the handles of the engine and stopped the cage when it was 30 yards from the surface, as all other men were running for life. I do not hesitate for a moment in ascertaining that the proprietors of the Mardy Colliery will see that the person referred to in this case should not pass by unnoticed by them. I am &co. A Collier.*

#### Rewards for the rescuers

The '*South Wales Daily News*' of Friday, May 7<sup>th</sup> 1886 announced: - We are pleased to hear that the 13<sup>th</sup> inst. is fixed for the presentations and the medals for those who took part in rendering assistance to the poor fellows who were in the pit at the late sad disaster at Mardy. Mr. Furley, a gentleman well-known in London, and one of the greatest travellers of the present day, will represent the Ancient Order of The Knights of St. John of Jerusalem; Mr. Rees Jones, of Cardiff, will represent the Royal Society for Rewarding the Saving of Life from Fire; and Sir. W. T. Lewis has been asked to make the presentation of the gold and silver watches and other articles,

on behalf of the Locket's Merthyr Steam Coal Company, to those who immediately rendered assistance to the miners who were underground. Train managements will be made to enable those who wish to attend the ceremony to reach Mardy by means of the second up Taff train, and to bring them back to meet the afternoon train from Ferndale to Cardiff and elsewhere.

#### Home Office prosecutions – The manager fined

The *'South Wales Daily News'* of Thursday, May 13<sup>th</sup> 1886 reported: - At the Pontypridd Police Court on Wednesday, May 12<sup>th</sup> 1886, before Mr. Ignatius Williams, Stipendiary Magistrate – Mr. Griffith Thomas, General Manager of the Mardy Colliery, where through an explosion of gas about last Christmas a large number of persons lost their lives, were charged by Mr. Thomas Williams, Coroner, with a violation of the 26<sup>th</sup> General Rule of the Coal Mines Act 1872, which enabled "that after dangerous gas has been found in any mine, a barometer and thermometer should be placed above ground in a conspicuous place near the entrance to the mine." Mr. Simons (of Simons & Plews, Merthyr) defended.

In opening the case, Mr. Williams said that at Mardy it was indisputable that there had been occasional issues of dangerous gas. Mr. Simons admitted that fact. Mr. Williams added that up to about three weeks previous to the 23<sup>rd</sup> of December the prescribed facilities were at the pit top at Mardy. Then, and at the time of the disaster, they were absent. These were admitted facts elicited at the coroner's inquest, and the explanation then given was that they were out for repair, and had been taken away to said place. But surely other instruments might have been borrowed for temporary use?

Taliesin Edward Richards was then called. He bore out the version just made by Mr. Williams, and said there was a thermometer and barometer elsewhere near the pit – in the engine-room, about fifty yards from the pit's mouth. Any of the colliers could go into the engine-room; it would only take them thirty seconds to do so on their way to work.

Mr. Williams: - "Do you mean to suggest that as a matter of fact one collier goes into that engine-room once a week to use the barometer?" Witness: -

“In point of fact I have taken special notice that out of the 500 men that pass the barometer-room (They were bound to pass it), about one person perhaps looks at it. I have seen men go into the engine-room to look at the barometer. The engine-room thermometer was placed outside the engine-room window. The barometer was inside. The barometer and thermometer removed from the pit top was one article.” Mr. Simons submitted to his worship that there was no substantial violation of the Mines Act at all. The management had really more than complied with the Act, which would have been met without the mechanism of the pit’s mouth, and by the means of the barometer and thermometer at the engine-house. These were not intended by the Act for the workmen’s use, but for the guidance of the colliery officers.

The Stipendiary said there had been a thermometer outside the engine-house window, fifty yards from the pit top – all along. He held that was compliance with the Act. But the barometer was inside the engine-house. There should have been ease of access to the men without necessitating any permission from the management to go into that place to look at it. That was a violation of the Act. The sad accident was not linked to this omission in any way; and the Home Office, by these proceedings simply desired to impress upon colliery folk the imperativeness of these facilities to the men. The justice of the case would be met by the infliction of a fine of £1 and costs. There was similar charges preferred against Mr. William Thomas, the agent, but Mr. Griffith Thomas gave evidence that Mr. William Thomas had exhibited all practical forethought and care at the colliery, and the Bench accepted this as a reasonable explanation, and dismissed the case.

Mr. Simons asked for costs against the Crown in the last case. The Stipendiary said that he could not grant that application. Mr. Simons, referring incidentally under the clause to which was preferred – section 51 – said that there was never such a despotic law passed in any despotic country as that. It was a disgrace to the legislature that such a law should be on the books. By it Mr. Thomas was presumably held liable for a thing of which he knew nothing. It made a man guilty until he proved he was innocent. The charge of shot-firing in the mine whilst the men were at work prior to the explosion has been adjourned *sine-die*, as there was an appeal in a case coming on a parallel matter.



**Three young colliers with their working tools.  
Names, place & date unknown**

ROYAL SOCIETY  
FOR  
The Protection of Life from Fire.



A.D.  
1836.



Patron,

HER MOST GRACIOUS MAJESTY THE QUEEN.

This Testimonial

in addition to a gift of money, is presented to

**WILLIAM CLEE**

to record his courageous and practical services in saving life at MARDY COLLIERY on the 23rd December, 1885.

At the time of the Explosion (which resulted in the loss of 81 lives) there were 770 men in the pits.

WILLIAM CLEE with the active co-operation of those whose names are appended hereto, was engaged during some hours of dangerous and exhaustive labor in securing the safety of the survivors.

William Thomas,  
*Mining Engineer.*

Llewellyn Pritchard,  
*Collier.*

David Hughes,  
*Underground Fireman.*

Sciffith Thomas,  
*Colliery Manager.*

William Savis,  
*Mechanic.*

Richard Jones,  
*Hitcher.*

Tal. E. Richard,  
*Surveyor.*

David Edwards,  
*Underground Fireman.*

Daniel Thomas,  
*Collier.*

*W. W. - P. W.*

Certificate of bravery presented to one of the 'heroes' of the Mardy explosion. (See following page).

## Thursday, May 13<sup>th</sup> 1886

### Public presentations to the Mardy Colliery rescuers

A public presentations of awards to the pioneers in the work of rescue during the late colliery explosion at Mardy, at which 81 lives were lost, took place at Mardy on the afternoon of Thursday, May 13<sup>th</sup> 1886. Work was practically at a stand-still in the lesser Rhondda valley, and even the ceaseless downpour of rain failed to dampen the ardour of the visitors and residents. The former came up to Mardy by train from Ferndale. They included Mr. William Thomas, Brynawel, Aberdare' the managing partner of the company; Mrs. William Thomas; Lady Lewis, of Mardy; Mr. Locket, chairman of the Mardy directorate; Mr. Wood, common council man, London; and Mr. Judkins, London, both large shareholders in the company; Mr. James Thomas, Brynawel; Mr. Lewis J. Davies, Merthyr; Mr. T. Edwards, Cefn; Mr. Richards, Ferndale' Taff Vale Inspector; Mr. Rees Jones, Cardiff; Mr. Furley – both the latter gentlemen escorted them to the Mardy Chapel, where the auspicious proceedings were announced to take place. After they were speedily thronged by a most attentive audience. On the platform were displayed the parchments, plates &co., of the coming presentation.

Mr. Thomas, Brynawel, had received letters expressing regret for non attendance, for Sir W. T. Lewis, Mr. & Mrs. Tudor Crawshay, the Rev. E. W. Williams, M. A., Fairfield; and many others. Mr. Locket having been appointed to preside the song and chorus, "the land of my fathers," (Mae Hen Wlad Fyn Nhadau) was sung, Eos Dar being the soloist.

The Chairman then rose amid applause, and said they met there that day with mingled feelings. Naturally, they experienced deep sorrow at the cause which had led to that gathering – the sad accident that had taken place at the Mardy Colliery last December. They could all remember the deep grief which the explosion cast upon that little village. But they were not there on that occasion to gaze upon the painful side of the picture. Rather they would look at the silver lining which brightens that, like others, clouds. (Hear, hear.)

The appalling character of the Mardy catastrophe was relieved by the bravery of Mr. William Thomas, Brynawel, and the noble band of rescuers who, under his leadership, accomplished such memorable and heroic work.

(Hear, hear.) Mr. Thomas and his comrades succeeded by their intrepidity in saving the lives of no fewer than 200 men. (Loud applause.) The Chairman recounted two or three touching incidents of devotion to duty by the explorers, and concluded by expressing the satisfaction which he felt at the presence there today, amongst other ladies, of Lady Lewis, of Mardy, who had kindly undertaken to present, on behalf of the Mardy Company and shareholders, watches to the rescuers. (Loud applause.)

After a few words by Mr. Thomas Williams, fireman, Mr. John Furley, deputy-chairman of the Central Committee of the St. John Ambulance Association, was introduced to the assembly. He said he was there to present the rescuers with certificates of the St. John Order, which was established in 1100. He, like others in England, had followed the incidents of rescue at Mardy with extreme interest and sympathy. The rescuers had well emphasised the adage, "save or perish." Mr. Furley afterwards bestowed certificates of recognition of bravery from the St. John's Ambulance Association upon the following: -

Mr. William Thomas, Brynawel, managing proprietor of the Mardy Colliery; Mr. Griffith Thomas, general manager of the Colliery. Mr. Taliesin Richards, surveyor; Mr. Llewelyn Prichard; Mr. Daniel Thomas, Mr. Richard Jones; Mr. William Clee; Mr. David Edwards; Mr. Daniel Thomas, sawyer. The recipients were enthusiastically cheered on coming forward to receive these certificates.

Mr. Rees Jones, stated that it was a point worth recording that the father of Mr. Locket, their Chairman, was the pioneer of the introduction of Welsh Smokeless Steam Coal to the notice of the world (Applause), and Lady Lewis, who had graced the proceedings with her presence, was the granddaughter of that gentleman. (Renewed applause.) Mr. Jones proceeded to say that all the recipients of these honours were Welshmen. They had it on the authority of an old poplar ballad that

Ever since the world began  
The surest road to fame  
Has been the field where men are known  
Have earned themselves a name.

But the gathering this day witnessed that which did not constitute the only road to fame – (Hear, hear) – but that there were services rendered in the cause of humanity which were as keenly appreciated by the community at large as the most brilliant exploits of military enterprise. (Loud applause.) Mr. Jones concluded by presenting handsomely painted certificates of award from the Royal Society from the Protection of Life from Fire, to: -

Mr. William Thomas, Mr. Taliesin Richards, Mr. David Hughes, Mr. W. Lewis, Mr. Llewelyn Prichard, Mr. Daniel Thomas (1), Mr. Richard Jones, Mr. William Clee, Mr. D. Edwards, and Mr. Daniel Thomas (2). The last eight recipients received two guineas with a certificate.

Mr. Locket, on behalf of the directorate and shareholders of the Mardy company, presented Mrs. Thomas, Brynawel, with a splendid box of plates, with 150 guineas, in recognition of the heroic conduct of her husband, Mr. William Thomas, that gentleman having declined to accept anything personally.

Lady Lewis, on behalf of the Mardy Company, presented silver watches to the following rescuers: - Mr. Griffith Thomas, Mr. Lavis, Mr. David Edwards, Mr. W. Clee, Mr. Daniel Thomas, Mr. Llewelyn Pritchard, Mr. David Hughes, Mr. Daniel Thomas, and Mr. Richard Jones.

On behalf of the same propriety, the chairman presented Mr. Taliesin Richards with a capital box of instruments, and Mr. Evan Owen, Secretary of the South Wales and Monmouthshire Provident Society, presented Mr. William Edwards, local Secretary of the Mardy Relief Fund, with a handsome clock, on behalf of the provident Society. There were then complimentary votes of thanks to Mr. Rees Jones, Mr. Furley, and the Chairman. The national Anthem was sung, and the meeting ended. A luncheon then took place at the Mardy Hotel, to which place the company was proceeded by the band, which played sterling strains. Mr. Davies provided a capital repast, and the post luncheon speeches were very gratifying. Some particulars bearing on the recipients may be interesting:

No. 1. **David Edwards.** Mr. Edwards, who who is 42 years of age, is a native of Cardiganshire. He was a fireman at the colliery, and was said to have show great present of mind in having gone to search for his son, and

having stood at a crossing to warn the explorers again going into part of the workings which he had discovered to be most dangerous owing to the firedamp.

No. 2. **David Hughes.** Mr. Hughes, who is 57 years of age, is a night overman, and belongs to Pontrhydyfen. He had worked and Mr. William Thomas for the last twenty or twenty-three years, and had proved himself a most trustworthy Man. He obeyed orders under circumstances of considerable peril and difficulty in the rescuing work, and sustained injuries which resulted in severe illness.

No. 3. **Taliesin E. Richards.** Mr. Richards, who is 30 years of age, is a native of Cwmybychan, and is the son of "Afonwyson" whose non-de-plume is well-known in the Principality. For several years he was a surveyor at Cwmaman, but for the last four years has acted as book clerk and surveyor at Mardy Colliery.

No. 4. **Griffith Thomas.** Mr. Thomas, who is manager of the Mardy Colliery, is a native of Pontrhydyfen, is 55 years of age. He spent some time in Rhymney, was a manager at Trimsaran, and was at Cwmaman till nearly 7 years ago, when he went to take charge of the Mardy Colliery, which he has superintended from its opening. The bravery exhibited on the occasion of the late explosion by Mr. Thomas, is known to everyone connected with the colliery, and cannot be spoken of in terms of too much praise.

No. 5. **William Thomas.** Mr W. Thomas, Brynawel, Aberdare, the agent of the Mardy Colliery Company, was born at Merthyr in the year 1832. His father died 3 weeks before the birth of Mr. William Thomas – the grandfather, and brother lying dead in the house at the same time. He began working underground in the works at Cyfarthfa when only 8½ years old, and worked as a collier until he was 25 years of age. He then went to school for 12 or 18 months, after which he was station master at Treaman. He afterwards became manager of Cwmaman Colliery, where he remained 15 years and left those works 14 years ago, since which time he has been consulting engineer to several of the leading collier companies of the Rhondda, Aberdare, and Neath valleys.

He is now engineer for Pentre Colliery, Gelli Steam Coal Colliery, Gelli No. 3, Ty'nybedw (all in the Rhondda valley). Glyn (in the Treferig valley), Penrhiwceiber, and Nantmelyn (in the Aberdare valley), Resolven (Neath valley), and Mardy (Rhondda Fach). The output of these pits during last year was about a million and half tons of coal. He has been singularly fortunate in his management of fiery mines, for by his extreme care in all the collieries the only death from the result of an explosion which had occurred during the 27 years of his connection with one or other of them was that of a poor boy at Cwmaman.

The terrible explosion at Mardy in December last was, therefore, a great blow to him. He has frequently taken part in the rescue of lives after explosions and accidents, and he was awarded an Albert Medal for services rendered in connection with the rescue at Tynewydd. Mr. Thomas has travelled extensively in Belgium, Westphalia, and France, and has seen considerable colliery work in those places. He also visited the United States last year to report upon a very large coal area there.

No. 6. **William Clee.** Mr. Clee, whose is a native of the Rhondda, is only 30 years of age, but an experienced collier, and was on the spot whenever a man was wanted to undertake a dangerous duty in connection with the exploring operations.

No. 7 **Daniel Thomas (1)** Mr. Daniel Thomas, who is 36 years of age, and is known as the first, there being another in the group of the same name, was one of the foremost to leave the surface and descend into the pit after the explosion.

No. 8 **Richard Jones.** Mr. Jones, who is a Brecon man, is a hitcher, and rendered valuable services in carrying out his work at the bottom of the shaft during the dangerous period which followed the explosion.

No. 9 **Daniel Thomas (2)** Mr. Thomas a collier, was working at the time of the explosion in the Abergorki Seam, within 120 yards of the surface, and went into the Mardy Pit as soon as he became acquainted with the nature of the accident.

No. 10. **David Roberts.** Mr. Roberts, who is 45 years of age, is a repairer, and more than one occasion imperilled his life in carrying out the rescue work

Six days after the award ceremony the '*Times*' newspaper of Wednesday, May 19<sup>th</sup> carried the following Story:

#### Another Mardy victim?

Mr. T. E. Wales, Her majesty's Inspector of Mines for South Wales, died at his residence in Swansea on Tuesday morning, May 18<sup>th</sup> 1886. He had recently suffered somewhat in health from the inhalation of gases at the Mardy explosion last Christmas. Mr. Wales first came to South Wales from his North of England home some 30 years ago to fill the post of colliery manager to Messrs Guest, Lewis & Co., a firm now known more familiarly as the Dowlais Iron Company. On the subsequent removal of Mr. Thomas Evans, then Inspector of Mines for the three counties of Glamorgan, Carmarthen, and Monmouth, Mr. Wales was appointed by the vacant office, which he has held ever since. Mr. Wales gave great assistance to Mr. Bruce (Now Lord Aberdare) in the framing of the Mines regulations Act 1870.

The '*Western Mail*' added: - Mr. Wales watched the immense development of the coal trade in the South Wales district from its infancy, and was probably the highest authority on matters relating to that development, and to coal mining generally, we have had residing amongst us. The increase in the number of collieries and in the quantity of coal shipped from South Wales pits has been enormous and is so patent to us to need no description here, but the increase in Mr. Wales's official duties is clearly shown by appointment of assistant inspectors. Mr. Wales, throughout his career, was a central figure in connection with the many catastrophes which have embittered the history of mining in the fiery district over which he exercised supervision, not only in regard to rescue work, but the subsequent inquiries, in which his great experience and and patience tended on many occasions to throw light upon this subject engaging attention.

The terrible fatalities at Ferndale, Cymmer, Dowlais, and other places, such as the stirring details of the Tynewydd incarceration, will long be associated with the name of the deceased in this way. And it will not be forgotten that the deceased, at any rate, had never insisted on compliance with the most stringent terms of the Miner Regulation Act and had always bitterly opposed the use of naked lights, and the the jeopardising of human life in any other way having ever before him the object of making his office the powerful and beneficial use it was intended to be. It has been suggested that Mr. Wales's health suffered greatly by his recent attendance at the scene of the Mardy explosion and the inhalation of noxious gases at that colliery, but his medical attendant does not give this as the immediate cause of his death. In May 1886, some of the survivors of the Mardy Colliery explosion the previous Christmas, visited the Maerdy Infant School and told the children about their experiences.

### **The following years, a brief history**

And so the story of the Mardy explosion had ended, but the history of the Mardy Collieries continued. The workings were extended in 1892 with the sinking of Mardy No. 3 Pit approximately a mile further up the valley and began winding coal at the end of 1894, and again in 1914 when Mardy No. 4 Pit was completed.

Mardy No. 1 and No. 2 Pits were closed in 1932 under Bwllfa and Cwmaman Collieries Ltd. and in 1940, five years after being taken over by the Powell Dyffryn Company, Cardiff Nos. 3 and 4 Pits ceased production. Following nationalisation in 1947, a modern colliery was constructed on the site of Nos. 3 and 4 Pits, with underground workings linked to Bwllfa.

This was the result of a £5 million modernization scheme for working the coal reserves of both the Cwmdare and Rhondda Fach valleys, given approval in 1948. The rebuilding swept away most traces of the original structures but provided an all-electric state-of-the-art colliery with new winder houses, coal preparation plant, administrative offices, a canteen, pithead baths and medical centre. The site of the Mardy Collieries No. 1 and No. 2 Pits had been retained for railway siding in connection with No. 3 and No. 4 Pits and continued in use to serve the new colliery.

The last coal was raised at Maerdy Colliery in 1986, although coal continued to be mined and brought to the surface at Tower Drift Mine, with which it was linked underground. The colliery, the last remaining working pit in the Rhondda, was finally closed on 21 December 1990, and in March 1996 the site was cleared to make way for an industrial unit.



**Colliers young and old outside the wages office. Date & colliery unknown**



**Mardy Colliers 1918. L to R: - Llew Morgan, Will 'Mwch' Morgan, & Twm Morgan, 60 Pentre Road, Mardy.**



**Mardy colliers c.1910 L to R: - David Davies, George Davies and Evan John Davies**

REPORT  
ON THE  
MARDY COLLIERY EXPLOSION;

BY  
A. G. C. LIDDELL, ESQ.,  
BARRISTER-AT-LAW.

---

Presented to both Houses of Parliament by Command of Her Majesty.

---



LONDON:  
PRINTED BY EYRE AND SPOTTISWOODE.

To be purchased, either directly or through any Bookseller, from any of the following Agents, viz.,  
Messrs. HANSARD and SON, 13, Great Queen Street, W.C., and 32, Abingdon Street, Westminster;  
Messrs. EYRE and SPOTTISWOODE, East Harding Street, Fleet Street, and Salt Office, House of Lords;  
Messrs. ADAM and CHARLES BLACK, of Edinburgh;  
Messrs. ALEXANDER TUDON and Co., LIMITED, or Messrs. HODGKINS, FICUS, and Co., of Dublin.

1886.

# REPORT

ON THE

## MARDY COLLIERY EXPLOSION

BY

**A. G. C. Liddell Esq.**

---

1. On the afternoon of Wednesday, the 23<sup>rd</sup> of December 1885, at about 2.40 p.m., an explosion occurred at the Mardy Steam Coal Colliery in the Rhondda Valley, belonging to Locket's Merthyr Steam Coal Company. Eighty-one lives were lost, and nine persons injured. A coroner's inquest was formally opened shortly after the explosion by Mr. T. Williams, of Merthyr, coroner of the district, and continued on the 12<sup>th</sup> 13<sup>th</sup> 14<sup>th</sup>, 15<sup>th</sup> 18<sup>th</sup> and 19<sup>th</sup> days of January 1886. During those six days a number of witnesses were examined. The Government Inspector, Mr. T. E. Wales, and the Deputy Inspector for South Wales, Mr. E. W. Randell, were present. Mr. Abraham, M. P; attended as representative of the miners of South Wales. The proprietors of the colliery were represented by their solicitor, Mr. W. Simons, and their agent, Mr. W. Thomas. I attended during the six days on behalf of the Secretary of State.

The jury found the following verdict: "We find that an explosion of gas occurred in the Rhondda District of the Mardy Colliery on the 23<sup>rd</sup> December 1885, whereby Daniel Williams, overman, lost his life. But how and where the gas ignited, sufficient evidence has not been produced to

enable us to determine. We are, however, convinced that it did not occur from shot-firing in the hard heading.” The jury would append the following two suggestions: -

(i) That sufficient means be taken to allay and then remove coal-dust from mines generating explosive gases.

(ii) That boys attending the elementary school of the colliery district be instructed in the rules of the colliery or collieries in the vicinity of which the school is situated. (A good idea that was unfortunately never followed up – Author)

2. The Mardy Colliery is owned by Locket’s Merthyr Steam Coal Company, and was opened in 1878. Mr. Griffith Thomas, who was appointed in 1879, is the manager, and Mr. W. Thomas, as agent under the Act, exercises a general supervision. There is no under-manager.

3. The following is a description of the workings, so far as is necessary for this Report, and will be rendered more intelligible by reference to the plan annexed, or to the sketch opposite page 1.

4. The down-cast and up-cast shafts are about 44 yards apart, and are sunk to a depth of 366 yards. Five seams are worked, two from the upcast, and three from the down-cast shaft. These workings are know respectively as No. 1 and No. 2 pit. The seams worked from the downcast shaft are in the 4-ft., the 6 ft., and the 2-ft. 9-in. The effects of the explosion were felt only in the No. 2 pit, the workings belonging to which were arranged in five districts radiating from the down-cast shaft towards the points of the compass by which they are named.

The North West Dip District

The Main West District

The South West District

The South East District

The North East District.

In the N. W. Dip district the workings are at present in the 6-ft. seam only, as the 4-ft. seam is thrown up some 32 yards by a fault, at a distance of

about 300 yards N. W. of the down-cast. The workings are on the “long-wall” system, and the average daily out put from the whole mine is about 1,200 tons.

5. The colliery is worked by two shifts, one on the coal by day, and one at night for repairs. These shifts consist of 761 and 200 men.

6. Ventilation is effected by a Waddle fan of 45 ft. diameter, which, at about 40 revolutions per minute and produces a volume of something under 250,000 cubic-feet of air, and a water gauge at about 2½ inches. Of this air, about 145280 feet ventilates No. 2 pit. The air in that pit is at first carried from the foot of the downcast by two main intakes running east and west for about 176 yards. The west intake then parts into three levels, running N. W., W; and S. W., respectively. The east intake divides into two, running respectively S. E. and N. E. The amount of air passing down these levels on the 20<sup>th</sup> November last was as follows: -

N. W. level	29,080	cubic feet
W. level	31,680	“
S. W. Level	46,760	“
N. E. Level	19,700	“
S. E. Level	18,600	“

7. The coal at the Mardy Colliery is steam-coal of a dry and dusty character, giving off large quantities of gas. In the three months preceding the explosion daily mention is made in the fireman’s report-books of “blowers” in various parts of the mine. On the day before the disaster four “small blowers” and two “strong” were reported, while seven days after thirty-five “small blowers” and sixteen “strong” were recorded. Between the beginning of the year 1885 and the explosion, nineteen small “accumulations” of gas are entered, but none of the were sufficiently serious to cause the withdrawal of the men from the mine.

8. The ventilation above described was, in the opinion of Her Majesty’s Inspectors, and of all the witnesses qualified to speak on the subject, amply sufficient. Indeed it was stated that the colliery was generally considered one of the best ventilated in South Wales. The same evidence of reputation was given in favour of the management, and no complaints at all were

brought forward on behalf of the men in either respect. The arrangements were allowed to be of a good and substantial character, and no fatal accident had occurred from an explosion since the colliery was opened.

As regards the ventilation and arrangement of the workings, I agree with this view. In the course of the inquiry, however, it appeared that the provisions of the general and special rules under the Coal Mines Regulation Act, 1872, were not in all cases strictly carried out. Also, that as regarded matters left to the discretion of the manager, the constant care and watchfulness necessary for the safety of a colliery working so fiery and dusty a coal, had been relaxed at some points, possibly owing to a false sense of security arising from the very excellence above mentioned. How far this was so will appear in the following statements: -

- (i) For a fortnight before the explosion no barometer was kept in a conspicuous position near the entrance of the mine, according to the terms of General Rule 26. The barometer generally used was away for repairs, and its replacement had not been supplied. There was a barometer in the fan-house, but as no persons were allowed there unless employed about the engine, such a position clearly fails to satisfy the above rule.
- (ii) The manager stated that on the morning of the explosion he omitted to look at the barometer at all, as he was in a hurry, having overslept himself. It is true that the barometer had not been low the night before, and was in fact  $30 \frac{2}{10}$ <sup>ths.</sup> on the morning in question; but the omission of such a common precaution shows a carelessness that might have had serious results. Indeed, the manager himself admitted that it was an oversight.
- (iii) The monthly measurements of the ventilation were taken by the book-clerk instead of by the officer next in authority to the under-manager (there being no under-manager), according to Special Rule 29, or by the manager himself, under Special Rule 2. There was no doubt as to the competence of the book-clerk to make these measurements, and the manager said that he occasionally tested them; but it is obvious that with such an important point as the

ventilation of the colliery, the provisions of the rules ought to be strictly carried out.

(iv) Somewhere about three months before the explosion, the day fireman in the N. W. District found what he called “a trace of gas” in the cavity above the “arches” hereafter described. The gas in question showed a blue cap on the flame of the safety lamp. The fireman, however, did not enter it in his daily report-book, or mention it to any of his superior officers. The reason given for this was that on trying a second time no blue cap appeared. This omission was not considered by the management a breach of the discipline of the colliery and the witnesses connected with other collieries who were examined seemed to take the same view. As the “blue cap” is throughout that Act and Rules treated as the test of dangerous gas, I am unable to say how the fireman can be said to have made a true report of the condition of the mine so far as ventilation is concerned (under general rule 2) if he does not report such an appearance whenever it occurs.

(v) By the Coal Mines Regulation Act and special Rules 10 and 217, the position of the lamp-stations, so long as they are on a main intake, is left to the discretion of the manager. At Mardy the lamp-stations in the different districts were at long distances from the down-cast shaft, and in many cases close to the workings. In the N. W. Dip the lamp-station was 770 yards from the downcast, being in-by of a disused working where small blowers of gas were frequently reported. Between the bottom of the down-cast and the lamp-station the use of naked lights and unlocked lamps was allowed. The former were only employed when authorised by the management, for the purpose of affording extra light for repairs or other special work; but the latter were habitually carried by the “riders” on the trains of the wagons. In all, there were 2,618 yards of intake where locked safety-lamps were not compulsory and naked lights might be used – a dangerous state of things in a mine of a fiery and dusty nature.

The reason for this state of things given by the management were, (i) That it was necessary to have lamp-stations, where the men might smoke near the workings, otherwise the more reckless of them would smoke in the

workings themselves. (ii) That the danger to men passing down the engine-planes from the ropes and the wagons made it necessary for the "riders" to use lights, which it was inconvenient to lock, as they were so often blown out; and that the same causes, together with the exigencies of their work, rendered it expedient at times to allow naked lights to repairers.

As regards to the first of these reasons, it is evident that a danger resulting from a possible breach of discipline is, where discipline is properly enforced, much more remote than one which may result from a state of things authorised by the rules of a mine. As to the second, so far as unlocked lamps are concerned, there seems to be no sufficient reason why the "riders" should not carry locked lamps and have them relit when extinguished, at the lamp-stations. In cases where extra light is wanted, as at partings, or where repairs are being carried on, light might be obtained from locked safety-lamps hung from the roof, as is done in some north-country pits.

If, however, it be convenient to retain subsidiary lamp-stations near the workings, it might be made a rule at the colliery that all lamps should be locked at a main lamp-station at the pit bottom, and no naked lamp whatever, or unlocked lamp, except in the hands of an official, be allowed beyond the double partings. This has actually been done in the colliery as an extra precaution since the explosion.

(vi)The arrangements made for the removal and watering of coal-dust were not of a sufficiently systematic character. The evidence showed that this important work was carried on in a desultory way. No officer or men were specially appointed for it, and no time specially fixed. The usual way in which the water was applied was by scattering it from a bucket, or applying the hand to the hole of a barrel in motion, and squirting the water about. Further, no regard orders as to watering the dust before shot-firing in dusty places were issued to the firemen, but merely the general order that they should not fire a shot unless perfectly satisfied with the safety of the operation, and watering in such cases was evidently the exception rather than the rule.

It ought perhaps to be stated here that the general and special rules contain no specific instructions as to the removal of dust, or watering before firing a

shot. There can be no doubt, however, that the danger of coal-dust in mines, though not appreciated when the Act of 1872 was passed, is now generally admitted and that this was the case was not denied by any of the witnesses on behalf of the management.

9. The practice of the colliery with regard to the firing of shots has not been included in the above paragraph. It was, in my opinion, full of hazard, but its dangers arose, not from want of care or discretion, but from a deliberate system founded upon a strained interpretation of the Act of Parliament, which, as saving a certain amount of time and trouble, seems to be generally adopted in the South Wales collieries. Shot-firing was allowed wherever required during the night shift, but only in hard headings during the day. In the night 10 or 12 shots were frequently fired, in the day a smaller number.

The 8<sup>th</sup> General rule (f. 2) of the Coal Mines Regulations Act, 1872, provides that during three months after any inflammable gas has been found issuing so freely that it showed a blue cap on the flame of the safety-lamp, powder shall not be used except under certain specified conditions mentioned in f. 2 (a), or “where the persons ordinarily employed in the mine are out of the mine, or out of the part of the mine where it is used. Section 51 of the Act states that these general rules are to be observed “so far as reasonably practicable.” There was no doubt that gas showing a blue flame was constantly in the colliery, but the contention of the managers has been that the words “reasonably practical” should be read in to f. 2 (b), and that if this was done, the Act would be complied with by withdrawing the men from the immediate neighbourhood of the shot. It is now, happily, necessary to argue against this view of the meaning of the words, as the Court of Queen’s Bench, in the recent case of *Wales v Thomas*, heard in November 1885, have decided that it is erroneous, and that “part of the mine” means the same as “panel” in General Rule 8 sub-s (g), viz; a part having a distinct system of ventilation.

The practical danger of this interpretation may be realised when it is stated that at the Mardy Colliery in the stone heading in the N. W. district (hereafter more fully described) one or two shots had been fired daily for some months. These shots were fired when about 122 men were in the N. W. district. It was considered sufficient if the five men at work in the

heading were withdrawn from the heading itself, a distance of 50 yards from where the shot was fired, no precautions being taken as to the remaining 117 men in the "panel."

10. The explosion occurred on the afternoon of the 23<sup>rd</sup> December, about 2.40 p.m. A report, a cloud of dust and smoke ascending from the down-cast shaft, and some slight damage at the mouth of the shaft, were the only indications of what had happened to those above ground. The fan was not stopped, and a rescue party, headed by the agent and the manager, were able to descend almost immediately. By their efforts ventilation was so effectually renewed that the mine was, in about three hours, practically freed from after-damp.

11. The effects of the explosion were almost entirely confined to the main intakes, a fact said to be unique in the history of such disasters. At the foot of the downcast shaft considerable damage was done to the gear and severe injuries inflicted on the bodies of the men killed. From the foot of the shaft the Main East and Main West levels run in opposite directions. Along the former, traces of the explosion were visible only for some 90 yards. Along the latter they extended for about 350 yards, but according to the evidence, were slight in that level, beyond the parting to the N. W. heading. The N. W. heading and N. W. dip branch off as described in paragraph 6, on either side of the Main West level, at a distance of about 176 and 196 yards from the down-cast. Down the S. W. Heading, which turns off first from the main heading, the explosion was felt for a distance of about 666 yards, and down the N. W. dip for about 400 yards. This, allowing for one or two "excursions sideways" puts the course of the blast at about a mile, and as, according to the evidence of Mr. Galloway the average section of the explosion was not less than 50 square feet, it would fill a space altogether of about 240,000 cubic feet.

Traces upon the timbering of flame or scorching from hot air, and of soot and coked coal-dust, were said to have occurred throughout the whole of this area. There can, however, be no doubt that at the bottom of the pit, and at a place called the "arches" in the N. W. dip (to be described hereafter), flame had been present in considerable volume. At the pit bottom and at the arches all the bodies found were burnt, most of them severely. The block-engine house near the foot of the down-cast was on

fire when first visited after the explosion, and the timbers on the intake below the “arches” were charred. Slighter traces of flame were found on the bodies about the lamp-station in the S. W. level, and of scorching on a body at the far end of the N. W. dip, these being the two extremities of the explosion. Roughly speaking, it may be said that the heat had been greatest near the two extremities, and at the centre of the area affected.

12. With regard to the direction of the blast the evidence was slight. The chief marks of violence were, as already has been mentioned, at the bottom of the shaft, but there was nothing to show from what quarter the violence had come. In the S. W. heading the timbering was blown in-by, and the same thing occurred to a slight extent in the Main West level. In the N. W. dip, about 170 yards from the parting, the timbering between the parting and that place was driven out-by. The doors in all the above headings were blown towards the return, showing that the explosion must have started in the in-takes. Lastly, William Williams, a rope changer at the S. W. parting, who was found alive immediately after the explosion, told his rescuer that he saw fire coming from the North dip (meaning the North-west), and on three other occasions before his death he used words to the same effect, adding that “the fire trundled him towards the pit.”

13. On the whole, after reviewing the evidence, I am of the opinion that the explosion originated in the N. W. dip beyond the region of the fall above mentioned. With the view suggested by the management that the evidence proved that the blast began at the bottom of the shaft, I do not concur, for the following reasons: -

- (i.) The chief force of the explosion would have been felt in the East and West main levels, which run in a straight line on both sides of the shaft.
- (ii.) Very slight traces of the blast were found to the east of the pit bottom.
- (iii.) The effects of the explosion were felt to the greatest distance in the S. W. heading and the N. W. dip. The chief volume of the blast must, therefore, in order to support this view, have, after a course of about 176 yards, been suddenly diverted, without meeting any obstacle, at right angles to the right and left from its original course, viz; at the partings where the S. W. headings and the N. W. dip leave the Main West level.

(iv.) The evidence, above set out in Par. 12, points to the N. W. dip as the quarter from which the explosion came.

14. Assuming that the explosion originated within the limits above mentioned, two theories were brought forward as to its cause. Before dealing with these theories, it will be necessary to describe shortly the localities to which they relate.

15. It has already stated that about 500 yards from the bottom of the down-cast the 4-ft. seam went up in a fault. About four months before the accident a stone heading was started from the N. W. dip towards the 4-ft seam. It appeared that just in-by of this point there had been a considerable fall in the roof, owing to the disturbed character of the strata, which had left a cavity of something under 30 feet high, and 9 feet wide at the top. The cavity obviously a place where gas might accumulate, the management determined to pack it with masonry and to secure the packing below by 24 feet of arching.

The work was accordingly begun in August or September last, and on the 23<sup>rd</sup> December a length of about 7 feet of arching, measuring 16 feet under the crown, had been already built across the intake from the point where the heading left it, while another piece of 6 feet in length was in the course of construction. The crown of the arch was three feet thick, above which was six feet of packing, leaving about four feet between that and the roof. When the arches were begun an airway had been made from the upper part of the cavity above them, which descended into the intake some 15 yards in-by. This airway was continued as the work proceeded, forming a trench on the top of the packing, at 26 feet from the ground. The air was turned upwards into the cavity by a half canvas sheet hung in the intake and reaching to within three feet of the ground.

On the day of the explosion three masons and two assistants were working at the arches. A stage had been erected for them at the height of about six feet from the roadway. Access to this was obtained by a ladder which went up to the head of the roof of the arch, being thus about six feet below the cavity above the packing. The assistants to the masons were allowed to use a naked light, of the kind known as a "comet." The necessary authority for

the purpose had been given them by the fireman, after consultation with the manager, with the provision that it was not to be taken above the intake. The “comet” in question had been used by the assistants on the morning of the explosion, and was seen hanging upon one of the timbers at the side of the heading. It was not produced at the inquest, but was said to have disappeared at the time of the explosion. The masons at work on the staging were ordered to use locked lamps.

The stone heading, the entrance to which was immediately in-by of the finished part of the arches, on the south side of the N. W. dip, was begun between two and three months before the explosion. Its course was entirely through rock, and its length on December 23 about two chains, its height at the mouth about six feet six inches, and its width about nine feet. The heading had been driven by blasting with ordinary shots, fired by the orders of the fireman. On the night before the explosion four shots were fired in the heading. One had never been found there, but locked lamps were always used by the workmen. The deposits of coal-dust in the heading were slight, being only such as came in from the intake.

16. This description will render the two theories above mentioned intelligible. They may now be stated as follows: –

- I. Theory of Mr. Wales – That the explosion was caused through the ignition of coal-dust in the N. W. dip by the “comet” lamp used at the arches. That such coal-dust was raised by the concussion of a blown out shot in the stone heading.
- II. Theory of Mr. Randell and Mr. Galloway – That the explosion was caused by an accumulation of fire-damp in the cavity above the arches, and ignited by one of the masons raising the “comet” lamp into the gas.

17. This theory, it will be observed on referring to the paper read by Mr. Wales at the inquest, is one of the several alternatives. But as these only amount to suggestions, not in themselves impossible, but unsupported by any evidence, I do not propose to deal with them, especially as the view above set out is clearly that to which Mr. Wales attaches most importance. It has not yet been conclusively established that pure coal-dust will fire at a naked light. Mr. Galloway was of the opinion that dust could not be ignited

unless of a peculiarly fine character, and mixed with one per cent of gas, and that neither of these conditions existed is the case of the Mardy Colliery. With regard to the view taken by Mr. Wales as to the way in which the dust ignited by the "comet" might have been raised, the following difficulties present themselves: -

- (i.) No authority was given by the fireman of the day shift to fire a shot on the 23<sup>rd</sup> December. It would, therefore, be necessary to assume that the shot was fired contrary to order, by one of the workmen, who must have had an unlocked lamp, or fired the shot by using a wire.
- (ii.) Traces of three shot-holes, in all of which the shots had more or less done their work, were found in the heading after the explosion. One hole remained, the sides of which were unbroken, and from which alone a blown-out shot could have proceeded. It was stated in evidence that this it was strongly of the opinion that it had never been fired.
- (iii.) The bodies of the four men at work in the stone heading on the night of the explosion were all found in the heading, and one of them at the distance of seven or eight yards from the face where the shot would have been fired. It is impossible to suppose that those men would have remained in the heading while shot was being fired. Had they been outside the heading, they would have been at the point where the explosion began, and would have been instantly killed. A truck full of rubbish was standing close to the face, a tin canister of powder containing four loaded cartridges was within two or three yards of it, and the boring tools were found just under the hole, facts all inconsistent with the state of things usual when a shot is fired.
- (iv.) The face of the heading, which contains very little dust, is 50 yards from the intake. It is therefore, to say the least, extremely doubtful whether a shot blown out of the face could have raised a sufficient amount of dust in the intake to kindle at a naked light.

18. No such weight of evidence bears against the other theory of the origin of the explosion. Indeed, in my opinion, it indicates a probable cause of the disaster, though, I think, there was upon the evidence quite enough

reasonable doubt in that respect to justify the jury in declining to adopt it. The reasons in favour of this theory may be summed up as follows: -

There can be no doubt that the cavity at the arches, both from its shape and from the nature of the roof, which was also said to have been particularly insecure for some days before the explosion, was a place where gas was likely to accumulate. Above the ventilating air-way there was a cavity of about nine feet long, four yards wide, and four feet high. Gas being lighter than air, might collect in the cavity and be unaffected by the draught in the air-way. What was called by the day fireman of the district "a trace of gas," showing a blue flame on the safety-lamp, was found there by him about three months before the explosion, but was not entered in the daily report-book. A "strong blower" was also found there after the explosion on the 31<sup>st</sup> December, by the workmen's examiner.

This blower, in the opinion of the examiner, filled the whole of the cavity with gas down to about six inches of the air-way, but it should be stated that blowers broke out in many parts of the mine after the explosion, which had not appeared before. After the disaster a pipe was put into the cavity by the manager, and a whole sheet substituted for the half-sheet hung in the intake before the 23<sup>rd</sup> December; yet these increased appliances seem to have been unable to keep the cavity free of gas. This fact necessarily throws a considerable doubt upon the efficiency of the air-way before the explosion to carry off any gas that might have accumulated above it. There is therefore nothing improbable in the idea of gas having accumulated in this cavity, above where the masons were working, while it is certain that a naked light was in use about 25 feet below. The bodies of the three masons and the two repairers were all found on the roadway in the immediate neighbourhood, one of the repairers being found at the foot of the ladder. All these bodies bore traces of severe burning.

In addition to this, the indications of the direction of the explosion as above stated, point, though not conclusively, to the region above the arches as the place where the blast began. Lastly, there seems to have been no other place in the N. W. dip where an accumulation of gas was at all probable. No evidence was given to show that the fall above mentioned as having been found some 70 yards from the beginning of the N. W. dip, after the explosion, was likely to have set free a volume of gas. On the contrary, Mr.

Kirkhouse, who examined it shortly after the disaster, was of the opinion that the amount of debris as compared with the size of the cavity precluded that idea. The only other place on the N. W. dip where gas might have gathered was a small disused working marked on the plan as the "First West levels," some 90 yards in-by of the arches. Here a "small blower" had been reported for some time before the explosion. Any gas that came from this source would be drawn into the intake, where 20,980 cubic feet of air were passing per minute, and would at once be diluted to such an extent as to render it harmless. Also, before it met with a naked light, it would have had to be carried for a distance of 100 yards to the lamp-station.

19. On the other hand, the following considerations against the adoption of this theory have undoubtedly considerable weight. The management were clearly aware of the danger to be apprehended from gas in the cavity above the arches, and the place was regularly tested by the fireman and sometimes by the manager. No trace of gas had, however, been found there before the explosion, except the one trace above mentioned. The examiner appointed by the workmen under the Coal Mines Regulation Act, found no gas there on the 22<sup>nd</sup> December, although he said that on that day he tried the hole to the top with a lamp hung on a stick, and saw the fireman do the same on the morning of the 23<sup>rd</sup> December.

No signs of violence whatever could be traced in the neighbourhood of the place where the explosion must have begun. The ladder, which went up within five feet of the cavity above the air-way, was left standing in its place, the staging was undisturbed, as were the tools of the workmen upon it, and a lot of mortar was left standing against the side of the intake immediately below. The woodwork of the unfinished arches was unmoved, and the lagging still standing loose upon the timbers, nor did any fall whatever take place from the roof. This was explained by Mr. Galloway and Mr. Randall as follows: - Gas and air only become explosive when mixed in certain proportions. The gas in the cavity was probably a thin layer, above which there was too little, and below which there was too much air to produce the necessary compound. Therefore, until the gas got down into the intake, it would cause a "flare" of "blow out" rather than an explosion.

Assuming the gas to have been the thin layer that Mr. Galloway describes, it is difficult to see why the ventilation passing through the air-way

immediately below that cavity where the gas is supposed to have accumulated, would not, immediately the ignited gas began to descend, afford a sufficient quantity of air to produce the completely explosive mixture. Moreover it would seem to be probable that a comparatively small accumulation of gas would, on blowing down into the intake, be at once mixed with enough air to become highly explosive, and that if not in the cavity, at least in the intake, signs of great violence would be visible.

20. Whether or not the view just discussed be accepted as a satisfactory explanation of the explosion, there can, I think, be no doubt that it was a dangerous error of judgement on the part of the management to allow the use of the "comet" in the way above mentioned. To allow a naked light in the hands of ordinary workmen on the ground within a few feet of a staging where it is considered inadvisable to use locked safety-lamps, there being no obstacle whatever in the passage from one place to the other, is, to say the least, to incur a risk where certainty might be insured. Such risk in considerably increased where the lamp is entrusted to repairers or masons, who are less likely to be accustomed to take care in the use of lights than the ordinary collier.

21. Before concluding this report, I think it right to draw attention to the exceptional character of the explosion to which it relates. As has been said, the flame and violence were practically confined to the intakes of the mine, where it is impossible that any large volumes of gas can have accumulated. Even if it be admitted that the cavity in the roof of the arches was filled with gas, it is impossible to think that the explosion of such a comparatively small quantity would, in extent and violence, approach in any degree to that which took place at Mardy. In the opinion of Mr. Galloway there could not have been 1 per cent of gas in these intakes. There is therefore no escape from the conclusion that the explosion, however originated, was propagated entirely by coal-dust.

I would therefore submit for the consideration of the Home Secretary that the recommendations of the jury as to removal of coal-dust be carried out, and that a regular system of watering and removal of coal-dust in mines be instituted, and put under a competent officer. I must also submit that it would be advisable to prohibit shot-firing in dusty part of the mine without previous watering of all places to which the flame of the shot might extend.

22. According to Mr. Galloway, based on experiments made by him, a mixture of 1 per cent of gas with fine coal-dust makes a compound that might be kindled at a naked light. The gas in such a compound would not be sufficient to show a blue cap on the flame of a safety-lamp, for which one-thirtieth part of gas in the air is requisite. Such an inflammable mixture may, therefore, be produced in many parts of mines that have hitherto been considered perfectly safe. This consideration will necessarily much increase the danger of using naked lights or unlocked lamps at long distances from the pit bottom, and above all will add largely to the dangers of shot-firing, unless due precautions are taken.

As stated above, it has been the practice of the Mardy Colliery to fire shots without any further precaution than withdrawing the men from the immediate neighbourhood of the shot. An appeal has been entered by the Defendants in the case of *Wales v Thomas* mentioned in paragraph 9, which the Court of Appeal will probably refuse to hear, in accordance with the decision in *Mellor v Denham*,\* in which event, it is understood, that the defendants will go to the House of Lords. If that court decides in their favour, the Court of Appeal will have to hear *Wales v Thomas* upon the merits. Should the House of Lords uphold the decision in *Mellor v Denham*, the present judgement of the Queen's Bench in the other case will stand, and will presumably put an end to the present objectionable system of shot-firing as far as regards the withdrawal of the workmen. It is, however, possible that a considerable time will elapse before the interpretation of General Rule 8, f. 2, 6, of the Coal Mines Regulation Act is settled, during which time the present system of firing shots will be continued in the collieries of South Wales.

\* The case of *Mellor v Denham*, 5 Queen's Bench Division, 467, decided that the Court of Appeal had no jurisdiction to hear an appeal from the decision of the high court upon a case stated by Justice, as to any information relating to a contravention of bylaws under the Act of Parliament, on the ground that such as information relating to a criminal matter was not within the meaning of the Judicature Act. 1843, a, 47.

24. In view of the state of things, it seems the more necessary that regulations to the effect suggested in par. 21 should be made and enforced. Pending the issue of the report of the Prevention of Accidents in

Mines Commission, which will no doubt lead to fresh legislation on the subject, I would submit to the Secretary of State that he should propose new special rules to this effect under the powers given him by sec. 55 of the Coal Mines Regulation Act 1872.

Upon the evidence taken at the inquest, and under the present circumstances, I am of the opinion that there is no case for a prosecution under the last-mentioned Act.

### **Annexed**

#### **The report of Mr. George Galloway**

The Mardy Colliery consists of two shafts, the up-cast being 16 feet diameter, and the down-cast 15-feet diameter, and each shaft is sunk to a depth of about 380 yards from the surface. There are five different veins or seams of coal being worked, viz.,

The Abergorki  
The Two Feet Nine  
The Four Feet  
The Six Feet, and the  
Lower Four Feet

About 1,000 persons were employed underground, viz, about 800 during the day, and 200 during the night, producing from 1,200 to 1,400 tons of coal daily. The ventilation was effected by a Waddle fan 45 feet in diameter, which, at about 40 strokes or revolutions per minute, produced about 250,000 cubic feet of air per minute with a water gauge of about 2½ inches. The current of 250,000 feet of air was split or divided into eight principal splits or divisions.

All the coals were worked on the long-wall system, and in the faces locked safety-lamps were used, but on the principal intake airways between the bottom of the down-cast shaft and the lamp-stations, either unlocked lamps or open lights. Several lamp-stations were placed in different parts of the colliery, the distances from the down-cast shaft varying from 300 to 850 yards; that on the North-west dip being within 100 yards of the face of the workings in the first West dip. Shot-firing, according to the evidence,

was allowed wherever it was required during the night shift, but only in the hard heading in the North-west district during the day.

Both from the evidence produced, as well as from Mr. Randall's reports on his inspections of the colliery during the last year, I consider the ventilation was ample, both as regards quantity of air and its distribution. And to that fact I attribute the great freedom of accumulations of gas in almost every part of the colliery, and, in my opinion, the arrangement of the intakes and return air-ways from the different seams and districts were well conceived and carried out in a most substantial manner, and to that fact, in a great measure, the escape of a very large number of men is due.

Next in importance to the ventilation is the lighting of a colliery. As already stated, locked safety-lamps were used in the faces, but on the different intakes between the down-cast shaft and lamp-stations, either unlocked safety-lamps or open lights, and, in my opinion, this was a most defective system and fraught with great danger, for it should always be borne in mind that to whatever extent open lights are allowed in a colliery, to exactly the same extent is the safety of working a colliery with locked safety-lamps diminished.

Shot-firing was also permitted whenever required during the night, when some 200 men would be in the colliery, but during the day, when between 700 and 800 men were there, it was only allowed in the hard heading in the North-west dip district. To my mind this was a most dangerous practice, and clearly, I think, a violation of the No. 8 general rule, which strictly prohibits shot-firing except under certain conditions, which conditions were certainly not complied with in this case.

As to the cause or origin of the explosion, after much thought I am decidedly of opinion that it was chiefly, if not entirely due to the ignition of coal-dust lying on the road between the bottom of the down-cast shaft and the beginning of the hard heading on the North-west dip, being about 550 yards. Both at the beginning of the hard heading and at the lamp-station, some 220 yards further on, open lights were allowed, and in all probability one of these open lights was the cause of the ignition; the coal-dust being raised either by the ignition of a small quantity of explosive gas, or, in my opinion, probably be the concussion of a blown-out shot in the hard

heading raising the dust near the arch on the North-west dip where it was ignited by the “comet.”

For some time I have, on these melancholy occasions, recommended the discontinuance of shot-firing in the working of the South Wales steam coal collieries, but I regret to have to add that such recommendations have not been adopted; therefore, in my opinion, there should be a legislative enactment to strictly prohibit the use of gunpowder or other explosives, and also to prohibit the use of open lights beyond a few yards from the bottom of the down-cast shaft in all those collieries, and all the principal roads should be constantly watered, so as to prevent, as far as practicable, the accumulation of coal-dust, the ignition of which has doubtless told with such deadly effect in all those sad calamities which have occurred in this and other districts for years past.

From my knowledge of the South Wales coal field extending over a period of more than thirty years, I now state distinctly and emphatically that in my opinion nothing short of a total prohibition of shot-firing and the use of naked lights (except near the bottom of the down-cast shaft) by the legislature will prevent these serious explosions, and to my mind the adoption of other means, so long as these dangerous practices are permitted, can and will only result in bitter disappointment.

#### Mardy Explosion, 23 December 1885

Through the courtesy of Mr. William Thomas, the engineer, I was permitted to visit the scene of the explosion on the 4<sup>th</sup> of January. I was accompanied by Mr. William Thomas, Mr. Griffith Thomas, the manager, and Mr. Edwin Randall, the Government Inspector. I traversed the whole space through which the explosion had passed, observed the quality and quantity of coal-dust lying on the roadways, searched for evidence of the explosion, and endeavoured to arrive at a conclusion as to its origin.

The explosion was entirely confined to certain portions of the main East and main West levels; the North-west dip, and the South-west headings, all of which were intake air-ways constantly swept through by large volumes of fresh air coming direct from the surface and uncontaminated with fire-

damp. The main East and main West levels set out in opposite directions from the bottom of the down-cast shaft. At a distance of about 530 feet along the main West levels, the South-west heading branches to the left and at a distance of 70 feet further, the North-west dip branches to the right. Each of these levels, headings, and dips leads to one or more district of workings in which men were employed at the time of the explosion. The flame did not extend to the faces of the workings in any case, however, and consequently all the men who remained inside escaped unharmed. The distance traversed by the flame may be given roughly as follows: -

East of shaft, main East level	-	260	feet
West of shaft, main West level	-	1,050	“
South West heading	-	2,000	“
South-west dip	-	<u>1,200</u>	“
Total		<u>4,510</u>	“

Beside this, it made one or two exertions sideways and must also have followed the dust cloud up the down-cast shaft to a considerable distance. It was thus altogether about a mile in length, and its average section was not less than 50 square feet, it would fill a space of 240,000 cubic feet at least.

Fire-damp could not have played any but a subordinate part in this explosion, and there is therefore no alternative but to turn to the consideration of coal-dust. All the roadways so far as I travelled along them, with the exception of 20 or 30 yards in each side of the down-cast shaft, which was damp, were covered with dry coal-dust, and as there was an ample quantity present to produce all the effects observed, I have no hesitation in saying that this was a true coal-dust explosion.

The explosion of the coal-dust must have begun in one or two ways, namely: - By the ignition and explosion of a small local accumulation of fire-damp, or by a blasting shot fired in the presence of fire-damp or coal-dust. Either of these causes produces a great volume of flame and a sudden hurricane of wind. The latter raised the dust in the form of a cloud, the former ignites it, and thereafter the explosion becomes self-propagating.

I have myself made many experiments in artificial galleries in which a mixture of air and fire-damp was exploded at one end while the floor was strewn with fine coal-dust to represent the conditions prevailing in a dry mine, and I have found that the flame of the original fire-damp explosion was taken up by and carried along in the cloud of dust in pure air with flames varying from 100 to 150 feet in length, while the fire-damp flame which originated them did not extend further than 10 or 15 feet.

A commission appointed by the Prussian Government to investigate this question made many similar experiments with blown-out shot, and obtained similar results. I found a fine grey metallic-looking shot, consisting apparently of particles of coked coal-dust, lying on the timbers which support the roof in some parts of the roadways through which the explosion passed. A grey dust of the same kind is produced in the experimental galleries. There were no coked coal adhering to the timber nor did I expect to find any for the reasons I gave at the Penygraig explosion in my paper No. 111 to the Royal Society, on the influence of coal-dust in colliery explosions.

In the present case I am of the opinion that the explosion was originated by the ignition of a larger or smaller accumulation of fire-damp contained in the cavity in the roof above the arch which the masons were engaged in constructing in the North-west dip, at a distance of about 350 yards from their junction with the main West Level. This cavity is a very large one, being about 25 feet high above the floor, about 20 feet wide and over 20 feet long. I give these estimated dimensions subject to correction, not having measured them. The highest part of the arch reached to within 8 or 10 feet of the top of the cavity. It was known that fire-damp would collect in the cavity unless special means were taken to prevent its doing so; and, accordingly, the manager had provided a small air-way and other contrivances for ventilating it, and had arranged for its being regularly tested for gas.

On the day of the explosion the roof of this cavity appears to have been uneasy and threatening to fall, so that the masons did not apparently work continuously. The former circumstance would tend to increase the quantity of fire-damp escaping into the cavity from the upper strata; the latter would favour its accumulation through the absence of moving bodies which would

otherwise mix it with the air and facilitate its dispersion and diffusion. Be this as it may, however, it is certain that one of the two masons and the labourer who attended to them were *under* the arch at the instant the explosion took place, while the body of the other mason was found lying at the foot of the ladder which formed their means of access to the top of the arch.

It is probable that fire-damp collected in the upper part of the cavity unknown to any one, and that after the masons and their labourer had been for some time under the arch waiting, perhaps, for the roof to settle, one of them took the comet, or large naked light, in his hand and ascended the ladder to ascertain whether it would be safe for them to recommence work. In doing so he probably raised the comet until it ignited the gas and was then precipitated to the foot of the ladder, where his body was found. The timbers at both ends of this cavity were blackened by the action of flame to a greater extent than any of the other timbers I observed in the roadways through which the explosion passed, and this circumstance helped to confirm my opinion that this was the origin of the explosion. The ignition and explosion of a considerable body of inflammable gas in this position is sufficient to account for the whole of the effect observed. It appears from what I am told by the manager, and from what has been said in evidence, that the dust lying on the roadways of this colliery was occasionally watered in an erratic and somewhat partial manner, and to this circumstance alone I attribute the fact that the explosion was confined with such comparatively narrow limits and that the lives of so many men were saved.

**George Galloway,**  
**(Late Deputy-Inspector of Mines for the Government)**

**Official list of Killed and injured**

<b>No. on plan</b>	<b>Name</b>	<b>Age</b>	<b>District found</b>	<b>Remarks</b>
1.	Edward Thomas	23	Aberdare side	Badly burnt.
2.	Philip Hitchings	33	Pit. East side	“ “
3.	Arthur Boozey	21	Pit bottom	“ “
4.	John Powell	23	“ “	“ “
5.	Ephraim Hughes	21	“ “	Slightly burnt, suffocated
6.	Henry Pullin	23	“ “	Badly burnt
7.	James Perry	20	“ “	“ “
8.	John Spiller	20	“ “	“ “
9.	Thomas Hughes	33	“ “	“ “
10.	David Martin James	20	“ “	Badly burnt. Died Dec. 25 <sup>th</sup>
11.	John Henry Thomas	23	“ “	“ “ Died Dec. 29 <sup>th</sup>
12.	William Williams	33	“ “	“ “ Died Dec. 27 <sup>th</sup>
13.	Daniel Williams	43	North-west	Slightly burnt and suffocated
14.	Benjamin Phillips	40	“	“ “
15.	David Jones	55	“	“ “
16.	Daniel Philips	50	“	“ “
17.	Lewis Davies	32	“	Badly burnt
18.	Griffith Scourfield	19	“	“
19.	John Evans	55	“	“
20.	Joseph Jones	40	“	Suffocated
21.	Edward Edwards	52	“	Slightly burnt &

				suffocated
22.	Owen Tudor	32	“	Suffocated
23.	Edward Edwards (Jnr.)	17	“	Slightly burnt & suffocated
24.	Mike Stokes	17	“	Suffocated
25.	David Thomas Ward	19	“	“
26.	John Lewis	19	“	“
27.	Messeck Phillips	32	“	“
28.	David Rowlands	27	“	“
29.	William Griffiths	16	“	“
30.	Evan Pugh	17	“	“
31.	Thomas Watkins	17	“	“
32.	Morgan Watkins	14	South-west	Slightly burnt & suffocated
33.	David Jones	27	North-west	Suffocated
34.	Joe Baker	17	“	“
35.	James Thomas	27	“	“
36.	John Davies	17	“	“
37.	Richard Evans	24	“	“
38.	Owen Powell	29	“	“
39.	Thomas Thomas	24	“	“
40.	John Herd	22	“	“
41.	Evan James	21	“	“
42.	David Jones	27	“	“
43.	William Thomas	19	“	“
44.	David Lake	35	“	“
45.	John Jones (Bevan)	23	“	Slightly burnt & suffocated
46.	Evan Davies	19	South-west	Suffocated
47.	John Jones	42	North-west	“
48.	William Jones	13	“	“

49.	John Edwards	13	“	“
50.	William Jones	13	“	“
51.	Isaac Jones	20	“	“
52.	Thomas Philips	20	“	“
53.	David Bowen	18	“	“
54.	Richard Lewis	45	“	“
55.	Phillip Richards	66	“	“
56.	John Collins	40	“	“
57.	Isaac Davies	33	“	Slightly burnt & suffocated
58.	Thomas Evans	28	“	Suffocated
59.	Evan Roberts	28	“	Badly burnt
60.	<i>William Davies</i>	25	“	Slightly burnt & suffocated
61.	John Evans	45	“	Suffocated
62.	Evan Davies	29	“	“
63.	David Lewis	40	“	“
64.	Thomas Jenkins	15	“	“
65.	William Harries	29	“	“
66.	John David Jones	50	“	“
67.	David Evans	16	“	“
68.	Levi Williams	40	“	“
69.	Thomas Evans	28	“	“
70.	James Lockstone	27	“	“
71.	John Williams	23	“	“
72.	Edmund Morgan	17	“	“
73.	David Jones	59	“	“
74.	John Morgan	16	“	“
75.	Robert Griffiths	34	“	“
76.	Thomas Davies	49	“	“
77.	Thomas Davies	12	“	“
78.	John Evans	24	“	“

79.	Gomer Morgan	20	No. 4 Heading	“
80.	Henry (Harry) Isaac	21	“	“ Died Dec. 27 <sup>th</sup>
81.	John Williams	22	West side pit Bottom	“ Died Dec. 31 <sup>st</sup>
<b>List of injured and alive</b>				
Evan Hughes, Engineman, East Engine house, slightly burnt.				
Thomas Thomas, Master Haulier, East Engine house, slightly burnt.				
William Thomas, repairer, East Engine house, ropeman, East Engine house, slightly burnt.				
Gomer Rees, Haulier, Inner-parting, South-west, badly burnt.				
Richard Davies, South-west, Badly burnt.				
John Jones, Hitcher, East-side, Pit bottom, badly burnt.				
William Henry Lewis, Doorboy, South-west, No. 4 heading, slight burns.				
A few months after the disaster a son was born to Edward Edwards (No.21), who was named in honour of his father, Edward Posthumous Edwards				

The story of the Mardy colliery explosion, as far as the newspapers were concerned, came to an end, but those in the village the consequences would last for years. The widows, children and dependents would be supported by the Miners Permanent Fund that most were members of. The various amounts of money raised were all absorbed into this fund. For widows left with several children, however a life of poverty was only avoided by remarrying someone local, perhaps another collier, though the Miner's Fund were willing to help people to emigrate to places like America, who were promoting their country in Welsh newspapers. And the weekly deaths in the mines of the Rhondda valley continued.

## Miscellaneous

These are just a few of those stories that appeared in the local newspapers before and after the 1885 explosion, and shows the dangers and difficulties of regulating the No. 1 and No. 2 pits: -

At the end of February 1877 James Chiney, Mardy, was charged with stealing one pennyworth of coal, the property of Mr. Mordecai Jones, colliery proprietor, and was sentenced to five days' imprisonment with hard labour at the Pontypridd Police Court. The only death recorded before the explosion in 1885 was James Edwards who died on May 22<sup>nd</sup> 1877.

On Saturday, March 9<sup>th</sup> 1878 a workman named Thomas Jones was killed at the Mardy sinking pit. He was employed below, when a stone fell from the side of the shaft, and striking him on the head, killed him on the spot. He was 23 years of age, and leaves a wife but no children.

### How explosions are caused

On Monday, February 7<sup>th</sup> 1881 (before Mr. Gwilym Williams), Richard Edwards, labourer, employed at the Mardy Colliery, but living at Hirwaun, was charged with taking with him into the colliery tobacco and matches. Mr. Walter Morgan appeared for the prosecution. Llewelyn Simon deposed that he was employed at the Mardy Pit as a collier. On the day in question he entered his stall in the said pit where he found there a tobacco box. Open it and found it contained tobacco and two matches (produced). Some one had been "gobbing" there on the night previous. Gave the box and its contents to Williams, the overman. Defendant, who assured his worship that he had no intention of lighting the matches underground, was sentenced to 14 days with hard labour without the option of paying a fine.

### Thrilling affair at Mardy – a collier entombed for nine hours

A very sad affair took place within Mardy Colliery on Saturday morning, November 5<sup>th</sup> 1881. It appears that four men were engaged in "repairing" on Friday night. They had been busily engaged until about 10 o'clock, when they heard the top cracking above their heads. They fled from the spot, and three of them escaped, but one man named John Davies, alias "John o'r

Pond," was caught by the roof falling when he was within a few yards of a place of safety. He was completely hidden from view by the stones and timber which had fallen; but cries proved that he was alive, and as soon as it could be done with a degree of safety his fellow-workmen and others, returned to his assistance. They found large stones lying in all shapes, interspersed with the fallen timber, filling the heading. Somewhere in the debris the sufferer was concealed from view. Instantly all the men applied themselves to reach him, but the stones were so massive that slow progress was made. The entombed man was able to converse with the workmen during the whole time, but they were unable to extricate him before half-past 1 o'clock on Saturday afternoon. He was then found to be terribly injured about the lower extremities. He was conveyed home, and Dr. Parry and his assistant, Mr. Evans, attended to him, but he died at 10 o'clock on Sunday night.

#### A workman sent to prison – The question of special rules

At the Pentre Police Court on Monday, February 21<sup>st</sup> 1881, before Mr. Gwilym Williams, John Morgan, collier, Mardy, was charged with smoking in the mine, and also in carrying a pipe in the mine at the Mardy Colliery on the 9<sup>th</sup> inst. In his opening remarks, Mr. Morgan stated that the defendant was a respectable man; everybody was surprised that he had committed the offence which he would prove he had perpetrated.

He was instructed by his clients to say that they did not wish to press the charge heavily against him. Defendant, however, did not appear, and it was stated he had left the Mardy Colliery. The special rules of the colliery, attested by the Government Inspector, were put in. The witness examined was a door-boy, who deposed that he saw the defendant on the day in question smoking a pipe, which he held concealed in his fist. This was in the interior of the colliery, far beyond the lamp station.

The Stipendiary Magistrate, referring to Mr. Walter Morgan's remarks to the effect his clients did not wish to press a charge against the defendant, said he was always ready to give attention to recommendations emanating from a prosecution. But in this case he had made up his mind, when the summonses were granted, that if the statements then made were substantiated by evidence he would sentence the offender to a term of

imprisonment without the option of paying a fine, for he had at that court repeatedly pointed out to underground workmen the danger they incurred both to themselves and their fellow-workmen by smoking in the workings, and he was resolved to severely punish offenders brought before him.

Were it not for the recommendation made by the learned advocate, based on the defendant's previous good character, he would have felt it his duty to sentence the defendant to two, if not three, months' imprisonment with hard labour. The sentence would be one month for smoking in the workings, and a fine of 40 shillings and costs for taking a pipe into the workings. His worship then remarked that with reference to the apparent defect in the special rules, to which Mr. Morgan called attention that day week, wherein the workmen were allowed to take pipes as far as the lamp-station underground, and there smoke, he (the Stipendiary) would see the Home Secretary personally this week on the matter.

W. Simons intimated that it was hardly necessary to appeal to the Home Secretary, for the owners of the colliery possessed full power to enact a regulation at their respective collieries to prohibit the men from taking pipes to any part of the colliery, and he was glad to say that some of the Rhondda Valley masters, acting upon his suggestion, were now taking steps to that effect. Mr. Morgan said that they had not done so. His worship thought that it would be better to call the Home Secretary's attention to the important matter.

#### Important resolution of Mardy Colliers

The following resolution, unanimously passed by the Mardy colliers on the afternoon of the 19<sup>th</sup> February 1881, was handed into the office of the works the same evening: "That we, the colliers and others employed underground at the Mardy Collieries, Ferndale, hereby desire to express our horror and distress at the prevalence of carrying tobacco pipes the lamp-station, and we hereby agree to do all in our power to assist the officials in bringing the offending parties before the proper tribunal where such cases are tried."

## Alarming cage accident at Mardy – 12 men injured

On Tuesday February 11<sup>th</sup> 1896, a cage containing 12 colliers employed at the Locket's Merthyr Steam Coal collieries at Mardy was being lowered into the pit, when it came into violent collision, about 150 yards down, with a temporary platform, which for some reason had not – as it should have been – been removed. The cage crashed into the wooden staging, with the result that all the men were injured, many sustaining broken limbs. Fortunately, none were thrown out, and, consequently, no lives were lost.

The names of the injured are: - John Griffiths (48), Haulier, single, puncture wound of perineum, contusion of hip, contusion of the seventh vertebrae; David Jones, collier, 2 Hill Street, fracture metatarsal bone of right leg; Thomas Hewing, collier, Griffith St., wife & five children, leg broken in 2 places, fracture of femur and his right leg; John Evans, 1 Pentre Rd, wife & children, fracture right tibia and fibula; James Hall (14) 14 Pentre Rd, contusion of right knee, no feeling in his leg, caused by injury to sciatic nerve; another man, who resides at 2 Hill Street, contusions, right side; Boy 28, Hill St., fracture right tibia and fibula; William Page (39) 39 Oxford St., lacerated round left-leg, over middle of tibia, contusion of ankle; John Thomas (26), 2 Oxford St., pains in right side, ribs not fractured. Morgans (19), Hill St., contusion of leg; William Jameson, (29), Wood St; contusion, ankle and side, slight. On inquiries made on Tuesday night, it was found that the injured men were doing as well as could be expected and that no fatal effects were anticipated. Ten of them, however, had been very badly injured.

## Three men drowned in pit at Maerdy

Fifteen children are fatherless as the result of a tragedy at the No. 1 pit of Locket's Merthyr Colliery, Maerdy, on Sunday, August 9<sup>th</sup>, 1931, when a cage plunged into the sump, and three Maerdy men were drowned. One body was not discovered until after a 12 hours' search. A fourth member of the party left a cage at the landing in the pit shaft, and thus escaped. The victims of the tragedy are: - John Thomas (60) 85 Griffith Street, Maerdy, head farrier; William Jones (54), 33 North Terrace, Maerdy, ostler; and David Davies (57), 95 Maerdy Road, Maerdy, ostler.

The body of Davies was not recovered until 8 p.m. on Sunday. The other man in the cage was Daniel Lewis, of 18, Pentre Road, Maerdy, who alighted at the Abergorky landing. It was the duty of the four men to descend the pit on Sundays to attend to the pit horses. Prior to their descent water-winding operations had been taking place in the 'sump.' This is the lower portion of the pit, and is a form of a well immediately below the shaft, where the water collects. Periodically it is pumped out when the pit is not raising coal.

### Cage submerged

The winder was Mr. David Thomas, of Station Terrace, who has had almost a life-long experience in the mine, while the acting banksman was Mr. Richard Jones, of Excelsior Terrace, Maerdy, another experienced workman. After Lewis had alighted the other three men had to be lowered a further 200 yards to reach the pit bottom. When the cage arrived consternation was first caused when no 'all clear' signal was given. The cage was raised and to his horror the acting banksman saw the bodies of Thomas and Jones.

he cage must have been completely submerged in the sump, and the three men must have met their death almost instantaneously. The missing man, it was surmised, had fallen from the cage after meeting his death. Willing helpers speedily tried artificial respiration, among them being Police-Sergeant Anthony West, M.M., and Police-constable William Hemlock. Dr. John Fletcher, however, could only pronounce life extinct in both cases.

With the characteristic promptitude of the Welsh miner in the face of danger there was no lack of volunteers to descend the mine to search for their missing comrade. Amongst the first to go down were Mr. John Thomas M. E., the manager, and P. C. Ben Jones. After 12 hours searching in relays the body of David Davies was found. All are married men with wives and families. Poignancy is added to the tragedy in the case of William Jones, who leaves seven children, by the fact that he had only worked for a month after five years unemployment. He was a deacon at the Siloam Welsh Congregational Church.

Thomas leaves five children. Prior to coming to Maerdy he was for 30 years with the Powell-Duffryn Company. David Davies leaves three children. He

had worked for over 30 years in the mines at Maerdy. The Locket's Merthyr Colliery has been remarkably free from serious accidents since 1885, the year of the Mardy explosion, when 83 lives were lost. The cause of the accident is at present unknown. A very large funeral took place at the Maerdy Cemetery on Thursday, 18 August 1931, for Davis Davies and William Jones, while the following day John Thomas was buried at the Aberdare Cemetery.

<b>Mining disasters in the Rhondda Valley 1850 - 1965</b>					
<b>Colliery</b>	<b>Location</b>	<b>Date</b>	<b>Year</b>	<b>Death toll</b>	<b>cause</b>
Dinas Colliery	Dinas	1 January	1844	12	gas explosion
Cymmer Colliery	Cymmer	15 July	1856	112	gas explosion
Ferndale No. 1 Pit	Blaenllechau	8 November	1867	178	gas explosion
Ferndale No. 1 Pit	Blaenllechau	10 June	1869	53	gas explosion
Pentre Colliery	Pentre	24 February	1871	38	gas explosion
Tynewydd Colliery	Porth	11 April	1877	5	Gas explosion
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
Mardy 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 trolley
Lewis Merthyr Colliery	Trehafod	22 November	1956	9	gas explosion
Cambrian Colliery	Clydach Vale	17 May	1965	31	gas explosion

**Glossary of mining Terms used in this book**  
(Courtesy of the Cynon Valley Historical Society)

**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.

**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.

**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.

**Comet** - A naked light used to illuminate main roadways below ground.

**Cog** – A roof support constructed of interlaced horizontal wooden pieces, laid from floor to roof.

**Davy** - Safety lamp invented by Sir Humphrey Davy in 1815.

**Dip** - Working a seam to the 'Dip' means working down-hill, as opposed to working the 'rise', uphill.

**District** - The area in a colliery that is legally under the supervision of a mine deputy.

**Double-parting** - A roadway containing one tramway entering a section of wider roadway containing two set of tramways. It is a transfer area where a full 'journey' of coal is deposited and another 'journey' of empty trams is ready to be taken to the coal face.

**Drivage** - An advancing heading (tunnel) in a mine. It could be exploratory or for development.

**Downcast** - A ventilation shaft, where fresh air is drawn (or forced) into the workings.

**Engine plane** - Usually a sloping roadway with an engine towards the top hauling up trams.

**Face** - The part of the mine where coal is actually mined from.

**Fire-clay** - A band of clay normally found adjacent to a coal seam and sometimes worked in addition to the coal, It becomes the main constituent of brick making, also used for the 'stemming' of shot-holes in mines.

**Fire-damp** - Chemically known as carburetted hydrogen or methane, has a specific gravity compared with air of 0.559 and is therefore found near the roof. When fire-damp explodes, after-damp is formed, and consequently, nearly every death caused by colliery explosion may be attributed to gas poisoning.

**Fireman** - Local name for a deputy. Sometimes the man who looked after the ventilation was also known as a fireman.

**Flueman** - The man appointed to maintain a fire in the flue.

**Furnace ventilation** – A method of ventilation in which a fire is kept burning near the bottom of the upcast shaft, to draw air into the mine workings. Also called ‘flue.’

**Gas** - A term normally used for firedamp, but could be any gas found in a mine

**Goaf** - The worked out ground of a coal mine.

**Hard heading** - A drivage through rock and coal at an angle to contact a seam for future production.

**Haulage engine** – A steam, compressed air fixed engine, on surface or below ground. Used for taking into the district trams filled with supplies and returning with a full journey of coal.

**Haulage plane** – The actual ‘run’ of a journey into a particular district, its gradients, turns, etc., details that are familiar to the haulage-engine driver.

**Heading** - A drivage in advance of any coal-face, driven to determine mining conditions ahead.

**Haulier** - A miner who drives a horse to the coal-face or stall with an empty tram and returns to the ‘double parting’ with a full tram of coal. He is in sole charge of his horse.

**Haulage engine** - A steam, compressed air, or electrical type of fixed engine, on surface or below ground. Used underground for taking in a district supplies for the face and returning with a full journey of coal.

**Hitcher** - A man at pit-bottom who operates the shaft signals which are heard by the winder and banksman.

**Inbye** - A word to describe the relative position of anyone in a mine e.g. “He has gone in-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 wires.

**Lagging** - Timber 'slats' erected above and around sides of wooden 'Pairs of timbers' to ensure no stones could fall on a man passing by.

**Lamp station** - Place where a lamp could be re-lit.

**Level** – A level is a drivage tunnel which follows the seam of coal from the surface. Other factors, such as water and roof conditions, would decide the accrual pitch of the level's initial gradient.

**Longwall** - A method of mining coal with all the colliers of that district manning one lengthy coal-face. No pillars were left behind in a longwall face and the roof was allowed to 'cave in' behind the line of supports.

**Management of mines** – 'Official' was the generic term for all levels of management, from agent down to shot-firer. Formerly, in large coal companies one or more 'Agent' would have been in charge of a group of mines. Each mine would have a manager (viewer) who was required in the 1870's to be properly qualified and answerable (but not legally) to the Inspector of Mines. The under- manager (or under-viewer) was generally responsible for the immediate supervision of operations in his district. Overmen were responsible for the provision supplies when needed, including timber for support of the roof. The overmen of the 19<sup>th</sup> century also had the responsibility for calculating the wages due to each collier.

**Master-haulier** - An official who organises the tasks of hauliers and checks the shifts of horses in his care.

**Manhole** - Refuge holes made in a roadway for the shelter of a person from shot firing, or safety from a passing journey.

**Ostler** – A horse attendant, working in underground stables.

**Outbye** - Towards the shaft or to the mouth of a level.

**Overman** – See Management of mines

**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 vertical sinking of a colliery to a required seam. Most shafts are circular in section, and designed to hold one or two cages.

**Shotsman** - A qualified official who fires shot-holes in a district.

**Sinker** - A specialist miner, employed for the sinking of a pit-shaft.

**Slum** - A slum was a road which went from the back of the pit where the empties and supplies would be taken around to the go into the various districts. The slum roads in the 3 and 4 pits were quite large and long with the one in the red horizon being quite a distance from the back of the No. 3 pit around to the intake side of the red horizon.

**Stall** – See pillar and stall.

**Sprag** - A piece of wood tapered at each end and inserted between the spokes of a tram wheel to stop the tram or to prevent it running away when on an incline. Also refers to a temporary prop, erected to support a ripping lip until a permanent prop is stood.

**Squeeze** - The increasing pressure of a weak roof in mine workings, detected by the crushing of timber supports - sometimes accompanied by audible cracking of roof strata.

**Stall** - A working place at the coalface where the coal was extracted; in a coalface 100 yards long there would be as many as 20 or 30 stalls, each separated by a pillar of coal left to support the roof.

**Stemming** - Clay or other inert material, used to pack behind the explosives in a shot-hole.

**Strata** - One of several parallel layers of rock etc., arranged one on top of each other.

**Sump** - An extension downwards at the bottom of a pit-shaft to contain the water that seeps down the shaft. It would then be pumped to the surface.

**Tamping** - The pressing of rubble or horse manure onto the explosive substance inside the bored hole of an arm or collar to stop any flames reaching out and causing an explosion.

**Timberman** - A workman who would 'notch' and prepare wooden posts for the securing of the roof. A man employed for the re-timbering of the supports of an old roadway.

**Top** - Commonly used in mines to describe the roof of a seam, e. g. "The top needs extra supports."

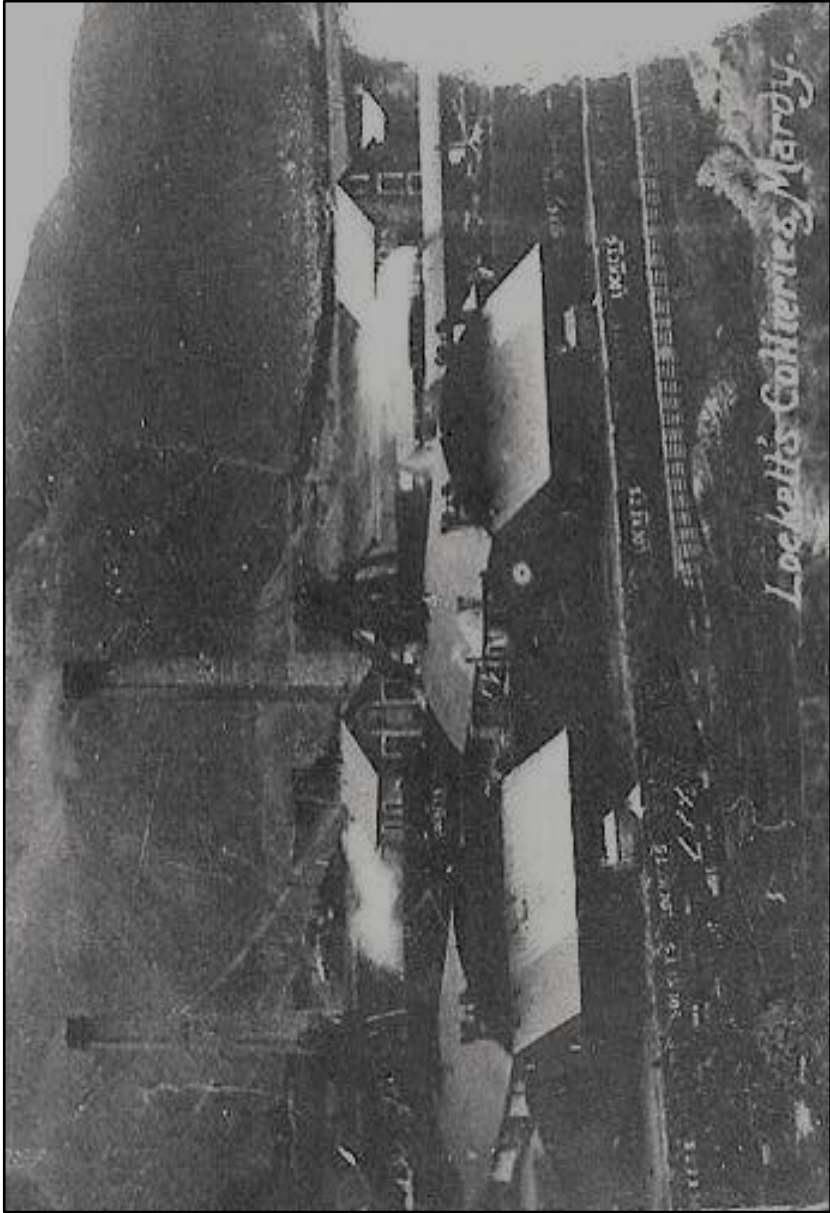
**Under-manager** - The qualified person in charge of the mine in the absence of the manager.

**Upcast shaft** - A secondary shaft that returns stale air to the surface. It normally contained a furnace fire at shaft bottom.

**Viewer** – Colliery manager during the 19<sup>th</sup> century.

**Water balance** – See balance pit.

**Water Gauge** – Instrument used to determine the pressure difference between either the shaft bottom, or the main intake and return roadways, thus finds 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.



Mardy No.1 & No, 2 Colliery, date unknown

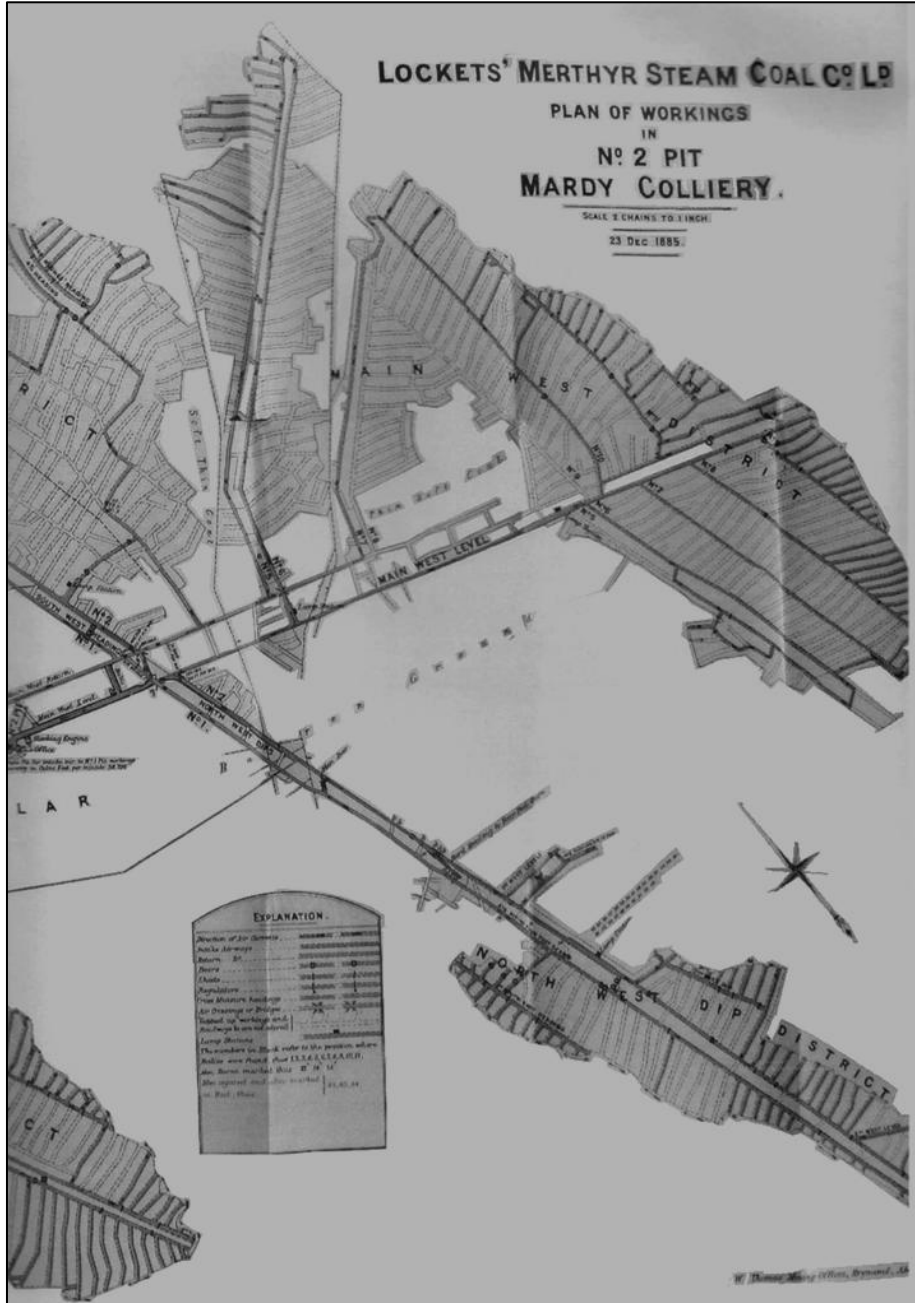


# LOCKETS<sup>+</sup> MERTHYR STEAM COAL CO<sup>Y</sup> LD<sup>S</sup>

## PLAN OF WORKINGS IN N<sup>o</sup> 2 PIT MARDY COLLIERY.

SCALE 2 CHAINS TO 1 INCH

23 Dec. 1885.



EXPLANATION.	
Section of air down	.....
Water down	.....
Return air	.....
Down	.....
Up	.....
Choke	.....
Regulators	.....
From Mardys' workings	.....
Air drainage or bridge	.....
Wanted to workings and not large to any but others	.....
Lamp openings	.....
The numbers on this plan refer to the position where the following shafts are situated:— No. 1. 11th Shaft. No. 2. 12th Shaft. No. 3. 13th Shaft. The numbers on this plan refer to the position where the following shafts are situated:— No. 1. 11th Shaft. No. 2. 12th Shaft. No. 3. 13th Shaft.	



The memorial in Maerdy commemorating the closure of the Mardy Colliery in 1990.

