

ROUNDS GREEN NEW COLLIERY DISASTER, 1846

Rounds Green New Colliery was situated on the lower slopes of the Rowley Hills, opposite the White Horse public house in Newbury Lane in the mining area above Oldbury. It was owned by George Parker, proprietor of the only set of blast furnaces in Oldbury, whose father and three uncles had established the firm of Parker Brothers sixty years earlier. The colliery was operated for him by the chartermaster or 'butty', Job Holland, and the 'doggy', Joseph Smith. It had twin shafts for ventilation, and was operated by candle-light, although there were Davy lamps for testing the atmosphere.

The pit was well-known for difficulties with accumulation of gas, both sulphurous and flammable. The inquest after the disaster was told by one witness that he had worked at the mine a couple of months earlier, but only for three days before he left, telling the chartermaster that he would not work there because the mine was full of sulphur, The gas collected most densely on 'heavy days' when there was little wind and an oppressive atmosphere.

It was a day like this on Tuesday 17th November 1846, when the miners assembled to descend the pit. It was part of the doggy's responsibilities to check for the presence of gas before the colliers entered the pit, and 'fire' any gas that was present. He descended with the miners in the first skip, and the chartermaster descended with the remaining miners in the second skip. Twenty-five men descended, one went down later, and there were two men who had gone down earlier to feed the ponies, a total of twenty-eight persons. Their ages ranged from ten years to the mid-fifties.

After 45 minutes the mine was rocked by a huge explosion, which shook the ground and was felt a mile away in the centre of Oldbury. Crowds rushed up to the pit 'in their thousands' from all around the town. They found flames and clouds of sulphurous smoke issuing from the pit-mouth. The skip and its contents, a large barrel of water, had been blown out of the shaft and lay on the ground close to the shaft. When the flames subsided, rescuers descended to see what help could be given. The first charred and blackened bodies were brought out of the mine to the despair of the crowd, but rescuers were driven out of the mine by the toxic fumes.

Two local doctors attended, Dr Cooper from Oldbury and Dr Johnson from Dudley, but they could only help the rescuers, many of whom suffered from inhaling the gas. The bodies were removed from the pit over the next day or so, and taken to the miners' homes. Of the twenty-eight men and boys in the pit, nineteen were burned or suffocated, five were badly injured, one of which subsequently died, and four were largely unharmed. Most of the men came from Oldbury, with one or two from Dudley or West Bromwich.

News of the disaster caused disquiet throughout the immediate area, and led to parliamentary questions and a report to the Home Secretary, reproduced later. The cause of better ventilation was taken up by the Dudley chartist Samuel Cook, who issued one of his notorious posters.

ANOTHER HORRIBLE! A MOST HORRIBLE MINE DISASTER!

*Nineteen Men & Boys Roasted to Death
in an Instant of Time,*

AND THREE OTHERS SERIOUSLY BURNT BY
MINE GAS, at ROUNDS GREEN, TUESDAY, NOV.
17, 1846.

Ministers of Religion,
Men and Women of Humanity,
Men of Philanthropy, and Men of Science;
Mine Owners, Bailiffs, Butties, Doggies, and Miners;
Coroners, Coroners' Juries, and Gentlemen of the Law;
*Can nothing be done to prevent or diminish these direful
Calamities?*

*May not the "Fire Damp" be Drawn out, as well
as Blown out of Pits, and may it not even be made to
return to the Pit again, to Light the men therewith while
working?*

*Is it not possible to have Gas Ways in Pits, as well
as Air Ways?*

*Should not a Premium of £500 or £1000 be offered
either by Government, Mine Owners, Working Colliers, the
Scientific, or the Humane, for the discovery of an effectual
method of Coal Getting without the Loss of Life?*

SAMUEL COOK.

DUDLEY, NOV. 18, 1846.

Goodwin, Printer, Top of Bond-st., Dudley.

IN MEMORIAM
ROUNDS GREEN NEW COLLIERY
17 NOVEMBER 1846
19 DEATHS

Jacob BODEN	age 15	
Samuel BODEN	age 23	
Isaac DUFFER	age 10	
James ELWELL	age 56	
John GARBETT	age 25	
John HAMPTON	age 10	
William HAMPTON	age 16	
George HARDING	age ?	
Job HOLLAND	age 48	the butty
William LYMAN	age 14	
William MASEFIELD	age 23	
Josiah PARKES	age 23	
William PRICE	age 35	
James SHAKESPEARE	age 43	
Joseph SMITH	age 34	the doggy
William TARRANT	age 28	
Joseph TROATH	age 22	
James WILCOX	age 33	
John WINDMILL	age 48	

Rounds Green New Colliery Accident Report 1847

Report from Geological Survey Office, 19th January 1847

by Warrington W Smyth

Warrington W Smyth visited to Rounds Green New Colliery, Oldbury and Burgh Colliery, Coppull, near Chorlton, Lancashire, in response to a request from the Home Secretary, Sir George Grey to investigate a serious accident at each of the mines. Details of the Coppull mine accident are not given here, but the verbatim report on Rounds Green New Colliery follows. It describes the structure of the colliery, which is typical of mines at this time in the Oldbury area, and shortcomings in its ventilation and operation, which contributed to the explosion. The original manuscript report is held by the National Archives, HO45 – 1389.

The report contains two small diagrams (included in the text) and a plan of the workings (redrawn and appended).

The Report:

Sir

Having had the honour to receive from you instructions to proceed to the Oldbury and Coppull with a view to examining into and reporting upon the conditions under which the Coal is worked, and on the method of ventilation and lighting adopted, in the Collieries where the late explosions attended with serious loss of life occurred, I proceeded to make a personal observation of the workings at those places, and beg to submit the following remarks to your consideration.

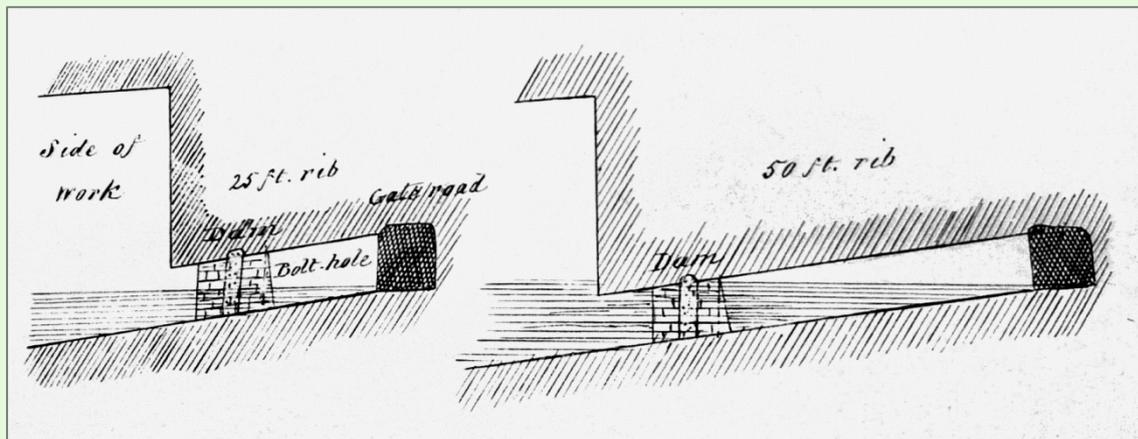
The Rounds Green New Colliery, situated near Oldbury (and in the occupation of Mr George Parker) has been opened with a view to working the 'thick' or 'ten yard' coal, which in this locality at a distance of a few hundred yards from the basalt of Rowley Hill, is less thick than usual, and is much shattered and injured for economical purposes, but although considered irregular by numerous small undulations, inclined generally to the South-west. A general section of the various seams amounting to the thickness of ten yards could not be obtained owing to its very frequent variation and disturbance.

A pair of shafts are sunk in a level piece of ground, at a few yards distance from one another, each seven feet in diameter, and 180 yards in depth; the Eastern shaft being used for the extraction of the coal and serving as an upcast, whilst the Western shaft is given up to the raising of water and acts as a downcast for the ventilation of the workings. No section of the measures pierced by these sinkings had been preserved.

From the bottom of the upcast shaft the principal gallery, the gateway, or gate road, is carried in the lower part and nearly of the strike of the coal, for about 300 yards to the present workings. At about 40 yards from the shaft it is crossed by a wooden trough of six square feet in sectional area, which conveys the fresh air from the downcast shaft across the gate road into an air heading of about 3 feet by 2ft 6in, opening out into the gate road about 50 yards further; this trough had been reconstructed since the explosion, and the trough before that time in use was stated in the evidence at the inquest to be but 1ft 9in square.

It will be scarcely necessary to remind you that the 'thick coal' of Staffordshire is worked in chambers or compartments termed 'sides of work', and separated from one another by strong pillars of coal, seven or more yards in thickness, called 'fire ribs'; the openings through which, the 'bolt holes', (when all the coal except for the pillars necessary for the support of the roof have been extracted) are stopped by dams intended to be air tight, and to prevent as well the admission of atmospheric air tending to produce spontaneous ignition of the abundant refuse left in the workings, as the escape of gases accumulated there into those parts of the Colliery where men are employed.

On the dip side of the gate road, between the shafts and the present workings, are five abandoned sides of work, the entrances to which are thus dammed. The drainage water out of the mine will naturally fill these to the level of the gate road, and where the dip of the seam is great and the rib of considerable thickness, the bolt hole being generally from 7 to 10 feet in height, the water will effectually close the entrance, but where the rib is of smaller dimensions, a fault in the dam, by leaving the passage for gaseous fluids, may leads to serious consequences.



On the west and north west are several similarly abandoned sides of work beyond that which is at present in activity: this side of work being that in which the men were killed by the late explosion, is of smaller dimensions than usual, and is supported by three large pillars, besides two or three of less area, locally termed 'men of war'. In the Northern corner the roof or 'sheet' has come down, and it would appear that the fall took place before the accident of the 17th of November, and it is probable that the cavity above may have been one of the reservoirs of the gas which fired. The roof is at this place a 'bind' or clay slate, of tender nature, and it, therefore, becomes necessary to 'tie', or narrow the workings in order to guard against these falls. In other parts of the Colliery the roof is formed by a sandstone. On the north east is another working called the 'crop workings', which has since that time been cut off by a dam, and the air has, therefore, but a very short circuit to perform. From the shafts a new gateway had, at considerable expense, been driven by the proprietor of the colliery to the eastern end of the present side of work, through coal exceedingly contorted and injured; and by this gallery the return air passes to the upcast shaft. Near its upper extremity a door had been placed in consequence, it would appear, of suggestions made at the inquest, for the purpose of checking the free return of the air and forcing it through the back of the side of work, whence it takes its way through an air heading of the same dimensions as those above mentioned, driven in the upper parts of the coal seam.

Such being in few words the plan of the Colliery workings and the system of ventilation at present in action. I may add that on the day when I examined the pit, the wind was easterly and the Barometer high, conditions which are favourable to the ventilation; and that a certain current of air was circulating through the air head the speed of which may have been two feet in a second, but whether this be the maximum attained I am unable to state, being informed by the ground bailiff, or

surveyor, that no measurements of the quantity of air passing into the works had ever been undertaken.

In conclusion it will be desirable to advert to some points in detail, some of which may throw a light on the cause of the late melancholy catastrophe, whilst others may explain some of the accidents which occur too frequently in this district.

The first and most striking fact is this, that on the above system no efficient ventilation can be said to exist at all as the two shafts are of equal depth, and the columns of air contained in them when joined by a gate road at the bottom, will be in equilibrium, or at the best, some accident may determine a feeble current through them, always liable to be checked or even severed by some atmospheric agency, or by mechanical means exerted in the operations of raising the coal or water. After the workings have at last made some progress, the volume of air which enters them, and when warmed and united with gases specifically lighter than common air, is conducted into the upcast shaft, may somewhat aid the capacity of the current when its direction is once determined, but if under the most favourable circumstances, as we have above seen, the circulation be extremely languid, it is evident that a change in the wind, a diminution of the Atmospheric pressure, the opening of a ventilation door, or a breakage in the shaft, may occasion either a reversal of the current (although I was assured this had never taken place) or at least a stagnation of the air which may at once lead to the most fatal consequences.

Where a pair of shafts are of equal depth, a Colliery cannot be said to be safely ventilated, unless the column of warm air in the upcast shaft be lengthened by a tower, or chimney, built over the mouth, or the current determined and increased by the aid of a furnace or by machinery for supplying fresh or exhausting return air.

In the second place, the position and length of the air headings are subjects of the greatest moment. It may be remarked in passing, that their dimensions appeared to be smaller than consistent with a good ventilation, but I learn that in other pits of this district, supposed to be conducted on the best principles, they are made either of the same size or very little larger; and it may be accounted for by the fact of the extent of operations at one time being limited to only one or two sides of work, and that a much smaller body of air being thus required than in collieries worked by other methods. On no consideration, however, should the air way ever be narrowed to so small an area as would appear to have been the case in the wooden trough carried across the principal gate road,

Little attention appears to be paid to the point at which the air heading from the downcast shaft opens into the gate road. It will be apparent, on inspection of the accompanying plan, that so soon as an explosion occurs, strong enough only to blow down the door in the gate road, the fresh air will at once pass round to the upcast shaft, and that in the workings being left in a state of stagnation, all the men who survived the explosion must necessarily perish; and it is well known that on occasions of this kind, the minor part only of the sufferers are killed by the actual combustion of the fire damp. If the airway was, on the contrary, carried independently to the sides of work, it is manifest that as long as any current is in circulation fresh air will be supplied to the spot where, on the present system, many might be dying for want of it.

The position of the air heading with respect to the floor and roof of the coal has met with much attention among the more intelligent surveyors of the neighbourhood: it was formerly the general custom (and is yet, I understand not altogether abandoned) to drive the air head on the same level with the gate road, by which means any workings carried only to the height of the latter may be ventilated, but any cavities formed above that level will become reservoirs of light carburetted hydrogen [methane], ready at any moment to cause the most terrible catastrophe, and the only

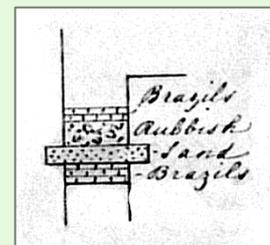
mode of averting so great an evil, is that (in most cases, I believe, adopted) of carrying the air head at the level of the top of the workings, that is in the upper seam of the ten yard coal.

The thurlings or 'spouts' which have formed the communication between the air heading and the gate road during the process of driving, are stopped by a wall of brick and mortar, to the security of which, of course, attention should be paid from time to time.

But even when the air heading is carried in the upper part of the coal, it cannot answer the desired purpose, unless it be maintained clear from obstruction caused by falls, and kept in advance of, or even with the other workings, and in such wise that it may drain off the gas which floats continuously to the upper part of the mine or 'crop' workings. Owing to this part having been dammed out before I visited the pit, I am unable to state how far these conditions had been complied with in the case under present consideration; but from the evidence adduced before the coroner, it would appear that fault was found with the backward state of the air headings, and that it sometimes occurred that they were not driven till a place became too dangerous to work in without them.

It may here be remarked that the collieries throughout this district are not worked immediately by the proprietor, but through the intervention of a 'butty' or 'charter master' who undertakes to deliver the coal at the pits mouth at a certain price per ton. The driving of gate roads, to open the work, falls however to the charge of the proprietor, as in many cases does also that of the air headings, but in this colliery, as in numerous others, the 'butty' is expected to drive the latter at his own expense, receiving a certain amount of indemnification from the proprietor. The ground bailiff has the general charge of the ventilation, and directs the driving of new air ways whenever required: it is to him that the 'butty' is expected to apply if there be anything amiss in the ventilation, but such complaint should never be awaited before so necessary a work is in hand as the driving on an air head to the back of the crop workings.

The dams by which old sides of work are isolated from the rest of the colliery vary in thickness according to local circumstances, from two to five yards. At either end of the dam a wall is built of brazils, an impure hard and stony coal occurring near the middle of the ten yard seam. Some feet within this are filled in with rubbish, and two or three feet in thickness with sand, for the reception of which a groove is cut in the walls of the bolt hole, and it is argued that this substance is useful, inasmuch as it fills up cracks which may be caused by subsidence or shakes consequent upon the workings. All the materials used in these constructions are either pervious to gas, or are subject to subside and leave open spaces between the dam and the roof, whence it is imperative, as a measure of security, that they should be frequently observed, and when any sinking has taken place, should be secured by the ramming in of additional rubbish. We find by the evidence of the inquest that two of the dams were found 'uncapped' after the explosion, or that an open space existed above them; and since this is a result that was probably not produced by the accident, it would appear that before it they were not in a condition to prevent either the ingress of Atmospheric air, which would sustain the 'breeding fire' or spontaneous combustion to which the refuse is subject, or the exit of carburetted hydrogen, should that gas happen to have accumulated in any quantity.



With respect to the lighting of the Colliery, it is effected entirely by Candles, the only exception being that the 'doggy', an overseer paid by the butty, goes round the workings with a safety lamp to 'try them' for gas before the other men go to their places in the morning. The common Davy lamp is the only lamp thus used, and some of the men in this district have been known to dash to pieces the lamp of Upton and Roberts, rather than use it, when annoyed by its weight. No safety lamp yet

invented could indeed afford sufficient light for workings of so great a height, and candles must therefore continue to be used, but I have little hesitation in affirming, that from the small area of the works in operation at one time, and the comparatively trifling quantity of Gas emitted from the coal, naked candles may safely be used, and that no accident from an explosion of fire damp ought ever to occur in the Staffordshire thick coal, if due attention be paid to the simple precautions above alluded to.

He then discusses the explosion at Coppull, and signs off

I have the honour to be
Sir
Your obedient humble servant
Warrington W Smyth

Filed with the report are various letters including one to Sir George Grey from George Hinchcliffe, the Coroner for West Bromwich, who carried out the inquest into the deaths at the Colliery, advising the use of independent mine inspectors:

Coroner's comments:

West Bromwich
(near Oldbury)
27th November 1846

Sir

I beg leave to acknowledge the receipt of your letter of the 19th inst. relative to the Inquest on the Bodies of the unfortunate persons who were killed by the explosion to which it refers, and also the Copy of the Report on the subject of the explosions at Haswell Collieries in Sept 1844.

As the bodies of several of the above unfortunate persons were removed to different places and in different counties and at a distance from the scene of the dreadful occurrence and I had to hold several Inquests, I delayed answering your letter till all the information I could obtain on these painful enquiries came before me. I read the report you did me the honour to send, and also read such parts of it, as I thought would be useful, to Jurors over which I presided but it did not appear that any of the precautions therein recommended had been observed either in Mr Parker's Colliery or any other Collieries in this neighbourhood. In fact, only one person (a Gentleman of the Jury) appeared to have been aware of the existence of such a Report, and he stated that the precautions therein recommended were not applicable to the mines in this neighbourhood.

The Ground Bailiff, or Mine Surveyor, has many Pits to superintend, which he visits and inspects about once a week or oftener if he is required or requested to do so. The persons who have the working of the interior of the Mine and the control over and direction of the Colliers employed in it, and derive a great profit from their labour, are the Butty, who is the Contractor and Manager, and the Doggy who superintends under him. The Butty and the Doggy very often for their own advantage press on the work although the mine is in a dangerous state at the time. From the evidence before me on these enquiries it appeared that the state of the atmosphere has a great effect upon Sulphur in mines, sometimes causing it to accumulate and expand and at other times effecting a clearance of it in the Pit. It was proved before me that on the morning of the dreadful explosion in question viz. Tuesday the 17th Inst, the state of the Atmosphere had a great effect upon the sulphur in many of the Coal Pits in the immediate neighbourhood of Mr Parker, and in one instance it so diffused itself in the Pit during the previous night, that the Butty and Colliers in descending into it the next morning, found so much sulphur, that they did not find it prudent to work, and the Butty ordered every man out of the Pit. This state of the Pit continued till Saturday morning when the wind and atmosphere having undergone a change, the Pit cleared itself, and on the latter morning the Colliers went to work.

It was proved before me that on the Tuesday morning, very shortly before the explosion took place in Mr Parkers Pit, the Butty Job Holland had discovered a Body of Sulphur there in the immediate neighbourhood of the stalls at which the men were at work. It was the Duty of Holland to have ordered the Colliers out of the work immediately (the same as was done at the other Pit above alluded to) and to have proceeded to ascertain the causes of the accumulation of the Sulphur and to have given notice of it to the Ground Bailiff. The dreadful consequences of his not doing so very shortly followed, by which he and his Doggy and 19 other individuals lost their lives.

I respectfully submit to your consideration what I think would have a great effect in checking the reoccurrence of these explosions in this neighbourhood which would be to have Inspectors appointed for certain Districts who have no interest in the Mines or in the profits arising from the labour of the Colliers, to examine the Mines in the morning before the Colliers begin to work and particularly on those mornings when the state of the atmosphere may affect the sulphur and create Danger.

It is the Duty of the Butty and Doggy to do it, but they seldom do it effectually, being too anxious for their own benefit to keep the Colliers at work at all risks and this they will continue to do, unless some check is put upon them and more particularly at a time when the Coal Trade is in the flourishing state it now is.

Having been Coroner for the District in which Mr Partkers Pit is situate for nearly 30 years, I have had to investigate many causes of explosions which have occasioned the loss of life and if any means can be devised to avoid the dreadful calamities arising from them, I will most cheerfully render any assistance or information in my power.

Apologising for having troubled you at this length, I have the honour to remain
Sir
Your most obedient and humble Servant
George Hinchliffe

The first Act for the inspection of mines was introduced three years later: 'Act for the Inspection of Coal Mines in Great Britain', 1950, 14 & 14 Vict. c 100, 14 August 1850. It appointed officers to inspect, identify dangerous practices, and recommend changes, rather than their having powers to enforce such changes – it was a start in reducing the injuries and deaths in pits throughout the country. It also required that accidents be reported to the Home Office so that information could be evaluated and analysed. The 1855 Coal Mines Act went further, requiring all collieries to adopt a standard safety code, together with a set of special rules relating to the local circumstances. Such interference in their operations was not welcomed by local colliery proprietors!

Dr Terry Daniels
July 2012