GATESHEAD. Gateshead, Northumberland. 3rd. or 4th. October 1705.

This was the first large scale disaster for which there is any reliable evidence. In '*The Compleat Collier,*' '*J.C.*' includes an eye witness account of the accident.

"How it came to pass he could not give me an exact Account, any further then by what the Banck's-Men, and those who were about the Pit, and heard the blow, and see what it threw out of the pit, and shatter'd about the Gins: There was one thing very strange in it, as I was told, That a Youth of 15 of 16 Years of Age, was blown up the Pit and Shaft, and carried by the blast about 40 Yards from the shaft, the Corps was found all intire, save the back part of his head, which was cut off, though the Shaft is said to be odd of sixty Fathoms deep, which is an Argument of the mighty Force this Blast is of."

The explosion which caused the deaths of over thirty people, is the first that is recorded. It occurred on the 3rd. of 4th. October, 1705. The names of the victims appeared in *'The Newcastle Daily Chronicle'* of 1880 which quoted the Burial Register at St. Mary's' Church.

"These were slain in a coal-pitt in the Stony Flatt which did fire.

October 4 - Cuthbert Richinson, Michael Richinson, Ralph Richinson, brothers William Robinson John Liddel John Broune, Clemment Broune William Broune, brothers Robert Broune, son to Clemment Broune.

BLOWN UP IN THE PIT...

John, son of John Broune Adam Thompson, Joseph Jackson Abigail Jackson, daughter of Joseph Jackson John Hastings, overman Michael Walker, his servant.

October 5th. - Leonard Jordan John Green John Distans Richard Fletcher John Hall William Maine Thomas Riddel Thomas Hugginson.

October 6th. - Byron Thornton Michael Thompson Robert Cooke Matthew Hastings, overman, son of John Hastings.

October 7th. - John Sayers.

October 10th. - Edward Jordan John Todd.

October 13th. - Thomas Risdall."

FATFIELD. Chester-le-Street, Durham. 18th. August 1708.

The colliery was on the River Weir and an explosion occurred there at three o'clock in the morning. A sudden eruption of violent fire came from the mouths of the three pits with a noise like the firing of a cannon. Sixty nine people lost their lives and two men a woman were reported to have been blown from the bottom of the shaft to the surface and carried a considerable distance from the pit. according to one account, the girl was found '*with her bowels hanging about her heels.*' The shaft was 342 feet deep. The engine that was used to draw the coal from the pit was blown aside by the blast and fish in a stream nearby were found to be floating, dead in the water.

A steam engine, built by William Brown, who was the engineer at Throckley Colliery, was installed in 1772. Firelamps were introduced to ventilate the pit in 1732. Dunn says that this was the first time that this method of ventilation was used.

After explaining the effects of 'stythe' or chokedamp and sulphur, which we now know as firedamp, the Philosophical Transactions go on to say-

"To prevent to both these inconveniences as the only remedy known here, the viewer of the work takes the best care he can to preserve a free current of air through all the works, and as the air goes down one pit it should ascend the other. But it happened in this colliery, there was a pit which stood in an eddy, where the air was not always free passage, and which in hot sultry weather was very much the subject of sulphur and it them being the

middle of August, and some damage apprehended from the closeness of the heat of the season, the men were with the greatest care and caution withdrawing from their work in that pit and turned into another but an overman, some days after this change, and upon the notion of his own, being induced, as is supposed, by a fresh, cool, frosty breeze of wind, which blew on that unlucky morning, and which always clears the works of all sulphur, had gone too near this pit and had met the sulphur just as it was purging and dispersing itself, upon which the sulphur immediately took fire at his candle, which proved the destruction of himself and so many men and caused the greatest fire ever known in these parts."

From the account it was clear that the Flatfield Pits were ventilated by natural circulation of air and were subject to any changes in weather conditions.

LUMLEY PARK. Chester-le-Street, Durham. 1727.

In 1667 it was recorded that the collieries were the greatest in the north and produced the best coal which was exported to Sunderland. The pits had a drain for water which was drawn by two engines, one of three stories and the other of two. All the pits for two or three miles around put their water into these drains. The pumping arrangement formed a feature of the colliery and probably were chain pumps. When the water failed the pumps were worked by horse power.

Daniel Defoe wrote about a colliery explosion of which he was told, as he travelled in Durham. The exact date and place of the disaster are not mentioned and there is a possibility that he may had been referring to the explosion at Flatfield Colliery in 1708.

"Here at (Chester-le-Street) we had an account of a melancholy accident which happened in or near Lumley Park, not long before we passed thorough the town. A new coal was being dug or digging, the workmen worked on the vein of coal until they came to a cavity, which was supposed, had formerly been dug from some other pit but be it what it will, as soon as upon breaking of the hollow part, the pent-up air got vent, it blew up like an mine of 1,000 barrels of gunpowder, and getting vent at the shaft of the pit, burst out with such terrible noise as made the very earth tremble for come miles around, and terrified the whole country. There were nearly three score of people lost their lives in the pit and one or two, as were told, who were at the bottom of the shaft, were blown quite out through sixty fathoms deep, and were found dead upon the ground."

LONNEN PIT. Fatfield, Durham. June 1736.

A local burial register records multiple burials which indicate a disater in a mine. Buried on the 17th June 1736:-Thomas Newby of Biddick, pitman. Anthony Healy of Biddick, pitman. William Robinson of Biddick, pitman. Thomas Bowmer of Biddick, pitman. Buried on the 19th June 1736:-Jacob Robinson of Biddick, pitman.

CORPSHILL or Corporal Pit. Whitehaven, Cumberland, 5th. August, 1737.

The Colliery was the property of Sir James Lowther and an explosion of gas claimed twenty two lives.

The following, all listed as colliers, were buried 6th. August, 1737 at St. Nicholas:-James Page. Thomas Westray. John Salkeld. David Gordon. John Harrison. Johnathan Smith. William McMullen. Robert Benn. Andrew Warlock. John White. James Copeland. Richard Troutbeck. George Dixon. Abraham Watson. Elizabeth Moor. Arthur Graham buried on the 7th.

Buried at Holy Trinity, 6th. August were the following colliers:-Timothy Robinson. John Ridley. William Gamel. John Dixon. William McMullen. John Gordon. These probably the victims of the disaster.

In a pay bill dated August 1737 the following entry was made-"5th. Friday. Firedamp killed 33 at 4 o'clock in ye M"

There was also an item of $\pounds 8$ -3s.-10d. for *"searching for and taking up the dead and three horses, mending thirlings, etc. after the Great Fire Damp."* Sir James immediately ordered $\pounds 100$ to be distributed to the families of the twenty two victims.

NORTH BIDDICK. Biddick, Durham. 18th. January, 1743.

The pit was reported to have exploded with the loss of seventeen lives. The colliery was on the River Weir and some workmen were holing a drift which communicated with an old waste when the explosion occurred killing ten men and five boys. One or two escaped but later died from their injuries. Contemporary writers thought it was remarkable that although the drift was full of water, the gas still fired.

RAVENSWORTH. Ravensworth, Durham. 10th, June, 1757.

In the latter part of the seventeenth century, the colliery belonged to Sir Thomas Liddell. Water was drawn up the shaft by buckets, in stages and the whole operation powered by water wheels at the surface. A steam engine, built by, William Brown, who was the engineer at Throckley Colliery, was installed in 1750.

The at the Ravensworth pit was recorded at the time.

"Sir Thomas Liddell, a most ingenious gentleman, who, for procuring a fall of water which may serve the wheels of all three sinks, hath erected the first upon pillars like a wind-mill, pretty high above the ground, from which the falling water makes the second go close above the ground. And to make the water fall to the third, the whole wheel to go within the surface of the ground, from which the water passes into the mine which terminates at a river under the works, which mine is of considerable length."

An explosion was reported to have taken place at the colliery which claimed sixteen lives. Fifteen were killed by the blast and one died later.

WERNFRAITH. Neath, Glamorganshire. 1758.

An explosion was reported in which ten lost their lives. The dead included the manager who was also the owner of the colliery, William Shepley.

HARTLEY. Hartley, Durham. 1st. December, 1761.

The colliery was about six miles to the north of North Shields and the shaft was 80 fathoms deep. and was owned by the Delaval family. A steam engine, built by William Brown, who was the engineer at Throckley Colliery, was installed in 1760 to drive a pump. It is believed that this was the first colliery where a steam engine was used to draw coal. when a patent was obtained by Mr. Joseph Oxley in 1873 when the first engine was built this was later improved by a machine built by Mr Thomas Delaval in 1765 which could raise a corf a minute. It caused a great deal of interest and was reported to have broken down regularly. James s Watt visited the colliery to see the machine about 1768. An explosion was reported at the colliery which cost five lives including Mr. Curry, the viewer.

FATFIELD. Chester-le-Street, Durham. 1763.

There was an explosion of gas which took the lives of seventeen people. Steel mills had been brought from Whitehaven and were used for the first time. The connection between the explosion and the steel mill were not seen at the time.

WINCH POND. Neath, Glamorganshire. 1764.

An explosion was reported in which 18 lives were lost. Some were burnt and a few suffocated by afterdamp. The cause of the accident was put down to naked lights.

WALKER. Gateshead, Northumberland. 2nd.. April, 1765.

In the early part of the eighteen century, this was the most important and deepest colliery in the country. A few years after it opened a horse engine with a horizontal cast iron wheel was used to raise 6 cwt baskets from a depth of 600 feet in two minutes. The thickness of good coal at the colliery was about 6 feet. The men worked 6 or 7 hours out of the 24 and dug from about fifteen to twenty five baskets each weight 6 cwt. for which they were paid five farthings, which made their pay from about 2s. to 2s. 6d. per day. The boys remained in the mine from 2 a.m. till a little after 4 p.m.. They filled the baskets and took them to the pit with the help of 20 horses. They earned about 2s. 2d. per day. Two steam engines, built by, William Brown, who was the engineer at Throckley Colliery, were installed in 1758. The colliery took delivery of an engine, of seventy four inch bore which was then and a half feet long which was made at the Colebrookdale foundry which had the capacity to raise 306 cwt. of water.

There was an explosion at the colliery on 1st. April which made a report like thunder but no lives were lost although several were badly burnt. On the following day several men descended to inspect the state of the mine when it fired for a second time and claimed eight lives. Seventeen horses were also killed and were burnt in a most shocking manner.

WALKER. Gateshead, Northumberland, 18th. March, 1766.

An explosion was reported at the colliery which resulted in the deaths of ten persons.

SOUTH BIDDICK. Blyth, Durham. 16th. April, 1766.

An explosion was reported at the colliery which caused the deaths of twenty seven.

LAMBTON. Chester-le-Street, Durham. 22nd. August 1766.

A steam engine had been erected at the colliery and an explosion occurred which claimed six lives. It was thought it was caused by the 'firelamp', which was the furnace, that was used for ventilating the mine. the following account appeared in the Newcastle newspapers of the day-

"A melancholy accident happened at Lampton Colliery, near Chester-le-Street, in the County of Durham. The workmen, to the number of one hundred, had just left their work and three masons and as many labourers, had been left down in order to secure the coals taking fire at the lamp, being let down at the request of the masons to rarefy the air, the latter in an instant, took fire with a terrible explosion, and its way out of the pits, destroying men, horses and all in it's passage. The noise of the explosion was heard above three miles around and the flash was visible as a flash of lightening. The men below wee drove by the force up the shaft or great tube, like balls out of a cannon, and everything that resisted shared the same fate.

The neighbourhood, being alarmed, collected itself in order to give assistance but found only heads, arms, legs thrown put a great distance from the mouths of the pits. The ground for acres was covered with timber, coals etc. All partition, trap doors, corves, wood props, and linings were swept away, together with the engine for drawing up the coals, and all it's apparatus."

WALLSEND. Gateshead, Northumberland. 1767.

The colliery was sunk about 1780 with great difficulty and expense with the technology that was then available and the owners, the Russell family, were on he point of abandoning the project but they persevered and it was to prove the main source of the family fortune. The High Main Seam was found throughout the property and was nearly six feet thick and was regarded as one of the finest of the Newcastle coals and was, for some time called 'Russell's Wallsend.'

There were several Pits. The Church Pit was near the parish church with a railway line which carried waggons of coal down an incline 'by the hand of a single individual.' A railway from another colliery crossed this line on a wooden bridge.

The shaft frame that supported the pulleys was made of wood and on the wheels were ropes that lowered men and materials. There was tall brick funnel on top of the upcast shaft and a railed platform near the top to facilitate repairs. There was an engine house which contained the machinery for working the ropes and close to it were the boilers which raised the steam which powered the pit.

Close by was the 'C' Pit at which '*was seen a practical display of that fearful agent which has so often hurled the miner into the presence of his Maker.*' There was four inch metal pipe by which firedamp was conducted from the bottom of the pit and burned off at the top of the pipe. The gas came from small fissures in the coal and chinks in the roof. It was recorded that they excite little apprehension among the pitmen who had been known to collect the gas in clay bottles and burn them at home by making a small hole in the clay.

Commenting on the frequency of explosions in the area the Newcastle Journal of 21st. March 1767 made the following observations-

"As so many deplorable accidents had lately happened in collieries, it certainly claims attention of coal owners to make a provision for the distressed widows and fatherless children occasioned by these mines, as the catastrophe from foul air becomes more common than ever yet, as we have been requested to take no particular notice of these things, which, in fact, could have very little good tendency, we drop a further mentioning of it but before we dismiss the subject, as a laudable example of their innovation, we recommended the provision made in the Trinity House for distressed, seamen, seamen's widows, etc., which in every respect, is praiseworthy and confers honour on that brotherhood."

FATFIELD. Chester-le-Street, Durham. 27th. March, 1767.

The mine was 480 feet deep and an explosion claimed the lives of thirty nine people. The accident prompted the 'Newcastle Journal' to write:-

"As so many deplorable accidents have happened in collieries, it certainly claims the attention of coal-owners to make a provision for the distressed widows and fatherless children occasioned by these mines, as the catastrophe from foul air becomes more common than ever yet, as we have been requested to take no particular notice of these things, which, in fact, could have very little good tendency, we drop the further mentioning of it but before we dismiss the subject, as a laudable example of their imitation, we recommend the provision made in the Trinity House for distressed seamen, seamen's widows, &c., which, in every respect, is praiseworthy and confers honour on that brotherhood."

Sykes comments:-

"It is from such injunctions laid upon the newspaper editors, that these occurrences, for a great number of years, were kept as much as possible from the public."

WERNFRAITH. Neath, Glamorganshire. 1770.

On explosion was reported in which 17 lives were lost. The cause was naked lights.

NORTH BIDDICK. Washington, Durham. 6th. December, 1773.

There was an explosion at the colliery but there is no definite agreement of the number of victims. Galloway says twenty and Fynes reports nineteen. Sykes reports:-

"A colliery near the River Weir. Durham. 6th. December, 1773.

It was reported that the foul air from an old waste took fire at the pit about noon and burned through a partition between an old waste and the working pit which was eighty fathoms deep. There was a terrible explosion throwing material about two hundred feet into the air.

Most of those in the pit discovered the danger and were drawn to safety but some boys and a man were left behind and lost their lives. Four horses also were killed and thrown put of the shaft by explosions which occurred at five minute intervals for the rest of the day."

OVINGTON'S PIT, East Rainton, Durham. 7th. October, 1776.

This was an explosion in which five persons lost their lives. Michael Smurthwaite had prepared a charge in stone while sinking the pit.. He fastened a rope in the hole with the intention of running down a hot iron ring with which to detonate the charge. The ring was run down by William Wilson when it was considered safe. The charge exploded killed the two men and three others.

CHARTERSHAUGH. Durham. 8th. December, 1778.

Fire lamps were reported to have been introduced at the colliery in 1732 by Edward Smith. The colliery was the property of Mr. W. Peareth, Esq., and a severe explosion cost the lives of twenty four men and boys.

WINCH POND. Neath, Glamorganshire, 1779.

An explosion at the colliery killed 11 which were reported to have been burnt and much bruised. Two of the dead were named as William Winstone and David Morgan.

WALLSEND. Gateshead, Northumberland. 3rd. November, 1786.

There had been an explosion at the bottom of the 'A' pit on 9th. June, 1786 which occurred when a man was turning a steel mill. The explosion did little damage but the workmen did not work until 10th. July when coal drawing was resumed at the pit. The repairs to the 'B' pit were still proceeding when an explosion took on the above date, taking six lives. The men were making a communication between the two pits, a distance of 95 yards and were working in firedamp. There was no alternative but to use the steel mill or to work in absolute darkness. From the past experience they chose to work with no light of nay kind and the communication was known as the 'Dark Wall' for ever after.

Those who died were:-Charles Dodds. Joseph Dodds. James Patterson. Ralph Dixon. Matthew Elliott. Mark Maddison.

WALLSEND. Gateshead, Northumberland. 21st. August, 1786.

An explosion took place in the afternoon when most of the men and boys had left the pit but still underground were the back overman, one hewer and four trappers all of which were killed. Another little boy, who was a trapper was taken out alive but died of his injuries soon after. The explosion occurred when the overman was drawing props when there was a fall of roof which released gas which ignited at an open light. In consequence of the accident no props were withdrawn when the pits were working.

Atkinson records an explosion taking place at the colliery on the 9th April, 1886 with the loss of six lives which could be the same incident.

LLANSAMLET. Swansea, Glamorganshire, 14th. March, 1788.

An explosion caused by naked lights resulted in the deaths of 13 from the effects of afterdamp.

Those who died were-J. Jones sen. J. Jones jnr. T. Jones, father of the other two. William Johns. A Morris. H. Trevethan. P. Phillips. J. Phillips. M. Eastman. T. Morgan. William Roberts. William Owen. H. Ellis.

WAUNDDU. Loughor, Swansea. 10th. July, 1788.

An explosion caused by naked lights totally burnt six to death.

WALLSEND. Gateshead, Northumberland. 4th. October, 1790.

An explosion was reported in which seven lost their lives.

SHERIFF HILL. Gateshead, Durham. 27th. December, 1793.

Fynes reports and accident in which fourteen lives were lost.

PICKTREE. Rickleton, Durham. 9th. June, 1794.

An explosion was reported at the pit in which thirty lives were lost.

HARRATON. Harraton, Durham. 11th. June, 1794.

It was recorded that the colliery, on the West side of the River Weir, was very profitable during the time of the Commonwealth. In 1647, Josiah Primat, a London leather seller opened out the Five Quarter and Nine Quarter seams which had been flooded since 1642 when they had been flooded by Cromwell's army. The work was finished at a cost of £2,000

An explosion was reported at the colliery with the loss of twenty lives. The following is an entry from teh Chester-le-Street burial Register but there is no reference to the disaster.

Buried 12th June 1794. John Thompson, son of Edward Thompson of Lambton. George Nevill of Harraton. John Corvel of Rickleton. George Corvel, son of John of Rickleton. William Corvel, son of John of Rickleton. Joseph Bambridge of Harraton New Row. Thomas Lee of Harraton New Row. Matthew Allan of Harraton New Row. Robert Allan, son of Matthew of Harraton New Row. John Harding of Harraton New Row. Robert Stoddart of Harraton New Row. John Lee of Harraton New Row. Andrew Tale of Harraton New Row. Joseph Hall, son of George of Harraton New Row. William Hepple of Lambton. George Summerson of Harraton New Row. John Tale of Harraton New Row. Robert Rogerson, son of George of Picktree. Roger Rogerson, son of George of Picktree. John Rogerson, of Birtley Lane.

Thomas Humble of Birtley Lane. Joseph Robinson, son of Joseph of Harraton. George Mowbray, son of George of Harraton. Matthew Roxby of Harraton.

Buried 13th June 1794. Robert Elliott, son of Thompson Elliott of Harraton.

Buried on 14th June 1794. John Hall, son of George Hall of Harraton New Row. George Kellett, of Harraton.

Buried 26 June 1794. John Elliottson of John of Pit Hill deceased. Ralph Carr son of Ralph of Pit Hill.

SHERIFF HILL. Sheriff Hill, Durham. 21st. December, 1794.

An explosion was reported at the Hope Pit in which several lives were lost.

PARADISE. Benwell, Northumberland. 24th. April, 1795.

Fynes reports an accident at the colliery which claimed eleven lives. The local burial registers give the following names but make no mention of how they died.

Buried on 25 March, 1795 James, son of James Anderson, pitman. Thomas, son of Thomas Dance, pitman. Joseph, son of Edward Towns, pitman. Thomas, son of Thomas Aaronfield, pitman. Joseph Proctor, pitman.

Buried on 26th March, 1795 John, son of John Cram, pitman.

Buried on 28th March, 1795. Jonas, son of Jonas Stringer, pitman.

Buried on 29 March, 1795 Thomas, son of William Morland, pitman.

FIRE ENGINE, Neath, Glamorganshire. 12th. May, 1795.

There was an explosion at the colliery which claimed twenty lives. The bodies were never recovered and the colliery was permanently closed.

NEW WASHINGTON. Washington, Durham. 12th. February, 1796.

The colliery was reported to have exploded with the loss of seven lives.

SLATTYFORD. Slattyford, Northumberland. 8th. September, 1796.

Six people were drowned when water from an old waste flooded the pit. In 1797, Mr. Thomas, of Denton, read a paper on the need to keep plans of colliery workings to the

Literary and Philosophical Society of Newcastle-on-Tyne. He proposed that voluntary contributions should be made but the scheme failed to create enough interest to lead to the proposals being carried out.

ROTHWELL HAIGH. Leeds, Yorkshire. 19th. April, 1797.

Thirteen men and boys were killed and amongst those who died were a father and four sons.

LUMLEY. Lumley, Durham. 11th. April, 1797.

An explosion was reported in which 31 lost their lives.

WASHINGTON. Washington, Durham. 27th. February, 1798.

A steam engine, built by William Brown, who was the engineer at Throckley Colliery, was installed in 1775. The colliery was reported to have exploded with the loss of seven lives.

WALLSEND. Gateshead, Durham. 25th. September, 1799.

There was an explosion at the pit which claimed thirteen lives.

Those who died were:-John Ward aged 37 years. Thomas Morrow aged 30. Thomas Holmes aged 18 years. Joseph Wilson aged 13 years. Christopher Barras aged 20 yearrs Thomas Birbeck aged 20 years. John Lee aged 14 years.

LUMLEY. Lumley, Durham. 11th. October, 1799.

The colliery exploded with the loss of thirty nine lives. It was reported that the bodies of the victims were never found.

Thos who died were:-George Liddle aged 26 years. William Liddle aged 24 years. Martin Dunn aged 61 years. William Crosby aged 36 years. Thomas Crosby aged 19 years. John Crosby aged 18 years. Matthew Gafton aged 21 years. John Gafton aged 19 years. Ralph Younger aged 18 years, Thomas Younger aged 15 years. William Smith aged 20 years. William Dixon aged 17 years. Thomas Grey aged 30 years. Thomas Grey aged 11 years. Martin Smith. Thomas Humble aged 26 years. George Humble aged 15 years. Edward Humble aged 23 years.

John Dunn aged 34 years. Robert Anderson aged 63 years.