

# **CHILDREN'S EMPLOYMENT COMMISSION 1842.**

**REPORT by JAMES MITCHELL, ESQ.,  
LL.D., on the Employment of Children  
and Young Persons in the MINES of the  
SOUTH DURHAM COAL-FIELD,  
between the Weare and the Tees; and on  
the State, Condition, and Treatment of  
such Children and Young Persons.**

**Edited by Ian Winstanley.**

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# COMMISSION

(UNDER THE GREAT SEAL)

## FOR INQUIRING INTO THE EMPLOYMENT AND CONDITION OF CHILDREN IN MINES AND MANUFACTORIES.

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**VICTORIA**, by the Grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith: To Our trusty and well beloved Thomas Tooke, Esquire, Thomas Southwood Smith, Esquire, Doctor in Medicine, together with Leonard Horner and Robert John Saunders, Esquires, two of Our Inspectors of Factories, Greeting:- WHEREAS, an humble Address was presented unto to Us by Knights, Citizens and Burgesses and Commissioners of Shires and Burghs in Parliament assembled, humbly beseeching Us that We should be graciously pleased to direct an Inquiry to be made into the Employment of the Children of the Poorer Classes in Mines and Collieries and the various branches of Trade and Manufactures in which numbers of Children work together, not being included in the provisions of the Acts for regulating Employment of Children and Young Persons in Mills and Factories and to collect information as to the time allowed each day for meals and as to the actual state, condition and treatment of such Children and as to the effects of such Employment, both with regard to their morals and their bodily health; NOW KNOW YE, THAT WE, reposing great trust and confidence in your ability and discretion, have nominated, constituted and appointed and do by these presentiments nominate, constitute and appoint you the said, Thomas Tooke, Thomas Southwood Smith, together with, Leonard Horner and Robert John Saunders, to be Our Commissioners for the purposes aforesaid and We do hereby enjoin you to obey all directions touching the premises which shall from time to time be given you, and any two or more of you, by one of our principle Secretaries of State and for the better discovery of the truth in the premises, we do, by these presentiments, give and grant to you, or any two or more of you, full power and authority to call before you such persons as you will judge necessary, by whom you may be the better informed of the truth in the premises, and to inquire of the premises and every part thereof, by all other lawful way and means whatsoever and We do hereby also give and grant unto you, or any two or more of you, full power and authority when the same shall appear to be requisite, to administer an oath or oaths to any person or persons whatsoever, to be examined before you, or two or more of you, touching or concerning the premises and Our further will and pleasure is, that you Our said Commissioners, or any three of you, do, with as little delay as may be consistent with a due discharge of the duties hereby imposed upon you, Certify to Us, under your hands and seals, or under the hands and seals of any three of you, your several proceedings in the premises; And We further will and command, and by these presents ordained, that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any two or more of you, shall and may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued, from time to time by adjournment: AND WE HEREBY COMMAND all and singular Our Justices of the Peace, Sheriffs, Mayors, Bailiffs, Constables, Officers, Ministers, and all other of Our loving Subjects whatsoever, as will within Liberties as without, that they may be assistant to you and each of you in the execution of these presentiments. And for your assistance in the due execution of this Commission, We have made choice of Our trusty and well beloved Joseph Fletcher, Esquire, to be the Secretary of this Our Commission, whose services we require you to use from time to time, as occasion may require. In witness thereof, We have caused these Letters to be made Patent. Witness Ourselves at Westminster, the Twentieth day of October, in the Fourth Year of Our Reign.

By Writ of Privy  
Seal,  
EDMUNDS.

**LETTER OF INSTRUCTIONS EXTENDING THE TERMS OF THE COMMISSION TO  
“YOUNG PERSONS”**

*Whitehall, February 11th, 1841.*

GENTLEMEN,

THE QUEEN having been pleased to comply with the prayer of an humble Address presented to Her Majesty, in pursuance of a Resolution of the House of Commons, dated 4th. of February, 1841, ‘That Her Majesty will be graciously pleased to direct that the Commission appointees in answer to an Address of this House, on August 4, 1840, for the investigation of certain branches of Infant Labour, do include within its inquiry the Labour also of Young Persons designated as such by the provisions of the Factory Act’ I am delighted by the Marquis of Normanby to desire that you will include within your inquiry the Labour of Young Persons designated as such by the provisions of the Factory Act accordingly.

I am, Gentlemen,  
Your Obedient Servant,  
(Signed) F. MAULE.

*The Commissioners for inquiring into the Condition  
of Children employed in Mines, &c.*

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# CHILDREN'S EMPLOYMENT COMMISSION.

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TO HER MAJESTY'S COMMISSIONERS.

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GENTLEMEN,

THE coal district between the Weare and the Tees has, during the last twelve years, risen to a very great relative and absolute importance. --

In the year 1828, according to Mr. Porter's Progress of the Nation, vol. i. p.338, export of coals from the several shipping places included in the Custom-house books, under the head of Newcastle, was in tons:-

|   |                  |
|---|------------------|
| To British Ports                                      | 1,921,467        |
| To Foreign Ports                                      | <u>157,211</u>   |
|   | 2,078,678        |
| From Sunderland the export was:-                      |                  |
| To British Ports                                      | 1,350,354        |
| To Foreign Ports                                      | 60,743           |
|   | <u>1,411,097</u> |
| From Stockton the export was                          | 6,051            |
| In 1839, the export of coals in tons was as follows:- |                  |
| From Newcastle to British Ports                       | 2,149,814        |
| To Foreign Ports                                      | <u>168,242</u>   |
|   | 2,318,056        |
| From Sunderland to British Ports                      | 913,394          |
| To Foreign Ports                                      | <u>73,702</u>    |
|   | 987,096          |
| From Stockton to British Ports                        | 1,308,778        |
| To Foreign Ports                                      | <u>19,925</u>    |
|   | 1,328,703        |

The coals exported from the shipping places included by the custom-house under the head Stockton, though some may come from old mines, are by far the greater part from mines opened within these few years.

Of the coals exported from Sunderland, some are from mines on the north side of the

Weare but the greater part is from mines on the south side and therefore between the Weare and the Tees.

The whole of this district is much intersected with rail-roads. There is a rail-road from near Durham to Sunderland. Three railroads terminate at Seaham. The railroad from Stockton to Darlington has been extended up to near Bishop Auckland and the mines in that country are now brought into communication with the sea ports. The Clarence railway has many lines or branches. Many mines have communication with the sea by more roads than one. Common roads cross rail roads in places innumerable, without any ceremony, just the same as in the case of two common roads. The engineers have not considered it necessary to make deep cuttings and high embankments to obtain a level. A fixed steam engine draws the long train up the declivity and its own gravity sends it down on the other side and sometimes a loaded train descending on one line draws an empty train up the other. This may often be seen near Seaham.

Durham is a county of bills and vales, not very high nor very deep, but the surface is throughout diversified, and the numerous railroads require stationary steam engines to draw the trains up the ascents. The country is no way disfigured by the collieries. The tall columnar chimneys meet the eye and often throw out volumes of smoke and steam engines send up clouds of white steam) but these are rather an ornament than an offence. The glittering roofs and neat walls of the collier villages are always a pleasing sight.

The fields are divided by hedge rows and adorned with trees, but it must be admitted that there is not the rich luxuriance in the hedges, nor the umbrageous foliage over spreading the green lanes which characterise the southern counties of England. But the diversified prospects that every where meet the eye give more pleasure to the traveller, than the sameness which these counties present, rich and fertile though it be.

## **MODE OF VENTILATING AND WORKING THE COAL MINES.**

In some of the coal pits between the Weare and the Tees, the ventilation is produced and maintained precisely in the same manner as in the southern districts already described, by two separate and distinct shafts sunk at a little distance from each other and down one of which the air descends and after traversing the horse roads and workings, it ascends by the other. The former of these being called the down shaft, and the other the up shaft.

Such a mode of ventilation is, however, far from common in the north, and the usual mode is to make one large shaft of a circular form and then subdivide it into two or into three parts. The shaft at the South Hetton Colliery is fifteen feet in diameter and it is divided into three equal portions, each angle at the centre, therefore, being exactly 120°. The divisions called bratices are formed of wood and extend all the way from the top of the shaft down to the bottom and are rendered air tight as far as possible. It being intended that the effect shall be the same, as if there were three distinct shafts at a distance from each other. This method with some little variation is adopted in most of the pits of the northern coal field. It does not seem so perfect and lasting as sinking clearly distinct and separate shafts and the wood work is liable to decay and to accidents, but it has been adopted on account of the enormous expense of sinking shafts to the very deep beds of this district, which, according to the evidence given by Mr. John Buddle, to the Lords' Committee in 1830 (p. 34), may be from £10,000 to £150,000, and there are now works going on near South Hetton, where a far heavier expense than the largest of these sums will have to be incurred.

The shaft for its greater security is lined with strong ashlar work and where there is quicksand and limestone of thin strata, through which water may flow, iron tubing is employed, of which the junctions are made tight by iron cement. The whole shaft is then one piece of solid masonry and iron, from the top to the bottom. The wooden work which divides it into three parts, requires constant inspection and immediate repair if it be found necessary.

By two of the divisions of the shaft the corves or the tubs containing the coals are hoisted up and for their greater security there are wooden slides all the way from the top to the bottom, in which they glide, and they do not swing from side to side, at the end of the rope, or chain, as may be the case in the southern districts. This is certainly an excellent thing for the safety of all parties employed, and in an economical point of view it is important, as saving the shaft from injury by striking against it.

From the foot of the shaft, or we may rather say, of the three shafts, roads are carried



forward, and air courses are established by communication from the one to the other. In some pits one of the shafts is made the up shaft and the air is made to ascend it, whilst it descends through the other two but in other pits two of the shafts are made up-shafts, by which the air ascends, and only one is a down-shaft.

The great moving power which agitates the air is heat. By a great fire the air is expanded and consequently becoming of diminished specific gravity, it is forced upwards and other air is drawn in to fill up the vacuum. The force of the current is so strong, that if you pluck a handful of grass and throw it into an up-shaft pit, it is driven up and over your head and away through the air. The principle is the same as that described in the pits at Moira in Leicestershire. In the horseway, generally about thirty or forty or more yards from the foot of the shaft, commences an ascending road, which enters the shaft at a height of about twenty, thirty, or forty feet. By a door which may be opened or shut at pleasure, the current of air is prevented coming to the foot of the shaft and is forced along this path, and blows powerfully on a great fire which is kept up day and night and on Sundays as well, and thus is maintained the strong current which for the most part, though there are awful exceptions, carries off the explosive gas and foul air and ensures the safety and health of the people in the pit.

Some of the pits abound so much in fiery gas that if the stream of air were to pass through the flames of the furnace there would be an explosion, which might be continued, explosion after explosion, to the remotest corner of the pit and be destructive of everything. To guard against this awful hazard, another opening is made, which enters the shaft considerably higher than the opening of the furnace. The gas from its inferior specific gravity rises up into this opening and by the force of the current produced by the furnace, it is carried into the shaft and borne upwards into the air above.

The expense of a large furnace was estimated to me, in conversation with an eminent engineer, at £100 per annum. There are the wages of a man during the day, seven days in the week and also of a man at night for the same period. Then there is the expense of coals and of removing the ashes and what may be considerable, there is the tear and wear of the furnace, the expense of the repairs and also of the repairs which the furnace may render necessary in the shaft. Seldom in any other districts are there works for ventilation on such a scale as in Durham and Northumberland.

The pits in this country are often most extensive, equalling that which if above ground would be considered firms of the first magnitude. The manner of cutting out the coals is not the long way, as in the districts already described by horse-roads and long workings, extending from one horseway to another and throwing back the spoil, the top and the bottom measure and the slack as they proceed but the mode the northern coal district is to cut out the coals, so as to leave great rectangular masses called pillars, behind them. To take an illustration from a familiar object, imagine a window to be a map or plan of a portion of a Durham coal-field. The wooden partitions between the panes of glass will represent the whole workings, or first workings, from which the coal has been cut. The panes of glass will represent the rectangular masses of coal left behind. The picture is not quite correct, inasmuch as the wooden partitions of a window are not in proportion large enough, but suppose it to be an old fashioned window such as we may sometimes see, where the wooden partitions take up one-third of the whole space of the window, then is the picture very near the truth. The whole workings in the coal cross at right angles like the wooden partitions and are in extent about one-third of the space and the rectangular masses of coal occupy the remaining two thirds. Such in form and extending many square miles, are the great coal pits of the north.

The pillars vary much in their length and breadth, in different collieries, as well as in their distance from each other. Where the coal is soft it is thought necessary to leave larger pillars than where the coal is hard; so, also, where the seams are very deep from the surface and consequently the superincumbent pressure is very great, it is necessary that the pillars should be larger than where the seam is nearer the surface.

At Woodhouse Close Mine, near Bishop Auckland, the length of the pillars is 30 yards and the breadth 10 yards; whilst the distance from one pillar to another, either on the longer or shorter side, is four yards.

In some pits the pillars are 35 yards long and 7 broad.

In the Dorothea pit, at Philadelphia, the pillars are 20 yards long and 8 yards broad. Some are 20 yards long and 11 yards broad.

But there is endless variety, all the pillars being very large, with a view to support the roof.

The object in former times seems to have been to cut as much of the coals as they thought they could do, without letting down the roof by the pillars being crushed by the superincumbent

weight, or without the floor being forced up between the pillars, or the pillars themselves being pressed downwards into the strata below. They thus abandoned more than half of the coals for ever and it is only the increased value of the coals in the present day which has induced the present proprietors to endeavour to cut down and send up what has been left behind.

Were the air which comes down the air-shaft to be lost in the vast waste of empty space around the pillars, it would not come to the up-shaft in sufficient force to bring much gas a long with it, nor would it pass in a current except through a small portion of the pit. It requires to be guided and this is done by erecting brattices, or partitions, or boards of wood, from one pillar to another, air-tight if possible, so as to form the mine into lanes or streets. The air then passes along one street and up another and then down a third, and so on, backwards and forwards, until it has been conducted to the up-shaft, where it is forced in by a draught produced by the furnace and rises in a strong current into the air above.

The various modes of conducting the air are too complicated to be understood without numerous diagrams but the above is a general idea.

As there are many places in the workings from which the air must be prevented from going and yet men, boys, and horses must frequently pass, trapdoors are placed here and there, which must be kept shut as much as possible and only momentarily opened when occasion requires. This is what causes a necessity for the employment of trap-door keepers, or trappers, of whom we shall have occasion to say much in this inquiry.

There are men called 'wasteman', whose duty it is to traverse the air-courses to see that all is clear, that the roof has not fallen, that the pressure has not forced up the bottom and stopped the passage of the air and the brattices are all in a proper state, and the air is made to go in its right course.

If these men or the trappers neglect their duties, the safety of all persons in the pit is compromised.

It is now found expedient from the high price of coals, to attack the pillars of coal and this work is more dangerous than the whole working. On that account two sets of hewers are employed, and they work very vigorously, six hours each set. The pillars are undermined and thrown down part by part, until the whole be got away. The roof during this work is supported by props, and then the props are removed, but sometimes the roof will stand of itself without any support. It is more dangerous work than the first working. Mr. Edward Potter thus describes the difference:-

In the first working or whole working the men use candles exclusively, and are safe in so doing, as we can guide the air into every working part, so as effectually to carry off dangerous gas. But when the men are at pillar-working, that is removing the pillars, no candles are at all allowed, and the Davy-lamp alone is used, and for this reason, that it would be impossible, when so large openings are made and a vacant space left beyond, for us to secure the men against sudden danger from a large portion of the roof falling in, and throwing a large flood of gas, and dashing it against the lights. When the stone is very hard, sometimes half an acre, sometimes a whole acre and even, in an extreme case, five acres may be left vacant and the roof may break and fall down at once. Blue metal stone, which is a species of shale, is very strong and holds long.

By pillar-working we get the pillars clean out, and leave none of the coal behind. There is a new mode of working by which we now remove the pillar nearly simultaneously with the whole workings, or a very short distance behind them (No.89).

For the more clear explanation of this subject, I refer to a diagram of a coal-mine laid before the Committee of the Commons on Accidents in Mines, in 1835, by Mr. John Buddle.

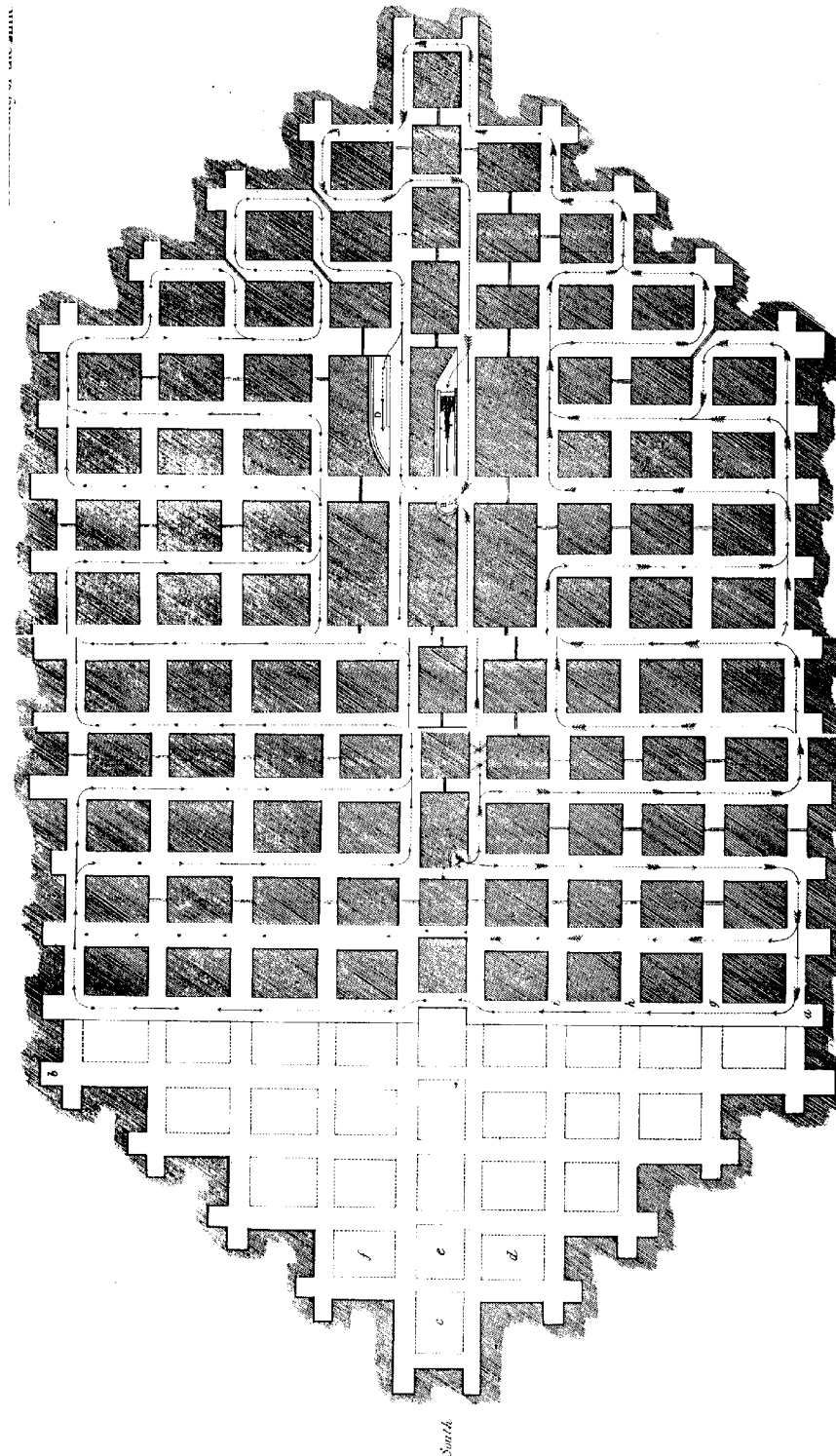
It represents at one view a portion of a mine of which the coal has been taken from the first or whole workings and shows spaces between the pillars now cleared of coal, and the pillars left behind.

In the south end the pillars have been totally removed, but the spaces which they occupied, c, d, e, f, and the others are marked out by dots.

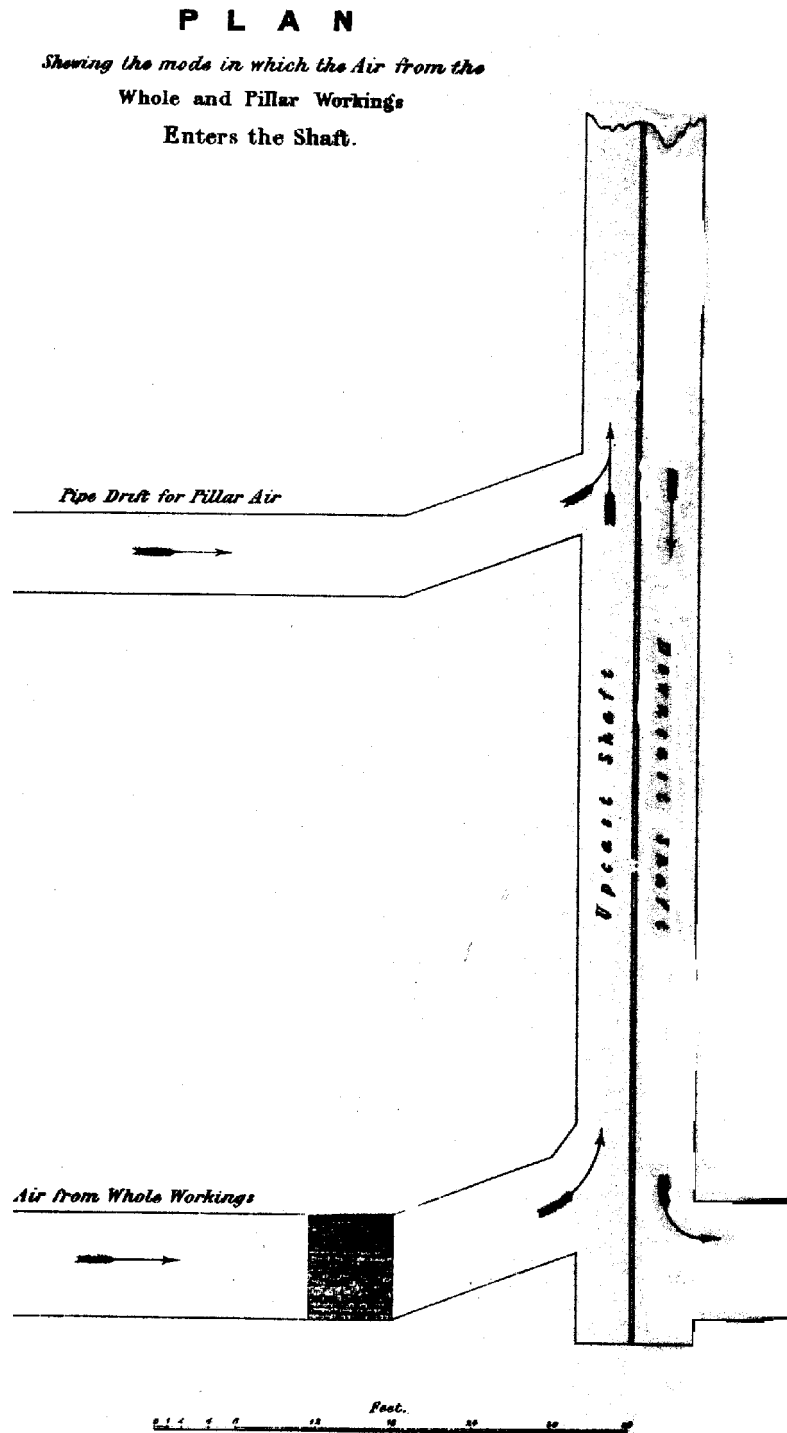
In this mine are two separate shafts at a distance from each other, a down-shaft and an up-shaft and not one large shaft divided into two or three partitions by brattices extending from the top to the bottom, as is more usual in the northern coal field.

The down-shaft is at A, and the air descending to the foot of the shaft, there divides, and goes round all parts of the pit and is kept by brattices between the pillars in a certain course, as

**DIAGRAM**  
**Showing the Ventilation Of A Mine In Durham After the Working of Pillars has commenced at the South Extremity of the Mine.**



**PLAN**  
Showing the mode in which the air from the whole and pillar workings enters the shaft.  
indicated by the arrows and lines.



At B is the up-shaft by which the air ascends, a large portion entering at the foot of the shaft. At C is a furnace at some distance from the up-shaft B, with which it communicates. The current of heated air entering the up-shaft, warms and expands all the air in it. and consequently there is a strong draught.

At D is what is called a dumb furnace, there being no fire in it, and by which the common air with the fiery gas enters, and goes through a road to the up-shaft, at a greater height from the foot than the place where the air enters from the furnace C.

By such means a great portion of the hydrogen gas is brought into the up-shaft, without passing through the furnace C, and thereby the danger of explosion is avoided.

An inspection of the diagram will show, far better than can be done by words, the manner in which the air is thus made to circulate throughout the pit and brings off the fiery gas which issues from the pillars of coal and not infrequently from the beds below and above, into the pit.

It is obvious that if the brattices be broken, or if part of the roof fall in, then the course of air may be much interrupted, and danger may ensue.

The space at the south end of the pit from which the pillars have been removed and the coal carried to the top of the bank, may receive a great deal of gas and the current of air cannot be so guided as to remove it. The air enters at the one end, and comes out at the other, as a stream of water may enter and leave a lake but in much of the space the air may remain stagnant. This is therefore a kind of reservoir for the gas and should a large portion of the roof fall in at once, it may drive a wave of it to all parts of the pit and should it come against the flame of a candle it might cause an explosion. It is therefore much wished by the miners, that as soon as possible the roof may fall in and fill up tile void space but even when it does fall in, it is seldom that it does not leave large hollow spaces in which this dangerous enemy may accumulate.

In parts where the working is going on and where men, boys, and horses must pass through, instead of brattices between the pillars there must be trap-doors, which the young boys, the trappers, must open when necessary and at all other times they must keep them shut.

It is of great importance that when the people come up after their work a careful and trusty person see that the trap-doors are all shut, otherwise the regular course may be interrupted and the gas may accumulate in places where it may cause an explosion when the men come back to their work.

There is a diagram which shows a shaft divided into two by a brattice and being therefore both a down-shift and an up-shaft. The passage from the furnace enters the shaft a little above the bottom, and another passage from the pillarworkings enters considerably higher up. This diagram is taken from the Parliamentary Report and was furnished by Mr. Nicholas Wood.

At Pittington, according to Mr. Thomas Crawford, the seams of coal lie at the following depths:-

At 43.5 fathoms from the surface is the five-quarter coal.

At the depth of 57 fathoms is the main coal, of thickness four feet four inches.

At the depth of 84 fathoms is the low seam, thickness one foot four inches.

Then at the depth of 97 fathoms is the Hutton seam, which is from four feet six inches to four feet ten inches in thickness and which is the lowest coal worked at that place. About three miles south from Pittington they go lower down to what is called the Harvey seam or Beaumont seam, which is from three to four feet in thickness.

At South Hetton, the Hutton seam is 180 fathoms below the surface.

At the West Hetton Colliery the five-quarter seam is from the surface 20 fathoms and the main coal is 30 fathoms.

At the Crowtrees Colliery the five-quarter seam is 50 fathoms from the surface and the main coal is 62 fathoms.

At the Coxhoe estate of the Durham County Coal Company, the five-quarter seam is from the surface 32 fathoms, and the main coal 41 fathoms.

The distance from the surface of the Hutton seam in the Londonderry Pit is 90 fathoms, in the Buddle Pit it is 80 fathoms, and in the Broomside Pit it is 48 fathoms.

At Thornley Colliery the five-quarter seam is 83.5 fathoms from the surface, and the Hutton seam 164.5 fathoms.

The answers to the queries issued mention seams at all depths from 14 fathoms to 180 fathoms. Mr. Robson, agent for the Marquis of Londonderry:-

The depths of the seams vary, say from 25, 40, 50, 60, 70, 80, 90, 100 to 110 fathoms.

So far, therefore, as the working of the mines and the comfort of the work-people depend on the depth from the surface, there is every variety.

I now proceed to give an account of the children and young persons, under the twelve heads laid down in our instructions.

## I. - OF THE AGES AND NUMBERS OF THE CHILDREN.

About nine is the age at which the respectable coal-viewers and agents readily admit that they receive children to work in the pits but unfortunately there is overwhelming evidence that children go down into many of the pits at a much earlier age and in some instances as early as between five and six. This will be seen in the evidence taken from the work-people, both men and boys.

There is also the most abundant evidence in the Returns of the particulars respecting their workmen, obtained from many of the collieries in one of the columns of which are the ages of the persons now employed and though the very young children are not many in proportion, there are still such a number as is painful to contemplate and which the great coal-owners will perhaps now learn for the first time and I feel a firm belief that they will do so with sorrow and regret.

In some of the Returns from the collieries the clerks have been so kind as to give a voluntary column, formed by subtracting from the present age of the children the years and months which they have worked in the pits and this column gives evidence that a few years ago a greater proportion of children was received at a very early age than at present.

Happily it is both contrary to the wishes and interest of the coal-masters that any very young children should go down into the pits, and they will cordially rejoice if it should be totally prohibited. Mr. Potter, of South Hetton, states:-

Of the children in the pits we have none under eight, and only three so young. We are constantly beset by parents coming making application to take children under that age and they are very anxious and very dissatisfied if we do not take the children and there have been cases in times of brisk trade when the parents have threatened to leave the collieries and go elsewhere, if we would not comply. At every successive binding which takes place yearly, constant attempts are made to get the boys engaged to work, to which they are not competent from their years. In point of fact we would rather not have boys under nine years of age complete. If younger than that they are apt to fall asleep and get hurt. Some get killed. It is no interest of the Company to take any boys under nine (No.89).

This gentleman in conversation subsequently stated that if they were prohibited taking children until they were ten years complete, he should not complain.

At another and distant part of this coal-field, at the collieries of Joseph Pease, Esq., M.P., and Co., the manager, Mr. Thomas Alexander Cockin, says:-

We should consider it most reprehensible to bind boys to work in the pits. We would not employ any children under ten were it not for the importunity of their fathers and their insisting on it as a condition for their engaging to work for us. In our case we could carry on our collieries without employing any children under 12 years of age, as we do not employ many trappers but I do not think that in the collieries generally they could dispense with children between 10 and 12 (No.91).

Mr. George Elliott, resident agent of the Belmont Colliery, in his answer to one of the printed questions, says:-

I think the most salutary results would be produced from an enactment prohibiting the children from going into the pit before the age of 12 years and providing cheap education for them until that period.

An eminent engineer being asked the question. 'In your opinion does the interest of the employers require to employ children under ten?' replies as follows:-

We are beset by the entreaties of fathers and of widows to employ their young children and are in a manner compelled to do but as far as our own interest is concerned we had much rather not employ children indeed under eleven. The better sort of persons do not wish their children to come before that age (No.92).

As to the age at which children should be allowed to begin working, many of the agents or managers recommend that it should be left to the discretion of the parents. What that discretion is we have abundantly seen.

Some recommend eight.

Mr. John Graham, of New Shildon, says:-

I think none ought to be entrusted with ventilation doors under eight years, where hydrogen gas exists.

Nine is recommended as the proper age by Mr. Seymour, of the Wingate Grange Colliery; by Mr. Thomas Crawford, agent of the colliery of Stobart and Co., and other collieries.

Mr. Robson, of the Hetton Colliery, says:-

Young persons are at present refused employment under nine years of age, though their parents being anxious for income manage to evade this regulation.

Mr. Longstaff, agent of the Pittington Colliery, says:-

I think it desirable to limit the age from nine to ten, to enable them to get some education before they commence work.

Mr. Joseph Lawson, agent of the collieries of Joseph Pease, Jun., Esq., M.P., says:-

It is with difficulty this question can be answered, not that I conceive that a judicious limitation would at all interfere with the interests of the coal owner, for if a legislative enactment were passed by which children should not be allowed to go into a coal mine until they were nine years of age instead of six, it would in many cases be a relief to the coal owner, as it is frequently at considerable loss he has to employ boys of less age but such enactment would materially affect the interests of the workmen, who would consider such interference anything but an act of humanity displayed towards them.

Mr. Appleby, agent of the Hazard Pit, Dunwell Pit, and Moorsley Pit, says:-

At 10 years; or be left to the discretion of their parents.

If it be left to the discretion of the parents, they will fix on six years.

Mr. Robson, of the Whitewell Colliery, recommends 'ten years of age'.

Mr. Redhead, manager of the Cussop Moor Colliery says:-

I do think a limitation of the age at which children are employed in mines desirable because it not infrequently happens that at the tender age of six or seven years they are allowed to go into the mines to open and shut a trap-door, under the care of a father and brother and they thus lose all chance of getting the rudiments of any education whatever. I think 10 years quite early enough.

Mr. Foster, of the Haswell Colliery, says:-

I think there should be none commence work until 10 years of age and so doing they would be enabled to get a little scholarship but when they go down to the pit at six years, they only have the night-school to go to after coming from work.

Mr. Thomas Wood, of the Thornley Colliery, says:

I conceive it is very desirable, with reference to the education and moral culture of the children, that they should not be employed under 10 years of age.

Mr. Christopher Croudace, agent of the Shincliffe Colliery, says:-

I think no children ought to be allowed to enter the mines before the age of 10 years. I think they might be sent to school until that age, which would give them the groundwork for an after and more sound education which they might acquire at night-schools.

Looking at the important objects to be effected by continuing the education of the children

to 12 years of age, I must express high approbation of the views of Mr. Elliott, of the Belmont Colliery but looking also at the necessities of poor parents with large families and of poor widows and also of the necessity of obtaining labour, I must give my adhesion to those who consider 10 years of age as the proper time when children should be allowed to go to work in the collieries.

The returns of the Schedules for 14 collieries, Hetton, North Hetton, South Hetton, East and West Rainton, Pitlington, Broomside, Coundon, Tees, Thornley, Sherburn, Great Lumley, Newbottle, Cocken, Painshaw, and St. Helens Auckland, give the ages of the trappers as follows:-

|         |      |            |
|---------|------|------------|
| From 6  | to 7 | 4 trappers |
| 7       | 8    | 12         |
| 8       | 9    | 50         |
| 9       | 10   | 69         |
| 10      | 11   | 53         |
| 11      | 12   | 25         |
| 12      | 13   | 16         |
| 13      | 14   | 4          |
| 14      | 15   | 2          |
| Total . |      | 235        |

Out of 235 trappers are 135 under 10 years of age complete, and 100 above that age. There is, therefore, a decided majority under 10.

The following extracts from the evidence given by witnesses to the committee the Commons on accidents in mines will show how much the mind may be biassed by pecuniary consideration.

Q.1122. Are not those doors entrusted to very young children? - They are.

Q.1123. Do you think it justifiable, where an explosion depends upon a child of 9 or 10 years of age doing its duty, that such parties should be employed in such cases? - I should think that the expense of employing men in such operations would render a great many collieries unworkable to profit.

Q.1130. For what length of time do you suppose this neglect had occurred which led to these consequences? - I should think probably five minutes.

Q.1131. If the safety of a great number of men is to depend upon a child of 9 or 10 years neglecting his duty for five minutes, can you reconcile any master placing his men under such circumstances? - I cannot see that any other mode can be pursued. I am not quite sure how far a man would attend to his duty better than the boys, or whether men could be got, except at such a rate of wages that would render the mine unworkable to profit.

On this subject, Dr. George Fife makes an observation;-

Q. 479. I would also make one suggestion with regard to the keepers of the traps in mines where those trap-doors still exist for the purpose of ventilation and that is, that a minimum age ought to be fixed at which persons should be trusted with such duties, because, whether we regard the physical or the mental capacities of the children, I am quite satisfied that the ought not to be at so early an age, as has been the case, entrusted with any charge on which the safety of the mine so essentially depends.

Q.1480. The committee have heard that no child is employed under 10 years of age; should you think at that time of life they are fit for those duties? - I should not like to trust to them if I was in one of the workings.

Q.1481. What is the minimum that you would suggest? - From 12 to 13 is the lowest age.

The committee it seems had hitherto been kept from a knowledge of the fact that children under 10 are employed but afterwards the truth was told them by Mr. George Stephenson, who stated that he believed children from seven to eight were employed (Q.1616), and also gives it as his opinion (Q.1611) that many of the boys put to open doors were too young.

It will be seen that children younger than he had supposed were employed.

The proprietors are not driven to the alternative stated by one of the witnesses, of choosing between young children and full-grown men and the worst that can happen to them is to be obliged to employ some boys at 15d. a-day if they should not find enough of children at 8d., 9d., or 10d. a-day, the wages now paid to trappers.

I need only add to the above evidence that several returns from collieries and several of the witnesses, prove that there is a great surplus of children, so that where they are employed it cannot



be every day but only alternately; so that if very young children be prohibited the work now done by them would readily be got performed, at the same expense, by children of a higher age.

The objections to employing very young trappers may be thus summed up:-

1. The boys breathe an atmosphere which, notwithstanding the ventilation, is not so salubrious as the air above ground.
2. Sitting 12 or more hours in a little hole in the coal all in darkness is not so wholesome as running about in the open air.
3. The boys are exposed to accidents.
4. They are the cause of others suffering from accidents also.
5. They are deprived of the opportunity of obtaining a civil and religious education.

From the very imperfect data which I can obtain, I estimate the number of persons engaged in the collieries below ground and above between the Weare and Tees at from 12,000 to 15,000.

According to the returns from a certain number of collieries, the proportion of children, young persons, and adults, is as follows:-

|                             |             |
|-----------------------------|-------------|
| Children under 13           | 1040        |
| Young Persons from 13 to 18 | 1356        |
| Adults above 18             | <u>6135</u> |
|                             | 8531        |

This may seem a less proportion of boys than that stated in evidence to the Lord's Committee in 1830 by Mr. Buddle and others but these gentlemen used the word boys in the sense given to it in the collieries of this country, and included all persons not advanced to be hewers, or under 21.

## II. OF THE HOURS OF WORKING.

In all the well-regulated collieries the hours of working are twelve exactly. In many of these collieries formerly, and in some collieries still, when the hewers had cut down what was considered their proper quantity and had departed, the putters, the drivers, and all other persons were expected to rein am until the whole of these coals were brought to the bank, however long a time it might be, whether 13, 14, 15, or even more hours. If therefore any defect occurred in the engine, or any other cause of delay took place, the people were detained below in consequence. Such is not generally the case now. When the hour comes the sound of 'loose' is sent down the shaft; the glad tidings are quickly sent to the farthest workings and all come up. The coal-masters suffer no loss, as they pay the hewers and putters by the piece and the drivers have to drive all that the putters bring to them.

So long as the aggregate strength of the collieries exceeds the possible sale, and they cannot afford to give the men all the work which they could do, there is no loss to any parties in not being allowed to remain more than 12 hours at work. Still in some collieries the hours of working are very long.

Strictly speaking the labours of the pit never cease. No sooner is the main body of the people gone and the work may be said to be over for the day, than some of the deputy-overmen and other men to help them go down to see that the pit is all right and where the men are engaged in pillar working they remove the props from places where they are no longer wanted and bring them and fix them nearer to the workings, in order to prevent the roof failing on the men undermining and bringing down the coals. About one in the morning the overman and one of his deputies takes his journey through the several parts of the mine, to see that the deputyovermen have done their duty and also that in regard to gas the mine is in a state safe for working. By two perhaps, or by three o'clock, come down the hewers in order to get coals ready before the boys come down. By four o'clock the boys, that is the putters, the horse drivers, and trap-door keepers, are all at their post, and ready to begin the 12 hours labour of the day. Thus it goes on day after day.

In some pits the boys do not commence work until five and there are pits where it is six but whether at one time or another 12 good hours hard work has to be performed. In conversation with the miners and boys I never found one of them complain of the early hour at which they went to

work but on the contrary, they would be dissatisfied if any change were to be made. The hewers come up at an early hour in the day, they wash, take their dinner and have time to put on their good clothes and walk about a few hours and enjoy themselves, and if there be any religious or other assemblage they have time to go to it. The boys are some hours later but still in the long day they are able any evening when they like to take a couple of hours to walk about in the daylight but be the good of these things what it may, the colliers love to have it so and they are the parties interested.

It may be observed that when the masters reckon 12 hours it is from the time when work commences to the time when orders are given to loose but the colliers are accustomed to reckon by the time which they are out of the house, that is, to include the time which it takes them to go to the pit, the time spent in getting down and getting to their proper place in the pit, also the time in the afternoon spent in getting to the foot of the shaft and getting taken up, and going home. Hence what the masters usually call 12 hours work the colliers will call 14 hours 'out of the house,' and both parties are right in what they say.

Taking the year altogether the masters are not able by the sale of the coals to give the colliers employment for the whole time, that is to say 11 days in the fortnight for as for the Saturday after the evening of Friday when the wages are paid it is out of the question that the men should come that day to work. Thus there may be only seven days or eight days work instead of 11 and all parties in the pit connected with bringing the coals to the foot of the shaft are paid accordingly.

There may, however, at a time spring up a sudden and extraordinary demand for coals and then the people may be employed overtime to do a greater quantity of work for which of course is a proportionate increase of pay. Sometimes on such occasions there may be a day set and a night set, each working 10 hours. This is a comparatively rare case and still more rare is a triple set, though an eminent engineer has stated that he has known such a thing to take place.

### **III. - OF MEALS.**

There is no time set apart for meals. The hewers may take with them their victuals and each man may eat when it suits himself. The little trappers may eat and drink when they like but the putters who assist to load the tubs or corves and push them to the flats and the horse drivers and all who are engaged in forwarding the coals to the shafts, must keep on their work as if they were engaged in a sea-fight. They must take a bite when they can.

It is remarkable that, whilst all concur as to the fact of being allowed no time to eat or drink, only one person should have complained of it as being a hardship. All parties are anxious to get the day's work over and get up to the bank and there is no doubt that, if it were proposed to cease working half an hour but to continue in consequence half an hour later in the afternoon, there would be one universal outcry against the change. Rest and provender are never considered as impeding any journey and we should suppose that matters could be so managed as to keep the engine in full employment, and yet allow the boys in different districts of the pit, one district after another, to sit down to rest, and have their meal in peace. Such is the rule in the Dorothea pit, near Philadelphia, belonging to Lord Durham and this is not the only pit where some time is allowed for refreshment, but it must be owned that these are rare exceptions.

### **IV - OF THE NATURE OF THE EMPLOYMENT.**

Having been instructed to give a very minute account of the several employments of the children and young persons in this district, I have particularly directed my attention to the fulfilment of this duty and I premise this account with a short statement of the persons set over them who guide their labours, and on whose conduct towards them their happiness and comfort greatly depend.

Many of the collieries of the district between the Weare and the Tees are worked by the proprietors on their own account but a greater number are let by the proprietors to companies, who work them, paying to the proprietors a royalty, or certain sum, according to the quantity of coals raised. In both cases the system of working the mines is the same, as well as the relation between the employers and the employed. It is proposed. here to give a short account of the several

gradations of persons engaged in superintending the working of a mine.

### **Of the Coal Viewers.**

The chief man of every colliery is the coal viewer, who ought to be a person of great talents and knowledge of engineering, to be able to plan and conduct the great operations and works of the mines. Sometimes the coal viewer has his residence near the chief mine under his care and he goes occasionally to visit his other mines. Sometimes the coal viewer resides in a town and takes his journeys about the country in discharge of his professional duties. The coal viewers are looked up to as men of eminence, holding a distinguished position in society.

### **Of the Under Viewers.**

Where there is not a resident coal viewer, there is usually an under viewer. They are of various degrees of acquirement, but in general the chief duties of the under viewer are to superintend the accounts and the payment of the work people.

The digging and the drawing of the coals are not contracted for with butties, or charter-masters, as in the southern coal fields but all the men and boys are in the direct pay of the masters. Hence it is necessary to have a system of superintendence in the pits, and the men employed under ground for that purpose are the overmen and deputy-overmen.

### **Of the Overmen.**

The overman has a situation worth about £10. a-year. He is a man who has arisen from being a common workman, from his activity, steadiness, natural abilities and education. His duties are a general superintendence over the labours of the pit. Early in the morning, perhaps at one, he goes down accompanied by one of his deputies and traverses the pit throughout, to see that it is all safe from gas and he also examines what has been done by his deputies and the workpeople under them during the night, in fixing props and doing other work to secure the roof from falling, where it may have seemed in danger. He marks out to the deputies the places where the several works are to be carried on, that day. He executes the instructions of the coal-viewer and in general guides the operations of the pit.

Instances have occurred of overmen rising to be coal viewers, and of being at the head of their profession.

### **Of the Deputy Overmen.**

The Deputy Overmen are the lieutenants of the Overman, and cause his orders to be carried into effect. A special duty is entrusted to them of going down after the workmen have left for the night and fixing props to support the roof. They also have to measure off the places where the hewers are to dig the coals and they likewise assign to the putters the several number of tubs of coal which they are to take away from the hewers. A putter for instance is instructed to take away eight tubs from workman A; seven from workman B; nine from workman C, and so on. It is remarkable how correct they are found to be in this mental arithmetic. The deputy overmen have to make out the accounts of the work of the men and boys and the money to be paid to them on the reckoning day and also accounts showing the whole expenditure of the pit for the fortnight. In the time of work they are distributed over different parts of the pit, to see that order is observed.

There is also the chief of the stonemasons who erect walls in the pit, and repair the road. There is the chief carpenter or joiner, who has men under his care and the chief blacksmith with his men. A colliery, like a ship of war, must be complete within itself and must have its officers in every department, and there are workshops in the immediate vicinity of the pits.

### **Of the Trappers.**

The little trapper of eight years of age lies quiet in bed. The labours of the preceding day had procured sleep.

It is now between two and three in the morning and his mother shakes him and desires him to rise, and tells him that his father has an hour ago gone off to the pit. Instant he starts into conscious existence. He turns on his side, rubs his eyes and gets up and comes to the blazing fire, and puts on his clothes. His coffee such as it is, stands by the side of the fire and bread is laid down for him. The fortnight is now well advanced, the money all spent and butter, bacon and other luxurious accompaniments of bread, are not to be had at breakfast till next day supply the means. He then fills his tin bottle with coffee, and takes a lump of bread, and sets out for the pit, into which he goes down in the cage and walking along the horseway for upwards of a mile, he reaches the barrow-way, over which the young men and boys push the trams with the tubs on rails to the flats, where the barrow-way and horse-way meet and where the tubs are transferred to rolleys or carriages drawn by horses.

He knows his place of work. It is inside one of the doors called trap-doors, which is in the barrow-way, for the purpose of forcing the stream of air which passes in its long many miled course from the down shaft to the up shaft of the pit but which door must be opened whenever men or boys, with or without carriages, may wish to pass through. He seats himself in a little hole, about the size of a common fireplace and with the string in his hand and all his work is to pull that string when he has to open the door and when man or boy has passed through then to allow the door to shut of itself. Here it is his duty to sit and be attentive, and pull his string promptly as any one approaches. He may not stir above a dozen of steps with safety from his charge, lest he should be found neglecting his duty and suffer for the same.

He sits solitary by himself, and has no one to talk to him, for in the pit the whole of the people, men and boys, are as busy as if they were in a sea-fight. He however sees every now and then the putters urging forward their trams through his bate and derives some consolation from the glimmer of the little candle of about 40 to the lb. which is fixed on their trains. For he himself has no light. His hours except at such times, are passed in total darkness. For the first week of his service in the pit his father had allowed him candles to light one alter another, but the expense of three half-pence a-day was so extravagant expenditure out of ten pence the boy's daily wages, that his father of course withdrew the allowance the second week, all except one or two candles in the morning, and the week after the allowance was altogether taken away; and now, except a neighbour kinder than his father now and then drop him a candle as he passes, the boy has no light of his own.

Thus hour after hour passes away but what are hours to him, seated in darkness, in the bowels of the earth? He knows nothing of the ascending or descending sun. Hunger, however, though silent and unseen, acts upon him and he betakes to his bottle of coffee and slice of bread and if desirous, he may have the luxury of softening it in a portion of the water in the pit, which is brought down for man and beast.

In this state of sepulchral existence an insidious enemy gains upon him. His eyes are shut and his ears fail to announce the approach of a tram. A deputy overman comes along and a smart cut of his yard-wand at once punishes the culprit and recalls him to his duty and happy was it for him that he fell into the hands of the deputy overman, rather than one of the putters; for his fist would have inflicted a severer pain. The deputy overman moreover consoles him, by telling him that it was for his good that he punished him and reminds him of boys well known to both, who when asleep had fallen down, and some had been severely wounded, and others killed. The little trapper believes that he is to blame, and makes no complaint for he dreads being discharged would be attended with the loss of wages and bring upon him the indignation of his father more terrible to endure than the momentary vengeance of the deputy and the putters all taken together.

Such is the day-work of the little trapper in the barrow-way.

At last the joyful sound of 'loose, loose' reaches his ears. The news of its being four o'clock and of the order 'loose, loose,' having been shouted down the shaft, is by systematic arrangement sent for many miles in all directions round the farthest extremities of the pit. The trapper waits until the last putter passes with his tram and then he follows and pursues his journey to the foot of the shaft and takes an opportunity of getting into the cage and going up when he can. By five o'clock he may probably get home. Here he finds a warm dinner, baked potatoes, and broiled bacon lying above them. He eats heartily at the warm fire, and sits a little after. He dare not go out to play with other boys for the more he plays the more he is sure to sleep the next day in the pit. He therefore remains quiet at home, until, feeling drowsy, he then repeats the prayer taught

by our blessed Lord, takes off his clothes, and is thoroughly washed in hot water by his mother, and is laid in his bed.

The Saturday after pay-Friday is a holiday in the pit and on that day the trapper lies in bed till between eight and nine. He rises and gets his breakfast, and then goes out to the highway to gather the manure of the horses to put on his father's potato-garden. In the afternoon he indulges heartily in play, as he is not afraid of falling asleep next day, and of receiving the yard wand of the deputy overman, or the fist of the putter.

On Sunday he goes to the Sunday-school an hour before divine service. The fatigues of the week have left him but little spirit to attend to any learning but his presence in school secures his presence in the place of worship. He returns and dines between twelve and one. He goes again to the Sunday-school, and attends divine worship. He gets tea on his return. Then he walks out, and may be tempted to join other boys in some diversion. He returns home, says his prayers, undresses, washes and goes into bed.

Year after year passes on and the trapper, being now of increased size and strength, is promoted to hold a string of a door on the rolley-way or horse-way. There is no increase to his pay, but he holds a higher rank in the pit and is in a fair way of soon rising to be driver of horses, and of getting 15d. a-day. The doors on the rolley-way are heavier than on the barrow-way but his strength is abundantly great for the work. He is now less in the way of the yard wand of the deputy overman but if he neglect his duty, and fall asleep, he will most probably be wakened by the thong of the first horse-driver who is stopped at his door and if he dare to be saucy the driver will leap from his carriage, and treat him with his clenched fist. For divers and strong reasons he takes this very quietly and the overman, the managers and proprietors of the pit, finding no complaints, believe that their boys are the most orderly in the world, and as gentle as lambs.

At last the beginning of April arrives, and the trapper, now a strong lad, is informed that his name appears in the list of drivers and that he will now enter on the dignity, duty and emoluments of that office.

## **Of the Drivers.**

The late trapper, now promoted to be a driver, rises at the same hour as before, and by 4 o'clock is down in the pit at the foot of the shaft ready to begin his work. He finds his horse duly caparisoned by the horsekeeper and he takes him and hooks him to the first carriage, which is called a rolley and to which another rolley is hooked and a third one to that. He gets upon the limber behind the horse, and sets forward on his first journey, rejoicing in his horse, his carriages, his whip, and the most agreeable of all-the candle by his side. He comes up to the termination of the horseway, where he is to receive loaded tubs from the putters. He places the horse so that the fore part of his first rolley is just before the tramway and he rolls the tub upon his rolley. He moves his horse forward a pace or two, and then rolls another tub on his rolley. He then moves his horse and loads his second rolley, and then his third rolley. He now unhooks his horse, and brings him to the other end of the rolleys and hooks him to what was the third, which now becomes the first rolley and getting on the limber, sets out with his first cargo towards the shaft.

When he meets another driver coming with his empty rolleys, he boldly keeps his way by right of his load and the driver, horse and empty rolleys must move on a siding until he pass. Woe to the trap-boy who this day is found asleep when he comes up. He recollects what was done in such case to himself and he luxuriates in his new-born power. He arrives at the foot of the shaft and has now performed his first journey. His tubs of his first rolley are now pushed off into a cage and are carried up and the tubs of his second and third rolley, as cages come down. His cargo being delivered and empty tubs placed on his rolleys, he sets out on his second journey and thus he goes on throughout the day, travelling together perhaps 30 miles in the 12 hours.

This promotion to be a driver, though flattering to his feelings and adding largely to his pecuniary resources, is not without its drawbacks. He has no time allowed to eat his dinner. Ever onwards must he go all he can do is to snatch a mouthful at the foot of the shaft, or wherever else he can. He now envies the trapper who, sitting quietly in his seat, can eat his morsel when nature prompts him to do so.

There is another grievance inflicted on his order which every driver feels to be an oppression. Till within a few years ago, it was the custom to have a crane at the flats, where the barrow-way and the horseway meet, and every tub was hoisted up and deposited on the rolley by

men and boys kept for that purpose. Now, in many pits the cranes are withdrawn and the plan is to make the horseroad a little deeper, so that the top of the rolley shall be as low as the tram and the tub is rolled from the tram to the rolley. The cranesmen are withdrawn along with the crane and the question was, who should perform the new duty of rolling on the tub the putters or the drivers. The weakest go to the wall. The drivers were compelled to undertake this additional labour, without additional pay. This hereditary grievance is murmured against by every succeeding set of drivers but in vain and they must submit.

On an equal footing with the drivers, as to honour and emolument, are boys whose employment it is to attend to the switches, and so to place them, where two or more roads in the pit diverge, as that the rolleys may be sent the road by which they are ordered to go. At some openings of two roads a rolley is to be sent by one of the roads and the next rolley by the other, alternately. There are switches on the tramways, otherwise called barrowways. Misunderstandings sometimes occur between the switchers and the drivers and putters.

Of the same rank and emolument are the boys who sweep the railways, of the barrow-ways or tramways. If the road be wet, the operation is performed with straw and an iron shovel. If the roads be dry, it is done by bundles of straw in the hands of the tramway cleaner. Formerly wheelbarrows were used and hence the name of barrow-way, which is still continued.

### **Of the Helpers-up.**

The helper-up is a youth who is employed to assist in pushing forward the trams in the pit, in places where there is a steep rising ground.

Some helpers-up have a horse ready to be attached to the carriages and with the horse the youth walks to the top of the incline and then he unhooks him and walks with him down the hill to be ready to assist the next who comes up.

Some helpers-up are 16 or 17 years of age, and gain 3s. a-day.

### **Leaders of Water and Wood.**

Some boys are employed in conducting horses with water-carts with water for the men, boys and horses in the pit. Water is also required to sprinkle the roads and keep down the dust. In some pits also water collects, which has to be carried away and the water-leaders have also this business to attend to. The same lads who lead water also bring wood to be used in supporting the roof.

### **Stone-leaders.**

These boys conduct carts with stones for repairing the roads, and sometimes for building walls along the sides of the roads.

### **Of the Cranesmen.**

In most of the mines it was formerly the case that at the flats, that is the flat plates of coarse cast iron which are at the termination of the tramway and close to the horseway, there stood a crane and by this crane the coiwe was hoisted up from the tram and let down upon the rolley. The persons who did this work were boys. It was very severe labour. Now, the more frequent mode is to use tubs instead of corves and to make the horseway so much lower than the tramway, that the tub may be rolled from the tram into the rolley. This work - the rolling the tubs - is in some pits performed by the drivers. In other pits, the drivers and putters together do it and there are pits where there are lads who assist in this work, who are also employed to keep the account of the tubs or corves brought by the putters.

Their occupation does not require any special notice.

### **Of the Accountants.**

The coal masters in the southern coal-fields relieve themselves from much trouble and promote their own interest by contracting with the butties or charter masters, to dig the coal and bring it to the foot of the shaft, at a certain agreed rate or charter per ton. The workmen are employed and paid by the butties, and the chief care of the coal master is to have trustworthy men in his weigh house and a good ground bailiff to see that his mines are fairly worked.

But in the northern coal district all the people are in the direct employment of the coal masters themselves and checks must necessarily be employed to ascertain that the work is done. When the putters bring the corves or tubs to the flats, there are lads who take account of the number, and put down to the several putters what numbers they have brought.

There are arrangements also for taking account of the work done by the hewers, and they are paid by the piece. This is the great security to protect the interests of the coal masters. The hewers and putters are prompted by their love of gain to work to the extent of their strength and there is a sufficient establishment of other people whose work cannot in like manner be measured but must get through amongst them what there is to do, and must do their duty to avoid censure and being discharged.

An account is also kept of the coals brought to the bank and this account ought to agree with the sum total of the several accounts taken in the pit.

Errand boys are not kept in the pits for the convenience of the men, as in Staffordshire. The great extent of the pits and the distance of the workings from the foot of the shafts would render it very inconvenient to send up for any thing in the course of the day. The miners must bring down with them in the morning whatever they may want during the day, and may put it into the tubs and have it brought by the rolleys and trams to their workings. I was told of Staffordshire men coining into the county of Durham and being annoyed in not finding any one to wait upon them.

### **Of the Putters.**

When the driver is promoted to be a putter he finds a most material difference in his position, his income being more than double what it was before. He is also now in a higher rank and inferior only to the hewers and in the latter half of the day, when the hewers are gone, the putters take the first place of those who remain.

The ambition of the putter is not, like that of the driver, limited to earning a fixed daily stipend. There is now a fair scope for his utmost talent, strength and diligence, and the produce of his labour may equal and may even exceed that of a hewer. Early in the morning, at the same time with the drivers and trappers, the putter arrives at the tramway and taking his tram or small sled like a little carriage mounted on four small wheels. He places it on the small railway called the tramway or barrow way and on it he sets an empty tub, and rolls it up close to the place to which he is directed by the deputy overman, where the hewers have already undermined and brought down a large mass of coals. They have had two hours start and the putter sees that there will be no standing still for that day. With the assistance of a hewer the tub is loaded and he then taking hold of the two handles behind it pushes it forward on the tram along the little railway until he come to the flats. close to which in the horseway is a horse with three rolleys in a line after him. The tramway is generally from three to four feet in height, so that although he must stoop to push his tram, he need not do it so much so as to distort his figure or injure his breathing. For a moment he takes his rest whilst his loaded tub is rolled from his tram, and pushed upon the rolley and he receives an empty tub in exchange. He instantly sets to work and returns back for another cargo. He loses no time, he knows that his emolument and his consideration in the pit must now depend upon his own sole exertions. The young man at the flats marks down every tub which he brings up and merit only can procure him a high reward. His emulation is excited by seeing the utmost exertions made by all the putters around him and a sense of his own consequence will not allow him to fall behind the rest. Perspiration flows from every pore but there must be no interruption of his labours. All parties are bound to do their utmost to bring to the foot of the shaft all that the engine is able to draw up. There can be no stopping to take regular meal. The putter must snatch a mouthful when and how he can. The hewers at an early hour having done their day's work go off and the putter must now load his tub without help and go on with his work; wearied and tired he finds himself by four o'clock, and welcome is the joyful sound of loose, loose. He now homeward plods his weary way to the foot of the shaft and gets into a cage when he can and is hoisted to the light of day, walks home, washes his face, hands, and neck, enjoys a warm and plentiful meal, sleeps a little over the

fire, becomes too drowsy to be able to sit up, he takes off his clothes and lies down in his bed and heavy eyelids move not until lie hear the rap, rap, rap, at the window, and the ice of the callman calling aloud to get up and prepare for the labour of the

The fortnight, the grand division of time to a miner, comes to a conclusion, and on the pay Friday, instead of the boyish meed of eleven times fifteen pence, the industrious putter finds that his account shows him to be entitled to well nigh two pounds, whilst he is encouraged by seeing that some of his elder brethren have acquired in the same time a right to several shillings above that great sum. He now what it is to be a man.

Gradually the putter feels himself become stronger, the labours of the day become less distressing. In the long days he puts on his good clothes after his work and goes out for a couple of hours to enjoy the fresh air; still is his ambition satisfied. Every day he sees the hewers go home when little more than half a day's work is done. He knows that with the labour of eight hours a day they have set down to their credit in the accounts almost as much as he becomes entitled to by for half again as long and he solicits the agent that he may have the last great step of promotion by being made a hewer. Vacancies at last occur in the pit and he is delighted by being informed that at the next binding in the beginning his desire shall be gratified and he shall be entered in the books of the pit no longer as a boy but a man and as a hewer, the first order of workmen belonging to the pit.

The mode in which the putter is remunerated may be shown as follows:-

Say that the distance of the place of filling his tub, as measured by the yard wand of the overman, from the flats where the horse carriage or rolley stands, be ninety yards, the putter assists to fill his tub, containing twenty-one picks, or six cwt. of coals and with the tub itself weighing eight cwt. and a half. He pushes this weight his tram ninety yards and returns back with an empty tub, which is one journey. He does this twenty one times which will make him a score and the money he has earned is sixteen-pence. For this sixteen-pence he has assisted twenty-one times in filling his tub and travelled 1890 yards, or one mile and 130 yards, with a weight of eight cwt. and a half on his tram and he has travelled back with his tram and empty tub the same distance.

The rate of payment per score increases as the distance which the putter has to go increases. For that reason the deputy overmen carry a yard wand to be able to measure the ground.

At a pit near Bishop Auckland, it was stated that a putter had fifteen-score for a distance not exceeding eighty yards, sixteen-pence for a distance from eighty to a hundred yards, then seventeen-pence for a distance from one hundred to one hundred and twenty yards and so on.

There are other putters besides those which have just been described. Sometimes two boys, both of them unable singly to put a tram, unite together as partners and they accomplish the work between them. The work which they perform is put down to their joint account and they divide the wages between them. Such boys, in the language of the miners, are called half-marrows. After a time, when the boys become sufficiently powerful, each takes to put a tram singly and immediately enters on a large increase to his income.

It sometimes occurs that a youth is not quite able to get through a day's work as a putter by himself and yet does not want much assistance. In that case a little boy of ten or eleven years of age may be sufficient for him. The larger youth is called the head man and the little putter so employed is called a foal. Sometimes he pushes or puts side by side of the grown youth but more frequently the head man goes before the tram and draws with a rope over his shoulder, whilst the little foal pushes behind.

These two classes, the half-marrows and the foals, explain why some of the putters in the lists of the work people returned from the collieries are so much younger than the rest and why their emoluments are so small, as compared to the income of other putters.

The putters have a small drawback in having to bear the expense of their own candles.

## **Of the Hewers.**

The Hewers are the same class of men who in the southern districts are called holers. As a general rule they are twenty-one years of age and upwards, and it is only in cases of rare exceptions, that in the northern district any of them are under eighteen but there are such exceptions. The hewer is called at an early hour, perhaps two in the morning. He rises, comes to the fire, takes breakfast, ties up some victuals in a handkerchief, and proceeds to the pit. He finds a whimsey man at the engine who lets him down the shaft, he walks onwards through the horseway, and then over



the barrow-way to his place of work. The deputy overman shows him what is to be done. He strips off the chief part of his clothes, he gets down on his hams to undermine the coals and he also makes a perpendicular cutting at the side, from the roof to the bottom. He drills a hole and inserts gunpowder and brings down a mass of coals at once. After about two hours the putters come to carry away his coals and he assists in filling the tubs, and suspends an iron ticket with his number upon it to each of his tubs, that it may be put down in the account to his credit. He sees that the tub is properly filled, for otherwise there is a risk according to the articles of the bond that the tub will be forfeited, and nothing allowed for it. He is also careful not to allow black stones to be put into it, for that incurs a fine, and he might be detected in the day-time when the tub came to the bank but if it be dark there is less danger and he runs the chance. About eleven o'clock he has done his day's work. He gives over, puts on his clothes, goes to the foot of the shaft, and ascends. He then goes home, washes his hands and his face and neck, wipes his body with a towel and sits down to his baked potatoes and broiled ham. He may if he think fit put on his good clothes and walk about like a gentleman in the afternoon. He takes his tea a little after four, sits an hour or two by the fire and then goes to bed and sleeps sound till the voice of the callman arouse him to his labour.

There are some drawbacks, which reduce the net earnings of a hewer below what he appears to get. He finds his own gunpowder, which will be 1s. in a fortnight, also his own candles, which will be 1s. in a fortnight, being two pounds of forty candles to the pound. Then he has to find his own picks, which cost him 4d. a pound of the weight of iron, and the picks may weigh three, four, or five pounds and the shaft costs 4d. He is also liable to forfeits. If black stones or pyrites be found in his tub, he is held to have put such things into it himself, in order to make up weight, and he is fined 6d. If by chance his tub be not full it is set aside and he is sent for and it is measured or weighed before him, and he gets nothing for it if it be below the weight or measure. Hence they assert that it is exceedingly rare for a miner, after all drawbacks and play, to make more than £50 a year.

A Staffordshire ground-bailiff who worked in his youth in Durham, described the difference between the hewers in the two districts as follows:-

The Durham man sits down on his hams and with the force of his pick, and the swing of his arms, he manages to undergo the coals one yard six inches.

The Staffordshire man lies down on his side, and throws into his blows the whole weight of his body, and hence he undergoes far quicker than the Durham man; but when the Durham man rises to his legs and cuts down at the side, then he appears to advantage, and in this part of his work he is much superior to his southern rival.

## V - STATE OF THE PLACE OF WORK.

As to the state of the place of work the account is generally favourable. The mines for the most part are dry, but there are exceptions. The roads and excavations in the pits are sufficiently spacious to allow room for working. There is this most decided advantage in the whole of this district, that the seams are not uncomfortably thin, and the top and bottom in most pits consist of shale or indurated clay so that a portion of the top or bottom may without heavy expense be taken away if deemed desirable.

There are indeed some thin coal seams in this district but these are not worked and there is security for a long time to come that they will not be worked, as ~ they would not repay the outlay.

Mr. Potter has given the following evidence on this subject:-

The seams in this county vary from two feet to seven feet but the principal vein which runs over the whole of the eastern part of this county, called the Hutton Vein, is from four to four feet and a half and there is frequently two feet of coarse coal unfit for market, which is taken up to make horse roads. The workings are very rarely if anywhere under three feet this county and by far the greater part of from three feet to four feet and a half. *No seam below from two and a half to three feet would pay for working in this or the next county.* (No.89).

This state of the mines is the most complete security that young children are never employed, nor can be profitably employed, to bring the coals from the workings to the horseways, because such heavy work can be done far cheaper by strong boys and young men. The putters do not become of too large a size for this work at 14, and from that age to 15, but may continue on to 21, as most of them actually do.

The great danger of explosions from carburetted hydrogen gas compels to keep up a strong ventilation day and night and on Sundays and holidays and therefore there is always a supply of fresh air affording healthful respiration.

The place of working, therefore, is on the whole very satisfactory, and such as persons accustomed to coal-mines will consider very comfortable, though no coal-mines will appear to be such in the eyes of persons not familiarised with them.

That the air of the pit is not unfavourable to life may be seen from its effect on some of the animal creation. Horses thrive well and so do asses, if the pit be not too warm. Midges are in millions. Wood-lice are not uncommon, no the insects called forty-legs and beetles are found in all parts of the pit. Mushrooms grow at 100 yards distance from the foot of the shaft. A few stray mice coming down in the hay multiply and swarm in every part of the pits, wherever the men and boys work, living on the crumbs of provisions which they drop. When the working of the colliery at Houghton-le-Springs temporarily discontinued, the overman had to go after a time to see in what condition the pit was. When he set down his candle the mice rushed out and fell upon it and devoured it. When he again went down, some weeks after, not a single mouse was to be seen, all had perished by famine.

That the air agrees with human beings is proved by this fact, that when they go into the pits they require much more food to pacify their hunger. Persons previously lean when they go into the pits become fat.

## **HABITATIONS OF THE COLLIERS.**

Within the last ten years collieries have been opened in very many places between the Weare and the Tees and wherever a colliery has been opened a large village or town has been instantly built close to it, with a population almost exclusively of the colliery people, beer-shop people and small shopkeepers. The houses have either been built by the colliery proprietors, or have been so by others and let on lease to them, that they might locate their people.

Unfortunately many colliers' families settled in the houses before they were thoroughly dried and disease and mortality were the consequence.

The best idea of a collier village will be obtained by a more particular account of one individual instance.

The village of Coxhoe, close to Clarence Hetton Colliery, extends about a mile along both sides of a public road but the houses are not continuous, there being a break every 10 or 12 houses to make a thoroughfare to the streets which run off right and left. Throughout the whole village there are seldom more than 10 or 12 houses in an unbroken line, so that it is easy to get from one place to another. The cottages are built with stone plastered with lime, with blue slate roofs and all appear exceedingly neat and as like to one another as so many soldiers are like to each other. There is no yard in front of any of them, or any yard behind, or dust-hole, or convenience of any kind, or any small building, such as is usually considered indispensable and necessary.

Yet there was no unpleasant nuisance, no filth, nor ashes, nor decaying vegetables. All was swept and clean.

It was explained that carts came round early every morning with small coals which were left at every house, and the same carts after depositing the coals at every front door, moved round and came along the backs of the houses and received the ashes and all other matters and carried them off and deposited them in a heap in an adjoining field.

The dimensions of the houses in this village were as follows. Front room, length 14ft. by breadth 14ft. 10in. Back-room, length 14ft. by breadth 10ft., communicating with a pantry 6.5ft. by 3ft.. Up stairs is a bed-room, partly made up by a wall and the sloping roof. The height of the wall above the boards is 2ft. 8in. and from the top of the wall is a slope of 7ft. to the highest part of the apartment. The ground is made of clay, sand and lime. The height of the front wall is generally 13ft. 10in. and in some cottages is 14ft. 9in. The height of the back wall is less. The whole expense of erecting such a cottage is £52. It could be rented for 5s. a year.

There are some smaller cottages with one large room and a pantry below and a bed-room upstairs, which cost about £42 to build. Where the miner has no children such a house will be sufficient to accommodate him.

The population was estimated at about 5000. The workpeople of several collieries live in the village.

It was stated that there were altogether 30 beer-shops in the village.

There was no Church of England church or chapel but here as everywhere else in the collier districts, the Wesleyans and Primitive Methodists had established their meetings and had many adherents.

I was conducted into one of the cottages and it seemed very comfortable. It was about 1 o'clock and the collier had got his day's work done and was clean washed and was sitting at a table and luxuriating over baked potatoes and broiled bacon, with a jug of beer and seemed to feel very happy. He was an industrious man and Mr. Wood the viewer, said, that he knew he never went down to the pit without coming up richer. The wife seemed happy in making him comfortable. In all this country, the colliers do not allow their wives to go out to work but retain them at home to perform their domestic duties and to attend to the happiness of their own families.

This house, like most of the colliers' houses in the several villages, are very clean and well furnished. In line weather the doors are frequently left open, and in passing along in front, in every house may be seen an eight-day clock, a chest of drawers, with brass handles and ornaments, reaching from the floor to the ceiling, a four-post bed with a large coverlet, composed of squares of printed calico tasteful arranged with bright saucepans and other tin-ware utensils displayed on the walls. Most of the women take pains to make themselves, as well as their houses look very agreeable. It must be admitted that there are some women who are neither so attentive to themselves, their children or their houses, as their husbands have a right to expect.

In the streets of the collier villages are many little brick buildings used as public ovens. Small coals are put into them, and burnt until the ovens are thoroughly heated and then the coals and ashes are swept out and the bread put in and by the heat of the bricks it is well baked.

Although there is not one inch of land attached to the houses in villages, there is frequently a large field divided by stakes of wood, into small plots of ground, which the colliers cultivate as potato gardens. The usual size may be about a twentieth part of an acre.

At the village of South Hetton, a miner with much pleasure showed his little garden and expatiated on the beauties of his flowers and might have competed with a Spitalfields weaver in his choice rarities. It was stated by Mr. Potter, the viewer of that colliery, that at the prize shows the miners came forward with their flowers, and often carried off the palm from the gentlemen's gardeners.

## VI - OF ACCIDENTS.

It is to be feared that accidents are frequent, and although it must be admitted that the nature of the work is such, that numerous accidents must always be unavoidable, yet the impression which is irresistibly formed in the mind is, that the accidents might be considerably diminished.

The evidence of one of the principal viewers and managers of the country of the accidents which happen to the young trappers has already been quoted. It is obvious that they are constantly liable to injury from the wheels of the trams and rolleys and from the horses and they have not sufficient sense to take care of themselves.

These little children not only expose themselves to accidents, but it is to be feared, are sometimes the cause of terrific destruction to others.

The Committee of the Commons in their Report on Accidents in Mines (5th September 1835) enumerate amongst the persons *'on whom depends the safety of hundreds of men and boys from minute to minute, the trapper, often a boy too young and thoughtless, who manages the air-doors. One act of omission of assigned duty, one solitary momentary neglect, may cause the instant destruction of life and property to an indefinite extent.'*

If a child keep open his trap-door when it ought to be shut, it is an offence which may not be detected if no accident happens but it is possible that the current of air taking a wrong course may allow the fiery gas to accumulate and be exploded. The fearful accident on the 21st of April last, by which upwards of thirty lost their lives in the Willington pit, has been attributed to the negligence of a trapper and is, at all events, shows what in public opinion such a thing is likely to produce.

These are strong objections to the employment of too young children.

In most of the returns which have been obtained from the collieries it is stated, that the utmost vigilance is bestowed to make sure that the machinery and ropes by which persons are let down and are drawn up the shafts of the coal-pits, are in good condition and in many of the

collieries it is alleged that there is a careful inspection by officers whose regular special duty it is. Certainly the inspection ought to be daily, or there is no security that it shall take place when it ought to do so, and accidents might occur from the neglect.

Several of the collieries lay down rules as to the numbers going down and coming up at a time, but it is difficult to ascertain whether these rules are observed or not. Some leave it entirely to the discretion of a banks man at the top of the shaft, and to an onsetter at the bottom. A fixed number should be determined and no such duty should be left to the discretion of men who will be pressed on all sides to neglect it.

There is no general rule as to the means taken to protect persons going down or coming up the shafts. Some have covers over their heads but many have not.

The manager of one of the large Companies makes this statement:-

The number allowed to descend or ascend does not equal the weight of the coals drawn up at a time; the largest number of men being 10 or 11, and of boys 18 or 20. There is no regulation.

Accidents by falling down the shafts are far less likely to take place in Durham than in the southern districts. The coals are brought up to a platform many feet higher than the level of the surrounding country. No person coming across the coal field can come near the shaft, unless purposely and intentionally. The shaft is enclosed on three sides, that only being approachable at which they receive the tubs or corves and there the men are at work. The wooden enclosures of the shafts and the ropes are right before the eye, Trams, tubs are in the way, and no man can approach without abundant warning of his danger. But in the southern coal-fields there is nothing to warn a person of danger. The mouth of the pit is on the same level with the rest of the ground and the rope or chain presents so small an object to his view, that the straggler may stumble over before he is aware.

The pulleys from which ropes are suspended are far above head, and the tubs and corves swing forwards, and the men are exposed to little danger, though accidents do sometimes happen.

The enclosure of the shafts renders it very unlikely that any coals, or stones or wood, shall be thrown down the shaft.

The ashlar work employed in building the shafts is more secure than bricks.

In some pits the ropes are of an enormous size. In the South Hetton pit, which is 180 fathoms deep, the rope is 220 fathoms long and the weight is about two tons. The value is about £100. Two cages come up at a time, each containing a tub, of which some contain 20, and others 30 pecks, being 6 or 9 cwt. and the weight of cage, tubs and coal may be 35 cwt.

The rule in respect to the number of people coming up is, that their united weight shall be much less than the usual weight of coals drawn up by the rope.

Some of the cages are entirely open at the top, so that there is nothing whatever to protect the persons descending or ascending from injury from anything which may fall down the shaft upon them. No doubt from the shafts being lined with stone or iron tubbing, seldom will anything fall out of the wall but this is no security from anything falling in from the bank. The return from one pit states, that a man on the bank takes care that nothing falls into the shaft at such times but there is not always a man on the watch and the man whose duty it is to watch cannot be supposed always to be watchful.

Mr. Croudace, agent of the Shincliffe Colliery, says, in answer to a query:-

It is our intention to have an iron canopy placed over the heads of the men attached to the cage by which they descend.

All the collieries should have such canopy.

Amongst the accidents which, in reply to the queries issued by the Board, are stated to have happened within the last two years, are the following:-

***From one Colliery.***

A man killed by explosion of gunpowder whilst blasting in a stone drift.

A man killed by a stone falling upon him out of the roof of the pit.

A man killed in a pit whilst sinking, by a corve striking him whilst descending with tools in it.

A boy killed by falling out of the cage.  
A boy killed by timber falling upon him in the pit.

***From another Colliery.***

A man killed by a fall of stone.  
Two boys killed by the rolleys in the pit, partly by their own inattention; one was killed on the rolley-way and one was caught by a passing-tub on the horse-road.

***From a third Colliery.***

A man had his leg broken by a stone falling upon it.  
A man had his arm broken by putting it out of the cage when descending.  
Seven lives lost.  
A man killed by the shaft of a pick running into his body as he was descending the shaft.  
A man killed by bricks falling out of the descending cage when he was in the ascending one.  
A man crushed between the shaft and a large iron tub, when he was getting out of the tub at the bottom of the shaft.  
A rolley-driver killed by falling from his seat whilst driving and the rolleys going over him  
A rolley-driver killed in the same way.  
A man killed by a large coal falling upon him.  
A man killed by the breaking of a rope or shaft between the two lower seams of coal. It is supposed that the rope had been cut accidentally.

***From a fourth Colliery.***

No loss of life.  
Three permanently injured.  
One by loss of leg, from rolleys in the pit.  
One broken thigh by stones falling upon him in the pit.  
Another in the same way.

***From a fifth Colliery.***

No loss of life.  
The only accidents within the last two years are—Two putters losing a joint each of one of their fingers.  
A driver having his leg broken, though he is now no way injured by it

***From a sixth Colliery.***

A man killed by a stone falling down upon him.  
A man had his thigh broken. Six men slightly injured by coal and stone falling upon them.

***From a seventh Colliery.***

One man killed by a stone falling upon him from the roof of a mine.

***From an eighth Colliery.***

We have had but one accident attended with loss of life. A boy driving underground waggons fell off them, and they passed over his body.

***From a ninth Colliery.***

One man was killed from carelessness in igniting a cask of powder, whilst he was preparing a portion of the same for use.

***From a tenth Colliery.***

We have had an explosion with carburetted hydrogen gas, by which two men were burnt and one man was killed from the effects.  
One man was killed by falling down the shaft about twelve months since.

***From an eleventh Colliery.***

A boy was so seriously fractured in the skull by coming in contact with a rolley in the mine, that he died three months afterwards.

A boy had his hip dislocated by a stone falling upon him from the roof of the mine. His joint is still wrong, but he is able to work, and earn upwards of 208. a-week.

***From a twelfth Colliery.***

One accident attended with loss of life, occasioned by the fall of the roof when working the pillars. No one has been permanently injured during that time.

***From a thirteenth Colliery.***

Two men have lost their lives. One by the breaking of a rope, by which he was precipitated to the bottom of the shaft; the other from his own indiscretion, in attempting to get into a cage when it was proceeding up the shaft.

***From a fourteenth Colliery.***

Three men have been slightly burnt, from want of caution on their own part, by putting their naked lights into holes near the level of the seam, thereby coming in contact with the gas. No lives have been lost from carburetted hydrogen gas.

Two men have been killed by cages in the shaft. One man killed by having taken a fit whilst ascending in the shaft, in the cage. One man killed by falling from the surface to the bottom of the shaft a depth of 83 fathoms.

***From a fifteenth Colliery.***

Two boys. One in ascending the shaft, and the other having been run over by an under-ground waggon or rolley.

***From a sixteenth Colliery.***

One person lost two fingers by the rolleys. Another had his legs fractured by the rolleys, which caused his death. Another was killed by being crushed by the rolleys; and other two in consequence of the rolleys going over them.

***From a seventeenth Colliery.***

One man killed by a fall of stone.

Two boys killed by the rolleys in the pit, partly by their own inattention. One was playing in the waggon-way; he was caught by a passing tub.

***From an eighteenth Colliery.***

Two men have lost their lives by the roof of the mine falling on them when working the pillars. An inquest was held. Verdict: accident; no blame being attached to any one.

***From a nineteenth Colliery.***

One man had his leg taken off in consequence of coal falling upon it.

The following special return was made from one of the Collieries:-

No 1 - Got hurt about 14 months since, by falling down before the horse and the waggons passing over him. He was five months off work, and remains weakly but has followed his employment for the last five months without intermission.

No 3 - Got hurt by the waggon going off the line; was two weeks off work.

No 7 - Got his knee hurt by a coal falling on it when filling the tub about 17 months back ~ as three weeks off work.

No 12 - Got his foot hurt about three months since, by the horse shying off the line, in consequence of some people standing by the side of the road; one week off work.

No 19 - Got his arm hurt by falling over the pit heap about six months since; he was five weeks off work.

No. 20 - Got his hand hurt in the pit, by the tub ending up and jamming it against the roof, not using the proper precaution in keeping his hand in the hole made purposely; two weeks off work.

No. 23 - Leads or drives a horse on the bank waggon-way. Got two fingers taken off by the waggons jamming his hand between the sole end and is thus maimed. This took place upwards of two years since. Has followed his work 18 months.

No. 24 - Got the small bone of his leg broken by the falling of a screen at the pit cop about 12 months since; was six weeks off work.

No. 25 - Got his hand hurt by some way, and by the want of the same caution as he of No.20; was one week off work

No. 27 - Got his leg broken by falling off the waggon, and this passing over his leg, about 11 months since; was three months off work. Not distorted.

No. 30 - Got two joints taken off one of his fingers, by the same means and by the want of the same caution as the No.20 and No.25; one week off work.

in the schedules containing the particulars of the workpeople under the heads, 'If maimed, the time, place and mode of maiming' and 'loss of time from sickness during the last twelve months' some of the collieries have made returns.

### *From a first Colliery.*

|                  |   |              |
|------------------|---|--------------|
| Driver           | General bruise, March, 1840, by the rolleys.                | off 6 weeks. |
| Trapper          | Laceration of fingers, Nov., 1840, by switches              | 4 days.      |
| Putter           | Point of finger removed, Jan., 1840 .                       | 2 weeks.     |
| Putter           | Fracture of fingers, Jan., 1840, by the tub                 | 2 weeks.     |
| Assistant to     | putter. Laceration of hand, March, 1841, by the tub         | 1 week.      |
| Assistant to     | putter. Laceration of hand, Jan., 184], by the tub          | 1 week.      |
| Driver           | Fracture of leg, Jan., 1839, horse running away             | 3.5 months.  |
| Trapper          | Lacerating of hand, Jan., 1840, by the tub                  | 1 week.      |
| Assistant putter | Compound fracture of arm, Aug., 1840, run over by rolley.   | 5 months.    |
| Driver           | Compound fracture of leg, Aug., 1840, run over by rolley.   | 9 months.    |
| Putter           | Laceration of finger, Jan., 1840, jammed by coal            | 10 days.     |
| Driver           | Fracture of finger. Jan., 1840, by tub                      |              |
| Hewer            | Contusion of foot, Jan., 1841, jammed by rolley             | 2 weeks.     |
| Driver           | Lacerated fingers, 16 March, 1841, jammed by coal carriage. | week.        |
| Putter           | Laceration of hand, March, 1841, nipped by tub.             | 3 days.      |
| Putter           | Lacerated fingers, 17 March, 1841, jammed by carriage       | 2 days.      |
| Putter           | Fracture of leg, Nov., 1839, jammed by rolley               | 2 months.    |
| Putter           | Fracture of legs, June, 1840, by fall of roof 8 months.     |              |
| Putter           | General bruise, June, 1840, by fall of roof                 | 6 weeks.     |
| Driver           | Fracture of thigh. Jan., 1840, by the horse.                | 3 months.    |
| Trapper          | Fracture of jaw, Feb., 1840, run over by horse              | 6 weeks.     |
| Driver           | Laceration of leg, Nov., 1840, by the rolley.               | 2 weeks.     |

### *From a second Colliery.*

|  |  |   |
|--|--|---|
| Driver working   | Hurt by falling before the horse. A little distorted, but not so as to impede him from off 5 months. - |   |
| Trapper  | Lamed by a tub from off the waggon.  | 2 weeks                                 |
| Putter   | Knee lamed by coal falling on it   | off 3 weeks.                            |
| Helper-up  | Lamed by waggon, horse taking fright.  | 1 week.                                 |
| Wailer   | Lamed by falling over the heap of coals  | 5 weeks.                                |
| Leader of a horse on the bank off by the waggon jamming. |  | Two of his fingers taken 2 years since. |
| Wailer on the screen                                     | Small bone of his leg  | 6 weeks.                                |
| Putter   | Hand hurt by a tub   | 1 week.                                 |
| Driver   | Leg broken by a waggon.  | 3 months.                               |
| Wailer   | Finger taken off his right hand by the tub   | 2 years since.                          |
| Driver   | Hand hurt by putting on a check to stop the waggons , 3 weeks.   |   |

### *From a Third Colliery.*

|         |                                |              |
|---------|--------------------------------|--------------|
| Driver. | Ankle hurt                     | off 3 weeks. |
| Driver  | Scalded with hot water at home | 1 month.     |
| Putter  | Leg broke.                     |              |
| Putter  | Lamed at Staple                |              |
| Driver  | Thigh broke in the pit         |              |

|                             |                                  |           |
|-----------------------------|----------------------------------|-----------|
| Putter                      | Arm broke in the pit             |           |
| Driver                      | Bruised by rolleys               | 1 month.  |
| Greaser of tubs<br>at bank  | Lamed by apparatus at bank       | 3 weeks.  |
| Putter                      | Lamed by rolley in pit           |           |
| Trapper                     | .Leg broke by a stone            |           |
| Driver                      | Bruised by rolleys               | 7 weeks.  |
| Putter                      | Lamed                            | 6 days.   |
| Trapper                     | Thigh broke in pit               |           |
| Trapper                     | Leg broke, bruised, and cut off. | 2 months. |
| Putter                      | Leg bruised                      | 3 weeks.  |
| Putter                      | Hand bruised                     | 6 weeks.  |
| Putter                      | Arm lamed                        |           |
| Breaksman on the<br>incline | Cut in face and head.            |           |

## VII - OF HOLIDAYS.

The Saturday after pay Friday, which occurs once in every fortnight, is as a matter of course. The miners return to their work on the Monday. There being so many mines opened, and so many miners, that the sale of coals is not sufficient to keep them all at work the whole of their time, there is necessarily a great deal of play, far more than is agreeable. Holidays with pay going on are very pleasant but when the rule is, no work no pay, holidays are a subject of complaint if many in number.

## VIII - OF THE HIRING AND WAGES.

In the county of Durham the hiring of the hewers, putters, and generally of the drivers, is by the year. There is a bond signed by them specifying the conditions, the substance being that they are to do the work of the pit, and be subject to certain forfeitures or penalties for their neglect of duty; the chief of which is a penalty of 2s. 6d. for being a day absent without leave. The masters on the other hand are bound to pay a certain fixed price for the work performed; also if the hewers be not employed at all, or only partially employed, the masters are bound to advance them at the end of every fortnight the sum of 30s. for their maintenance. This is in addition to the house and coals. But when the hewer comes into employment which yields more than 30s. in the fortnight, the surplus above 30s. is detained to pay off the sum advanced to him in slack time, which sum, therefore, is to be considered as simply a loan and not a payment of money due. By this system the miner is always sure of the means of support, with 15s. a-week, his house, and firing.

The trappers and other young children in the pit do not sign the bond, neither do the people employed in screening, or in other work on the bank.

The wages are paid once a fortnight, on the Friday afternoon, the reckoning being made up to the end of the preceding week.

It might be doubted whether this annual engagement be of service to either employers or employed. The mutual interests of the two parties it might be supposed would bring them together and the fear of being discharged is as good a security as the bond and an appeal to a magistrate. The miners all prefer this system, as it gives them a security of regular steady payment and it is deemed a great disgrace to be in the black list, that is in the list of persons with whom the masters will not enter into a fresh engagement at the end of the year.

A journey into Staffordshire and Shropshire in the end of May last has convinced me how much the custom in Durham and Northumberland, of the men being bound for one year, is for their benefit. In Staffordshire and Shropshire a third of the furnaces were 'blown out,' or about to be so. All the men had had notice of discharge and they knew that the employers would select for re-engagement only such as they liked best and the rest would be sent away to the mercy of the world. The unengaged would be totally without the means of existence. They had not a house and coals and 30s. a fortnight on which to rest themselves. S hear want came upon them at once.

It may be said, 'Why do not men in the time of prosperity lay up part of their gains to meet a dark day?' To this it may be answered, 'That there are not two in the hundred in all England



to whom nature has given the capacity to resist the temptation of present enjoyment. They may subscribe to a benefit society, where the prospect of spending a social evening at the club meeting may stimulate them. But the best of all insurance funds for them is the master providing for them in the time of want, although of course he will do so only by getting their labour in a time of brisk demand at a lower rate than he otherwise would do. The Durham and Northumberland men are therefore to be commended for their attachment to the system of annual binding.

The masters have sometimes a great deal of trouble in enforcing the condition of the bond, and preserving good order. In the years 1839 and 1840 no less than 66 pit-men were committed for short periods to gaol as vagrants, that is, for leaving their usual places of work and 106 were committed for disobedience of orders and other matters subject to summary jurisdiction.

There is a custom which is attended with very important consequences. When the miners are hired for the year, if they have not been residing in the houses of the proprietors of the colliery the preceding year they send their waggons to fetch their furniture, perhaps from a distance of eight or ten miles. The miners being at no expense readily migrate from place to place, and they are the more particularly ready, if they have a motive for wishing to avoid the visits of troublesome tradesmen and they very easily obtain credit in their new locality. Hence, there is perhaps one-third of the miners who are no sooner settled in one place than they begin to speculate on removing at next year's binding to another. This has a very injurious effect on the minds of the mining population and they are never imbued with that respect for their employers, which long and permanent subordination naturally produces. The sooner the proprietors discontinue this impolitic plan of removing the miners, the sooner will society settle down into a healthy natural condition.

In all parts of the district there are some unbound men working but in general they were not well spoken of. As the miners are all anxious to have the security of an annual bond, the unbound men must consist chiefly of new comers, or of men with whom their former employers had declined to enter into a new engagement. Under such circumstances, the conduct of the bound and of the unbound men will afford no data for judging of the good or evil effects of the system of annual binding.

By far the greater part of the children and young persons, of whom an account is given in the schedules from the collieries, are natives of the county of Durham. In fourteen of these schedules the numbers are as follows:-

Natives of-

|                |      |
|----------------|------|
| Durham         | 1353 |
| Northumberland | 147  |
| Yorkshire      | 37   |
| Cumberland     | 26   |
| Derby          | 13   |
| Westmoreland   | 7    |
| Nottingham     | 6    |
| Lancashire     | 2    |
| Kent           | 1    |
| Wales          | 1    |
| Middlesex      | 1    |
| Scotland       | 3    |
| Ireland        | 8    |
|                | 1605 |

In 1831, when there was a general strike amongst the colliers, many hundreds from a distance were induced to come into Durham but from this account it would appear, that they were not persons with young families and the schedules do not take notice of persons above 18 years of age.

Of the wages an account has already been given under the several heads but to bring the whole subject under one head, we may state that the trappers are paid in by far the greater number of instances, ten-pence a day but some are as low as nine-pence a day, and some even eight-pence, but very seldom.

The drivers are paid 15d. a day. which on full work, being eleven days in the fortnight, is

13s. 9d.

The helpers-up, the cleaners of the tramways, the keepers of the switches rank with the drivers and their emoluments vary but are nearly the same as of the drivers.

The putters are a highly paid class, many of the age of 17 and 18 get 40s. to 44s. in the eleven days of the fortnight, that is, if at that age they are sufficiently vigorous to urge forward a tram singly and can do it as rapidly as a man in his full strength. If they be not so strong, the wages are less. When two are required to unite to urge forward the tram, the produce of the work is divided between them, either equally, or in a proportion before hand agreed upon.

The lads of the same age with the older drivers and younger putters who assist on the bank in greasing the axletrees of the trams and of the tubs, who push back the empty corves or tubs to the shaft, who assist in wailing, or taking out the bad coals, or push forward the tubs with small coals, coal dust, or coal as it comes from the pit to a great coal heap as a store for sudden demand, all these boys are paid considerably less than the boys of the same age who have the courage to go below. This is settled by a law beyond the control of either employer or employed, the law of supply and demand. There is a greater competition to get employment above ground.

The hewers under eighteen years of age are so few, as scarcely to deserve to be noticed. A man by becoming a hewer, has fewer hours work but then it is harder work for the time employed and it is not to be supposed that many will exchange from being putters to become hewers, unless they could have nearly the same money and they will seldom have the opportunity, for when masters can have their choice they do not take men to be hewers under twenty-one.

## IX - OF THE TREATMENT AND CARE.

There is no kind of corporal punishment authorised by any of the managers who have been personally examined or who have sent answers to the queries, except in one instance and they express themselves ignorant of any thing of the sort existing. or if a rare instance of violence occur their rule is to send the matter before a magistrate. In all the work done by the younger lads there is in most pits a competition, from their being a greater number desirous of employment than can every day obtain it. It is easy therefore to punish an evil doer by diminishing the number of days which he is allowed to work, or by dismissing him altogether.

As to the 'care of the children when they have finished their daily labour,' the only care that can be taken of them is to adopt means to secure as far as possible their going safely up the shaft. At some pits it is alleged to be under the care of an onsetter at the foot of the shaft, who is invested with full authority as to the number of men or boys whom he will allow to come up at a time. The duty of this officer must be exceedingly troublesome, from the extreme anxiety of all parties who come to the foot of the shaft to go up and get home.

Still whatever may occasionally be the practice, the rule laid down is exceedingly good and in shafts where iron cages are used, and which glide down in wooden slides at the end of the rope. from the top to the bottom and are drawn up in a similar manner, there ought to be almost no danger whatever, either in descending or ascending.

## X - OF THE PHYSICAL CONDITION.

The medical evidence in this as in every other district, describes the colliers youth as a healthy race. Indeed, without sound physical constitutions in their youth and courage and resolution, they would not have taken to their subterranean occupation. The diseases of the colliers are described as being chiefly those produced by strong beer. The work, however, is laborious and exhausting and the colliers, though healthy, are not long lived.

The collier children always look well, and the medical evidence abundantly proves their general good health.

Though some remarkable exceptions have been seen in the counties of Warwick, and Derby, and Leicester, the colliers, as a race of men, in most districts and in Durham amongst the rest, are not of large stature but they always appear strong and vigorous. The children after their day's work appear as playful as school-boys come out of school. They are substantially clothed. Both men and boys on Sundays are dressed exceedingly well. The men generally wear a black suit and a stranger seeing them would hardly suspect them to be the men whom he had seen coming up from

the pits begrimed with sweat and coal-dust and as black as negroes.

Some of the witnesses in evidence and all persons in conversation, give the credit to the Wesleyan Methodists of having brought about a great change in the respectability of dress and general good behaviour of the miners.

## **XI - OF THE MORAL CONDITION.**

The country between the Weare and the Tees is most singularly unfortunate in regard either to civil or religious instruction. Within the last ten or twelve years an entirely new population has been produced. Where formerly was not a single hut of a shepherd, the lofty steam-engine chimneys of a colliery now send their volumes of smoke into the sky and in the vicinity is a town called, as if by enchantment, into immediate existence. The population is very great. 1000, 2000, and even 5000, is sometimes the amount. All this has been done without any permanent endowment for religious and civil instruction. It is even worse. The enormous extension of the working of the coals, whilst it adds for the present to the value of livings, is rapidly exhausting the provision which the piety of our forefathers set apart for the support of instructors of the people for all ages to come. In this state of things, whilst we find much room to praise what the piety and generosity of individuals has effected in some places, as at South Hetton, we must yet in most places deplore the condition of the people who are like sheep without a shepherd. Such praise is every where bestowed on the Wesleyans and Primitive Methodists by their zealous and successful exertions in instructing and civilising the destitute colliers. Yet much remains to be done. A large amount, as much as one-fourth at least, is stated by the witnesses not to attend on any religious worship whatever. The returns from the collieries fully confirm the statements made by the witnesses.

Scholastic education is in a very low state. To every place of worship however there is attached a Sunday-school, which secures the attendance at public worship of a very considerable proportion of the children. In the returns from the collieries from one half to three fourths of the youths under 18 are stated to belong to the Sunday-schools. The labour of the teachers is a free-will offering and it would be unbecoming to enquire too critically into that which is kindly bestowed. Equally so would it be to inquire respecting the acquirements of the teachers of the National and British schools and of day-schools taught by masters on their own account. The state of the case is fully acknowledged and means are being taken to remedy the evil by the establishment of an institution at Durham, in which intended school-masters are to be taught the branches of education which it will be beneficial to teach to the children of the working people, and the best mode of teaching them. This is beginning at the right place and this is the only way by which the means may be produced by which the elements of knowledge can be taught to the great body of the people. Teaching the children to spell, or even to pronounce easy words, puts no ideas into their minds. Probably very few children in the county of Durham have ever heard of such places as Birmingham or Manchester or Liverpool and as few in Staffordshire have ever heard of Durham or of Newcastle. Such words as Scotland, Ireland, France, or America bring no ideas into their minds. The children to whom only spelling and reading are taught have no materials on which they can exercise thought and it can be no surprise that their ideas should be concentrated in the enjoyment of strong beer.

The few returns to queries respecting education which have been received back from the clergy of this district, whilst they bear honourable testimony to detached efforts of individuals and small communities, to supply education to the children and young people, also show the object in view is far from being fully attained.

The Rev. Joseph Tiffin, of West Rainton, and the Rev. Francis Thompson, of South Hetton, severally express their opinion that the children should remain at school until 12 years of age. No doubt this would be desirable if the necessities of the parents, and the demand for juvenile labour, would allow it to be practicable.

One of the managers in his evidence, and several gentlemen in conversation, have complained of the defective education of the young women, they being ignorant of cookery and of the work required in service in gentlemen's houses. No doubt this is true; the collier girls seldom go out as servants and have little or no opportunity of seeing anything but the homely work and cooking of the collier village; and they have less opportunity than other girls of acquiring good taste. Their great ambition is to marry a collier lad, and there is always a very fair chance of

success.

One gentleman stated that at an examination of a girls' school in a collier village, the questions asked by the governors related to Greek and Roman history and he was of opinion that a few ideas about cookery would have done them more good, and that a cooking school would afford the most useful instruction.

In general there is a great external respect manifested for the Lord's day and there is one curious instance which may be worthy of notice. In the articles of the Benefit Societies in the country about Houghton-le-Spring is the following:-

If any member appear intoxicated on the Sabbath-day, he shall receive no benefit from the society for the next fourteen days.

It is clearly not intended by the societies to sanction intoxication on any day, but to be in that state on the Sabbath day is so heinous as to be the subject of penal enactment.

Of the children and young persons much the greater part say that they can read an easy book but not a fourth part have signed their names. Two-thirds state that they regularly attend public worship, and one third does not do so.

In the years 1839 and 1840 as many as 25 pitmen out of the whole county were committed to gaol on the charge of felony, of whom five were sentenced to be transported. It is to be lamented that so many as 12 or 13 per annum should have to be committed on so serious an account. It is however, but about one-eleventh of the whole number of committals for felony out of the whole county, the gross number for those two years having been 266 and the miners are far more than one-eleventh of the population. The number of 266 great as we must consider it is less, compared with the felonies of all England, than the proportion which the population of Durham bears to that of all the counties united.

The miners, therefore, stand better than others, though so long as they furnish 12 or 13 such cases per annum it must be the subject of lamentation.

In the same two years there were also 54 cases of committal for assaults, which is a proof that the angry passions sometimes overpower their reason, more particularly when they are under the excitement of strong beer.

## **XII - OF THE COMPARATIVE CONDITION.**

As compared with the earnings of the highly-skilled artisans in large towns, those of the collier population are decidedly inferior.

As compared with the handloom weavers, and the greater part of the population engaged in the making of cotton, linen, woollen and silk goods, the colliers are highly paid. They also have the advantage over the agricultural labourers.

Their moral condition is better than that of the lower orders in large towns. Their frailties are chiefly the unchecked development of the simple propensities of nature.

Altogether the condition of the colliers is comparatively good.

### **OF APPRENTICES.**

There are many children and young persons bound as apprentices to the coal-masters to work as joiners, blacksmiths, and in other occupations. They learn their trades in the shops close to the collieries and keep up the number of hands requisite for a great establishment. The wages whilst they are learning their trades are much less than what is earned by the putters of the same age, but they are in a better situation after their time is up.

There are no apprentices in the northern coal field who work at any of the operations connected with getting the coals. Notwithstanding the great number of hands, and the large proportion required of children and young persons, apprenticeship is never resorted to as a means of procuring labour in the mines.

This is a complete answer to the men of Staffordshire, who explore the country far and near to carry off children as apprentices to work in the pits and may quiet all their fears lest they should not get labour sufficient, if the system of taking apprentices should be prohibited.

There is a system of fraud connected with apprenticeship practised at Sunderland and some other towns which deserves the highest reprobation.

I was first informed of it by Mr. Hardcastle, editor of the 'Sunderland Herald,' who afterwards kindly sent me a copy of his paper in which he had inserted an article on the subject, which he authorised me to treat as his evidence. It is as follows:-

In connection with the subject of the employment of children, we may remark, that there exists in this borough and neighbourhood a practice deserving of public exposure and reprobation. We allude to the custom observed by some extensive employers of not entering into a legal indenture with children sent to them in the capacity of apprentices but of signing a paper having the appearance of an indenture, whereby a child is made to agree to become a bound apprentice whenever required so to do by his master. The primary intention of this mode of proceeding is, doubtless, to evade the stamp-duty, but it is attended with several disadvantages. In nine cases out of ten, both the boy and his parents, being unaccustomed to legal documents, think they have signed a regular indenture, whereby certain privileges are secured. But let the boy become burthensome on his employer, either by reason of sickness or an accidental hurt received in the discharge of his duty, and he soon finds himself completely at the mercy of his master, who may give or withhold the stipulated maintenance at his own pleasure, the agreement being unstamped. If, however, it should suit the master's convenience, he being in possession of the document, can get it stamped, and thus at once render it binding. Again, suppose a young man at the expiration of his agreement finds it expedient to go elsewhere in search of work, his inability to produce his indenture may subject him to great inconvenience and even lose him an engagement, an indenture being the only proof to strangers that an applicant for employment has served a regular apprenticeship and is therefore to be presumed competent to perform his duty. Indeed, in her Majesty's dockyards no young man can obtain employment as a ship carpenter without producing his indenture of apprenticeship and a certificate from his master that he has well and duly teamed his business. But the injury arising from this evasion of the stamp-duty is not confined to the boy, in some cases it extends to his master, who, when he wishes to punish his servant either for disobedience or leaving his service for higher wages, finds that he has by his own act placed himself without the pale of the law and therefore has no remedy but patience. We speak not on hypothesis but on facts recently elicited in our hearing before the magistrates of this borough, who, one and all - Mr. Blackhouse in particular - have condemned the practice in the very strongest terms. How extensively this mock apprenticeship prevails may be inferred from the circumstance, that the parchment forms are kept regularly on sale in this town. The sooner the system is abandoned the better will it be for all parties concerned. It would act as a protection to the ignorant if it were required by law that in every case wherein a professional man is not employed to fill up an indenture, the parties to the same should sign it in presence of a magistrate, who would see that the document was regular, and properly understood.

In confirmation of this statement I procured a copy of the agreement referred to. It is printed on parchment, has the royal arms at the top, and is so artfully drawn up, that many intelligent persons to whom I have shown it, were not able at first to see the deception, and supposed it to be an indenture.

## **OF SCREENING THE COALS; AND OF THE CHILDREN AND YOUNG PEOPLE AT THAT EMPLOYMENT.**

Screening the coals is an operation, which gives employment to great multitudes of children under thirteen, and of young persons between the ages of thirteen and eighteen.

The practice of screening commenced about the year 1806 and therefore has been only about 35 years in existence. It may be stated in a few words to be a plan by which the large coal is separated from the small coal and dust, with a view to exportation by sea, either to British or foreign ports,

A more minute description is necessary in order to explain the labours of young persons and children.

At almost all the collieries there is an extensive platform raised, say twenty feet above the surface of the ground. It is more or less extensive according to the greatness of the coal pit. A roof is extended over it, to shelter the people from the rain. When the coals are come up the shafts they are brought to the level of this platform, so that to an indiscriminating observer it would appear as if this platform was the solid ground, and that the shafts were sunk from it. The corves, baskets, or tubs, whichever they may be when they come up, are rolled either on wheels attached to them, or upon little carriages, to the edge of this platform, which is sometimes a considerable number of yards from the shafts and sometimes the corves or tubs are fixed in cradles, sometimes not and are emptied over the side with some noise and much dust. The coals when emptied out fall down an

inclined plane, consisting of bars of iron each of the breadth of a man's middle finger, and about the same distance from each other. As the coals roll down this screen, the dust and small pieces of coal fall through the rods of iron into an enclosed space below. The incline terminates in an horizontal screen, exactly of the same description, and on this horizontal screen the coals rest until pushed with shovels forwards, and over the side, when they fall into waggons carrying usually fifty-three cwt. each, standing on a railway which comes up to the colliery. Now whilst the coals are lying on this horizontal screen, great numbers of boys are employed as wailers, that is they wail, or select out the black stones and iron pyrites, commonly called brasses, also, when the coals are shovelled into the railway waggons there are boys in the waggons whose ready glance detects the coal looking stones, and clod, and they remove them from the more marketable commodity.

This is the first and grand screening. All the coals which pass over the inclined and horizontal screen, and which arrive into waggons, are of size sufficient for the London market and when a score or more waggons are filled, a train may be sent off to the harbour from which the commodity is to be exported. The proprietors are paid their royalty on the screened coals only and hence they have an interest in seeing that the screens are not too wide.

This operation is usually said to take two-thirds of the coals brought up from the pit, whilst one-third falls through the bars of the screens and this is a sufficiently close statement for ordinary purposes but the proportion varies at different pits. At South Hetton colliery about 65 per cent. of the quantity of coals brought to the bank pass into the waggons after screening but often the quantity is only 62.5. At one colliery where the coal is soft and very fragile, it was stated to me that they could not obtain more than 50 per cent. of marketable coal.

In some collieries where they can command a sale for the coal thus separated from the round coal or large coal. Sometimes called the London coal, no other screening is resorted to than that already explained but there are few places where a further screening is not required. The coal left behind is further screened, so as to give nut coal, small coal, and dust. To effect this subdivision the coal is let out from the inclosures into which it fell when it passed through the rods of the screen and is received in tubs standing upon a small railway beneath. The tubs are rolled forward a short way and are hooked one by one to a chain, and by the steam engine they are raised again up to the platform and again are rolled forward and their contents made to pass over a screen of smaller rods and of less intervals between them than the first screen. Pieces of coal, equal to one third of the quantity sent down the second screen, are collected at the horizontal screen and are thrown into waggons standing on the railway. These coals are called nut coals.

The coals which fall through this second screen are caught in enclosures beneath it and are let into tubs to be further screened. By the force of the steam engine the tubs are drawn up an inclined plane and when arrived at a certain height, the tubs are made to upset. The dust falls through what are called the wires and the small pieces of coal roll down and fall into waggons placed conveniently to receive them.

Thus we have three kinds of coal:-

|                                 |              |
|---------------------------------|--------------|
| 1. The round or large coal, say | 66 per cent. |
| 2. The nut coal, say            | 12           |
| 3. The small coal, say          | 11           |
| And the dust, or refuse, say    | <u>11</u>    |
|                                 | 100          |

The dust or refuse is almost as small, and, as things are at present managed, almost as useless, as sand.

The round coal is sent off for exportation. It will fetch such a price as will pay for the cost at the seaport from which the merchant sends it, the expense of freight, the unavoidable costs and charges at London and the charges systematically produced by municipal mismanagement. Some of the nut coal and small coal, all under the designation of small coal, is also exported to British ports and a much larger quantity to France and other foreign countries. The small coal is that which is laid down at the doors of the people who are employed in the collieries. It is often burnt at inns and in private families in the neighbourhood and is a fuel by no means to be despised.

As for the coal dust, as carbonaceous as the other coal and one ninth part of all that comes above ground, it is woeful to see what becomes of it. A little of it is indeed sold to glasshouses but if any one will ascend a little eminence at night and look around him, he will see bright red fires in

several directions, pointing out to him the destruction that is going on. In the day time the traveller on the road sees heaps of ashes and smoke arising, and raises his voice against the wanton havoc of the coal-masters of the present generation, who thus destroy that of which posterity will deplore the loss.

Considerable portions of the small coal, as well as the dust, at the collieries at distance from the coast, are also unhappily burnt.

By the burning of these heaps is formed slag, which is drawn off for the common roads in the country, and is also sent down the shafts to repair the horse roads in the pits.

The children and young persons are much employed in all the labours on the bank. When corves are emptied over the screens, they overturn the little trains on which they have been carried, and oil or grease the axletrees. They overturn the tubs and grease their axletrees. They roll the corves and tubs back to the mouth of the shafts. They move corves or tubs of the coal from which the round coal has been taken. They push, or, as they call it, they put the tubs containing the coal-dust. Sometimes, when a great heap of coals is accumulated on the bank to be ready for a sudden demand, they put the trains on the bank on a temporary railway, in the same manner as is done in the pit.

In all these operations the labour is little less, if any, than down in the pit but the pay is only about half as much. The fine spirited lads venture down and boldly encounter all hazards. They well deserve their high wages as the reward of their valour and until high courage and great physical strength become more abundant than they are, of their high reward they may feel themselves amply secure. Those who dare not go down must be content with the wages on the bank.

I have the honour to be,

Gentlemen,

Your most obedient Servant,

JAMES MITCHELL.

36, New Broad Street, London  
August 7th, 1841.

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## EVIDENCE COLLECTED BY DR. MITCHELL, SOUTH DURHAM COAL FIELD.

### No.88 - Thomas Crawford, Jun.

I AM a coal viewer, and have under my charge the two collieries of Little-town and Sherburn, near Pitlington. The depth to the seam at Little-town is 97, and of Sherburn is 93 fathoms. In the colliery of Little-town are 71 hewers, 41 putters, 23 drivers, and 4 trappers. There are two shafts on each colliery, by one of which the air descends and by the other it ascends. There is a great furnace, the entrance to which is 40 yards from the foot of the shaft and the air comes into the shaft at the height of three fathoms. There is the same mode adopted at the other colliery and it is the usual method in this county. The furnaces are kept constantly burning, day and night, Sunday in all. We have had no explosion since we commenced, seven years ago. We have had no choke-damp, at least we never see it produce any effect.

The seams in this county are not one in a hundred less than three feet in depth and then when it does so happen there is a part cut away at the top or bottom to make the working three feet thick, which is the lowest we have. Our horse-way is five feet, or five feet six Four feet is far more usual and sometimes it is a little more. The seam is the Hutton seam. There is no such thing as children drawing by the girdle or chain. Sometimes two children are at one waggon, the one goes before with a rope and the other pushes but generally both push. No women are employed below in the pits, or on the bank in the Durham Collieries. The men, the hewers, work from eight to ten hours, according to their ability of getting work done. When there are two sets they work about six hours, one after the other. The six hours are when they are working off the pillars, or the broken mine as they call it.

Greater part of the rest is used by the engine or men. We have not burnt any small coal yet, only a little dust, which falls through the wires of the screen. It is not much better than sand. We wish the small coal brought to the bank, that we may sell it if we can. Some colliers leave a small portion of small coal under ground but it is not much. When the pillars are removed it is necessary to do it quickly, and therefore two parties are put on, and it is work at which they can make a day's wages in a shorter time. It is less dangerous work when it is rapidly done.

In both cases the boys are one party, and they work 12 hours. They occasionally get done in less than 12 hours. We have no difficulty in ventilating pits, whether 40, 60, or 100 30 fathoms deep, all are much the same.

We allow eight men to go down at once. The iron cage will not hold more. It is a perfectly close cage of sheet iron and there is no chance of their falling out at the end when they are at the foot of the shaft.

The men get out At Sherburn Colliery there are 203 hewers. The hewers load, and when they are done and leave the boys must do it themselves. We have 64 putters, 47 drivers, that is 47 whom we can call on to drive, but they are not all at work at the horses. The horses are 30 in number. Besides driving they turn the switches, the same as in railways. The weaker ones do this. Some keep an account of the work. We have 20 trappers in that pit. The youngest we take is not before nine, but the father may impose upon us, and get a boy employed perhaps half a year sooner. The boys are employed as trappers at first, then they are put to driving and lastly become putters; and when they grow up to be men they become hewers. Boys at nine have 10d. a-day. When they become drivers about 11 years of age they get 1s. 3d. a-day. The putters at first, when about 14, get 2s. a-day. Two of them push a tram. When a putter is able to put by himself he will make 4s. a-day. They will average that. They live well. The putters are not allowed, unless under special circumstances, to become hewers till they are 21.

Agricultural labourers have 12s. a-week, and with other advantages, such as a house free of rent and potatoes, they may be estimated as having 15s. a-week. An inferior class of agricultural labourers have less wages, and are not always employed.

As to religious worship a great many do not attend. They stop at home and make Sunday literally a day of rest. Not many go to the public-houses on Sundays. We reckon once a fortnight, and pay on Friday and the Friday night and Saturday are devoted to drinking by some of the men, but many are very moderate. Most of the men come to work on the Monday after pay-day.



There are several little day-schools, no large schools, but a large school is in contemplation. There are Sunday-schools at all places of worship in this district.

Some marry before 21, but it is not usual.

We have no apprentices in the mines, and there is nothing of the kind in the county.

As Chairman of the Guardians of the Durham Union, I have had opportunity of knowing that the mines make fewer applications for relief than any other class. In the collieries of Little-town and Sherburne are benefit societies and there are other benefit societies in the county, but they are not general.

### **No.89 - Edward Potter.**

I am a coal viewer and the manager of the South Hetton colliery. We have about 400 bound people, men and boys about 700. In the pits 427 men and boys. Of these, 290 men, hewer and stonemen. The stonemen or shifters dig stone in the mine, make horse-ways and air-ways. On the banks are smiths, joiners, and other workmen.

Of the children in the pits we have none under eight and only three so young. We are constantly beset by parents coming making application to take children under that age and they are very anxious and very dissatisfied if we do not take the children and there have been cases in times of brisk trade, when the parents have threatened to leave the colliery, and go elsewhere if we did not comply. At every successive binding, which takes place yearly, constant attempts are made to get the boys engaged to a work to which they are not competent from their years. In point of fact, we would rather not have boys until nine years of age complete. If younger than that, they are apt to fall asleep and get hurt. Some get killed. It is no interest to the company to take any boys under nine. We have no females and I do not believe there is a case of females being employed in the collieries either of Durham or Northumberland. We have no apprentices to any under ground work as colliers, nor as far as I know is there any in either county.

We have our shafts of 15 feet diameter and divided into three equal parts at the centre, of course the angle is 120 degrees. In the first working or whole working, the men use candles exclusively and are safe in so doing, as we can guide the air into every working part so as effectually to carry off dangerous gas. But when the men are at pillar-working, that is, removing the pillars, no candles are at all allowed, and the Davy lamp alone is used; and for this reason, that it would be impossible when so large openings are made, and a vacant space left beyond, for us to secure the men against sudden danger from a large portion of the roof falling in and throwing a huge flood of gas and dashing it against the lights. When the stone is very hard, sometimes half an acre, sometimes a whole acre and even in an extreme case, five acres may be left vacant, and the roof may break and fall down at once. Blue metal-stone, which is a species of shale, is very strong, and holds long. We require to put cast iron tubbings in our shafts, to prevent the water from coming into them wherever there is limestone or sand or any stratum in which water is found. Some water comes from the coal, more particularly in pillar-workings and there may be leakage which requires to be drawn off.

By pillar-working we get the pillars clean out and leave none of the coal behind. There is a new mode of working by which we now remove the pillar nearly simultaneously with the whole workings, or a very short distance behind them. In our shafts where there is not tubbing there is ashler-work, so that it is very rare that any accident can happen by anything falling from the shaft, or down it. Our cages are perfectly covered overhead. We never had a case of a man being killed from a rope breaking. No wire ropes have been used in the pits of this county but only on railroads. We use flat ropes composed of four ropes stitched together, in preference to iron chains because they are more pliant in passing over pulleys and we can see when they may want repairing and for that purpose their state and condition is examined daily.

The seams in this county vary from two feet to seven but the principal vein, which runs over the whole of the eastern part of this county, called the Hutton vein, is from four to four feet and a half, and there is frequently two feet of coarse coal unfit for market, which is taken up to make horse-roads. The workings are very rarely if anywhere under three feet in this county and by far the greatest part from three feet to four and a-half feet. No seam below from two and a half to three feet would pay for working in this or the next county.

This village is of late erection. There was not a house before the colliery commenced in 1831. There is now a population of about 2150, which was actually taken about a fortnight ago.

We have got a Church erected, chiefly by subscription of the company as such, and by subscriptions of the individual partners. Colonel Braddyll, the proprietor of the royalty, gave the ground. The attendance on Sundays is from 80 to 100, besides the boys and girls of the schools. There is a Methodist Chapel, rather better attended than the Church and two of our cottages have been laid together, to make a chapel for the Primitive Methodists, usually called Ranters.

Some of the colliers are amateurs at cock-fighting. Many of them are fond of bowling and perform the game on the public rooms here are 11 or 12 public-houses in the village and they do a thriving business.

There are instances of the pitmen receiving their money on the Friday and going to the public-house and remaining until Monday morning. The men are paid at the colliery office and if they afterwards go to the public-house it is their own act. They generally go to the public-house and spend 6d., or pay it for the accommodation of change for £5 notes.

The company have built a boys' school for 130 scholars and a girls' school of the same size; and employ a master at a salary of £30, and a mistress at a salary of £20, with houses and firing and they receive fees from the pupils at 2d. per week each. The master also keeps a night school or evening school for grown up boys and young men and has about 30 scholars. These are persons who learn from a pure desire to benefit themselves by education. They are chiefly mechanics. We have Sunday schools. The labour in the pits is so much the same from day to day, that there is little room for a man of education to turn it to beneficial account but a man of education in the pit may be made an overman or a deputy-overman, and then he requires his education to make out the men's accounts. The deputy-overmen require intelligence to guide the air in the courses, and fix the wood to support the roof. A deputy overman may be promoted to be an overman and his situation is then worth £100 a-year. An overman may be promoted to be an under viewer. Cases have occurred of a man rising to the head of his profession as a viewer.

### **No.90 - John Wood.**

I am the manager of the colliery called Clarence Hetton, in the parish of Kello, in the county of Durham. The property belongs to Nicholas Wood and Co. They employ about 70 men in the pits and about 34 boys; and on the bank 12 men and 6 boys. The youngest boy is about 10. There are about three of that age in the pit and altogether six under 13 and the others are at all ages up to 21, which number altogether makes up the 34. They begin at four in the morning and leave off at five in the afternoon. They take a quarter of an hour when they have a mind to their meals. They have rest at many intervals during the day, a short while at a time, 10 minutes and even a quarter of an hour. The lads about 10, 11, 12 and 13, open and shut doors. About 13 they begin to go with the horses. We have four horses in the pits. The elder ones of 18 and 19, one will be sufficient to push a tub of six cwt. or 20 pecks of coal, but if only 12 or 13 years of age, two boys are employed to push the same quantity.

About three men at a time go down and come up together but sometimes five boys.

In a new pit we intend to draw 56 pecks at a time, about 17 cwt., that is without counting the weight of the waggons and cagings, which will be still heavier than the coals.

The depth to the seam is 17 fathoms to the main coal. There is a band of clay in the coal within two and a half feet of the top of the seam and varies from six inches to 12, and the seam altogether including the band is six feet. Bowburn's colliery, lately sunk, has come to coal only 22 inches thick but it will not do to work it, unless they come to a thicker seam. They are driving a level expecting it will turn out better. From the foot of the shaft to some of the workings in our pit is about a quarter of a mile. We leave pillars at first and afterwards work the pillars and drive the timber and let the roof come down.

A boy about 10 gets about 10d. a-day, and a boy of 12 gets 9d. to 2s. Two of them push the corves. When there are two strong ones they can earn 2s. a-piece. As soon as a lad can put singly by himself, he gets 4s. a-day. The mode of paying is so much a score of 21 tubs and the more they work the more they get. The wages per score vary according to the distance of the works from the foot of the shaft. They are employed and paid by the master. There are not men who contract like the butties of Staffordshire.

Youths of 17 would take the pick to hew if allowed but the usual age is 18 and they may earn 4s. a-day. Some can make 5s. a-day. The money is paid regularly once a fortnight. The reckoning is to the preceding Saturday, the payment is on Friday. It is generally the case in this

country and the reason is that their wives may go to market on Saturday. The Saturday after the pay-day is a holiday. Very few colliers work on Saturday where they pay on Friday. It would be a loss to the proprietor, as he would have to pay all the men who were on fixed daily wages and from the absence of the others they might not have work to do. Monday is always a slack day.

The Monday after the week in which there is no money paid is always better than the other Mondays. The shopkeepers will give the men credit until the pay day. Drinking beer is the chief frailty, not much spirits. When the rivers are frozen there is slack time but the men have 15s. a-week paid to them work or not or rather 30s. a-fortnight. When the men can earn more than 30s. a fortnight the surplus money is kept off until what was paid to them where not at work is made up to the master. They pay no house rent, and have their coals free. They pay 6d. a house in the fortnight for loading the coals and they have as many as they can burn. It is the small coal which the workmen get. They must not sell any but may use what they like.

A great many attend religious worship. The majority prefer the Methodists or Ranters. We have no chapel of the church of England in the village, nor nearer than two miles.

There is a Sunday school. No one is allowed to strike any boy or lad. The overman and deputies to the overman in the pit are not allowed to touch the boys and the boys are not allowed to strike each other. If they were to do so we should take them to the magistrate. We have done so.

### **No.91 - Thomas Alexander Cockin.**

I am the manager of the colliery called Pease's Deanery or Adelaide Wallsend, in the Auckland District. The employers and employed in this district generally live on good terms with each other, with few exceptions. The Chartists have given a great deal of trouble but the men have not committed any act of violence, and we are not in the least apprehensive of it. The grown men who work under ground, and the putters and drivers, are bound for a year in the usual way of this country. The people generally observe very faithfully the conditions of the bond. We never have occasion to refer to our bond with a view to enforce its enactments. There is at present a considerable surplus of labour, and many more would be willing to engage. The good hewers are, however, always sure of employment. When we engage strangers it is by the recommendation chiefly of our men. All have an interest in having good men, so that the work may proceed pleasantly. Good men, who understand their business well are valuable from their skill in hewing round coal or large coal, which bring a better price than other coal in the market and on which there is less waste on screening. On this side of the valley of the Auckland district, comprising this colliery, Brown's Deanery, Blackboy, South Durham, Coppycrook, the coal is very hard and strong men can work it. On the other side of the hill the coal is softer and weaker men can work it, and obtain the same amount of wages.

Education is in a most deplorable state amongst the colliers. There are many persons from mine districts working here and they are as indifferent to education as the others. Threefourths of the pitmen, however, do attend public worship but it is to be regretted that so many do not. There is a Sunday-school at every place of worship. We have an infant-school belonging to the colliery but it does not obtain many scholars, only 60 to 65. The average attendance is about 50. We intend to establish an evening school for the lads. In our pit we begin to draw the coals not before six o'clock. Our machinery is powerful and the work can always be got done between five and six.

Our colliery is in the parish of St. Andrews Auckland and most of our workmen reside in the village of that name, commonly known by the name of South Church. There is no, resident clergyman, a loss very severely felt. The bishop of Durham and the clergymen of Bishop Auckland preserve good order in that town on Sundays and the clergyman at Shildon, on the other side, with the aid of the rural police and constables, preserves good order there; and all the bad characters from both sides in consequence break in upon our village and in the adjacent lanes on the Sunday afternoons may be seen groups of characters gambling and otherwise improperly employing themselves and amongst them are navigators engaged on the tunnel and railway now forming.

We have no apprentices to work in the collieries. We have apprentices to work in carters and smiths shops, who are usually bound for seven years. We should consider it merely reprehensible to bind boys to work in the pits. We would not employ any children under ten, were it not for the importunity of their fathers and their insisting on it as a condition for their engaging to work for us. In our case we could carry on our collieries without employing any children under 12 years of age and we do not want many trappers but I do not think that in the collieries generally

they could dispense with children between 10 and 12. We would gladly do it but for the reasons stated.

There are many men who fix in their own minds what money they shall earn, and as soon they find that their earnings come to that sum, they will work no more during that week.

There is a school at Old Shildon endowed by a member of the Society of Friends and put in trust under men of that society. It is carried on according to the British system. There is a school on the national system at Shildon under the immediate care of the clergymen, both of which are well attended by towards 100 children each.

The neglect of education arises from the men being uneducated themselves, and being anxious to get the wages which their children earn. Much of the ignorance of the collier children arises from the population of the collieries living by themselves in collier villages and the women have no opportunity for improvement by associating with people in better condition than themselves. From the men getting up early it is necessary to keep up fires all night which tends to make their houses less healthy. The women are less skilful in their cookery and domestic arrangements than the wives of agricultural labourers and journeymen tradesmen. It is a rare thing for a collier to marry a servant from a gentleman's family, or other than the daughter of a workman connected with the colliery. The colliers' daughters seldom or never become servants in families and have no opportunities of learning good modes of conducting their families, nor of acquiring habits of cleanliness and good taste. There are many of their houses, however, very comfortable and they conduct their families in every respect as well as could reasonably be expected. Economy is very rare among the colliers. They spend as they get and families which amongst them make a large income have no more money in their possession than the rest and often appear much worse. The general rule with them is to be a fortnight in debt, so that when they receive their wages they already bespoken and they go on credit. There are no tally shops in this neighbourhood, the men are perfectly free to lay their money out where they please. Field clubs, which are usual in some districts, are very rare in this county, if they exist at all. We find the surgeon ourselves in case of accident and allow the men 5s. a-week, and the lads 2s. 6d. a-week, in case of illness derived from their work, which is usually called smart money. We contract with a surgeon at a salary.

Benefit Societies, for medical and pecuniary relief in cases of illness not contracted by their hour, are very common and are under different designations, as Odd Fellows, Ancient Sepherds, Foresters, Rechabites. The societies usually have an annual procession with music and colours and some attend at a sermon, and afterwards dine together.

## **No.92 - An Eminent Engineer.**

**In your opinion does the interest of employers require to employ children under 10?** - We are beset by the entreaties of the fathers and of widows to employ their young children and are in a manner compelled to do it but as far as our interest is concerned we had much rather not employ children under 10, indeed under 11. The better sort of persons do not wish their children to come before that age.

**Would it be possible for the employers to carry on their works without drawing coals for a longer period than 12 hours a-day?** - It would be so unless under very peculiar cases. Generally speaking it would. In most mines the work is not more than 12 hours, but sometimes the men will complain that they have not been able to get the usual quantity done and therefore are desirous of longer time, that they may earn the usual amount of wages. This is in single shift mines. But there are also double shift mines, where two sets of men and two sets of boys relieve each other every 12 hours, in which case it is not possible that they can be more than 12 hours and generally not near so much. We allow 10 hours, deducting two hours for changing time. There are sometimes three sets.

**What precautions do you adopt to prevent accidents in ascending and descending pits?** - In descending the banksman has an authority to regulate the numbers riding upon each rope. He is a confidential man and performs the duty satisfactorily. In coming up the hooker on at the bottom of the shaft performs a similar duty. I have seen the onsetter use force to prevent too great a number from ascending together. In a medium class of works the men do not go up in a greater number than six or seven. That is on a rope whose regular duty is to carry 12 to 18 cwt. of coals. We do not use iron chains in this county for drawing but always ropes, for the greater safety, inasmuch as they always show symptoms of decay before they break. In point of fact in well

regulated mines there are very few shaft accidents.

**Is there a good feeling between the employers and the employed?** - There is always the best feeling of the employers towards the men but the employed are excessively jealous and will not listen to any thing, even for their own good. Their obstinacy would be quite admirable if exerted in a better cause. We endeavoured to form an institution for the purpose of supporting disabled men, the widows and children, to which the coal owners consented to subscribe one halfpenny per chaldron on all the coals exported, to which the men were requested to join and contribute sixpence in the pound from their wages, both which together would have formed a fund which would have supported the disabled men, the widows and children, in great comfort. The men thought well of it at first, but after meetings and discussions their jealousy got the better of their prudence, as they thought it impossible that their employers could offer such a boon without having some selfish motive in it and that it was in fact what they called 'a take in,' intended as a fraud upon them. We have established in this very place a reading-room, to which the men may have free access at a penny a-week. None of the workmen subscribe to it. It is supported with works intended for the improvement of the people, some Magazines, Chambers' Journal, Chambers' Instruction for the People and useful and easily intelligible productions, but the workmen will not read. They find more amusement at bowling and at quoits, and gossiping together. They are not, however, a drunken set of men, at least within my circuit but they will not read and many who once could read have lost the power to do so for want of practice.

**How are they as to religion and morals?** - A large proportion of them are very punctual in attending meetings and in religious observances but they are given to lying and deception. They begin with lying in the pits when boys, if they are accused of any thing which they have done, to escape punishment from the bigger boys and they go on to steal provisions from each other. The men will steal their coals from each other, that is, they remove the ticket from the neighbours' basket and substitute their own, so that the basket may be entered as work done by them. Hence they go on to cheat their employer and there is no extent which they will hesitate to go in this respect, and when detected they have not the least shame and they do not suffer in the least in the opinion of their fellow-workmen and if they succeed they are admired for it.

**What do you think of the state of their education?** - In reading and writing they are generally speaking defective, but as to mental arithmetic and calculating their work they are exceedingly expert.

**What do you think of the practice of binding workmen for a year?** - The people have been so long accustomed to it that they would be miserable if they engaged in any other way. It makes them feel a certainty of at least a certain amount of wages, under every circumstance, with a house and coals. The people think it a disgrace not to be bound. There are some workmen unbound who are occasionally employed but they are generally persons of inferior character. It is a disgrace to a man to be put in what is called the blacklist, that is on the list of men whom the master will not employ again at the next annual binding. There is one mode of cheating which the men adopt in winter when it is dark and think it will not be detected, that is they put black stones and iron pyrites in the baskets, as their weight is heavy, the men being paid by weight.

### **No.93 - Gilbert Steel.**

I am employed in the Crowtree colliery as a stonemason, in making road-ways or gate-ways for the horses. The depth to the coal is 48 fathoms. There are three shafts, or rather, one shaft in three partitions. Down two of them the air passes and comes up the other and through which it is carried very forcibly by a fire which is distant from the shaft 30 yards. There is not any inflammable gas but there is black damp or stink and if very strong, it would knock a man down. The system of ventilation is the same as is usual in the country. The air is conducted through the workings by stoppings of stone, or deals, properly plastered with lime and it is conducted up the shaft by the draft of the furnace. The workings are about three quarters of a mile from the shaft. There are 120 coal-hewers. There are ten deputies under the overmen of whom are two, one for each pit. One seam is three feet four inches. It is called the five-quarter seam and the other is about four feet. It is the main coal. The men go in at three in the morning to hew the coal - that is the first shift - and come up at eight or nine in the morning. Another set go between eight and nine and stop till four. The putters go down at five. There are 43 of them. Some are as young as 12 or 13 and two join together. The trappers are 12 in number and they open and shut doors. The hewers fill

their own tubs. By and by a lad about 15 and upwards goes by himself and puts. There are 10 drivers to drive the horses 13, 14, or 15 years of age. There are 10 horses.

The boys stop 12 hours in the pits. There are always men down to fill and to hew. They take their meals when they can. They have plenty of time for it. When they shove the tub to the rolley-way or waggon-way. They have plenty of time to get their victuals.

The tubs come on a level and are shoved on to the waggon. The waggon-way is cut down to enable them to do so. The waggon-way is six feet six inches high. Both top and bottom are taken away to make that height. Only three deaths these three years have occurred by accidents by the waggon-way. One lad was killed by a prop falling down the shaft. In winter when there is ice on the shaft there is an iron umbrella used.

#### **No.94 - Mountjoy Pearse.**

I am a clerk of the West Hetton colliery and Crowtrees colliery. The drivers at 10 or 12 years of age get 15d. a-day. The putters, who push the corves, are paid according to the quantity of coals, average 2s. and 6d. a-day at the age of 15, 16, and up to 20. A good hewer may earn 5s. a-day and the average is 4. It is usual to pay once a fortnight, on a Friday. The men make the Saturday after payday a holiday but most of them return to work on Monday.

There is a surgeon engaged on a salary for all accidents arising out of his employment. The overman reserves 6d. a fortnight to form the fund for this purpose. When a man has an accident the owners also pay him 5s. a-week from their own property. The men attend but very badly on religious worship. There is a population of say 3000 and there is accommodation for 1000 and only about 700 altogether attend. There is the parish church of Kello a mile and a-half off. The Methodists have a chapel on the spot and the Primitive Methodists commonly called Ranters, have a room used for a chapel. There is a Sunday school at each of the chapels. There is a day school at the village, with about 50 scholars and a night school, open every night in the week, except Saturday, from six to eight and sometimes till nine, and about seven or eight boys attend.

The men will continue to work in the pits until sixty years of age and on the bank some years longer but there are very few 65 and upwards able to do any severe labour.

#### **No.95 - George Chariton.**

I am an overman at the Dorothea pit, near Philadelphia, in the county of Durham, the property of Lord Durham and worked on his account. Boys go down between three and four in the morning and are called off at four. There are five or six districts in the pit, at which the people are employed. Towards 10 o'clock, in each of those districts the boys stop about 20 minutes to breakfast but not every district at the same time, so that the engine is always kept going and no injury arises from their taking that time to breakfast.

They come up in the tubs and there is not room for so many to get into them as to equal the weight of the coals. The Davy lamps are examined every morning and delivered out to the men engaged in pillar-working, locked and they are obliged to deliver them back at night in the same state. We have a man working at hewing in our pit upwards of 70 and many above 50 at that work. Some of the older men are employed at the flat to check the account of the work. Where we conveniently can, our system now is to remove the pillars as soon after the whole working as we can.

#### **No.96 - John Wetherell Hays.**

**You are Clerk of the Union at Durham?** - Yes, from its commencement in January, 1837.

**Have you many application for relief from colliers?** - No, I cannot say so.

**Do you consider them in a favourable pecuniary condition?** - Yes, quite so.

**Do many apply for medical relief?** - Not many, they have their medical aid in case of accidents at the expense of the colliery.

**At what age do you consider a collier unable to work on account of old age?** - The colliers I do not consider long lived. They live well and live fast but if they do survive they work on to a good old

age.

**No.97 - George Canney.**

**You are a legally qualified medical practitioner resident in Bishop Auckland?** - Yes.

**What do you consider the state of the health of the colliers as compared with the agricultural labourers?** - I consider that the health of the colliers is not so good as that of the agriculturists. They are generally short lived. There are very few pitmen of 70 years of age.

**Are they much subject to disease?** - Yes, to acute inflammatory diseases. They strip to their work and perspire very freely and are subject to inflammation of the lungs, rheumatic fever and their labour is very severe and wears out their constitution.

**What is the state of health of their families?** - They generally marry very early and the Union is very prolific but there is a very great mortality of the children.

**Are there any local causes affecting the collieries of this neighbourhood?** - The collieries of the neighbourhood have been but lately opened and new houses had to be built and many of them were occupied before they were finished and much disease was occasioned. They give gin to their children when they complain, and also Godfrey's cordial and other soothing medicines. Now and then we have an inquest on a child from an extra dose. The fires are kept up all night and the rooms are always warm. They have their coals for nothing and to they keep their houses too hot.

**Do the children suffer from early employment in the pits?** - Yes, seven and eight is a very early age and the constitution must suffer in consequence. It is injurious to be kept in one position so long and in the dark. They go to bed when they come home, and enjoy very little air. I think there is more than the usual proportion of pulmonary affections.

**Do the wounds easily heal?** - They heal wonderfully so. A surgeon accustomed to hospital practice in London would be astonished. They recover from very severe accidents.

**Do you consider the work in itself injurious?** - The trappers and drivers have not great labour. The putters and hewers have severe labour, which must affect their longevity. They are less in weight and bulk than the generality of men. There is nothing noxious in the work of coal mines, as there is in the lead mines, where there is much noxious air arising from the lead itself, or the arsenic combined with it, provided the coal mine be well ventilated.

Some of the colliers suffer during south winds from carbonic acid gas. The Adelaide, the Deanery, and South Durham, are obliged to suspend sometimes from the carbonic acid in the time of south wind. Some pits produce carburetted hydrogen gas and we have explosions, 25 severe burns, and occasionally loss of life, but the mines are less dangerous than in the district about Newcastle.

**Do the colliers often apply for medical relief?** - No, they do not. The employers pay for accidents, and most of them enter into a contract with a medical man, the head of the family paying 6d. a fortnight, and the unmarried paying 3d. a-foortnight, for which he attends the sick. The money is frequently, but not always, left in the hands of the overman.

They are fond of large doses of aperient physic. They dose themselves and often take two or three ounces of salts at a time. They seldom think of taking less than two ounces of salts, sometimes three.

Our Savings' Bank was the second one established in England. Some miners belong to it but they do not in general deposit but more have done so lately. Last year many miners were earning 30s. a-week at the railway, but none of them deposited. We had eight weeks of frost last winter and they were all out of work and nothing on which to fall back and we were obliged to raise a subscription to relieve them. Almost all are members of benefit societies. The Rechabites are tee-totalers. If a Rechabite be convicted of having taken 40 liquor, he is fined for the first offence 5s; for the second offence 10s., for the third he is fined 15s. and if convicted a fourth time he is expelled. They are a numerous and increasing body. There is a club of 100 members in this town, and about altogether 300 pledged tee-totalers.

We were in a sad state from drunkenness and disorder until we got the rural police, but now we are quiet and orderly. We are certainly much indebted to them for the good order which they have established.

**No.98 - George Bland.**

**You are a student of medicine?** - I have studied in the neighbourhood of Chester-le-street, under

a medical man, for six years.

**Are there many colliers there?** - Very many.

**What was the general state of their health?** - Pretty good, with few exceptions of, delicate men, better than that of the mechanics in towns.

**Were there many accidents?** - Very numerous, such as burning from the explosion of gas, lacerations from injuries caused by the waggons and horses and from the roof falling. Their habitations are very comfortable, almost every man has a plot, which he calls his potato garden, sometimes at a distance from the cottages.

**Have you known the miners suffer from rheumatism?** - Only where the mines are wet, which was not generally the case.

**Is there much disease amongst the boys who work in the pits?** - No, there is not. There is 60 no particular disease and they are not generally injured by the labour. Many are sent down about eight or nine years of age. Many accidents arise from these boys being careless, and falling asleep. I have known many accidents from that cause.

**Do women work in the collieries?** - No, they do not, but they are employed in loading keels. [Subsequent inquiry showed the women do not load keels on the Wear or the Tees, though they do go on the Tyne.]

### No.99 - George Tweddell.

**You are a medical practitioner residing at Houghton-le-Spring and a medical officer of the Union there?** - Yes.

**Have you had many miners under your care?** - Yes, I have.

**What is the state of health of the miners?** - In general good, with, however, exceptions, chiefly of those who injure their health by excess of drinking.

**Do you consider the state of health of the miners to be equal to that of agricultural labourers?** - No, it is decidedly not so good.

**Are the children who go down into the mines at an early age affected with any particular disease therefrom?** - No, they are not but their habit of life, in the air of the mines, is unfavourable for the acquisition of strength.

**Are the miners much subject to rheumatism?** - Not particularly so. Our mines are dry but there is one mine, which is wet, where the men often complain from rheumatism.

**Are they subject to asthma?** - Not much so in early life but in an advanced period of life many of them are so, not perhaps a majority. It is very probably brought on, or increased by breathing carbonic acid gas.

**Is there any other disease to which they are particularly subject?** - I have not noticed any.

**Do the miners hold out to old age equally with the agricultural labourers?** - They do not. Their labour is severe and tends to wear out the constitution and the irregularity of many of them increases the effect.

**Do you observe those who are religious and moral to enjoy better health than the others?** - Decidedly so. On the contrary, the immoral and dissolute not only injure their own constitutions but entail diseases on their children.

**What is your opinion of the continual heat of their houses, from the fire being always kept up?** - It is an unfavourable circumstance. Their houses, however, are decidedly comfortable in other respects and are well ventilated.

**Are the houses kept clean and is the neighbourhood of the houses kept free from nuisance?** - A great proportion in this district are clean, but there are many sad exceptions and ashes and refuse matters are left about the houses for several months, often six months. There is no convenience of any sort about them.

**Are they cleanly in their habits?** - Most are, but many are not.

**Do they get their children vaccinated?** - Very generally before the Vaccination Act and now almost all.

**Are they accustomed to drug their children with opiate medicines when they are ill?** - Very often these destructive medicines are administered. Many die from the effect on the constitution and not a few from the immediate narcotic effect.

**Do the mothers give the children gin?** - Sometimes, but it is not nearly so common as giving opiate medicines.



**Are the married women honourable in the payment of the accoucheurs?** - They are so, with Yery few exceptions.

**No.100 - James Vicars.**

I am 15 years of age. I worked in the Gosford Colliery, two miles north of Newcastle. I am a putter. I get sometimes 4s. a-day, sometimes 3s. 6d. a-day. I have received 45s. at the reckoning at the fortnight's end. I first went down nine years ago, being only six years of age. I started to keep a trap door, and got 0d. a-day. I was 12 hours a day below. After two or three years I was employed to clean the way and sweep the rail with a brush, and got 1s. a-day. I did not very well like it. The putters used whiles to beat me. If I was told to clean one place, and was doing it and another putter told me to clean another place, I could not do both at once and one of them would hit me. They would hit one a bit to make one sharp. I was half-a-year at that trade, then I started for to drive. I had to sit a hint the horse and whip him on. Sometimes I had to get at the sidings and lead him off. We had 14d. a-day at first and I was raised to 15d. I drove till within the last two years. I was not a half marrow, that is, I did not put along with another boy, I put a tram by myself. I got what I could make, sometimes 4s. and sometimes 3s. 6d. a-day. I expect to hew in the course of a year. many hew at 16. I expect to get better wages than at present. When a hewer works at what happens to be a soft place he gets more money than when the coal happens to be hard. The pit is very fiery; where horses go they use candles, where the putters go they use Davy lamps. The pit is 265 fathoms deep, it is the deepest except Pemberton's. When you come to the foot of the shaft there is a bank for the men to climb up 75 fathoms. The horses can hardly climb it. The coals are sent down the inclined plane. The horses bring the coals to the top of the incline and the coals are let down. The first shift of men go down at two o'clock, the lads go down at four. The back men, or second set, come at ten and the first go away. The lads continue till the day's work is done. there are lads to go for tools. We take all down that we stand in need of when we come down ourselves. We take something to eat whenever we have opportunity. It would not do to send down victuals so far and it is two miles from the foot of the shaft to the work. The seam is four feet thick and they cut away at the bottom to make it suit the horses. We take opportunity to take victuals when the two sets of men are changing, after that we get nothing until we come up. We take a bite in our hand when we are shoving the coal. We drink water, which we take down in a bottle. At Gosford three get into the corve and two on the loop above, and perhaps three on the top, above these are little ones. Accidents sometimes happen. A little trapper was killed about a quarter of a year Accidents. since by a piece of wood falling down upon him. I do not mind any falling off when going down or coming up. The chain might give way. About a month since, at Coopon, a chain broke and two men were killed. It was an iron chain. We are troubled with foul air. The Davy will sometimes burn away and become hot, and we must change the Davy, by putting the hot one away and taking a cold one. I can read the Testament. I go to Sunday school. I am what they call a Ranger. There are boys of six in the pits and many of seven years and eight. They keep trap-doors. There are a great many doors in some pits. The air is very bad. The work does not hurt the boys' health. A boy may die sometimes as well as others.

In winter time when trade is good the men and boys work over-hours, and are paid according to what they do but there are very few that save any money but there are some teetotallers.

A boy at the foundry-work of 14 will get only 2s a-week and 2s. and 2s. and 6d. is a very common price for lads of that age. These lads will not go down into the pits because they are afraid.

In summer time when the work is not hard, the boys alter they come up from the pit play at marbles, at touching one another and then following to try to catch also at quoits and cricket and striking a bail against the wall. Some boys go and fish eels in the river.

In winter time the hours are harder and when we come home, we are fit enough to go to bed.

Mushrooms grow in the pits at the bottom of the props and where the muck has fallen, 100 yards or more from the shaft.

**No.101 - Anthony Dowson, in presence of his father, William Dowson.**

I am 18 years of age the 13th of this month (April). I went down first into the pit when five

years old. I opened and shut trap-doors. I have been down generally 12 hours, but sometimes 13, 14, 15, and I have been 18 hours at a time in the pits. Sometimes the waggons did not get away so fast from accidents and all stopped, putters, drivers and trappers, until the usual quantity was got up. The hewers went when they had done their work. I had 5s. a-week. I was a trapper one year. I next took to driving a galloway, which pulled two waggons with two corves on each. I rode both in and out for five years. At 11 I took to put a tram, that is, to lift the corves of coal off the trams and put them on the galloway's waggon. The waggons brought them to the shaft, when they were hoisted up. We lifted the corves by means of a crane. That was very hard work. I had 14d. a-day when I drove. I got what I could make when I took to putting the trams. It took two of us, and between us we had on the average 4s. a-day. We however had to find candles and grease for the wheels of the trams, which would be 3d. a-day, 1.5d. for candles and 15d. for grease. It was very hard work. Nobody knows what pit work is until he begins to put the trams. I continued until within a year ago at that work. Within this last year I have taken to hewing but am liable to be called off to put if there be need for it but if so, I get 3d. per score (that is, 21 corves of 16 pecks each) more than other potters, if taken from hewing. I worked all these years at Elvet colliery, the property of Mr. Crawford. He rents it under the dean and chapter, and pays so much a score royalty.

In the summer we go down at five, and in winter at three and between three and four. We require to go down earlier in winter, because there is a greater demand for coals. There are 15 coal-hewers at present in the mine, there are eight putters, six trams are pushed by one 40 lad each and one of them takes two lads, because they are little and weakly. The lads at the double tram, one is eight and the other 16, but the 16 year lad is unusually small for his age, weighing only about five or six stone weight. I weigh 10 stone 7 pounds. There are four drivers, one for every galloway. There are sidings, that is, places to which when one boy comes, he stops until the other boy with his galloway with his loaded rolley passes. The boy with the empty waggon moves to the side, and lets the full waggon pass. There is also the overman, and the overman's son who assists him, a lad of 16, but a small one. We come up in summer time at two or three in the afternoon. The hewers may come up perhaps at 11 or 12, leaving the putters and drivers, who remain down till the work is done. They are said to be under a penalty of 2s. and 6d. if they neglect the master's work for a day but it is seldom enforced. Our master is a reasonable man and makes allowances. He was once a putter himself, then he was an overman and rose to be a coal viewer by his own good conduct and is now a rich man.

We take our victuals just as we can. We take a bite at them now and then, just when we can. The hewers can stop and eat when they please, but the putters must catch when they can. They must not stop work. The same with the drivers. If the drivers stop they stop all. About eight in the morning a tin bottle full of coffee or tea is brought to us by the wives, mothers, or sisters and sometimes little brothers and is sent down the shaft to us in the corve, with a piece of bread, and sometimes a bit kitchen when it can be afforded, such as a bit of bacon, or a bit of cheese, or butter if it can be obtained but if it cannot then bread alone. We eat it when we can, and get no more until we come up when we go home. We change our clothes in the pit before we come up. In the pits we are naked from the navel upwards. We take off our trousers and jackets and top shirt when we are down and retain our little breeches, the body shirt, a pair of hoggors, that is stocking legs without feet and our shoes. When we go home we put on dry comfortable stockings, and wear as comfortable clothes as any gentleman. We take a hot meal, then lie down and have a bit sleep, and then get lip and get a walk out. We go to bed at nine, sometimes at ten and at this season are called on at half-past four and get to the pit at five. The pit is 36 fathoms deep. The seam is the five-quarter coal. It is about a yard and four or five or six inches but it is called the live-quarter coal. We go down two together. The loops have hooks and are hooked into the link. We have one loop to two of us, one puts in his left leg and the other his right leg and with our hands we cling to the chain; frequently other two persons hang on the rope or chain, holding by the bands and the feet, like sailors on a rope of a ship.

Accidents sometimes happen. About four years ago at the Elvet pit, when two men were going down a hook of another rope caught him by the hough, and ripped off the skin like a stocking. He got down to the foot of the shaft and then they drew him up again, in the same condition as when he went down and then they sent for the surgeon. The surgeon came to his house and sewed up the leg but it all became dead flesh and the man died five or six months after.

I had an uncle who was killed from a stone falling where he was undermining. He didn't die on the spot but he died at five at night. Near Newcastle four men were drowned by water

breaking in, but we never have that with us. We have no fire-damp in Elvet Colliery, nor choke-damp. The overman corrects the boys sometimes by a yard wand with which he measures the rank of the putting. The lads deserve it. A man must be master of boys.

The hewers undermine the coal and then knock it down with a wedge. They take all the pains they can to make coal round, that is to say large pieces. Our coal is entirely for the town sale, and is not allowed for a sea sale. I cannot read. I was put too early to work. Very few go to work so early. My father had 12 children and my mother was dead and he was obliged to send me down. I went to the Sunday-school two or three years but I got so big that I was ashamed.

### **No.102 - Benjamin Dowson.**

I am 12 years of age. I am a driver. I went down into the pit at eight years of age and assisted my brother in putting for three years. The pay all went to our family. Now I am a driver, and earn 16d. a-day. If nothing happen to the machine I have no holidays but Sundays and Christmas. We work on Good Friday. Many colliers do when there is plenty of trade. There is not a holiday on the Saturday after pay-day. The men grumble at it. When there is slack trade they do not work so long.

### **No.103 - John Dowson.**

I am the brother of Benjamin Dowson, already examined. I am 14. Went down to put with my brother. He could not manage by himself. The money all came into one house.

I kept at that work three years and a half. I went to drive before quite 10 years. We sit upon the waggon. The road is about three quarters of a yard wide and people cannot pass except at the sidings. It is a quarter of an hour's journey from the cranes up to the shaft if you do not stop any where. I got 14d. a-day for driving. At 12 I started to putting again and get sometimes 2s. 6d., sometimes 3s. 6d., and sometimes 4s. It is very wet at places in the pit I like the pit very well. I read very badly.

### **No.104 - Thomas Hoggins.**

**How long have you worked in the coal pits?** - Forty- one years and I shall be 52 on the 2nd of October.

**Having been so long in the pits what from your observation do you think should be done to benefit the children and young persons?** - I think they ought not to be obliged to work so a many hours in the pit as they do in many places, going down at three and coming up at six, fifteen hours, which is too much and is more than is allowed in many pits now.

### **No.105 - Thomas Hoggins, jun.**

I am 15 on the 27th day of May next. When I was 11 I went down into the pit to be a trapper. I sat near a door in the rolley way. I was called at one o'clock. I took breakfast and went down to the pit at two. I held a string which pulled open a door and which shut again of itself. It was easy work but tiresome. I could move about a little but must be on the watch to see if anything was coming. If I happened not to open the door in proper time I was likely to get a cut of the whip. I had a lamp allowed me by my master. It is not usual now for the master to find light to trappers. The trappers now sit in the dark. There were swarms of mice in the pit and I could sometimes take them by a cut of the whip. Midges were abundant, they sometimes put out the candle. The pit is choke full of black clocks (beetles) creeping all about. They are nasty things. They never bit me. I used to come up at six at night, went home, got dinner, washed and went to bed.

The trappers now go down at three, and loose out at six and go up, and go home.

There is no call man at our pit, the people live at a distance

I got 10d. a-day as a trapper. I went to be a driver at 13 and got 15d. a-day. It was harder work; we are obliged to put the tubs on the rolleys, which is very hard work, too much for boys.

There were cranes in former times and a crane man hoisted the tubs and dropped them. Now they run them with wheels upon the rolley; when the cranes and crane men were withdrawn, four years ago, the putters would not take to this work and it was forced on the drivers. The other part of the work is easy enough and I do not complain of it.

I do not keep my health very well, I have headaches and sometimes am obliged to go home;. My father thinks it is the heat of the pit.

I never whip the trappers. I go to the Sunday school. I asked to go into the pit in or order to get away from school. I would go to school now if I could be allowed. The boys the pit like the work they are very noisy when they come up at night. About as many as 16 come up at a time, and sometimes more. After coming up in the long days the boys play at cricket and marbles, sometimes with kites and hand-ball and they never play at nought more.

I go to a Sunday school established by the proprietor and one of the deputies who sets the props teaches in it; several young men go and teach the little ones. I never read a newspaper.

#### **No.106 - Thomas Thew.**

I will be ten this year. I do not know the month. I have been a trapper six months. I like it very well. I goes at five and come away at two, sometimes at three, as soon as the putters are done. The drivers have to feed the galloways after that. I get 4s. a week and am quite 10 content. Sometimes I falls asleep; if caught at sleeping I gets a hiding with the yard wand.

#### **No.107 - -Joseph Dawson.**

I am a native of Chapel of Weardale, and am now 30 years of age. I went to work in the Blackboy coal pit, when I was 17 years of age. For the first nine days I got nearly 4s. a-day, working as a putter but I had a *foal* to pay to help me. I have since worked in several pits in this country. For the last seven years, I have worked as a hewer. I work at Woodhouse Close Mine. There are some boys in that pit six years of age, judging from appearance. They are employed as trappers of the barrow-way, where the putters pass. The doors are not half so heavy as in the rolley way. Their business is to open doors when the putters go through, and shut them. They sit in a hole like a chimney cut out in the coal, with a string in their hand, and pull open when it is necessary and when they let go the string the door shuts of itself. It is quite easy work. They have light a few days at first, until they get used to it and cease to be frightened and after that they do not need candle. It is somewhat dull but there is a good deal of company going and coming all day. Some get 8d. and some 9d. and some 10d. a-day. But they are not at work every day; some are working and some are idle in turns. Some boys do not like it and some do not mind it. Some boys who tire of school may take to it but after awhile they are glad to go to school again. It is a dangerous life for men and boys. They are liable to the same dangers as men and have less sense to take care of themselves. They continue several years at this work and then take to cleaning the ways, or to driving. Then they become half-marrows, that is, two unite together and put a train between them. If the children are not well kept they suffer in their health.

I get up at two or half past two. Some pits are farther off than others. The men get up sufficiently soon as to be at the pit by four but some come in at two. It is half an hour before we get all down;. In some pits it is much longer. I take a bit of meat and bread and water, when I have a mind. There is no regular time. I take six, seven or eight hours at my work. Some will take 12 hours to do the same quantity of work. Sometimes coal varies and sometimes there is a difficulty in getting the coal taken away, which causes delay. I come up about 11 or 12. I go home and get myself washed and take my dinner, and go to bed an hour or two. I get up then and have a walk about for an hour or two. It is then tea time, I go to bed at 10 and get up at half past two. I often waken in bed and see what the time is and fall asleep again and then again waken and see if it be time to rise. At some pits there is a man to go round and call the others up but it is not so in our pit. I have a beer shop, which my wife conducts. The boys get up a quarter before five in our pit and go down at half past five. It will take half an hour for the whole of them; they work till about six, when the banksman calls down louze (loose), when the people leave off work and come up. Formerly it was the case that the putters and drivers and trappers had to stop till the coals were all taken away that the hewers had prepared and sometimes they would be kept 13, 14, 15, and even 16 hours but it is altered now in our pit and they work just 12 hours.

The boys do their work very fairly and if they do not they have to pay a penalty.

When a little lad, say of eight. years of age, is placed with a big lad to put he is called the foal but if two boys of equal age put the same tram, they are called half-marrows.

It stands to reason that the boys suffer in their health. The air is not good for them.

Until within the last six or eight weeks the men had only seven or eight days work, some less, in the fortnight this winter. We now work 10 or 11 days. Trade is better.

A shoemaker or carpenter or joiner can live on half the victuals that the collier can.

At the fortnight's end, when the men are paid many of them take a few pints. A pint or two does them good, which induces them to take more sometimes. But many drink only water at all other times. Many a time I never tasted beer myself for days together. Before I kept a beer shop, I often never tasted beer except on a Saturday night or when I met with a friend. The men drink very little on the Sunday.

Some people have a feast at every pay-day and some have spiced cakes and having spent their money will live poor towards the end of the fortnight for three or four days or more, until pay-day come again. Perhaps they have only potatoes and salt for some days. I had a pig last winter, that was a great help. I gave 27s. for it and between one food and another, it cost me altogether below £6 when it was killed it weighed 23 stone 10lb. being 3321b. when green but now when salted and laid bye, it is not nearly so weighty, still it is a great help, 14, or 15, or 16 stone is reckoned a good weight for a pig. The miners at the Blackboy all buy their own potatoes.

I have seen men working in the pit with only a bottle of water and oatmeal in it.

I go back to work on the Monday after pay-day and so do many others and so might every man who has a family which he means to keep but some do not work on that day. Young chaps before they marry are more apt to keep holiday. A man with a wife and two or three bairns to keep cannot drink much.

Taking all drawbacks into account, a miner gets one with another 18s. and 19s. a-week is reckoned high wages where a miner gets 20s. a-week.

Before the police came there was a great deal of fighting. The masters will not allow the men to fight and the only amusement is eating and drinking and on Saturday night there is drinking. The men are paid every fortnight. If a man were paid on the Wednesday, the day before the market-day, he could lay out his money to more advantage. If the market-day in town were Saturday, and the wages were paid on the Friday night, the people could lay out the money to much greater advantage. On Sundays a Jerry-house cannot receive company till one and very few come until seven or eight at night. The houses having a spirit licence can sell when they please. If a man who keeps a Jerry-house sell any thing during church-time he is pulled up and fined.

### **No. 108 - George Green.**

I am 16. years of age. I work in the Blackboy pit, near Bishop Auckland. I have worked in it five years. My father was dead when I first went to work. I went down first to drive the galloway. It did not tire me much. We sit on the front of the waggon. It moves upon a railway. When we come to the foot of the shaft we take the horse out and yoke him at the other end and go back to the flats, being the place to which the putters bring the coals. The putters push the carriages upon the rollers. I had 1s. 3d. a-day. The proprietors find the candles for the drivers. We light one and stick it in a little box thing and put the box on the rolley, it has a hook and it is stuck into the rolley. We used every day eight candles, of 30 to the pound. The trap boys open doors for us. Sometimes they fall asleep and we baist them a little to make them mind their work, only to fear them a little. They know they are to blame, and they take it quietly. I get up at two in the morning and take something to eat and drink before I go out. I take coffee and a pie, or anything and eat it before going out. I generally make my own coffee. Pretty near three I set out and walk two miles and a quarter to the pit and get to the pit in half-an-hour. Eight of us are lowered in the cage at once to the foot of the shaft. We get the horses ready, and start to our work at four. The horse keeper has them fed for us and we yoke them ourselves and go on to the flats. The table is near the shaft, nearly a mile from the flats and we are at the flats by four. The putters then put a tub of coals on the rolley, then we lead the horse's head a little further and the putters then put on another tub of coals. The tubs are of wood, and that is the load of one rolley. We then lead forward the horse a little more and other two tubs are put on the second rolley, then we lead forward another time, and other two tubs are put on the third rolley. The horse draws three rolleys, with two tubs on each.

We then take off the horse and take him round to the other end and yoke him to it. I set myself on the limber to which the horse is yoked and take my whip and drive along at the trot to the foot of the shaft. There are men there who take two tubs and put them into the cage. We stand and wait until the other cage comes down and then two more tubs are put into that cage, which is pulled to the top of the shaft and by that time the first cage is down again, and our remaining two tubs are put into it. Empty tubs which come down are put upon our rolleys and I take the horse and yoke him to the other end, and go forward again to the flats. If I see another horse coming with a load I make the horse stand up at the sidings till the other horse is passed and I drive on to the flats. I generally go backwards and forwards 15 times in the day. We carry with us a tin bottle of coffee when we go down and a pie and a bit of bread, but no salt and we sometimes carry these with us, and sometimes hide them in a hole in the coal and begin to eat any time we like, if the work will allow it. We do it when we are hungry and can get time but we never know at what hour it is. We are sometimes three hours after we begin before we can get all our victuals eaten, because of the work. The horse gets nothing to eat all day, but he wishes it. There is a well at which he drinks, at the side of the road. The water comes down out of the coal into it. He eats well all night. The horse knows me and I like him. The horses are all little horses, the big ones cannot go. In some parts we almost touch the top when going through with the load. Some horses are very quiet but some wont go for kicking but they go quietly on the bank and they are obliged to hoist them up, and not let them come down again. Sometimes they hurt themselves by kicking. . About five o'clock we put the rolleys at the side and take out the horses and deliver them to the horse-keeper but if he be not there we take off the harness and put them in the stable and give them hay and water. Sometimes the horses are in a sweat and we rub them down about five we get into the cage, and are drawn up to the bank.

The drivers do not take off their clothes in the pit. It is warm in the pit but not so much so as to make a driver take off his clothes. When I come up I get home about six o'clock, sometimes later, sometimes half-past six. I then wash myself and get a hot supper, boiled potatoes, beef, or bacon, never veal or mutton and drink water. I then take off my clothes, and go to bed about seven o'clock and lie in bed till the man come and call me at two in the morning.

We have ten days or a fortnight holidays in the year. We are not paid for these days. Sometimes one holiday at a time, sometimes two and sometimes three at a time, as at Christmas. The pit works regularly only ten days in the fortnight. The two holidays are the pay-day on Saturday and the Monday after. We are paid only for ten days.

I was at the Endowed school in Bishop Auckland until I went to work in the pit. I now get 2s. a-day. I did not like the pit at all at first. I have given over going down for about a year and I now move the rolleys on the bank. At the mouth of the shaft men take the tubs from the cage upon the waggons and roll them to the screen and empty them into the screen and I bring them back to the shaft.

I did not have good health in the pit. I used to catch cold. Many boys catch cold in the pits, they work and get warm and then the air blows in the rolley way and they catch cold.

I used to go to the Sunday-school till the last year. I could say the catechism but I have forgot it nearly now. I cannot say that I understood it. Nobody ever explained it to me. I can say the Lord's Prayer. I once could say the Creed and the Ten Commandments but I think I cannot now. I sometimes read the bible and testament. I never read the newspapers.

I can cast a small sum but very little that way. I intend to be a banksman, I like that better than the pit.

### **No.109 - John Green.**

I am brother of George Green. I was 11 on the third of this month. I have worked three years at the top of the bank. When I went first on the bank I wailed the coals-that is, 15 picked the stones out I got 9d. a-day. I came to the bank at three in the morning. summer and winter. I threw the stones into a heap. People come and put them into tubs and they are rolled away and thrown down the side of the bank. I got coffee before I came to work, and bread, sometimes there was butter on the bread. I began work at three and worked till six. I then took some coffee and bread, which I had fetched from home and kept under the screens. The wailers stand about the waggon and when the coals roll down the screen into the waggon, they see the stones and pick them out. There is generally some left over night, which is the reason why they begin before the coals begin to be brought up the shaft. We see by the light of a great fire which is kept in a lamp, which hangs on

a chain from the top of the screen. After coffee and bread I had to come back and pick stones 25 again till 11, when it was one I had cheese and bread, and water if I liked. I rested a quarter of an hour to take the bread and cheese. After having bread and cheese I went to pick stones again and worked till five at night I went home at five. Sometimes my brother was not done when I was done and I went home without him and took victuals. I then took off my clothes, all but my trousers and washed myself all over with hot water and soap and then went to bed at seven and lay till the man came to call me at two, by rapping at the window with a stick and then he shouts.

I am still at that trade, and get 9d. a-day the same as at first. I do not intend to go down to driving. My mother will not let me gang down. She is frightened I get lanied. I wanted to go but she would not let me. I often talk about it. I could get 15d. a-day for driving. Girls are no good on the banks. I go to the Sunday school at the Independent chapel. I can read. I cannot write. I can say the Lord's Prayer and the Creed but I cannot say the Ten Commandments. I never get thumped on the bank. I like it nicely. If I had more money I would buy *claes* with it and keep some of it till I got wed.

### **No.110 - William Hardy.**

I am 17. I have been seven years in the pit. I went down to keep a door. I often got threshed for not opening the door. I deserved it. I was two years at it. I then went to cleaning the barrow-road. I used a little hay and a little iron shovel, did it well. Got threshed very often by the putters for not cleaning the road well enough. In some places it was not well enough. I often threshed the little putters in return, when I could get them by themselves. When the ground was wet, I used a little hay and an iron shovel but when the road was dry, I had to kneel down and take hay in each hand and clean the rails. Men have to clean the rolley-way. I had a shilling a day. I was a year at it. It was tiresome work and little pay. I then went to drive-got 15d. a-day. About three years ago I took to putting, and became a half-marrow to my uncle. I got 2s. a-day. I helped to fill the tubs when the men were in the pit and when they were gone we had to fill them ourselves. We pushed them forward as far as the flats. These are flat pieces of metal. I got up at two. There was a man called us. I was down and ready to work at four. For breakfast we took a bit in our hands when we could get it. We continued till four in the afternoon. I came home, got victuals, washed down to the navel and washed my knees and legs in hot water and soap and went to bed at six and slept sound. I began putting a tram by myself without a partner last week and get 4s. a-day. I like the work very badly. It is very hard work to run all day and the sweat drops off you. The men constantly finding fault with you. You cannot please them. I often have a battle with some of them. I sometimes lose. I lost one the day before yesterday. The men steal one another's dinners and candles. The master keeps a lad to check their accounts, that they may not cheat the masters.

I can read and write a little, a little of both but not much. I do not go to a Sunday-school. When we have a holiday on Saturday I rise at 7 o'clock. After breakfast I run about catching birds with bird-lime, play at ball, sometimes at marbles. In warm weather I bathe sometimes. I never go to the public house. Sometimes I go on the Saturday night. On Sundays I rise sometimes at ten, sometimes at dinner time. I take my dinner and go and play at anything, at ball-a ball made of worsted-strike it against the wall. We play at quoits on Saturday. Never on Sunday. I sometimes get up in the morning and go to church. I can say the Lord's Prayer. I cannot say the creed plain. I cannot say the Ten Commandments. I can read the Bible. I read it often. I read newspapers. I understand them a little. I cannot cast up a sum. I saw some cockfighting half-a-year ago. Two pairs fought. The feathers were trimmed and they had on spurs. Some keep fighting dogs and fight them. There is a hiring day for hiring servants and many people come and there are puppet-shows and dancing and meeting in public shows. The hiring day is at Martinmas. On those days the pits start at one o'clock and get done by one o'clock. On that day shouts down the shaft Kenna and the driver that hears it shouts it and the word is carried along to the furthest part of the pit, and all the men leave off and come home and then go to the sports. Every day at four a man shouts Kenna. A driver at the foot of the shaft, when he hears 'kenna,' drives along at full gallop to pass the word.

There are boys who attend to the switches in the railways in the pit. He has eight candles a-day. He guides his switches and calls out so as to direct the driver to go east or west, according as the switches are placed.

**No. 111 - William Laws.**

Is ten years and three months old. Works in Blackboy pit. Has worked two years. Was a trapper when he first went down. Was a barrow-way trapper. Had a place to sit in, had a candle, had a string to pull the door. Liked it nicely. Got up at two o'clock. A man came and called him. He got up-got coffee and cake-. Walked to the pit. Went down in the cage with the men and boys. Walked to the barrow-way and sat down. Took victuals with him, white cake and coffee-might eat when he liked. Stopped in the pit till four. The trappers in the horseway cannot get away so soon. Went home, took victuals, washed himself and went to bed. Got 10d. a-day;. It was paid to his mother.

Is now a trapper in the horseway. The doors are larger. Sits and pulls a string in the same way as before. The door shuts of itself. Never falls asleep. Has been baisted sometimes, when a driver has told him to keep the door open, as another horse was coming and he has not done it. Likes the pit nicely. Gets 10d. a-day. Works eight days in the fortnight, sometimes more. There are more trappers than they want. Cannot employ them all every day.

Goes to school sometimes on Sundays. Cannot read, cannot say the Lord's Prayer or the Commandments.

When he is in the pit nobody comes to talk to him.

Sets mice-traps in the pit and catches two sometimes. Brings them to the cat in the stable of the pit. There are midges in the pit which fly at the candles. Never plays at anything the days he works in the pit. On other days plays at marbles, throws a ball at the wall, plays at touching a boy and running and trying to catch him. Plays at the hoop-iron or wood. Quarrels with other boys.

**No.112 - Thomas Lawton.**

I am 28 years of age. I went to the pit betwixt nine and ten to be a trapper. I was called at one, got up, got coffee from the pot, made before we went to bed and bread, seldom any thing but bread. Went off about half-past one, got to the pit about two. About six men or six or eight boys went down at a time. I went to my door. I sometimes had a candle part of the time but generally I sat in the dark. I opened a rolley-door. I sat in a seat at the side cut out of the coal, held a string and opened when anybody wanted to go through. Sometimes I fell asleep and may be got paid. Once I fell asleep and the overman paid me with his yard wand. Sometimes I got whipped by the drivers for sleeping and not opening the door. I often caught mice. I took a stick and split it and fixed the mouse's tail in it. If I caught two or three I made them fight. They will pull one another's noses off. Sometimes I hung them with a horse's hair. The mice are numerous in the pit. They get at your bait-bags, that is, the victual and they get at the horse's corn. Cats breed sometimes in the pit and the young ones grow up healthy. Black clocks (beetles) breed in the pit. I never meddled with them except I could put my foot on them. A great many midges came about when I had a candle. Four years ago there were common flies in our pit, about 270 fathom under ground. I took down my victuals and eat when I liked. I had coffee and bread. No water was then sent down but it is the Custom now. I have known boys get lamed by falling asleep and coming in the way of the horses and carriages. I came up at six and went home. I then got my supper, a hot and comfortable one. I washed and felt tired and drowsy and went to bed.

Boys in our pit go down at four and get ready to begin at five. They loose at six and come up as they can, six or eight at a time and sometimes 23 or 24. I saw that twice last week. We have never had any accidents from such things. We come up in a tub. About six or seven boys or men will stand on the edge of the tub and all come up together, laughing and making sport all the way.

I had 10d. a-day as a trapper. I drove a horse when I was about 11. I went down at the same time as when a trapper and worked the same time. I took my bait when driving along, sitting on the carriage. I have many a time whipped the trappers to waken them to their duty. I had 15d. a-day. I put my horse in the stable after the day's work, took off his gear, and left him to the horsekeeper. He had to stop down until the horses had their victuals, when he came up.

I continued a driver three years.

I then became a help-up. I stood at the foot of a rising place in the road and when a tram came I assisted the putter to push it up to the level and then I went back to be ready to help up the next one. I had 1s. 6d. a-day for this. I many a time got an ugly thump from the putters. When we



were getting up the incline if the tram happened to go off the way they abused me and said I was the cause and laid their fists into me. I had scarcely time for victuals but now and then could take a bite. I was between two and three years a help-up.

I then became a putter and had what I could make then, which frequently was 3s. and often 3s. 6d. a-day. I never used trappers, help's-up, or sweepers, as I had been used but I many times threatened them. I continued a putter until I was 21 years of age.

Sometimes I had misfortunes, such is my hands being lamed, and having my feet bad. I was also burnt by an explosion. It came upon me all at once. I had a candle to fill with and I stooped down into a hole to fill, and the gas exploded. (Witness stripped his shirt off both arms and showed the marks of the burning.) It was in 1831. I was laid up 25 weeks. I had 2s. 6d. a-week for some weeks but a strike among the men having taken place that was soon refused me. I was very much burnt all about the body and also on my legs where I had no stockings.

I used to go to the Sunday-school and to the place of worship where the school was held until near 21. I read middling fair. I write a little. I cannot cast up an account. I sometimes read newspapers. I read little bits of books.

I am a member of the Independent United Order of Mechanics. We have lectures and a reading-room with newspapers and other periodicals, and a few books. We pay 2d. a book for what we read. We pay 15d. a month, of which 3d. goes in drink and a shilling is put into the fund for the relief of sickness and a sum payable at death.

At 21 I became a hewer and was paid by what I did. I usually make about 3s. 6d. a-day when every thing goes well. We work six days one week and five days the other, that is, we do not work on the Saturday after pay Friday. There are drawbacks to our pay, as 25 expense of candles, gunpowder and picks, and fines for laid-out coal, which we cannot observe always at our work. I go between three and four and remain down about 12 hours. There are two sets, one which follows us comes in at 11 and when they come up to our workings we have to put on our coats and wait until there be room for us. Down in our pit it is as hot as the hottest day in summer. There is very little draught where we work.

I think children go down into the pit much too soon. I hope not to be compelled to take my children under 12 years of age but necessity compels some men against their inclination. Some boys go down as early as six, which ought not to be allowed.

On the Saturday after pay Friday I lay in bed till eight or nine and the same on Sundays. We have always a comfortable dinner on that day. I sometimes attend public worship. The greater part of the miners are very regular that way and so are their families. My father used always to make us go and I very much approve of it, though I do not always strictly observe it.

### **No.113 - Joseph Barber.**

I have been present, and I concur in the statements above given.

### **No.114 - Robert Storey.**

I am 17 on the 15th of April, 1841. I was born at Jarrow. I went into the pit about seven years old. I kept a trap door, then I started to drive a horse at eight and at 14 I started to put a tram by myself. I worked at Haswell for the 12 months preceding the fifth of April last. I liked trapping very well. I was anxious to get a penny in my pocket at the week's end. I was whiles badly used when I was driving by the waggon-way men, the men that repaired the waggon road. I was afraid to complain lest I should be whipped again.

The putting at Haswell is very bad. There are 30 peck tubs (9cwt.), which was very hard work. We were not allowed to get time to sit down to eat from five in the morning to five at night. When men changed at the six hours' end and the new men came on, one of the putters stopped to get his victuals about ten minutes. Next day when he came he was denied work for having stopped the ten minutes. He had to go to the office and stand his trial before the viewer and promise not to stop again before he could get any more work and he lost his day.

Another young man having asked why this putter had been denied work was himself sent home and kept that day out of-work.

In all pits, if the machine breaks, they will not allow a farthing for the time we lose. If we

stop away a day they fine us half-a-crown.

### **No.115 - William Willis.**

I will be 15 on the 22nd of May. I first went down at 8 to be a trapper in the tram-way, or barrow-way. I had six candles from my father to burn beside me. I liked it well at first but afterwards I kept a horse-way door and I had an accident. The tub broke my arm in two places. I got no smart money when I was ill. I was four months out of work from it. I had a coal fall on my forehead and the mark still remains and will always remain. The mark is on my arm where it is broke. I had 10d. a-day. I used to come down at three and up at three. It was at South Hetton. I liked it very well. I thought about many things. I used to think if anything was to come how I should get out of its way. I used to catch mice. I did not catch many with my hands. I used to have a trap, which I baited with a bit of cheese, roasted first at the candle. I have caught two or three in an hour and tied them together by the tails. I used to bring two or three home with me, and tie them to the cat's tail, to make her turn round and round. I would give the cat other two for making so much sport. I used to give the other boys some. I have caught ten in a day sometimes. There are black clocks in the pit near Sunderland and horse lice, which are like other lice, only much bigger. There are midges, which sometimes put out the candle.

I became a driver and have been at it half a year. I like it very well. It is not too hard. I have to put the tub off the tram into the rolley. It is very hard and if the putters were not to help me, I could not do it. We are 15 hours out of the house every day. I am very tired by night. I have a good appetite. I go to school at night. We are in school two hours. I hurt myself very sore to get scholarship. I am ciphering and am at squaring dimensions. I read well. I write, I cannot say very well but I can write. I could say my Catechism half a-year ago. I used to go to the Ranters' Sunday school and to their chapel. I am a member of the Temperance Society. I signed my hand three years ago. I have often been tried by people but have never broken through, and never intend. I sometimes read the History of England, sometimes I read the Bible. I often read teetotal books, sometimes newspapers.

I rise on Sundays at half-past nine o'clock and take breakfast. I take off my shirt and wash in soap and cold water and put on my Sunday clothes and wear them until I go to bed. I go to the Ranter's chapel at half-past ten. My father attends but sometimes he has to work on the Sundays at setting the timbers to support the roof when he knows there is danger. When he comes home to dinner he examines me about the sermon. We get out at 12 o'clock and take dinner at half-past 12. I go back to chapel at two o'clock and come out about four. I get my tea about five. I then amuse myself with reading and sometimes gang out to play. I play at pyeball, six boys against six, something like cricket. We also play cricket. On Saturdays we play at stot-balls and also at marbles. We never p lay at marbles on Sundays, but some boys do. We sometimes play at hidy-bo-see. We have o'er lang hours. I would not be so tired if the hours were less. The boys in the pit often speak bad words. They sometimes curse.

The boys have no other complaint but lang hours, hard work and little enough money some of them.

The overman never corrects us for swearing;. He swears himself.

### **No.116 - John Otterson.**

I am 13 the 15th April, 1841. I became a door-keeper on the barrow-way four years ago. I got up at four o'clock, took breakfast, walked to the pit by half-past four. I began work at five. I had no candles allowed at all, except my father gave me any. He gave me four, which burnt about five hours and I sat in darkness the rest of the time. I liked it very badly, it was like as if I was transported. I used to sleep. I could not keep my eyes open. The overman used to bray us with the yard wand. He used to leave the marks. I used to be afraid. The putters sometimes thumped me for being asleep. They never gave me any money. We loose at five and come home. I got my dinner-washed. I took off all my clothes and then went to bed about eight. I did not go to play. The more

we play, the more we sleep in the pit.

I got up at ten on days when we did not work. On Sunday I went to the Sunday school at one o'clock and spent three hours in school, and then came home. I did not then go to chapel. I went to bed at seven to get a good load of sleep, for fear of falling asleep and getting lamed next day at work. I got 10d. a-day as a trapper.

After half a-year I went to drive a galloway. I liked it badly. It was as a help up. The galloway was yoked to a tram to draw it up the bank, where the road rose up. I had to walk on foot at the horse's head. It was fatiguing. There was 12 hours work. I had time to take my bait; not always. It was a time of chance. I was half a year at this work and got 1s. a-day.

I then went to drive the waggons and got 15d. a-day. I had time for my victuals, sometimes. There is often a plate in the way, which throws the waggon off the rail and we get lamed. I have been lamed three or four times. I was laid up three months one time from lamfooteness. I got smart money. I am now a driver. I like it very badly. I would work on foot if I had daylight to walk in, rather than ride in the dark. I do not like the darkness. It is dangerous; many are hurt.

I cannot read very well. I cannot write my name. I try to read the spelling-book. I cannot say the Lord's Prayer, nor the Catechism, nor the Ten Commandments.

I was at work to-day till half past four. There are sometimes few and sometimes many in the tub when we come up. The tub this night was full. I got my head knocked against the side of the tub, it was so full. I went straight home. It wanted then 20 minutes to 7.

The hours of drawing coals are an hour longer now than they were two years ago.

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**Weekly expenses of a miner, his wife, and two children of one and three years of age, as given by the miner himself.**

**SUNDERLAND.**

|  | s . | d .  |
|--|-----|------|
| One and half stone of flour, at 2s. 8d.      | 4   | 0    |
| One and half pound of sugar, at 8.5d.        | 4   | 5    |
| Four ounces of tobacco                       | 1   | 0    |
| One pound of soap                            | 0   | 6    |
| One pound of butter                          | 1   | 2    |
| Two ounces of tea                            | 0   | 9.5  |
| Four ounces of coffee                        | 6   | 10   |
| Five pounds of meat                          | 2   | 11   |
| Starch                                       | 0   | 0.5  |
| Blue   | 0   | 0.5  |
| One ounce mustard                            | 0   | 1.5  |
| Gill of pease                                | 0   | 1.5  |
| Soda for washing                             | 0   | 0.5  |
| Milk   | 0   | 4    |
| Half peck potatoes                           | 0   | 5    |
| Water to the man who brings it with the cart | 0   | 2    |
| Salt   | 0   | 0.5  |
| Pepper                                       | 0   | 0.5  |
| Oatmeal                                      | 0   | 3    |
|  | 13  | 6.75 |

House free.

Sixpence a fortnight kept off for carrying coals.

The surplus to pay for clothes, shoes, and other extras.

**Weekly expenses of a miner with a wife and two children, with 20s. a-week wages, as given by the mister himself:-**

**BISHOP AUCKLAND.**

|   | s . | d .  |
|---|-----|------|
| One pound blasting powder                 | 1   | 0    |
| One pound candles for use in the coal pit | 0   | 10.5 |
| Soap                                      | 0   | 7    |
| One pound and half sugar, at 9d. per lb.  | 1   | 1.5  |
| Two ounces tea                            | 0   | 6    |
| Quarter pound coffee                      | 0   | 7    |
| One and half stone (i. e. 2lbs.) bread    | 2   | 0    |
| Yeast, salt, pepper                       | 0   | 4    |
| Seven pounds beef, at 7d..5d. per pint    | 0   | 9.25 |
| Three quarters pound butter               | 1   | 0.75 |
| One pound cheese                          | 0   | 8    |
| One pound bacon                           | 0   | 8    |
| Tobacco                                   | 0   | 8    |
|   | 14  | 11   |

House free; coals 3d. a-week.

Surplus of wages for beer, shoes, clothes, and other extraordinary charges.

A single man pays 11s. a-week for board and lodging, washing, mending, darning, matking. He has to pay for beer at the public-house, gunpowder, picks, pick shafts, clothes and shoes.

Board and lodging are frequently 9s. a-week.