The effect of industrial legislation on the social and educational condition of children employed in coal mines between 1840 and 1876 with special reference to County Durham

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An abstract of the thesis

"The Effect of Industrial Legislation on the Social and Educational Condition of Children Employed in Coal Mines between 1840 and 1876 with special reference to Durham County."

submitted for the degree of Master of Education

D. J. GILLAN
The children of the colliery communities of the nineteenth century found employment in the mines mainly as transporters of coal from coal face to shaft with the youngest acting as "trappers".

The isolation of colliery communities meant that the mine and all those connected with it had a considerable influence on the social and educational condition of the children. Early reports and statistics indicate a low moral and educational state in all areas with education being hampered by the children's environment.

There was little interest shown in education either by mines or managers and conditions in many of the schools which did exist discouraged attendance. The Dame schools and Sunday schools were educationally ineffective. The colliery day and evening schools had more to offer but often their weakness lay in the schoolmasters who were appointed to them.

The Childrens Employment Commission and the resulting Act of 1842 had some effect on social conditions but did nothing to improve the educational state of most of the children.

Pressure for better educational conditions came from the Mining Commissioner, the Mines Inspectors, a few enlightened owners and the miners associations.

A demand for the inclusion of educational clauses in mining legislation followed the discovery that, in many mines where explosions had occurred, the officials were illiterate. Although educational clauses were introduced they were often made ineffective by the attitude of colliery owners, who made little effort to interpret them in favour of the children, and also by the absence of any measure to compel attendance at school.

Industrial legislation did make some contribution to the improvement in the children's conditions but real educational progress could not begin until the Education Acts of 1870 and 1876 made school attendance compulsory.
THE EFFECT OF INDUSTRIAL LEGISLATION ON THE SOCIAL AND EDUCATIONAL CONDITION OF CHILDREN EMPLOYED IN COAL MINES BETWEEN 1840 AND 1876.

WITH SPECIAL REFERENCE TO DURHAM COUNTY

DAVID JOHN GILLAN, B.Sc., Dip.Ed.

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OCTOBER 1967.
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INTRODUCTION

To those who know the British coal-mining industry its decline in the last decade has been spectacular and saddening. The disintegration of communities established for over a century and a half around the pit shaft, the disappearance of the 'characters' of pit life and the loss of a comradeship unequalled in any other industry have spread rapidly through the old established coalfields with the closure of one pit after another.

Yet to the miner who has been re-trained and has found employment elsewhere closure of a pit, far from being a disaster, has been a release from a job that few would admit they enjoyed. Even with modern developments the coal face still brings a man to his knees and blackens his body. The harshness of underground conditions, even for a pitman of to-day, emphasise the plight of the young children employed in the pits during the nineteenth century.

The pit was such a dominant factor in the life of any child living in a colliery area that any discussion of his social or educational condition must be related to it. For this reason the first two chapters contain quite detailed description of the industry, the conditions underground and the work of children in the pit.

Conditions varied between coalfields and it was necessary to select an area which would fairly represent the industry as a whole. The coalfield covering Durham and the Tyne was chosen because of its size, its importance and because of the author's special knowledge of the area.

While the use of material from contemporary reports and later authors has been acknowledged, the author has felt justified in including material based on personal knowledge gained from some five years underground experience including two years at the coal face.
Personal attitudes to mining legislation during the nineteenth century varied according to the degree of involvement with the industry. The general climate of opinion was indicated by Parliamentary discussions and in the later chapters of the thesis quite full details of these discussions and speeches have been given to illustrate the feelings of both interested and impartial parties.

During the nineteenth century there were many factors affecting the condition of colliery children. This thesis attempts to trace the influence of the industry itself through the attitudes of those connected with it and through the legislation which was produced to regulate it.
CHAPTER ONE

THE INDUSTRY - DEVELOPMENT AND BACKGROUND

The use of children in mining operations is a practice as old as the industry itself, dating back to the time when coal was not actually dug out of the ground, but was simply picked off the beaches of Northumberland and Durham. This coal, eroded from outcropping seams under the sea, and carried ashore by the tide, probably served as the first source of fuel. The collection of sea coal was an occupation that could easily be followed by women and children, involving no more than industrious beachcombing, and although there are no records concerning these early coal workers, it can be assumed that children were involved.

By 1292 records show that coal was being dug from the ground at various places along the Tyne Valley by the Monks of Tynemouth. The methods used by the Monks could hardly be called mining; they simply dug out the coal where it outcropped and were at no time actually underground. The working of the coal from outcrops was probably sufficient to meet a demand which was only very small and deep pits were unnecessary as long as this easily accessible source was available. While coal had been worked at outcrops and in the later drift mines and bell-pits children were probably part of the labour force. They were useful for filling the coal into baskets and helping to get it to the surface. Many small bell-pits and drifts must have been worked by husband, wife and family, each contributing according to their strength. As the easily accessible coal was gradually worked out, the deeper seams were mined and the children followed the work down the shafts, gradually becoming a recognised and even indispensable part of the labour force.

This early mining activity was insignificant in terms of total output, and it is doubtful if coal was used for domestic heating when wood was still widely available. Probably the only outlets for coal production were the smiths and lime burners. The continuous demand on the nation's supply of wood eventually began to have its effects, and during the 16th century, several Acts of Parliament had to be passed for preserving woods and restricting the erection of ironworks, whose demand for charcoal was rapidly denuding the forests.

The scarcity and increased price of wood made people turn to coal and have chimneys and flues constructed to aid its combustion. This led to a gradually increasing domestic trade during the 16th century. From about 1570 the coal trade in the north grew rapidly and the historian Grey in his "Chorographia, or a Survey of Newcastle", published in 1647, marks this period as the real beginning of the coal trade: "the coal trade began not past four score years since, coal in former times was only used by smiths and for burning lime".

Although demand increased throughout the 17th century, production was still extremely small by modern standards. The total vend of the three northern ports, Newcastle, Sunderland and Blyth in 1609 was only 251,764 tons. By 1710 the figure for the Tyne and Wear had risen to 650,000 tons, mainly due to a steady increase in the trade from the Wear. While the total tonnage of coal produced was small, it must be remembered that it was being mined without any sort of mechanical aid apart from the miner's pick and shovel. Indeed it seemed that the methods of working the coal would be unable to cope with the steadily increasing demand. As the accessible seams were worked out, the problems of deeper mines seemed to be insurmountable. That increased demand for coal had created deeper and more extensive pits is indicated by the increasing number of reports of floodings,

2. GALLOWAY, op. cit., p. 79.
3. Ibid. p. 80.
5. Ibid. p. 129 (See also Appendix 1 for coal export figures.)
explosions and roof falls\(^6\). Without some revolutionary change, it became obvious that the mines could not meet the demand. Fortunately, the challenge of the coal mines was quickly met and the use, in 1712, of Newcomen's first practical steam engine not only helped to solve many mining problems, but also created a huge new market for the coal it was helping to raise. The revolution had begun. As Galloway remarks, "the invention of the steam engine may safely be said to have been the most important event that has ever happened in the annals of mining\(^7\).

While the steam engine solved some of the mechanical problems of the mine, the hazard of explosion was to remain with the industry without real solution throughout its history. However, it was the problem of water and the raising of the coal through deep shafts that had hampered production and with these problems removed, the existing pits had their lives extended as the working of deeper reserves now became possible. Further aids to mining were produced and quickly adopted; the Davy Lamp, the extended use of gunpowder, a cheaper supply of iron for rolley-ways, all made possible the working of seams that had been thought unusable.

These technical changes not only brought about an increase in production, but also a considerable extension of mining activity in the North. The coal along the banks of the Tyne had been exploited first because of the accessibility and the ease with which it could be transported. In Durham, development was restricted because of the depth of the coal seams and difficulties in transporting it from the Western parts of the county to the sea ports. It was also well known that the Eastern part of the Durham coal measures was covered and concealed by a formation known as the Magnesian Limestone. The great depth of the coal and a belief prevalent among some mining engineers\(^8\) that the coal under such a formation would have deteriorated, had prevented any development of this part of the coal-

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6. GALLOWAY, op. cit. p. 128
7. Ibid. p. 236
8. Ibid. p. 448
Now, with equipment to cope with the greater depths, sinkings began in this eastern part of the county and proved the presence of vast reserves of high quality coal so that this area quickly became, "the scene of some of the largest, deepest and most costly collieries that had yet been opened out".  

The use of wooden tramways leading to the coastal ports overcame the transport problem and with the patenting in 1802 by Trevethick of a locomotive for drawing coal, followed by the famous locomotives of Blenkinsop and Stephenson, the development of the Durham coalfield was rapid and extensive. New collieries and villages appeared in an extremely short space of time, and the colliery population, previously largely concentrated in the districts around the Tyne, began to spread to the new collieries further south. By 1840, Durham was covered with a network of tramways leading coals from every part of the county to Staithes on the north-east coast. The important shafts had been sunk at some enormous cost, and the pattern of coal mining in the county was firmly established. The rapid growth of the industry during the first 50 years of the 19th century is indicated by the vend figures for Northumberland and Durham:  

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Vend</th>
<th>Year</th>
<th>Total Vend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800</td>
<td>2,520,075</td>
<td>1835</td>
<td>3,784,996</td>
</tr>
<tr>
<td>1805</td>
<td>2,573,762</td>
<td>1840</td>
<td>5,587,384</td>
</tr>
<tr>
<td>1810</td>
<td>2,834,326</td>
<td>1841</td>
<td>6,027,888</td>
</tr>
<tr>
<td>1815</td>
<td>2,876,683</td>
<td>1842</td>
<td>5,973,948</td>
</tr>
<tr>
<td>1820</td>
<td>3,403,225</td>
<td>1843</td>
<td>5,704,826</td>
</tr>
<tr>
<td>1825</td>
<td>3,487,930</td>
<td>1844</td>
<td>5,085,112</td>
</tr>
<tr>
<td>1830</td>
<td>3,630,303</td>
<td>1845</td>
<td>6,790,993</td>
</tr>
</tbody>
</table>

9. GALLOWAY, op. cit., p. 449. Hetton 1822  
Monkwearmouth 1826-1834 (at a cost of £100,000)  
Elemore 1833  
Eppleton 1833  
Haswell 1833  
Thornley 1834  

To produce this extra output, the number of collieries in Northumberland and Durham more than doubled in less than 20 years. In 1828 there were 59 collieries and by 1846 the number had risen to 129. While Grey had marked the beginning of the 17th century as the real beginning of the coal trade, its development in the 200 years since then had been slow and was nothing compared with the rapid expansion taking place in the first 50 years of the 19th century. This change was from small shallow pits, worked with few men and little capital to the larger unit requiring vast capital expenditure and a labour force so large that whole villages had to be created to house them. The demands of steam and the new gas industry created the incentive for this rapid expansion, an expansion which brought new problems not only technical, but social. The technical problems had to be overcome and money and the ingenuity of the mining engineers were applied to meet the challenge. Unfortunately, the social problems of the mining community had little or no effect on production and were therefore totally neglected or met in a half-hearted manner. The incentives of increased production and profit were missing and these two were all that mattered to the majority of the coal owners of the time.

The women and children who, in earlier times, had given light assistance to their husbands and fathers in the small drift or shallow mine were now caught up in an impersonal industry. If there had been any hope of children being brought out of the mine, it was lost during this period of rapid expansion. Women and children worked for low wages, they were amenable to discipline, caused no trouble, and except for their lack of strength, were the ideal labour force for the mine owner intent on getting the highest output for the lowest costs. Thus during the first 40 years of the 19th century, the presence of children in mines was consolidated and they were accepted as a natural and even essential part of the labour force.

The miner has always been generally regarded as a tough, strong, hard-working man whose work is probably the most difficult and certainly the most dangerous of any industry. It is difficult to reconcile this image with the employment of boys and girls only seven or eight years old. It would seem that their puny strength
would be useless in such a tough, unrelenting working environment, yet during the discussions about protective legislation for children, some owners stated that their mines would have to close if young children were excluded.

To understand how such young workers had come to be regarded as indispensable, the methods being used to mine the coal at this time must be considered. The vague notion that the layman has of coal lying underground in more or less uniform layers is, unfortunately for the miner, rarely a fact. During the early period of its formation the coal may have been horizontal, but earth movements and internal disturbances can produce a coal seam which is so twisted, faulted and inclined as to be unworkable. Nor is the thickness uniform. The conditions under which the original material was laid down regulate the final thickness, so that several seams worked by a colliery can vary from 18" to 8'0". As coal forming conditions usually existed over wide areas, a seam of coal is common to many collieries or even to a whole coalfield so that a miner working the Brockwell seam at one colliery could find himself working the same seam on moving to another colliery many miles away.

Also common to the collieries of the Durham coalfield was the method of working the coal. This consisted of driving roadways which divided the coal into blocks or "pillars". The pillars were left to support the roof while the roadways were being driven. The initial output at a new colliery came from the driving of these roadways through the coal. When the limit of the colliery take had been reached, the pillars of coal were themselves worked. Coal was taken from the sides of the pillar so that it gradually got smaller. In some collieries the pillars were not completely extracted, but a small amount of coal was left to give support to the roof. Usually, however, the whole pillar was removed and as the miners worked back towards the shaft, they left behind vast empty spaces which were filled sooner or later by the collapse of the roof.

While the word "miner" or "collier" has always been used to include any-
one working underground, there are, in fact, numerous occupations and trades making up the total underground force. The basic job in the pit, however, was that of the hewer, the man who actually worked the coal. He was the man around whom the pit revolved. Those not employed as hewers were merely part of a large supporting force. They saw that the coal he produced was removed, they kept him supplied with tubs, they made sure that he had sufficient air to breathe and in general they saw to it that while the hewer was in the pit he could carry out his functions without any hindrance or waiting, for lost time was lost money. It was in this supporting force that the children were employed. The reasons for some owners finding their services indispensable were tied up with the economics of working the mine.

A large part of the cost of coal at the pithead consists of expenditure on transport. Often the most expensive part of the mining operation is not the actual getting of the coal but its transport from coal face to pithead. These high transport costs apply not only to coal, but to anything else that has to be carried out of the pit. To bring out material which was unsaleable was obviously uneconomic and, although it was unavoidable that some stone had to be brought to the surface, the Agent or Manager tried to keep the amount to a minimum.

The amount of stone brought out of a pit, depends largely on the thickness of the coal being worked. If the seam is thin then more stone needs to be dealt with than if the coal is thick. The diagrams will make it clear why this should be so:-

![Diagram 1](image1)

![Diagram 2](image2)
If a roadway 6'0" high is required for the transport of coal from the working face to the shaft and for materials from the shaft to the face and the seam itself is 6'0" thick, as in fig. 1, then no stone at all need be taken in order to achieve the required height of roadway. If the coal is only 2'0" high, as in fig. 2, then 4'0" of stone must be removed to achieve the roadway height. This stone has either to be brought out of the pit or dispersed in the old workings.

It was obviously to the advantage of the proprietor to keep the height of his roadways to a minimum, especially if the seams being worked were thin. Generally, the roadways near to the coal face were the height of the coal whatever that might be, except that below about 2'6" the Manager had to concede the taking of 3" to 6" of stone to heighten the roadways. Often, however, the Manager could avoid taking any stone, even in thin seams, by employing small boys to transport the coal along the roadways near to the face. The only real restriction to the roadway height was the height of the tub, which needed to travel without catching the roof. Because of their small stature, children were more suitable for travelling these low roadways, and they thus became the recognised transporters of coal from the hewer to some place where the roadway was higher and horses could be used to continue the transport to the shaft. In thin seam areas, some proprietors worked the entire pit with boys, to save the expense of heightening the roadway. Mr. J. M. Fellows described some such pits in his report to the Children's Employment Commission. 11

"The seams are so thin that several have only a 2 ft. headway to all the workings. The pits are altogether worked by boys, the elder one lies on his side and in that posture, holes and gets the coal, it is then loaded in a barrow or tub and drawn along to the pit mouth without wheels, by boys from 8 to 12 on all fours, with a dog-belt and chain, and passages being very often an inch or two thick in black mud, and are neither ironed nor wooded. In Mr. Barnes's pit, these poor boys have to drag

the barrows with one cwt. of coal 60 times a day, 60 yards and the empty barrows back without once straightening their backs".

Conditions in the larger pits and in groups of pits under one owner were generally better than in small pits with an owner-manager. The large companies could more easily afford money to heighten roads, although they did this, not out of humanitarian considerations, but because they found it cheaper to use horses instead of children and men. At the other end of the scale, there were some owners whose small capital was so eaten into by the shaft sinking, that they needed to work the mine as cheaply as possible, without a steam engine, without rails, without adequate ventilation, with roadways the height of the coal and with the cheapest possible labour—women and children. The use of children for transporting coal underground had, over a period of many years, become so much a part of the method or working that, although there were undoubtedly many engineers capable of designing a mechanical haulage system for thin seams, no such system existed in the majority of the coalfields. Even in the northern coalfield where the seams being worked in the 1840's were thick and roadways were high, boys were employed on the haulage of coal as a matter of course. The reasons for employing them when the necessity did not exist were complex, and not least was that a tradition had grown up with the industry that a hewer served his apprenticeship by working up from the haulage system. Basically, the children's job was the same, moving the coal from working place to the shaft, but in Durham there was (and still is) a hierarchy which was inflexible, and through which a boy moved with growing age and strength 12.

At the top was the "putter" who worked for himself and by himself. His earnings depended on his ability to move full and empty tubs over varying distances as quickly as possible.

At a pit near Bishop Auckland putters were paid as follows:

15d. per score (21) of tubs for 80 yds. or less
16d. per score of tubs for 80 yds. - 100 yds.
17d. per score of tubs for 100 yds - 120 yds.
and so on.

Sometimes there was one putter to each hewer, sometimes one putter served two hewers, and it was his responsibility to see that they were never waiting for a tub for their loose coals. It was from the ranks of the putters that the new hewers were chosen, as they gained experience by sometimes helping the hewer for whom they were putting. The putter working by himself had to be superbly fit and strong otherwise he was unable to earn a reasonable wage and would not be tolerated by hewers whose wages also depended on their output. Where a boy was not strong enough to work singly, he often united with a partner and they shared wages. These boys were called "half-marrings". Sometimes a putter needed only slight assistance, and a young boy of ten or eleven was sufficient. This boy was called a "foal". On some roadways, a steep incline was too much for the putter alone, and at these points was a boy called a "helper-up", his function being inherent in the name. On the main roadways where horses were used the "driver" was a boy in charge of one horse which drew three or four tubs of coal to the shaft and returned with empties. All of these transport jobs needed quite a lot of physical strength and were certainly beyond the capabilities of very young children, but lack of strength did not debar such children from the mine. They almost invariably found their first employment as "trappers".

Everyone in the pit needed a reasonable supply of air to keep them working efficiently, and this air supply had also to remove or dilute the various gases produced when coal is worked. The air was led down one shaft and came up through a

14. See Appendix 2 for a description of the trapper's life.
second, or, if the owner could not afford to sink two shafts, he split the single shaft with boards and used one side as the downcast and the other as the upcast. The air was made to circulate by having a fire burning at the bottom of one shaft. The hot air rose to the surface and created the out of balance pressure situation necessary for a current of air to flow through the workings. The workings were honeycombed with the roadways which formed the pillars and to let the air circulate in a haphazard way would have been disastrous, it had to be guided carefully along the working roadways to the working places. In spite of the most careful guidance only a small fraction of the air coming down the shaft ever reached the hewers, the greater part having leaked back to the upcast shaft. To prevent the air making a complete short-circuit many roadways had to be closed. Some could be closed permanently and this was done with some sort of wall or with sheets of canvas, but many, although they needed to be kept closed to keep the air on its correct course, also needed to be open for the passage of men, tubs and material. A compromise was achieved in these roadways by putting in doors which were kept closed and only opened when a tub needed to pass along the roadway. Such a simple operation as opening and closing a door could have been carried out by a simple self-closing device, but this was hardly ever used. The guardians of these doors were invariably the youngest boys in the pit. The correct operation of these doors was vital to the safe operation of the mine and the miners did not trust a mechanical device that could fail because of a piece of coal falling off a tub. In a pamphlet published in 1844 the pitman's objection to these mechanical doors was explained:

"Fly doors are frequently substituted for trap doors. The fly door is a door which closes, or should close, of itself. It has no trapper boy. His services are dispensed with to effect a paltry saving of 10d a day, tho' this is done at the risk of all the lives in the mine; for, if the fly does not fly-to, as it should do, choking or exploding must take place to a greater or less extent. Such doors are always objectionable and ought never to be introduced."

Their confidence in the seven year old child who operated the door did not seem to be affected by the fact that he was often found asleep or left his post to play with the boy on the next door. When Willingdon pit "fired" and killed 32 men and boys, it was given in evidence at the coroner's inquest that the explosion was caused by a nine year old boy, Richard Cooper, who had left his door propped open so that he could go and play with the boy on the adjoining door 16.

Trapping was a way of introducing young boys to underground life while they carried out a simple but useful task. The miners themselves regarded an early introduction to pit life as essential. They believed that anyone working in the pit had to acquire what they called "pit-sense". This was a sixth sense that helped the pitman to do the right thing at the right time. He learned what the creaks and groans in the roof and props meant, he learned when to stay and when to run, he learned how to travel smoothly and quickly along the low roadways, he learned the trick of squatting on his haunches to relax. This coming to terms with the environment was a gradual process and the earlier a boy was introduced to the pit, the earlier he could begin.

In Northumberland and Durham the children had certain advantages over those in other coalfields although generally conditions were still harsh. One major difference was that Durham and the Tyne had always been areas where women and girls were rarely employed underground and in this the owners were regarded as more enlightened than those of other areas. It is doubtful whether the exclusion of females arose from the philanthropy of the owners, or from the fact that there was a good supply of men and boys, and therefore women were not needed. Whatever the reason, however, the girls of the northern coalfield were spared the degradation of pit work and escaped its demoralising effects.

Another savage practice that was not to be found in the northern coalfield was the system of employing children by apprenticing them to individual colliers. Where it existed, in south Staffordshire, Yorkshire, Lancashire and west Scotland, the apprenticeship system introduced children to the cruelest treatment and harshest conditions of any children in any trade in the country. The apprentices were paupers or orphans from the workhouse and were sent out on "trial" to butties at between 8 and 9 years old. If suitable, they were bound as apprentices at 9 for 12 years, that is, until they were 21. The apprentice received no wages, these being paid to his master, who, in return, had to provide him with food, clothing and a home. Some colliers found that by taking two or three apprentices they could support themselves and their families from the boys' earnings. To get the most out of an apprentice, he had to be worked to his full capacity, he had no holidays as long as there was something in the pit for him to do. Even when the pit was not drawing coals the apprentice was sent down to do odd jobs about the pit. On Sundays, it was he who cleaned the engines and boilers and cared for the pumps.

While the boys in Durham and on the Tyne did begin work at an early age, at least they did so with their parents' knowledge and they were paid for their work. Indeed, the Durham pit boy, once underground, usually worked in conditions that were much more favourable than those in many of the other coalfields. In some areas of Britain geological conditions meant some seams being worked which were no more than 2 feet high. The economic difficulties in increasing the height of the road have already been discussed so that in these areas boys worked on all fours, using a dog-belt and chain to transport the coal. The seams being worked in Durham in the 1840's, where the thickest seams were so vast that coal under 2 ft. 6 ins. was considered not worth working, were at least 3 feet, and many were substantially thicker. With this additional headroom, it was generally cheaper to employ strong boys and horses to transport the coal. Thus the smallest and youngest of the boys

17. See Appendix 3.
were never employed on heavy work and there were certainly none of the child hewers that Mr. Fellows had described\textsuperscript{18}.

Mr. John Buddle, the most famous viewer in the northern coalfield gave another reason for employing horses rather than boys. It was his opinion that, "the Owner can command the work of the horses with a degree of certainty not to be reckoned upon where boys only are employed in that species of work for boys are uncertain, vexatious and expensive as well as being difficult to recruit"\textsuperscript{19}.

However, though a pitboy in Durham or Northumberland had certain advantages, the life was still hard and in many other ways the boys were no better off than those in other coalfields.

In common with all coalfields, the boys entered the pit at a very early age. Agents and viewers were willing to admit that children of nine were employed underground but it was evident that many boys started much earlier. Dr. Mitchell used the returns from 14 Durham collieries, Hetton, North Hetton, South Hetton, East and West Rainton, Pittington, Broomside, Counden, Tees, Thornley, Sherburn, Great Lumley, Newbottle, Cocken, Painshaw and St. Helens to list the ages and numbers of trappers employed:\textsuperscript{20}

<table>
<thead>
<tr>
<th>Aged from 6 to 7</th>
<th>4 trappers</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot; &quot; 7 to 8</td>
<td>12 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; 8 to 9</td>
<td>50 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; 9 to 10</td>
<td>69 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; 10 to 11</td>
<td>53 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; 11 to 12</td>
<td>25 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; 12 to 13</td>
<td>16 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; 13 to 14</td>
<td>4 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; 14 to 15</td>
<td>2 &quot;</td>
</tr>
</tbody>
</table>

\textsuperscript{235}

   North of England Institute of Mining and Mechanical Engineers.
Thus out of 235 trappers, 135 were under 10.

Several witnesses interviewed by the Commissioners of the Children's Employment Commission were only 7 at the time of the interview and another had gone into the pit before he was 6.

The evidence from owners gave even higher starting ages than those given by the viewers, but their experience was often slight, and their figures unreliable, as was pointed out by Dr. Mitchell, a sub-commissioner of the Children's Employment Commission,

"with regard to the coal owners, it must be borne in mind that they seldom or never descend into the pits, that few of them have personal knowledge, or take any superintendence whatever of the workpeople, that, therefore, they may be wholly ignorant of the early ages at which children are employed in their own mines, so that when they make a declaration, they may state only what they believe to be the truth, although incorrectness of their evidence is indubitably established by other classes of witnesses".

Working hours were long, usually a minimum of twelve hours. As this was the time spent actually working, the time a boy spent away from home was longer. If he lived a distance from the pit, he might be out of the house for up to fourteen hours. Generally, the boys were first down and last out of the pit, the trappers could not go home until all work had ceased, while the haulage boys often had to stay behind after the hewers had gone, to clear away any loose coal.

In his evidence to the Commissioner of the Children's Employment Commission a sixteen year old boy, George Green, described a typical working day:

"I get up at two in the morning. Pretty near three I set out and walk 2\frac{1}{4}"

22. Ibid. p. 575. w. 38.
miles to the pit. We get the horses ready and start to our work at four. When I come up I get home about 6 o'clock sometimes later. I then wash myself and get a hot supper. I then take off my clothes and go to bed about 7 o'clock, and lie in bed till the man comes and calls me at two in the morning."\(^{23}\)

While there was no evidence that boys were ill-treated when in the pit, the very fact that they were kept underground for such long periods, and employed at such an early age, made their lives a routine of drudgery, with fatigue preventing enjoyment or a chance to improve their education. The pitboys' lives were as harsh as those of children in mills and factories and yet the failure of their plight to attract attention is indicated by the lack of any sort of protective legislation being enforced. The "Health and Morals of Apprentices" Act of 1802 had been an attempt to alleviate the conditions of children employed in the newly founded textile factories. Although it was to be ineffective, it at least indicated that the working conditions of these children were being questioned. The first legislation concerning children in mines does not appear until forty years later when an act was passed in 1842 prohibiting the employment of women and girls in mines and regulating the employment of boys. During this forty year period several acts were passed giving further protection to factory children.\(^{24}\)

The rapid development of the textile industry undoubtedly helped the cause of the children working in it. While the textile mills had been dependent on water power, they had been set up in quiet, almost rural areas where working conditions were known to few. The introduction of steam power allowed the mills to move to the centres of population where labour was available and where working conditions quickly became obvious to those reformers who cared to probe. This new and rapidly expanding factory system attracted attention and under scrutiny,

24. 5 & 6 Victoria C 99.
25. 1819 59 George III C 66 1825 6 George IV C 63
   1831 1 & 2 William IV C 39 1833 3 & 4 William IV C 103
the plight of the children was recognised as needing correction. It is true that
the coal industry was also going through a period of rapid development, but
several factors peculiar to coal mining prevented the pit children from receiving
the same attention.

At the time of the industrial revolution, the coal mining industry in
Britain was firmly established in that methods of working had become recognised
and accepted in all the coalfields. There were none of the radical changes that
had been seen in the factories. The mining industry attracted little attention, and
the children who had always been known to be part of it continued working in the
same atrocious conditions. Even if the industry had been attracting outside interest,
this would necessarily have been limited because of the nature of mining operations.
The coal mine is a world apart, and so different from a normal working environ­
ment that people who have never experienced it cannot form a picture of working
conditions. The textile factories were easy to see, it was possible to go inside
and look around without too much difficulty. Sending children into the coal mine was
another matter. They disappeared down the shaft and the period they spent under­
ground was a closed book to everyone not connected with mining. Getting into a
mine was a different proposition from walking through a factory gate, and even if
it were possible, few ventured away from the shaft bottom into the dark, low and
wet roadways leading to the working places. Because the working conditions of
the children were not plain to see, they were a matter of hearsay and second-hand
opinions, and this was an important factor in delaying legislation to protect them.

Not only were underground conditions away from the public eye, but
the collieries themselves were often situated away from large centres of population.
Factories tended to be sited in large towns and there they were surrounded by a
mixed community. Those not connected with the factories were able to speak out
about injustices that became apparent without fear of reprisals from owners or
managers. The situation in the colliery village was very different. When a pit was
sunk, its position was dictated not by centres of population but by coal seams. The shaft came first and the people followed, the pit created its own centre of population. The only people living in the colliery village were those who had some interest, direct or indirect, in the mine and so the coalfield consisted of small, closely-knit communities centred around the mine shaft. Most of the population had been brought up as miners, they had started as children and expected that their own children would do the same. They accepted the system and saw nothing wrong with it. There were no outside observers, no impartial members of their community to see the evils of the system and speak out.

This isolation, together with the lack of any real knowledge about underground conditions, led to the outside community regarding miners as almost a separate race of people. Trevelyan describes how the local population looked upon them "with a pitying kind of terror", and called them "the brown yins or the black folk". The isolation of the mining community was strengthened by the attitude of owners and managers who did not welcome any publicity which might have led to legislation to protect the miner and raise their production costs. It is well known that colliery owners in all areas actively suppressed details of explosions fearing that they might have to provide more efficient ventilation at increased cost. In a paragraph in the "Newcastle Journal" of 1767, there was an appeal for funds in aid of sufferers through an explosion at Fatfield and it was stated that details of the occurrence were wanting as, "we have been requested to take no particular notice of these things".

This dread of any sort of inspection is mentioned again in one of Boyd's later books.

The system of stifling inquiry into the subject of accidents in coal pits

27. NELSON-BOYD. Coal Pits and Pitmen.
has always been pursued by colliery owners, who either disliked or dreaded inquiry into the details of their management". 28

Thus, the natural isolation of the collieries coupled with a determination on the part of the owners that no-one should interfere with the profitable working of their mines undoubtedly hampered any interest being taken in the children.

The owners of mills and factories were to complain bitterly about their selection for regulation while other industries remained unaffected, but their complaints had little effect. The mine owners were able to ward off inspection and regulation for many years due mainly to the tradition of powerful ownership that had built up in the industry since its early history. The beginning of this tradition is described by Trevelyan:

"The coalfields, particularly in Durham and Northumberland had been to a predominant extent, ecclesiastical property. But owing to the action of Henry the Eighth this source of future wealth passed into the hands of private gentlemen whose descendants founded many powerful and some noble families out of coal". 29

The mine owners operating in the first half of the 19th century undoubtedly had considerable influence on the government of the country, and any proposals that might affect their profitable mining activities could be examined and rejected without too much trouble.

The miners themselves made little effort to improve their conditions. Their history had been one of suppression and segregation dating back to the beginnings of mining as an industry. 30 The proprietors of many of the large new mines were indifferent to the men working for them. Trevelyan describes the effects of the expansion of the industry as follows:

"The 'capitalist' employers saw little and cared less about their conditions of life and labour. As the pits grew deeper, the miners spent more time far away underground and were more and more segregated from the rest of humanity."³¹

It was against this background and under these conditions that the collier children were brought up. Their fathers, grandfathers and brothers worked in the pit and to them nothing was more natural than working in the pit. There was nothing else for them and only very few made the attempt to find anything else. Everything was so inevitable, son followed father as a matter of course. Their harsh conditions of work had existed for such a long time that they had come to be regarded as normal by the miners and certainly by the owners who could see no reason for changing things unless it might bring greater profits.

A visitor to the collieries in the north of England at the beginning of the 19th century describes the colliers as, "a rude bold savage set of beings, apparently cut off from their fellow men in their interests and feelings. From five to six their children are immersed in the dark abyss of the lower world, and when they enjoy the "light of the beloved sun", it is only in the company of their own relations. All have the same vocation and all stand out a sturdy band separate and apart from the motley mixture of general humanity."³²

The savagery of the mining population was commented on by all who visited them and they were condemned for it. With their background, it would have been surprising if the miners had been anything else but savages. Treated savagely by owners, working in savage conditions, being killed by savage explosions, their whole working environment was savage and it was to be expected that some of the

³¹, English Social History. p. 284.
"The mediaeval peasants and artisans, whatever their disabilities and trials may have been, were not segregated from their neighbours to anything like the same extent as were the coal miners of the 17th century in most colliery districts".

³², BOYD. Coal Pits and Pitmen.
savagery would be carried over into their recreation and home life.
CHAPTER TWO
SOCIAL AND EDUCATIONAL CONDITIONS

By the beginning of the 1840's, the rapid expansion of the Durham coal-field had created two distinct types of mining community. There were those living around established pits in villages that had been in existence for many years, and those in the villages created by the sinking of many new shafts. The old villages were well established in that houses, shops, public houses, churches, etcetera, had existed for long periods, but there was a certain fluidity among the actual inhabitants. The pitman had a reputation for frequently moving his home and Mr. and Mr. Leifchild, the Assistant Commissioner of the Children's Employment Commission in Northumberland and North Durham, commented on it in his report:

"The modern propensity to annual removals, or "shiftings", often without any assignable cause, is a remarkable and rather anomalous feature in the character of the pitman. The stream of emigration flows towards the Wear and Auckland district and is conspicuous chiefly in the newer collieries. In them, probably 25% of the pitmen are a fluctuating quantity and annually unsettled. The expense of moving is defrayed by the employers to whom they repair."¹

These annual removals arose mainly from the nature of the contract between employer and workman that existed at that time. Employment was on a yearly basis, the contract between pitman and management being called the yearly "bond". The bond tended to be a rather one-sided document with many clauses, inflicting fines on the pitman for offences which he found hard to avoid.² In Durham, the bond generally provided the pitman with a guarantee of work and a basic fortnightly pay together with free house and coals. At the end of the year, the pitman

was free to sign for a further year or to move to another colliery. In ordinary times there was no advantage in moving, especially if the pit were well managed and working conditions good. At the time when so many new pits were opening, however, managements often found it difficult to recruit pitmen and resorted to making lavish payments on bonding day to all men contracting to work for them. The accounts for the Pensher and Eden Main Collieries show that on one bonding day £636.6s.0d. was paid out as binding money and the bill for drinks was £249.17s.6d.  

Coupled with this inducement was the fact that moving was so easy. The pitman's possessions could easily be packed on a flat cart and as his new employer paid all removal expenses, there was nothing to lose. In spite of the ease with which a man could move, the older pits retained a core of workmen, some of whom spent a whole lifetime at the same colliery and who provided a stabilising influence on the village community. This influence was missing in the new colliery communities and, together with other factors, accounted for these new communities' having a lower moral standard. Mr. George Johnson, the Viewer at Willington, Heaton and Bardon Main Collieries, mentioned the other important factors in his evidence to the Children's Employment Commission:

"In the old collieries the state of morals and conduct was very good, while in the numerous new ones, they have the disorderly characters and refuse from the old, and the places of worship and schools are generally the last things established or even thought of".  

South Hetton was one of the new pits and the evidence of the Viewer there both confirms and contradicts that of Mr. Johnson. Before the colliery opened in 1831 there was not a single house, but by 1840 the population had risen to 2,150. In those nine years, a Church and two Methodist Chapels were established. On the other

5. Ibid. p. 149
hand Mr. Potter, the Viewer, also mentions that,

"There are eleven or twelve public houses in the village and they do a thriving business. There are instances of pitmen receiving their money on the Friday, and going to the public house and remaining until Monday morning". 6

One distinct advantage that the new villages had was the quality of their houses. Mr. Leifchild found in North Durham and Northumberland that while some of the houses in the older colliery villages were "extremely confined and forbidding", the houses being built at the newly won collieries were of a very superior character". 7 Dr. Mitchell, the Commissioner covering the southern part of Durham was equally impressed by the standard of housing in the new villages and gave a detailed description of the village of Coxhoe as being typical of the South Durham colliery villages: 8

"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 ten or twelve houses to make a thoroughfare to the streets which run off to right and left. Throughout the whole village, there are seldom more than ten or twelve 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 vegetable. All was swept and clean. It was explained that carts came around early every morning with small coals which were left at every house, and the same carts, after depositing the coals at every front door,

6. Children's Employment Commission. p. 149. w. 89.
7. Ibid. p. 535.
8. Ibid. p. 135.
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 14 ft. by breadth 14 ft. 10 ins., back room, length 14 ft. by breadth 10 ft. communicating with which is a pantry 6 ft. 6 ins. by 3 ft. Upstairs is a bedroom, partly made up by the wall and the sloping roof. The height of the wall above the boards is 2 ft. 8 ins. and from the top of the walls a slope of 7 ft. to the highest part of the apartment. The ground floor is made of clay, sand and lime. The height of the front wall is generally 13 ft. 10 ins. and in some of the cottages is 14 ft. 9 ins. The height of the back wall is less. The whole expense of erecting such a cottage is £52. It could be rented for £5 a year.

I was conducted into one of the cottages and it seemed very comfortable. This house, like most of the colliers' houses in these villages, was very clean and well furnished. In fine 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, a four-post bed with a large coverlet, composed of squares of calico tastefully arranged, and 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 exceptions, and there are some women who are neither so attentive to themselves, their children or their houses, as their husbands have a right to expect". Even if some of the women were a little neglectful of their families, they were, at least, in the home. In the districts where women and girls were employed underground, 9 the effect on community life was disastrous. Immorality began underground where women and girls worked scantily clothed 10 and hewers, because of the heat and the strenuous nature of their work, wore few or no

clothes. Illegitimate births were numerous in these communities, and it is not surprising that the girls grew into slovenly women whose foul language equalled that of their husbands. Children were left to run wild or put in the care of some woman who was paid a small sum each week. The mothers had little to contribute to their children. They were unskilled at ordinary household jobs like sewing and cooking and, being uneducated themselves they had little time for securing a formal education for their children. They had little time to attend to their homes, so that the children found themselves coming from the pit to a home that gave little comfort or encouragement.

In his 1844 Report, the Mining Commissioner, Seymour Tremenheere, commented on the houses he found in the mining communities of the Lothians:

"The interior of a dirty collier's house, must be utterly repulsive to any decent labouring man or woman belonging to any other occupation – furniture out of order and neglected, the floor black with dirt, the bedclothes nearly the same colour".

In these areas of female labour, the natural isolation of the mining communities was accentuated by the practice of miners' expecting their wives to work in the pit.

Only women who had spent their childhood in the pit and had come to regard working there as the natural order of things, would consider working there after marriage. The miner rarely took a bride from any other class of workpeople; outsiders had heard too many stories about mine conditions to risk being ensnared and sent underground. Thus miner married miner's daughter and the acceptance of working and poor home conditions was handed from one generation to the next.

The children in the Durham coalfield had the considerable benefit of

living in a home under the continuous superintendence of a mother, the immorality underground was avoided and with wives kept at home to perform domestic duties, their houses were perhaps the best of any colliery district in the country.

Mr. William Morrison, a surgeon of Chester-le-Street, commended the colliery women for their homes;

"The children of colliers are comfortably and decently clothed; cleanliness, both in their persons and houses, is a predominant feature in the domestic economy of the female part of this community". 13

In spite of these advantages, the children's social environment still left much to be desired. The example set by parents and workmates and the attitudes created by their working environment were not conducive to the rearing of a better educated and socially adjusted new generation. In the worst mines, the conditions in the working places are difficult to imagine. The visitor to a modern mine can still be shocked by conditions on a low working face where men work bent double or lying at full stretch. Those who have seen modern working conditions can better gain an idea of what things were like in the 1830's but those who have never been underground may imagine the picture to be exaggerated, because no parallel can be drawn with any occupation on the surface with which they might be familiar. These working conditions differ from those of a factory or shop in other ways than the purely physical. The factory worker's home and place of work fuse together into a complete single environment while, to the miner, his life above ground and that below are quite separate. In the pit, different rules of conduct come into play, attitudes to people change and the individual miner can become surprisingly different. He feels hidden away in his working place, away from the conventions of surface life, so that language would be checked on the surface and actions that would be restrained

are allowed their freedome in the pit. The work itself can create frustrations that give rise to vehement displays of feelings and language. The miner lying in black sludge with water dripping onto him while he tries to manoeuvre a heavy, wet, slimy roof support into position, must be allowed some tolerance when expressing his feelings about the situation. The miners’ reputation for colourful language has largely arisen because of the difficulties he encounters underground. The children of the 1830’s had many opportunities of cursing their place of work and there was a wide variety of suitable words to be had by simply listening to fathers, brothers and uncles who worked at the coal face. The obscenity of their language, which was often remarked upon, thus became a habit which was carried over from the pit, where an oath might express a genuine feeling, to the surface, where it became just another adjective to be used without thought or shame.

The harsh pit life also seemed to induce a lack of feeling among the pitmen and boys, as is seen in the evidence given by several trappers to the Children’s Employment Commission about how they pass their time away in the pit by catching mice. One boy’s evidence is typical and indicates complete indifference to cruelty;

"I often caught mice, I took a stick and split it, and fixed mouses tails in it. If I caught two or three I made them fight, they will pull one another’s noses off. Sometimes I hang them with a horse’s hair." 14

Later, this lack of feeling showed itself in the adult recreations of cock-fighting and dog fighting which were very popular among the pitmen. 15

The pit boys did follow other, more normal recreations, such as marbles, tag, quoits, cricket, handball against a wall and fishing. 16 Summer was the time of recreation, when the days were long and the demand for coal was at a minimum. In the winter when coal was in much greater demand, the boys worked harder and longer

15. Ibid. p. 646. witness 386.
16. Ibid. p. 156. witness 100.
and often only saw daylight on Sundays. At such times, sleep was more precious than recreation and, as one boy put it, "when we come home, we are fit enough to go to bed". 17

In spite of their long hours in the dreary surroundings of the pit, the boys of the Durham coalfield lived under conditions superior to those in most of the other coalfields. Lord Ashley himself paid a generous tribute to this area in a debate in the House of Commons:

"In justice to the great coal owners of the North, I must say, that if they had been the only parties with whom we had to deal, the necessity for this bill would perhaps not have existed, they have exhibited, in many respects, a care and kindness towards their people." 18

While the owners were being given more praise than was perhaps justified, it was true that the protective legislation of 1842 was brought about because of atrocious conditions in coalfields other than those of Northumberland and Durham. Dr. Mitchell, in his report of the Children's Employment Commission, concluded, "altogether the condition of the colliers is comparatively good". 19

The earnings of a pitman were inferior to those of the highly skilled artisans in large towns, but they earned more than most textile workers and agricultural labourers. The budget of a representative pitman's family, given by Mr. Leifchild in his report, 20 indicates a reasonable standard of physical comfort.

URPETH COLLIERY 3RD MAY, 1841

<table>
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<th>EARNINGS per fortnight</th>
<th>£</th>
<th>s</th>
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<tr>
<td>Father two weeks</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Putter 1 boy 17 years old</td>
<td>1</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Driver 1 boy 12 years old</td>
<td>13</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Trapper 1 boy 8 years old</td>
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</tr>
<tr>
<td>Total</td>
<td>5</td>
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20. Ibid. p. 536.
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<tr>
<th>Item</th>
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<tr>
<td>Mutton</td>
<td>14 lbs</td>
<td>7½d</td>
</tr>
<tr>
<td>Flour</td>
<td>5 stones</td>
<td>2s. 8d</td>
</tr>
<tr>
<td>Maslin, a mixture of different sorts of grain</td>
<td>3 stones</td>
<td>2s. 6d</td>
</tr>
<tr>
<td>Bacon</td>
<td>14 lbs</td>
<td>8d</td>
</tr>
<tr>
<td>Potatoes</td>
<td>½ boll</td>
<td>4s. 6d</td>
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<tr>
<td>Oatmeal</td>
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<td></td>
</tr>
<tr>
<td>Butter</td>
<td>2 lbs</td>
<td>1s. 3d</td>
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<tr>
<td>Milk</td>
<td>3d</td>
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<tr>
<td>Coffee</td>
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<td>Tea</td>
<td>½ lb</td>
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<tr>
<td>Sugar</td>
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<td>8d</td>
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<tr>
<td>Candles</td>
<td>1 lb</td>
<td></td>
</tr>
<tr>
<td>Soap</td>
<td>¼ stone</td>
<td>6s. 8d</td>
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<tr>
<td>Pepper, salt, mustard, etcetera</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco and allowance 'beer'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoes, making and repairing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothes, parents and children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stockings</td>
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<td></td>
<td>3</td>
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Although the social conditions of the colliers' children might vary from the degredation of the East of Scotland to the relative civilisation of Northumberland and Durham, there was not the same divergence in the educational opportunities available. Throughout the country, the literacy of the miners was at the same low level, with only a few isolated attempts at improvement. Again there was a contrast with conditions in other industries. When the early Acts of the 19th century had achieved some measure of protection for the children in the textile factories, reformers began to look at the provisions being made for educating the children who had been freed from the mill because they were too young, or those
who were working shorter hours. The 1833 Factory Act recognised that children not only needed to be protected from long working hours and inhuman working conditions, but that they also needed to be educated. The Act included educational clauses which made attendance at school compulsory for children under eleven and, after thirty months, for children under thirteen. Although this Act was only partially successful, the need had once again been recognised and an effort made to meet it. In the mines, where the children were still waiting for legislation to alleviate their harsh working conditions, education of any sort was almost non-existent.

'Education' is used here in the widest sense of the word; the acquisition of facts and mechanical processes like reading and writing are a small part of a complete education. Social awareness, the creation of attitudes to other individuals and to the community are equally important and although a good school will achieve much in helping to direct a child's social education, most of this direction comes from the child's home and surroundings. How little direction the child got from his environment has already been indicated.

It is difficult to arrive at an exact picture of the educational condition of the colliers, because there are few figures available and these are often based on such a low educational attainment that the persons included can hardly be said to have received an efficient education. In all the statistics of the period, the criterion applied is the ability to read and write. The statistics are often suspect, since, in some cases, the examiner simply asked the pitman if he could read and write, without putting his ability to the test. This meant that many who could just manage to spell out simple words and could write only one phrase, their names, gave an affirmative answer, and were counted as literate. Even when the pitmen were tested, their ability to write their names was thought sufficient to justify their inclusion under the heading "can write", whilst being able to stumble through a few simple sentences confirmed their ability to read. The ability to read and write, thus brought under one heading those who had received a few months schooling, picking up only a
vague idea of the mechanical processes of reading and writing, and those who had received a varied and careful education, being able to rise to positions of responsibility in the pit.

This must be borne in mind when considering the statistics of this period, for they invariably give a more favourable impression than was actually the case. Northumberland and Durham can again be considered as good as, and in many cases, better than other coalfields in the literacy of its pitmen. Taking Northumberland and Durham as an example then, we can say that although the results are not typical of the whole of Britain, they are among the best, and that most of the other coalfields exhibited a lower standard of literacy.

Statistics were collected by the inspectors of the Committee of Council on Education, conditions at individual collieries were sometimes given to the Assistant Commissioners of the Children's Employment Commission. Using these, and sifting through the replies of several hundreds of the witnesses examined in 1840 by the Children's Employment Commission, it is possible to arrive at an approximate picture of the educational condition of the children and young persons at this time.

In his report to the Committee of Council on Education in 1840, the Reverend John Allen, who had been investigating the state of elementary education in Northumberland and Durham, included an appendix which contained the observations and calculations of a Mr. T. J. Taylor who was connected with the Earsdon and Holywell collieries. Mr. Taylor produced figures showing the educational state of the whole of Northumberland and Durham by working out figures for his own two collieries and then applying these results to the whole coalfield. He defends this doubtful statistical procedure at the beginning of his calculations; 21

"If we knew the entire colliery population of Northumberland and Durham

we might, I think, safely make the condition of these two collieries (Earsdon and East Holywell), with their aggregate of 901 persons, a test of the general educational state. Perhaps we are less widely in drawing general conclusions from local data in the case of pitmen than of any other body of men, because they are, from the nature of their employment, a peculiar race, stamped with the same character throughout and owing to their custom of removing frequently from place to place at the expiration of their yearly agreement, there is an interchange of them from one colliery to another, so as to bring the condition of the workmen of each nearly or perfectly to the same level.

We have not any of the regular returns of the collier population, but calculations have from time to time been made, which lead us to infer that in the coal trade of the Tyne and Wear there are at this time employed underground 11,400 men and 8,200 boys; in all 19,600 persons, I exclude from these the population employed at bank.

The above 11,400 men may be held to represent 8,100 families being five sevenths of the above. Pitmen marry early; at East Holywell colliery, we found only one unmarried man over 25. The number of persons at each family is between 4.8 and 5.4, I shall call it 5.2 which is rather beyond the average of the two, because Earsdon is a colliery to which, for reasons depending on the nature of the mine, large families do not resort.

We have then the whole strictly collier population of the great coal districts of Northumberland and Durham equal to:-

\[
\begin{align*}
8,100 \times 5.2 & \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad 42,120 \\
of \text{which adults above 14 are } & \frac{508}{901} \quad \text{nearly } \frac{5}{9} \quad \ldots \quad \ldots \quad \ldots \quad 23,740 \\
of \text{which adults below 14 are } & \frac{393}{901} \quad \text{nearly } \frac{4}{9} \quad \ldots \quad \ldots \quad \ldots \quad 18,380
\end{align*}
\]
Dividing the adult population into 100 parts we have

<table>
<thead>
<tr>
<th>Description</th>
<th>Persons</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Those who can read and write</td>
<td>51.6%</td>
<td>12,250</td>
</tr>
<tr>
<td>(2) Can read only and many imperfectly</td>
<td>30.3%</td>
<td>7,193</td>
</tr>
<tr>
<td>(3) Can neither read nor write</td>
<td>18.1%</td>
<td>4,297</td>
</tr>
<tr>
<td>Total number of persons who cannot write names</td>
<td>48.4%</td>
<td>11,490</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>23,740</td>
</tr>
</tbody>
</table>

Dividing the children under 14 into 100 parts we have

<table>
<thead>
<tr>
<th>Description</th>
<th>Persons</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Those who can read and write</td>
<td>13.5%</td>
<td>2,481</td>
</tr>
<tr>
<td>(2) Those who can read only</td>
<td>32.0%</td>
<td>5,881</td>
</tr>
<tr>
<td>(3) Infants and those who cannot read and write</td>
<td>54.5%</td>
<td>10,018</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>18,380</td>
</tr>
</tbody>
</table>

Attend day schools                          | 38.0%   |

This estimate is necessarily imperfect, but it approximates as closely to the truth as the materials in my possession will permit."

By extracting figures from various reports, it has been possible to compile a list of fourteen collieries in Northumberland and Durham, showing the educational state of the colliers. An abstract of the figures is given on the following page, the details of each colliery and the source of the information can be found in Appendix 4.

These figures give the proportion of the collier population who cannot write their names as 55% and the proportion who can read and write as 45%, results which compare closely with Mr. Taylor's estimate. However, after examining the replies of 690 boys employed in collieries who were questioned by the Commissioners of the Children's Employment Commission and rejecting those whose reading seemed
<table>
<thead>
<tr>
<th>Colliery</th>
<th>Number Employed</th>
<th>Number able to read &amp; write</th>
<th>%</th>
<th>Number who read only or neither</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wallsend</td>
<td>265</td>
<td>145</td>
<td>55</td>
<td>120</td>
<td>45</td>
</tr>
<tr>
<td>West Towneley</td>
<td>206</td>
<td>100</td>
<td>49</td>
<td>106</td>
<td>52</td>
</tr>
<tr>
<td>Benwell</td>
<td>153</td>
<td>89</td>
<td>58</td>
<td>64</td>
<td>42</td>
</tr>
<tr>
<td>Elswick</td>
<td>127</td>
<td>56</td>
<td>44</td>
<td>71</td>
<td>56</td>
</tr>
<tr>
<td>Backworth</td>
<td>92</td>
<td>55</td>
<td>60</td>
<td>37</td>
<td>40</td>
</tr>
<tr>
<td>Pensher</td>
<td>-</td>
<td>-</td>
<td>57</td>
<td>-</td>
<td>43</td>
</tr>
<tr>
<td>Rainton</td>
<td>-</td>
<td>-</td>
<td>37</td>
<td>-</td>
<td>63</td>
</tr>
<tr>
<td>Pittington</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>Holywell</td>
<td>363</td>
<td>185</td>
<td>51</td>
<td>178</td>
<td>49</td>
</tr>
<tr>
<td>East Holywell</td>
<td>385</td>
<td>131</td>
<td>34</td>
<td>254</td>
<td>66</td>
</tr>
<tr>
<td>Earston</td>
<td>516</td>
<td>184</td>
<td>36</td>
<td>332</td>
<td>64</td>
</tr>
<tr>
<td>Newbottle</td>
<td>649</td>
<td>217</td>
<td>34</td>
<td>432</td>
<td>67</td>
</tr>
<tr>
<td>Lambton</td>
<td>513</td>
<td>167</td>
<td>33</td>
<td>346</td>
<td>68</td>
</tr>
<tr>
<td>Littleton</td>
<td>1264</td>
<td>402</td>
<td>32</td>
<td>862</td>
<td>68</td>
</tr>
</tbody>
</table>

to consist of putting together a few letters and whose ability to write extended only as far as signing a name, then an approximate figure of 25% is obtained for those able to read and one of 7% for those able to write. It would seem then, that, even making generous allowances, at least half of the colliery population was illiterate, while a large proportion of the remainder fell far short of what would, in present times, be regarded as a reasonable standard of education.

It would be incorrect, however, to draw conclusions about the state of education during this period from figures such as these. Returns were in some cases based on uninvestigated answers given to clerks at a colliery where few would admit to being unable to read. Mr. Leifchild found that even a signature test was difficult to apply, the boys being so suspicious and afraid that their signatures would be used against them in some way. In some cases, the test could only be applied by allowing the boy to sign his name on a blank sheet of paper and then tearing it up in front of him. 22

While figures alone fail to give a true picture, they can be supplemented

with the observations and opinions of those connected with the pits at this time, to give some general idea as to the state of education. Mr. J. C. Symons, a sub-commissioner of the Children's Employment Commission in Yorkshire, pointed out the inadequacy of the figures being collected.

"The statistics of education, though they exhibit the meagreness of its extent, convey no adequate idea of its deficiency in quality. In fact, education in the proper sense of the word scarcely exists at all among collier children". 23

Mr. Thomas Cockin was Manager of Pease's West Colliery in the Auckland district of the county, and in his evidence to the Children's Employment Commission he described education among the colliers to be, "in a most deplorable state". 24

Dr. Mitchell, inspecting the South Durham coalfield for the Children's Employment Commission found that, "scholastic education was in a very low state". 25

Mr. Leifchild found in Durham that, "the state of education of pit boys was at a very low ebb" and he could not conceive how it could be otherwise under the conditions then existing. 26

There is no doubt that the colliers' children were in circumstances far from conducive to learning. To begin with, boys found themselves in the pit at an early age, the majority before they reached ten, and many much earlier. A boy starting work at ten only have five years in which to obtain some sort of education. With good schools and teachers the task of educating boys to a reasonable standard in such a short time, would have been formidable; with the schools and teachers that actually existed, only very little was ever achieved. What little had been learnt was quickly forgotten as the boy settled into the monotonous routine of his trapper's

24. Ibid. p. 150. w. 91
25. Ibid. p. 144
26. Ibid. p. 529
In the pit, no educational attainment was needed for any of the tasks a boy was likely to carry out, and even when he achieved the status of hewer, a little common sense would enable him to carry out his work competently. Reading and writing were skills that a boy was never called upon to use and their consequent neglect combined with an insufficient training when young, quickly produced young men who were practically illiterate. The few with ambition might persevere, but the long hours worked underground made attendance at evening schools not merely difficult, but an almost impossible burden on minds dulled by twelve hours of hard physical labour. Often the effort was not even worthwhile. A man might aspire to becoming a deputy overman or overman, and in most cases these appointments were made from men who had shown themselves to be competent, practical workmen, their scholastic attainments being of secondary importance. With such slow general standard of achievement, it is not surprising that even the most modest scholastic attainments were regarded as satisfactory. A person who could read, write and calculate reasonably well had reached the ultimate in learning in the eyes of his fellow workmen and there was little incentive for him to broaden his education.

Mr. Leifchild found, in South Durham, that even the spoken vocabulary of the colliers' children was so inadequate that they were unable to express any kind of intense feeling. For example, one boy said he had, "hurt his arm", when in fact he had fractured it. Children expressed a feeling of extreme physical fatigue as merely being "tired". 27

Dr. Mitchell, and indeed most of the investigators of this time, found that the ability to read certainly did not imply understanding and in most cases children read without having any idea of the meaning of what they were reading. As far as the situation of their own particular village in relation to the rest of the country was concerned, Dr. Mitchell found that they were entirely ignorant of national and

world geography;

"Probably a very few children in the county of Durham have ever heard of such places as Birmingham, Manchester or Liverpool. Such words as Scotland, Ireland, France or America bring no ideas to 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." 28

It would seem that the greater physical comforts of their home life and the slightly better working conditions of the northern coalfield had no effect on the educational state of the pitmen's children. The children themselves had no control over their destinies, except perhaps by pestering their parents to allow them to go into the pit to join their friends in what seemed, to a nine-year old boy, an exciting new world. With no encouragement from parents, education was regarded as something to fill in the time until they were old enough to escape into the pit.

Improvement in the educational condition of the children was in the hands of three groups of people; the pitmen themselves, the colliery owners and managers, and the Church. The attitudes of these three groups largely determined the educational fate of the children growing up in the colliery areas.

CHAPTER THREE

PITMEN, OWNERS AND THE CHURCH - THEIR INFLUENCE ON EDUCATION

By the beginning of the 1840's, the mining communities were beginning to leave behind a way of life which had marked them out as one of the lowest social orders in the country. The average miner of 1800 had been described as "dissolute, ribald, drunken, given to vicious sports as an antidote to the brutalising and demoralising treatment he often received from his employers and overseers". ¹ It was rare at that time to hear that a pitman had received any education, and few could write their names. There were undoubtedly many to whom this description still applied almost half a century later, but in Northumberland and Durham, the improved housing at the new collieries, the spread of Methodism, and the presence of a few enlightened workmen were helping to establish a more respectable image of the miner. They were still, however, a tightly-knit and self-perpetuating group, in which son followed father into the pit as a matter of course. There were few newcomers, and few of the younger generation left the villages to find other employment.

In such a community, the attitudes and opinions of parents played a vital role in the education of the children. Unfortunately, education had never been held in very high esteem by the pitmen, so that illiterate parents saw little reason for educating their children.

The very fact that they were illiterate prevented many parents from seeing the benefits of an education for their children, but even the more intelligent knew that reading and writing made little difference to a boy's opportunities in the pit. The work was mentally undemanding and strength was more important than educational ability. Both owners and pitmen held the view that underground work demanded years of training and experience and that a boy needed to be in the pit by the age of ten or eleven to have any hope of becoming a competent hewer by the time he was

¹. S. WEBB. The Story of the Durham Miners. p. 20
twenty or twenty-one. While it was undoubtedly an advantage for a boy to progress through the haulage grades to the position of hewer, the introduction of outside labour during strikes, showed that any fit and reasonably intelligent labourer could adapt himself to pit work in a few months. Coal getting, more than most jobs, requires a period of adjustment to the unusual conditions, but it was certainly not a period of several years as was suggested by miners themselves.

If the pitman's work underground gave no incentive to acquiring an education, nor did his home and community life. While his cottage may have been better than those of other coalfields, by to-day's standards it was no more than an insanitary slum whose only comfort was the roaring fire which was kept constantly supplied with coal from the miners' free allowance. With the large family units which were typical of mining communities there was no privacy even for baths which the men were compelled to take at home because of the absence of any pithead facilities. There was little to hold the pitman at home when he had washed and eaten, and this may have given rise to his reputation for spending all his free time out of the house, leaving the raising of his children to his wife.

The attractions outside the home were limited. For recreation, the pitman relied on competitive sports like foot-facing, handball and quoits, while cockfighting and the beer shops catered for the less active. Webb points to the lack of civilising influences in the mining communities of Durham,

"There were no Co-operative Societies, no Miner's Halls, no workmen's clubs, no schools, no religious or philanthropic institutes or missions, hardly any Friendly Societies, no insurance or savings banks, no music, no organised recreation of any sort, nothing but (from 1830 onwards) an absolutely unrestricted number of beer shops and in disablement, sickness and old age, and for burial, the 'Parish Overseer'."  

The conditions of the 1820's and 1830's had improved only slightly by
the beginning of the 1840's. Practically the whole mining community followed a
similar way of life and the children grew up with no opportunities for seeing its
faults or limitations. There was no enthusiasm for education either from the children
or the parents and very often this was due to the nature of the schools and the people
connected with them. The general low standard made many pitmen regard attendance
at school as a waste of time and, more important, of money. Schooling, even at the
most disreputable establishments, was not free, fees ranging from 2d to 1s 0d depending on what was taught and while this might seem a negligible amount, it might be multiplied several times in a large family. By the time a boy was nine or ten
years old, his earning potential became a powerful reason for discontinuing his education. When an outlay of 2d per week could become an income of 4s 0d or 5s 0d, then parents had little hesitation in choosing the pit for their children. So important was the early employment of their children to some that they bonded themselves to a particular colliery only on condition that the Manager also undertook to employ their children underground. In a few cases where widows were left to bring up young families the early employment of their boys was an economic necessity, but generally, in homes with a man working, the income from a father and elder brother was sufficient to maintain the rest in reasonable circumstances without the necessity of employing the younger boys.

Before condemning the pitmen as harsh and callous parents, it must be remembered that early employment was part of their way of life and was in no way unusual. Together with this, there was a certain amount of truth in the parents' belief that time spent at school after the age of nine or ten was wasted. Many schools were so inadequate that children left after several years attendance almost as illiterate as when they started. Often there was also, coupled with parental in-

5. Ibid. p. 148. w. 88.
6. Ibid. p. 149. w. 89.
difference, an eagerness on the part of the boys to be rid of the restrictions of
school and to have the independence that their few shillings a week brought them.

Being brought up in homes where the pit and underground life were often the sole
topic of conversation whetted their appetite for a glimpse of this hidden world,
glorified by their young imaginations. Once down the shaft and their enthusiasm
blunted by the first few weeks of fatigue and soreness, it was too late; they were
committed to a life of unrelenting toil. Education had had its chance and was left
behind, usually for ever. While some boys seemed to take to the hard life of the
pit and settle into its routine fairly happily, some realised, too late, that it was
not as glamorous as their imaginations had led them to believe. Thomas Hoggins,
aged fifteen, told Mr. Leifchild, "I asked to go into the pit in order to get away from
school; I would go to school now if I could be allowed". 7

While the slack summer period gave some respite and a chance for re-
creation, 8 the picture was more often one of work and sleep, with sheer fatigue
preventing any other sort of occupation. Such a life was sufficient to deter nearly
all the pit boys from pursuing any further learning, but there were, apparently, one
or two who were willing to persevere in spite of the difficulties. In these rare cases
it is interesting to note that the parents were often reasonably educated and frequently
Methodists. Their encouragement must have largely contributed to their sons' de-
termination.

One of the few cases documented is that of William Willis aged fifteen,
who described his efforts to further his education.

"We are fifteen hours out of the house every day. I am very tired by night,
we are in school about 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

8. See Chapter 2. p. 28
well, but I can write. I rise on Sundays at 9.30 and take breakfast. I go to the Ranters chapel at 10.30. My father attends, but sometimes he has to work on Sundays. When he comes home to dinner, he examines me about the sermon. 9

Such trying conditions as this boy had to face could only be overcome with the encouragement and example given by parents. While both were obviously present in this particular case, the majority of pitmen contributed little or nothing to the education of their children either by encouraging school attendance or by moral and social example in their homes. Their only achievement was the production of a new generation as little interested in education as themselves. Left to themselves, the pitmen would undoubtedly have taken many years to emerge from their abysmal ignorance but like any community they were subject to outside influences and it was these which were to speed the process of enlightenment.

Those with the most immediate influence on the pitmen were their employers and their employers' agents. These men were able to exert their influence not merely by persuasion and example, but by compulsion. It was they who determined the living conditions of the pitmen because they were responsible for housing their own men. They determined working conditions, wages, and in some cases where "tommy shops" existed, how the wages were to be spent. The "bond" drawn up by the management and signed by the men controlled everything relating to working conditions. Largely because of ignorance of what the bond contained and because of lack of alternative work, the men bound themselves year by year, often into harsh and unfair working conditions. The possibility of using this power of compulsion to improve social and educational standards was rarely explored. To the majority of owners the getting of coal was merely a commercial proposition. A labour force which lived close to the shafts was required and if accommodation was not available near to the site of the sinking, then houses had to be built. The cost of housing was part of the initial capital required to open a mine and as such it had to be kept to a minimum so that as much

as possible was available for the more important expenditure required to equip the mine itself. The result was houses, often costing less than £50 each, which provided the bare minimum of accommodation. Any extras, such as sanitary arrangements and drains, were excluded as unnecessary expenditure. Where new villages had sprung up around the new sinkings, churches and schools were very rarely provided, being considered even more unnecessary than adequate sanitary facilities. Mr. George Johnson, the Viewer at Willington, described the owners' position briefly and accurately;

"The owners of coal seldom work it and therefore the lessee is only interested in the most profit in the shortest time. He seldom directs his attention to the education of children of the pitmen as he would do if he were proprietor of the surface as well. Lessees have no permanent interest in mines, or the people who change frequently from colliery to colliery." 10

If the owners' direct assistance was slight, it might have been hoped that by living among their pitmen they would provide an example of better living and of the advantages of education and thus give indirect incentives. Generally however, the owner preferred to live away from the mine altogether and, once the initial sinking and opening up operations were complete, was content to leave its running to agents and managers, his sole interest being the yearly profit. Mr. Leifchild considered that this absence of local gentry was one of the main causes of the northern pitmen's low state. After describing the devastating results of a colliery's being opened up in a neighbourhood he continues,

"The arrival of the pitmen is the signal for the departure of the gentry, and henceforward few indeed visit that district but they who traffic with the coals or the colliers. Thus that active benevolence of the higher ranks which induces them to visit the habitations of the working classes, to counsel, guide and instruct them, to patronise their schools, and encourage their attempts at order, frugality and amelioration, are here wholly deficient". 11

The lack of gentlemen's houses in the colliery areas also had its effect on the women in the pit villages. Dr. Mitchell remarked in his report that, "collier girls seldom go out as servants and have little or no opportunity of seeing anything but the homely work and cooking of the colliery 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".  

It seems that the benefits to be gained by having resident gentry in mining areas were perhaps exaggerated. Their most important contribution to the raising of social and educational standards would have been financial assistance and this could have been directed from any part of the county. The amount of influence they might have had by direct contact with the miners would probably have been slight. The real contact between employer and miner was at a lower level through a line of pit officials, from deputy overman, overman, under-manager to manager. (In a large group of collieries under the same ownership, the manager might then be responsible to an agent who had overall supervision of all the collieries). As far as the men were concerned, the manager was in control and had the power of appointment and dismissal. Although the manager could closely supervise the working conditions of his men, he was in a poor position to assist their community activities. His first concern was the efficient and profitable working of the mine and to many managers anything that could not be included under this heading was thought to be no concern of theirs.

The point of view of many viewers and agents is represented by the evidence given by Henry Morton, Agent for the Countess of Durham's collieries.

"There is no prospect of any mode of carrying on collieries so as to dispense with the labours of very young children, and a restricting law that should produce a scarcity of children would prevent many pits from being carried on bene-

officially; old men to supplant trappers, and what are called swing doors, are in-applicable".  

There was no question of putting the welfare of the colliers and their children before the profitable working of the mine. Children were necessary to maintain profits and to many viewers and agents that was the end of the matter. It took someone unconnected with the industry to describe the real position of the owners and viewers.

"The evidence of viewers and persons employed in the management of collieries ought to be taken with great caution as they are naturally prejudiced, and disposed as far as possible to prevent any interference with their concerns. They are opposed to any improvement or alteration in the education of their workmen, which they suppose might diminish their control or power over the labour of their workmen." (Evidence of Dr. Headlam, Physician and Magistrate, lately Lord Mayor of Newcastle. Children's Employment Commission. p. 670. w. 499).

In this statement Dr. Headlam described what many owners and viewers really felt, but would not admit. Their control over the pitmen had been absolute, they could dictate terms without fear of reprisals, because the pitmen lacked organisation and leadership, qualities which often arrived with education. Coolness towards producing an educated working force was, in many cases due to the fear that the pitmen would become difficult to handle. Mr. Morton described the difficulties of dealing with the few pitmen who had educated themselves and taken on the task of leading their less fortunate (or less strong-willed) workmates:

"In strikes, there is a class of self-sufficient leaders, who are generally local preachers, and who are most decidedly the most difficult to control, and who urge on the others to acts of very great insubordination."  

Mr. George Johnson, the Viewer of Willington Heaton and Burradon Main

Collieries also found that those with some education were the hardest to deal with, "not always from taking the correct view of the nature of the disputes, but from self-sufficiency and self-satisfaction with their superiority".  

Mr. Morton and Mr... Johnson here display an attitude which was to be shown by even the more well-meaning owners and by certain government inspectors at a later date. There was no possibility of the miners' case being the right one. The owner could reduce his wage by right, but any complaint was insubordination. The miner had a place in the scheme of things but a very lowly one and any attempt to improve his position needed to be suppressed. The owners and viewers were best served by an uneducated labour force upon whom they could impose conditions favourable to themselves without the danger that might come from a well-organised, well-led union of miners.

Where a manager was genuinely concerned about the social welfare of his pitmen and their families, he could do little more than make a recommendation to the owners of his mine, and any capital required had to come from them. Managers had, however, a power which could have done what several Acts of Parliament failed to do, provide a minimum educational standard for the miners' children. As the person responsible for drawing up the bond signed by the workmen, the manager had the power to enforce almost any regulation he cared to include. In rare cases managers did include clauses prohibiting employment of boys under a certain age and provided a school system by compulsory deductions from workmen's wages. Generally, however, the conditions of the bond were so harsh that managers were afraid to include any further controversial clauses, especially ones which would have no effect on production.

There were a few owners and viewers who attract attention by their more liberal views on education and by their positive attempts to establish a reasonable system of schooling for the children of their colliers. At Killingworth Colliery the

Manager, Mr. Nicholas Wood, supported by the owners, Lord Ravensworth, the Earl of Wharncliffe and Mr. J. Bowes, established a system of education which could have rapidly improved the colliery population had it been employed elsewhere. At Urpeth Colliery there was one of the very few compulsory arrangements for education. The Agent, Mr. Boyd, had made subscriptions towards the colliery school compulsory by including an extra clause in the workmen's bond. This additional clause had been strongly objected to by the pitmen and one miner had had to be dismissed for his refusal to comply with it. Mr. Boyd held little hope that the system would be successful and was doubtful about its continuation the following year due to, "the increased demand at collieries where no payment is made, and from the general feeling of opposition in a pitman to part with what he has wrought hard for".

This preoccupation with providing the money and buildings for education without bothering about what was actually achieved in the schools made the downfall of many schemes inevitable. A few men were able to see further into the problem and Mr. William Hunter, Agent at Backworth Colliery, put forward proposals which were many years before their time. He wanted to exclude all boys from the pits until they were eleven and able to read and write and do accounts. Money would be raised by compulsory contributions from the men and administered by a school committee. Masters would have to be qualified, "mentally and morally", and needed proper remuneration. The school would be inspected every three months and a report on the pupils' progress made. The education provided would ensure that first principles were taught so that a boy would understand what he was doing. There would be a practical bias to the education although moral instruction should be included so that a boy would, "know his duty to his maker and to his fellow creatures". Such a system was not to exist in any colliery area for many years and Mr. Hunter realised that it could never be brought about by voluntary efforts and was one of the few who advocated Government interference to improve the condition of the colliers' children.

18. Ibid. p. 716.
19. Ibid. p. 715.
The general lack of initiative shown by the majority of the owners was explained and their attitude defended by Mr. Daniel Liddell, a teacher, of Newcastle:

"The coal owners and their agents have long expressed a desire to promote the education of the pitmen's children, but consider that no efforts on their part would be attended with good results and they must wait till the men desire their aid."\(^{20}\)

While certain coal owners did have a genuine interest in the social problems of their workmen it seems that waiting for requests for assistance from the men was a convenient excuse for the majority to do nothing. There was, however, some justification for their inactivity when the schemes that had been promoted and failed due to the opposition from the pitmen were considered.

Both owners and managers, even if well disposed towards providing educational facilities, suffered from a lack of understanding of what was required. To many, educating their workmen meant providing the building and its fittings and contributing towards the salary of a teacher. The fact that the teacher appointed was totally incompetent and that the children learned little or nothing, seems often to have been overlooked. It would, perhaps, be unfair to blame managers for this lack of superintendence over the schools that they had helped to establish; their job was to manage a mine and its problems were sufficient to keep them busy without the additional burden of school administration. They were not experts on educational matters and most were happy to let the school follow its own haphazard course.

One of the few organisations that had any experience of providing education was the Established Church, but it was to fail in the mining areas through lack of contact. The parishes in the county were large and difficult to superintend by only one incumbent. As new pits appeared, the parish priest found the numbers in his parish rapidly increasing, making his task even more difficult. The old parish churches had been situated to suit a rural population and were often several miles from the pit villages. The building and establishing of new churches and schools took

several years, by which time the new collier population had settled into a way of life which did not include the church.

However, if the Established Church had little impact on the colliery population the same could not be said of the dissenters. The Methodists followed a vigorous policy of preaching and conversion in the mining areas, and were extremely successful. The pitmen were attracted by preachers who were workmen like themselves and who spoke in their own rough pitmatic terms. Meeting houses were established in every village. A church building was not essential to the Methodists, they met wherever accommodation presented itself. Their most powerful asset was close contact with the community. Methodist preachers worked with their colleagues at the coal face and won conversions by their example and sincerity. In the face of such opposition the Established Church had little hope of securing a following. While the Church pondered about the wisdom of erecting a church or schoolroom in a new colliery village, the Methodists began their ministry in a convenient cottage.

In some areas where a Church school was well established, the success of the Methodists had an unfortunate effect on the children who were often kept away from what might have been the only day school in the area because of religious differences. The Methodists had no funds for the building of day schools and relied on Sunday schools for propagating their particular beliefs. Their Sunday schools had many shortcomings and certainly did not take the place of an efficient day school. The Sunday schools were free and held at a time which did not interfere with the children's pit work. To many miners the Sunday school became an excuse for not sending their children to a day school.

H. F. Matthews quotes from a pamphlet written in 1827, "The soundest criticism was that contained in Valentine Ward's 'Observations on Sunday Schools'. He argued that their existence encouraged unscrupulous employers to let the Sunday schools become the sole means of education of their employees - a substitute for day schools, which took the responsibility from their shoulders and laid it upon the generous philanthropist. The Methodists, he said, were the worst offenders, in that
they consistently taught writing in their schools as well as reading, and this he thought should be forbidden (in fact, the Conference of 1814 had forbidden it, but the rule was more often broken than kept)."

Initially, the Methodist Sunday schools had been organised by individual churches without any sort of central recognition or control. Their primary aims had been educational, the elementary teaching of reading and writing. Eventually, however, the emphasis changed to one of religious instruction, the Conference of 1837 affirming the necessity for a Sunday school to be associated with every chapel as a means of initiating the young into the characteristic tenets of the denominational faith. 22

The contribution made by the Sunday schools to the total educational influence will be dealt with elsewhere (Chapter 4) together with the other types of schools available to the colliers' children. While Methodism's direct contribution to the education of the colliers' children might have been small, its indirect influence on the whole mining community over a period of years was immense. Sidney Webb added a second factor:

"Into such a community, ignored by the statesmen of the time, and virtually given up as hopeless by cleric and philanthropist alike, there came, between 1821 and 1850, two inspiring influences, Religion and Trade Unionism". 23

Webb here distinguishes between Methodism and Trade Unionism, but at the time they were closely connected by a common core of leaders. The chapel trained the men to preach the gospel, but the training was equally useful for addressing a union meeting. Trevelyan attributes the rise of many of the men's leaders to their chapel training:

"In the chapel life working men first learned to speak and organise, to

23. WEBB, Story of the Durham Miners. p. 21
persuade and trust their fellows. Much effort that soon afterwards went into political, trade unions and Co-operative Societies, was then devoted to the chapel community. It was in Little Bethel that many of the working class leaders were trained".24

While the Methodist church produced the leaders, it also, in a less spectacular way, was slowly changing the character of the mining community.

"What they aimed at was, primarily, the salvation of the soul, but the change of heart which accompanied conversion was habitually marked, though often with backsliding, by a change of life. The Methodist, whatever his shortcomings became a man of earnestness, sobriety, industry and regularity of conduct. Family after family thus became transformed to serve in its turn as a centre of helpful influence."25

Thus, besides producing the leaders, Methodism had a gradual civilising effect on the whole community. As. E. Welbourne said,

"They (Methodists) took away from the pitman his gun, his dog and his fighting cock. They gave him a frock-coat for his posy jacket, hymns for his public house ditties, prayer meetings for his pay-night frolics. They drove into the minds of a naturally improvident race the idea that extravagance was in itself a sin".26

For the older pitmen it was too late to correct their educational shortcomings, although some attended Sunday schools with their children and made an effort to attain a reasonable standard of reading and writing.27 It was the change in attitude that was important. For the first time the pitmen could see clearly the benefits of education when they listened to their local preacher or trade union leader. Methodism produced fluent, well-read men whose wider knowledge and outlook enabled them to see the miners' plight in its true perspective, not only to see it, but

to do something about it. Suppression of the miners had been easy, due to a lack of organisation and cohesion and a dearth of men able to lead them. Their new leaders were to fight for improved working and economic conditions but unfortunately had little or no time to devote to urging the provision of better educational facilities. The increasing awareness of the benefits of education did little to assist in the provision of more and better school facilities, but rather tended to consolidate the existing institutions even though they were largely ineffective. The population had not yet learned to distinguish between schooling and education. In most colliery areas there was a variety of schools available providing, at one end of the scale, a cheap child-minding service, to, at the other end, a sound and efficient system of education, these latter being very thinly distributed. A description of the schools available at the beginning of the 1840's will indicate the difficulty of meeting any rising interest in education. Many of the schools of the time were designed to dampen enthusiasm rather than encourage it.
CHAPTER FOUR

THE SCHOOLS

The low educational state of the colliers and their children at the time of the Children's Employment Commission might appear to indicate a shortage of schools. There were, in fact, in most colliery areas, a variety of schools available for those who cared and could afford to use them. In the Parish of Chester-le-Street, for example, where the bulk of the 13,000 population were miners, there were, in 1840, the following schools available:—

- 1 School for young ladies
- 14 Dame schools
- 1 Church infants' school
- 11 Day schools

The nearby village of Hetton-le-Hole, another mining community of about 4,500 inhabitants, had ten schools of various types.

These figures would seem to indicate that adequate facilities existed for providing education and this would have been the case if each of the various types of school had provided a sound and thorough schooling. There were very few which did so, however, the remainder varying from complete ineffectiveness to those achieving a mediocre standard in two or three subjects.

As a means of providing education the Dame school was often pathetic in its inadequacy. An Inspector of Schools described a Dame school he visited and the description is typical of the majority of these schools:

"More than seventy children were assembled on the day of my visit, the mistress (a good worker) was unable to either write or to detect the most gross errors of spelling, and a large portion of the children were sitting wholly unemployed."  

2. Ibid. p. 135
3. Ibid. p. 312
Mr. Leifchild reported that there were no infants' schools established at any of the collieries in his area and his description of the Dame schools that existed confirms that often their role was not one of instruction.

"It is true that Dame schools partake somewhat of the character of Infant schools but are generally a secure receptacle for children whose presence at home is inconvenient. These schools are at least desirable counteractives to parental indulgence, and it occasionally appeared that the children derived some benefit from their attendance, when the preceptress tempered her authority with an approach to maternal solicitude". 4

For the pitman's children, spending their early years in this type of school was the worst possible introduction to the educational process. When they should have been learning exciting new things, they sat unoccupied. Their eager interest and questions went unanswered and quickly the initial, natural instinct to learn was blunted. School became a prison whose only function was to deprive the child of the opportunity to play and at least benefit in health from an open air existence. Many Dame schools must have aroused such feelings of dread and contempt in the children that their revulsion at the thought of further schooling when they became old enough to escape into the pit can be understood.

If the children had moved on from Dame schools to a more enlightened system of education there would still have been a chance of overcoming this initial setback, but generally this was not the case. Although often well attended and frequently charging fairly high fees, the colliery day school was usually no improvement on the Dame school. Speaking of this type of day school, William Morrison, a surgeon of Chester-le-Street, describes them as,

"little more than asylums, in which children too young for work are kept out of harm's way, and submitted to a rude discipline, which may in some degree,

suppress the growth of the more prominent vices if it does not contribute positively to their moral culture". 5

These colliery day schools were often used to provide a living for a man unable, through some physical defect, to work in the pit, or were given to compensate a workman for an injury sustained underground. To become a schoolmaster was to acknowledge weakness and a dependence on others, and it was in this light that the pitmen regarded their village schoolmaster - an object for their charity. The fact that their children received no education for the fees they paid did not seem to matter, as is indicated by the situation which arose at Wingate Grange Colliery. A school had been established by the owners and for its maintenance they charged each man 1d per week but they eventually ceased to ask for this small amount so the education provided was virtually free. When an under-clerk, who was physically disabled, was discharged from the colliery he established a school in the Methodist Chapel and in six weeks had obtained seventy pupils at charges from 2d to 6d per week. The owners' school lost the same number of pupils over this period. This case is quoted by Mr. Morrison 6 and he adds that the ability and system of the newcomer could not be compared with the schoolmaster's in the owners' school. While the qualifications of many of the school-masters teaching in village schools were doubtful, they seemed confident of their ability to teach a range of academic subjects. The fact that the charges made varied according to the difficulty of the subject taught no doubt increased their self-confidence. Mr. Leifchild mentioned in his report a day school in South Hetton where the master,

"professes to teach reading, writing, mensuration, plain and sphenial trigonometry, land and subterranean surveying, charging 8d, 9d and 1s 0d upwards for these higher subjects. He is self-taught and being lame, opened this school for a livelihood". 7

6. Ibid. p. 720  
7. Ibid. p. 720
It seems that this type of schoolmaster was able to make a comfortable living by exploiting the fact that, as far as education was concerned, the colliers followed the principle that what cost most must be best. They were also able to take advantage of the feelings of sympathy felt for someone disabled in the pit or someone not strong enough to earn a living underground.

The colliers' use of sentiment rather than reason in choosing a school for their children can be criticised, but being largely illiterate themselves, they would have found it difficult to compare schools on an educational basis. To many of them, the fact that their children could read and write, however badly, was an achievement so much in advance of their own that they never considered that education could cover a much wider range of subjects or be conducted to a much higher level. They were too easily satisfied in educational matters and this inevitably prevented any improvement in the day schools and allowed the type of schoolmaster described by Mr. Morrison to flourish;

"The schoolmaster, whether viewed in a moral or physical light, is, to say the least, a very insufficient instructor, his great physical incapacity, in most instances neutralises the little good that is in him. He is, generally, one from the people themselves, reared up with some bodily infirmity, inherited from his birth, or the result of some disease or accident met with in early life, which has rendered him unfit for manual labour. The very causes which have brought him into his present occupation, have been unfavourable to the growth and invigoration of his intellect. He is, consequently, found deficient in qualifications which he pretends to possess. His education is very meagre, his mind has been little used to that orderly and consecutive manner of thought essential for an instructor of youth. He is as little fitted for elevating the morals as the intellectual qualities of his pupils. His education and mental training have not been of that kind to raise him above the prejudices, passions and moral feebleness of his own class. From such a man, therefore, little improvement in the tone of thought and feeling of pitmen, can be expected. He cannot, because he does not know them, nor feel them himself, be
be expected to infuse into the minds of his pupils, those new feelings and principles which are essential for the improvement of this class of labourers. He is actuated but by one motive, that is, to eke out from his occupation so much as will support him, and after having heard, amidst the din and noise of his school, the boys sing over their lessons in reading and administered a sufficient number of cuffs for past, present or future, or real or imaginary wrongs, his scholars roar out a hymn and are dismissed."

The views of Mr. Morrison, a local resident, were substantiated by the Children's Employment Commissioner for North Durham, Mr. Leifchild. He found that most of the colliery day schools were opened as private speculations although the masters nearly always had the consent of owners or Agent. Charges ranged from 3d to 9d and payment and attendance were equally irregular so that it was often impossible for the master to follow a regular course of instruction. There were no means of ensuring attendance nor were there any inspectors to test the pupils' progress. Often the schools had been opened by men who turned to them as the very last resort for making a precarious living.

Mr. Leifchild confirms the community's attitude towards the disabled from the pit;

"People encouraged to become schoolmasters are disabled from the pit. Should a vacancy occur in the colliery where his mishap happened, he deems himself and is deemed by others, indisputably entitled to the suffrages of all parties. It cannot, therefore, be greatly wondered at if the ordinary schools be ineffective and many of the masters merely tolerated. Nor can it be a matter of surprise if thoughtless boys should frequently prefer the gloomy liberty of door-keepers in the pit to the uninviting subordination and rigorous discipline of the school room."  

9. Ibid. p. 531
10. Ibid. p. 532
Whilst most of the miners and owners were content to assume that the schooling provided by such men as Mr. Morrison and Mr. Leifchild had described was sufficient, there were a few who realised its inadequacy and took upon themselves the task of providing something more efficient. Dr. Mitchell, the Children's Employment Commissioner for South Durham, mentions the establishment of an institution at Durham to train schoolmasters for the colliery villages, while among the colliers themselves Mr. C. Blackett, the owner of Wylam Colliery, had formed a society whose aim it was to educate their children. Mr. Blackett himself provided schoolrooms and a house for the teachers with free coals, and subscribed £20 annually to the school funds. Two schools were opened in January 1839, one to act as a day and evening school under a master, and one for sewing, knitting, etc., conducted by a mistress. While these schools seem to have been opened in a tide of enthusiasm for education, it appears that this quickly waned. On opening, there were 120 day scholars and 40 evening scholars, while at the time of the visit of Dr. Mitchell just over a year later, the number of day pupils had fallen to 30. Mr. Blackett's efforts had attracted the attention of other colliers and requests for a similar scheme began to be made on other owners. One of the most ambitious schemes was that at Killingworth Colliery where the men, having heard of Mr. Blackett's schools, requested that they should have the same facilities. The men were fortunate in that the Manager, Mr. Nicholas Wood and the owners (Lord Ravensworth, the Earl of Wharncliffe, and Mr. J. Bowes) were so active in their support of the request. Three schools were built, one being the first infants' school to be opened in the northern coalfields. They opened in August 1840 with 528 pupils; previously there had been only one school with about 90 pupils. The Killingworth Colliery schools were probably the best schools in the coalfield at the time and

12. Ibid. p. 710. w. 634
while many criticisms could still be made of them, they were certainly much to be preferred to the schools run by unqualified and totally unsuitable masters. Quite full details of the schools and their management were given to the Children's Employment Commission\(^\text{13}\) and it is worth repeating these to give an accurate picture of what was being achieved by the best of the colliery schools.

The entire management rested in a general committee of thirteen members including a President, Vice President, two treasurers, secretary, etc. The men for these posts were chosen by and from the members. The committee met once a month for general business and had powers to make such regulations in conformity with the general rules as the institution was found to require. The schools were supported by subscriptions from the workmen, although, as payment was not compulsory, not all of them subscribed. Each workman or head of a family paid 3d a week if they had children at the schools, i.e. boys under sixteen or girls at any age. Boys over sixteen paid 3d a week and evening scholars paid \(\frac{3}{2}\)d a week extra for candles. The schools were equipped initially with all necessary books and materials by each subscriber's paying one shilling extra and from the benefits coming from a public collection made at a meeting of the agents and workmen of the colliery and other well-wishers to the institutions. For the 3d a week, the collier could have all his family educated and each scholar was provided with reading books, copy books, slates, pens, ink and pencils, also all necessary books on arithmetic, English grammar, geography, bibles and New Testaments and other useful books.

The boys' school measured 38'0'' x 28'0'' and the girls' and infants' school 28'0'' x 22'0''. The subjects taught were arithmetic, writing, book-keeping, mensuration, land surveying, plane and spherical trigonometry, optics (to older pupils) and construction of maps and plans. All the girls learned to write on

paper with the master. The boys' school began at 8.30 a.m., the girls at 9.15 a.m. (because they had more work to do at home). The school closed at 12 noon and re-opened at 1.0 p.m. for the afternoon session which lasted until 4.0 p.m. There was an evening school from 6.30 p.m. to 7.30 p.m. All the higher classes were taught by the master with the assistance in each class of a head boy to help preserve order and assist the master. The lower classes were all taught by monitors with frequent assistance from the master.

The evening school was attended by a great range of boys and men and tuition by a monitorial system was therefore difficult. The average number of boys attending the day school was 90 to 100, the number of girls about 40, while the number of men and boys attending the evening school was 80 to 90. In the girls' school, reading, writing, scripture, sewing and knitting were taught and when the master and mistress thought a girl was sufficiently advanced, she was able to transfer to the master's school. Children could also be recommended by the committee for transfer to the master's school. In the infants' school, where the average attendance was about 100, the children were taught reading, scripture and their tables. They were also given exercise in the playground both in the morning and afternoon.

One of the collier's wives gave evidence about the saving the new system had meant for her family. Her three boys and three girls had all been sent to school before the new schools were established and this had cost her husband 1s 4½d per fortnight, out of an income that did not exceed 20s 0d weekly. Since the new schools opened, all the children are now educated for 3d a week.

In County Durham, the scheme of education at Urpeth Colliery, had a compulsory arrangement in which workmen had to contribute to it as part of

Each workman who had a family and a house paid 5d per fortnight, a workman having no family but a house 3d a fortnight. For each child sent to school there was an additional charge of 1d per week per child, the children also being allowed books at a cheaper rate. Thus at Urpeth the education of a large family was much more expensive than under the Killingworth scheme. The compulsory subscriptions made up the salary of the master (£40 per annum) who was appointed by the owners. The owners provided the schoolroom rent free and supplied coals for heating.

The children came to school at 4, 5 or 6 and the boys left as soon as they could work at 8 or 9, the girls remaining much longer. While no attempt was made at any colliery to compel attendance at school, the system at Urpeth would seem to provide a strong incentive for attendance. If a man had to pay for education, then he might as well make use of the facilities provided; not to do so, would be a waste even in the eyes of the sometimes improvident pitman. Mr. Boyd, the Agent at Urpeth, admitted that this compulsory scheme was difficult to introduce and one workman had even been dismissed for his objections to the scheme.

Mr. Boyd was also Agent for Wylam Colliery where the owner, Mr. Blackett, M.P., had introduced a similar system and apparently the scheme was more successful, because the colliery was much larger and with the increased subscriptions a very good salary could be paid to attract a good schoolmaster. There was also sufficient left to support a Reading Society. In spite of all this, Mr. Boyd reported that many workmen did not send their children regularly to school, thus saving the additional 1d a week required.

While the ineffectiveness of many of the colliery day schools seemed to be overlooked by most of the owners and managers there were those who

16. Ibid. p. 716. w. 646
recognised the deficiencies and could see how a sound education could be achieved. Mr. John Hedley, the Agent for Holywell Colliery, gave three conditions to be fulfilled before any educational advance could be made:–

1. Having school houses erected in the middle of the population sufficient to accommodate all the children.

2. Appointing competent teachers, both male and female.

3. The use of some powerful motive to induce the parents to send their children to school.

The first two of these conditions could have been met by every owner and agent. The cost of a school building was very small compared with the capital cost of opening a mine and providing houses. The small annual sum necessary to augment the school fees and give reasonable salaries to master and mistress was again so small compared with the annual turnover of even a small colliery that it was insignificant. Unfortunately, the fulfilment of these first two conditions was ineffective if the third were not met. The owners knew this, and they were discouraged from giving assistance by the knowledge that very often their schools would not be appreciated and used. Thus the potential providers of the means of educating the pitmen were waiting for some indication, some expression of desire for schools, from their men. But as the pitmen had little desire for education, a stalemate resulted in most of the colliery villages. Mr. Morrison pointed out that perhaps the owners were expecting too much from the pitmen and the disappointing support given to libraries and reading rooms was inevitable. When pitmen worked very hard for so many hours and possessed very indifferent educations they could not be expected to enthusiastically attend reading rooms when it was remembered how many educated persons did not look at a book for days on end without the very reasonable excuse of the pitman.

18. Ibid. p. 729
The powerful motive for education could also have come from the owners and agents in the form of compulsion, but it was never used. The Killingworth and Urpeth schools came nearest to it by making the school subscription compulsory, but there was never any attempt to compel attendance. The desired result could have been achieved quite easily without any direct pressure if each agent had laid down certain conditions for employment. Thus, if all agents and managers had insisted that boys should be eleven and able to read and write before they were employed this would have been a sufficient motive to ensure the education of the majority of the colliers' sons. Unfortunately, there was no unanimity among the owners and none dared impose such conditions. In a growing industry, men were scarce and it would have been foolish to risk losing the whole of a colliery's labour force by trying to enforce conditions which the men knew they could escape by moving to another colliery. The only compulsion that could be effective was in the hands of the Government and it was to be a considerable time before it was brought to bear on the problem.

While the day schools held the real key to educational advancement, they were supplemented by the night school and Sunday school. Nearly every private enterprise school was open in the evening for the mutual benefit of master and pupils. It gave a chance for those who were already working to consolidate their earlier learning or for the older men to begin to learn the elementary principles of reading and writing. The long hours in the pit, however, were sufficient to deter the majority of pitmen from continuing their education at a night school and Mr. John Hedley estimated that less than two per cent of the working colliery population attended an evening school. At Penshaw Colliery, the average attendance at one of the night schools was only eight, with the ages of the scholars ranging from nine to fifty. The evening schools were often

20. Ibid. p. 717. w. 648
sustained by a class of workmen who had arrived on the colliery scene with the steam engine. Unlike that of the pitmen, the work of the mechanics required a certain amount of knowledge and skill, and it was not sufficient to be merely physically strong to hold down the job. While the early steam engines were simple in construction and easy to maintain, they developed rapidly as greater demands were made upon them and it became increasingly necessary for the colliery mechanic to understand thoroughly the workings of his engines. The brighter boys, apprenticed as mechanics on leaving school, found that further mastery of reading, writing and particularly arithmetic was necessary if they were to make any progress, and this extra tuition could only be obtained at the evening school. Evening schools could also deal with the subjects necessary for the study of colliery surveying, although some of the early underground surveys indicate that the standard of accuracy was not high. The presence of these early engine-wrights and surveyors was the beginning of an educative influence which was to increase as the coal industry expanded and technical problems increased. The pitmen were able to see that the way to the responsible and well paid post of engine-wright was by the acquisition of a basic education which could be built upon with experience.

Having this small nucleus of reasonably educated men living in the colliery community was one of the factors which was eventually to contribute to the emergence of a more civilised, better educated pitman. If the hewer had no aspirations about educating himself he could see the financial advantages of his son's becoming an engine-wright or mechanic and while every boy could not attain these positions, they were there to provide a practical reward for those willing to educate themselves. For the majority of boys working underground however, night schools held no attraction and even the possibility of a better job out of the pit was insufficient to overcome the general aversion to schooling that the pit boy seemed to have. It must also be remembered that the night schools were conducted on the same premises and by the same masters as those managing the day schools, so that all the previous objections about inadequate and incompetent teaching in day schools
applied equally to those open in the evening. For many boys the prospect of further years under such incompetent teachers must have been almost as great a deterrent as the fatigue produced by a day in the pit.

If, for various reasons, the attendance at the night schools was poor, the same could not be said of the Sunday Schools which existed in every colliery village. In returns from the collieries in South Durham a half to three-quarters of the boys under eighteen were stated to belong to a Sunday School. The Newcastle Sunday School Union covered an area extending forty-six miles east and west along the Tyne, and five to twenty-five miles north and south, and in this area there were 106 Sunday Schools with 10,329 scholars on their books and 1,840 teachers giving their services free. The Wesleyan Sunday School Society covered approximately the same area and contained 80 Sunday Schools with nearly 6,000 children and 700 teachers. These figures show that the Sunday Schools of the numerous denominations of the Dissenters provided ample accommodation for all the children in the pit villages and they were well attended.

However, good attendance at the Sunday Schools was not a mark of their excellence, but of their convenience. Parents could encourage attendance because there were no fees and there was no interruption of the child's pit work. For some, the Sunday School was a convenient excuse for taking their children away from day schools to work in the pit. This acceptance of the Sunday School as an alternative to day school had an inhibiting effect on the development of day schools and was commented upon by Mr. J. M. Fletcher, a sub-Commissioner for the Oldham area.

"The only schools the children have been accustomed voluntarily to frequent are Sunday Schools. Habit has caused these schools to be regarded as a legitimate and sufficing source of education and the whole juvenile population frequent them".

22. Ibid. p. 723
23. Ibid.
24. Ibid.
The acceptance of Sunday Schools as an alternative to day schools would seem to suggest that facilities and opportunities were similar in both types of school. In fact, as a means of educating the children, the Sunday Schools were little better than the Dame schools. Often the main aim of the Sunday School was the conversion of the pupils to the doctrines if the particular church running the school. Pupils were enticed from one school to another by prizes, picnics and parties, all organised to boost membership. Unfortunately, the children's rate of progress varied inversely as the numbers in the classes which were far too large for any useful instruction to be given. Conditions would have been difficult for trained teachers, but for those actually teaching in Sunday Schools, generally volunteers from the congregation and only just literate themselves, the task was impossible. They were ignorant of what to teach, unable to understand the needs of their pupils, and, because of their in¬

In many schools, the teachers attended by rotation, so that they taught perhaps only once a month and, with each one following a different course of in¬struction, any progress was almost impossible, the benefit of the few good teachers being greatly reduced. As the schools were only open one day per week, their effectiveness was further reduced and it is hardly surprising that some children, having attended Sunday School for several years, were as ignorant when they left as when they first started. The shortcomings of the Sunday Schools were recognised by all interested in the education of the pitman and even by those organising such schools. Mr. Leifchild spoke to clergymen in Northumberland and North Durham and all agreed that attendance at Sunday School in no way made up for education lost by early re¬moval from day schools and that the teachers in their schools were "very imperfectly

26. Ibid. p. 723.
qualified for tuition". 27 In South Durham Dr. Mitchell recognised that the efforts of the Sunday School teachers were well meant, but gently implied that they had little effect.

"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". 28

Nevertheless, the Sunday Schools could have been a powerful force in the education of the pitman’s children. The buildings were available, support came from the higher classes of the community and, most important of all, the children attended in large numbers and fairly regularly. Yet in all but very few Sunday Schools this opportunity was not grasped, not because it was not recognised, but because the means for exploiting it were not available. Even with competent teachers the role of the Sunday Schools would have been severely restricted by the large classes and the infrequency of their meetings. The criticism of the Sunday Schools, which came from proprietors in other areas, were often based on the assumption that their function was to provide a similar type of education to that being given by the day schools. This assumption was easily made by those proprietors and parents who found it convenient to send children to school on Sunday and thus leave them free to work in the pit during the week. To some children the Sunday School was a positive hindrance to their educational advancement, providing little or no opportunity for learning, but providing the excuse for the child’s removal from day school.

The inducement of the extra few shillings that a boy could earn at nine or ten years of age, was perhaps the greatest obstacle to the development of a literate mining community. Entry into the pit was usually the end of a boy’s school career. The work in the pit was monotonous and required little skill or imagination. Mental facilities received little exercise during working hours and the fatigue produced by the boy’s labours made it unlikely that they would receive any further exercise afterwards in a school. Conditions in Durham were better than in most other coal-

28. Ibid. p. 144
fields and while the recommendations from other area Commissioners of the Children's Employment Commission might have arisen from situations that did not exist in the Northern coalfield, many were of overall importance. Thus, the Sub-Commissioner for Lancashire, Mr. J. L. Kennedy, made three recommendations to the Children's Employment Commission which, while arising from conditions in Lancashire, had national significance. They were: 29

"1. Exclusion from the mine without provision for the employment in school would be a means of increasing the prevalent demoralisation. The exclusion of children able to work, from work, would be equivalent to sending them into abodes of filth, idleness and demoralisation and be an aggravation of the evils intended to be remedied.

2. The only mode of securing the two-fold object of obtaining education and preventing the children from being overworked at early periods of their life, appears to me to be the legal enforcement of their regular attendance at proper schools during those working hours that it may be thought necessary to subtract from the working hours of the adults in the mine.

3. With respect to the expediency of every proprietor being bound to provide a schoolmaster and room for children in his employ, I have first to observe that the greatest importance is to be attached to the necessity of the collier children having the advantage of a communion with children of other classes than their own. I know no other means whereby their present habits are more likely to be eradicated, and better ones for the future implanted."

In these three statements Mr. Kennedy summed up the means required to lift the colliers from their illiteracy and low social standing; exclusion of young children from the pit, legal enforcement of attendance at school and an end to the isolation and clannishness that had long been characteristic of the miners.

Mr. Kennedy's recommendations could hardly be argued against on moral grounds, but some owners saw much more serious implications - that they would be affected financially. The Yorkshire coal owners had appointed a committee to consider the Commissioner's Inquiry and their statement on the restricting of employment of children indicates that their first consideration was the safeguarding of the shareholders:

"The limitations of age, while it would be productive of increased expense in all cases would oblige the owners of thin seams to abandon their mines, which have been opened at great expense. To attempt to extend a compulsory system of education to children employed in the mines would be fruitless on account of the nature of the employment, the distance at which they reside from the pit and the constantly changing positions of the pits themselves, while the small number of miners in any one place would render it impossible to devote a school exclusively to them. Were this latter expedient possible, your committee would object to it from its tendency to foster class prejudices and unsocial feelings, and they protest against the right of Parliament to impose the duty of education upon one section only of the employers of labourers".

While this attitude was not one that would have been taken by many of the Durham coal owners, it was typical of the apprehension felt about Government interference. Education might be desirable, but if it interfered with output it could not be considered. Any education had to be shaped to meet the conditions. That the conditions might, or indeed should be changed to suit the children never seemed to enter the heads of many of the owners; there was no question of choosing between

the capital tied up in a mine and the education of illiterate pit-boys. The opposition of these Yorkshire coal owners to the education of their workers' children is sufficient condemnation, but when, at the end of their statement, they protest that it would be socially bad for the colliers, they add hypocrisy to the long list of failings that could be held against them. Their concern for the colliers is hardly consistent with their determined efforts to prevent them from being educated.

The overall picture of the condition of the pitmen and their children in the years preceding 1842 is one of depression, sometimes squalor, often poverty and almost always illiteracy. There were isolated pockets of enlightened communities and employers, but the conditions that had been described by the Children's Employment Commission could not wait for haphazard benevolence from proprietors and wealthy landowners; national legislation was required to make the worst equal with the best, a 'best' which was not nearly good enough. The publishing of the Commission's report in April 1842 set in motion the debates and discussions which were to lead to the protective legislation for which the collier children had been waiting forty years.
CHAPTER FIVE

THE CHILDREN'S EMPLOYMENT COMMISSION AND THE 1842 ACT

The Report of the Children's Employment Commission in 1842 was not the first to draw attention to the condition of the mining population. The Commissioners who had been appointed to carry out the provisions of the 1833 Factory Act occasionally turned their attention to the colliery population of their districts. Mr. Carleton Tufnell's report for 1833 records the results of some enquiries in the Lancashire coalfield. After visiting the underground workings of one colliery, Mr. Tufnell compares the conditions with those in factories in his area.

"I cannot much err in coming to the conclusion, both from what I saw and the evidence of witnesses given on oath, that it must appear to every impartial judge of the occupation, that the hardest labour in the worst room in the worst conducted factory is less hard, less cruel, and less demoralising than the best of coal mines."¹

If Mr. Tufnell thought that the strong wording of this observation might result in some action being taken on behalf of the mine children he was to be disappointed. Nothing was done until 1840. Speaking in the House of Commons on August 4th, 1840, Lord Ashley, who had been largely responsible for the legislation to protect factory children, admitted that all his efforts had been directed towards the factories to the exclusion of other trades which were equally deserving of attention.

"I had long resolved that, as soon as I could see the factory children, as it were, safe in harbour, I would undertake a new task."²

He went on to give a list of trades not under regulation and described

1. BOYD. Coal Pits and Pitmen. p. 75
2. HANSARD. Volume L.V. p. 1260
conditions in some of them. His first objective, he said, was to bring the children in these trades within the reach of education (an objective which was lost sight of in much of the subsequent legislation). As a first step towards relieving the atrocious conditions of the thousands of children in unregulated employment Lord Ashley moved,

"That an humble address be presented to Her Majesty praying that Her Majesty will be generously pleased to direct an enquiry to be made into the employment of the children of the poorer classes in mines and collieries, and in the various branches of trade and manufacture, not being included in the provisions of the Acts for regulating the employment of children and young persons in mills and factories, and to collect information as to the ages at which they were employed, the number of hours they are engaged in work, the time allowed each day for meals, and as to the state, conditions and treatment of such children, and as to the effects of such employment, both with regard to their moral and bodily health." 3

This Commission was immediately agreed to and the Commissioners appointed. Two years were spent in collecting evidence from all the coalfields of Britain, much of it from the miners and children themselves. A massive report of over two thousand pages was compiled and published in May 1842.

It immediately caused a storm of controversy. The reports on factory conditions had already shown the public that horrors had been hidden behind many factory walls, but these faded into insignificance when compared with what was now revealed. The deplorable conditions in the mining areas were described in detail and were even represented in the report by line drawings 4 to drive home the degradation of some of the collier children. Some of the evidence from the report has already been used in the previous chapters and although the quotations used represent only a tiny fraction of the total evidence they do not exaggerate the conditions of the miners. The conditions in the northern coalfield were much better

4. See Appendix
than in other areas, but the overall picture of the country was so appalling that the
evidence of reasonable conditions was swamped by that from the worst areas. Had
conditions throughout the country been as they were in Durham and Northumberland
the impact of the Commissioners' Report would have been much less and legis­
lation might have been further delayed.

Almost before members had had time to read the report, however, and
while everyone was still shocked by what it revealed, Lord Ashley made the first
move to introduce legislation to put an end to the disgraceful state of affairs. In
the House of Commons on June 7th 1842, he said,

"It is not possible for any man, whatever be his station, if he have but a
heart in his bosom, to read the details of this awful document without a combined
feeling of shame, terror, and indignation". 5

Then, having outlined the findings of the Commission, he stated his faith
in the accuracy of the evidence:

"Let me observe that the evidence of the workpeople themselves is worth
more than all the rest, for they know what they suffer, and what the consequences
are. I can say for them that I have ever found their statements more accurate, and
that I have never met with attempts to mislead in the evidence given by working men
of their own condition". 6

Lord Ashley made this point about the credibility of the evidence early
in the proceedings, perhaps realising that to the laymen some of the statements in
the report must have seemed exaggerated. In fact, at a later stage, the opponents
of Lord Ashley's Bill tried to discredit the whole report by spreading rumours of
inaccuracies, exaggerations and even incompetence on the part of some of the Sub­
Commissioners.

On the employment of women underground, Lord Ashley pointed out the

5. HANSARD. Volume LXIII 3rd Series 1842. p. 1321
6. Ibid. p. 1328
influence a woman had over her whole family and the consequences of allowing her to work in such demoralising conditions;

"It is bad enough if you corrupt the man but if you corrupt the woman you poison the waters of life at the very foundation". 7

This was to be the first provision of the bill; the total exclusion of females. Opposition to this measure could be expected from owners who employed women in their mines. The women were easier to manage, worked for low wages, would work where men would not and because they never expected to become coal getters, they were steadier at their work of drawing coals. Lord Ashley argued that their exclusion would mean a general improvement in conditions underground, as men would refuse to work in low, badly ventilated roads and owners would be compelled to improve them.

The second provision of the bill would be the exclusion of all boys under thirteen, although Lord Ashley made it clear that his own feelings were that fourteen was a proper limit for full labour. He chose thirteen because that was the age under which the Factory Acts prohibited full labour. The cotton and wool mill owners had complained about the loss of children who went into mines where labour was not regulated by law thus giving the mine owner an advantage over the mills. 8 Making thirteen the age for restriction in mines would overcome this complaint. He envisaged both factories and pits being worked by two sets of children in relays of six hours each. Lord Ashley saw this provision as a means of preventing much of the vice and irregular habits of the miners. 9 In many cases the reason that women and children were employed was that the men would work only seven or eight days a fortnight earning some money, then spending the rest of their time in drinking, cock-fighting and gambling until these earnings were exhausted. They then had to work to

7. HANSARD. Volume LXIII 1842. p.1335
8. Ibid. p.1339
9. Ibid. p.1341
make up lost time and took their wives and children into the pit with them. If the mines were closed to women and children the men would become steadier at their work to the benefit of the whole community.

The Children's Employment Commission had reported that in some districts accidents had been caused by winding engines being entrusted to small children. Colliers had complained that until a boy was mature enough to know the value of a man's life, he should not be trusted with the management of an engine. The third provision of the Bill, therefore, was that no person under twenty-one should be in charge of an engine.

The fourth important provision was that apprenticeships would be abolished and every existing indenture cancelled. The abuses of the apprenticeship system in the mines were perhaps the worst feature of the mining industry at this time and Lord Ashley intended that they should not exist for a day longer than necessary. In his concluding remarks, Lord Ashley seemed to assume that some form of schooling would systematically replace work;

"It is a mockery to talk of education to people who are engaged, as it were, in unceasing toil from their cradle to their grave. I have endeavoured for many years to attain this end by limiting the hours of labour, and so bringing the children and young persons within the reach of a moral and religious education".

Yet Lord Ashley must surely have realised from his experience with factory legislation that simply to provide the time for the children to be educated was not sufficient. The majority of the children, even when time and opportunity for education was present, did not attend, or were prevented by parents from attending school. It was unfortunate that the Bill did not include some measure to ensure that the free time being given to the children was used to educate them. The proposals to end the employment of women and the apprenticeship system would have little effect

in the north where neither had been common practice for many years.

Mr. H. Lambton (M.P., County Durham) supported the Bill and described how he had established three schools for his colliers, but found the children being taken away to go into the pits. He thought that regulation of age would help to promote education and he hoped that owners would establish colliery schools at their own expense. Mr. Lambton sounded the first warning note which was to be repeated many times during the passage of the Bill. He advised caution with the legislation because,

"We have to do with immense interests, where a rash legislation might plunge them into confusion and disorganisation and recollect that we have to do with the labour of the pitman, which is his own property". 11

Mr. Hume supported the Bill stressing that it was the duty of the government, "to provide by education for the moral improvement of the young". 12 Education should be one of the foremost means used by Lord Ashley in his efforts to end the misery in the coal mines.

At the end of the debate the Bill was brought in and read a first time. It had been warmly supported by practically the whole House. There can be little doubt from the speeches made in this first debate that one of the prime aims of the Bill was to free the collier children so that they could be educated. It seemed that the Bill's supporters, having given the children their freedom, expected the schools to be erected by colliery owners or by other voluntary efforts and that they would be voluntarily attended by the majority of the children who, now having nothing to do, would flock to them. Lord Ashley must have known that these expectations would not be wholly realised and yet they had to be stressed as one of the main reasons for taking children out of the pits. To make the Bill effective would have meant clauses compelling attendance at school, clauses which would have aroused intense opposition and complicated the Bill so that its main purpose of relieving drudgery of

12. Ibid. p. 1357
women and young children was lost. The first task was to get the children out of the
pits and for the time being hope that they would be educated by voluntary effort. To
move too quickly might lose everything.

At the committee stage of the Bill on June 22nd, the warm support given
to the first reading had cooled somewhat. The colliery proprietors had been taken by
surprise by the disclosures of the Employment Commission and had been silenced by
Lord Ashley's eloquent speech during the first reading. They had now had time to
consult together and decide on a plan of campaign which would protect their interests.
Members of the House who knew little about collieries had found the revelations of
the Commission almost beyond belief and when rumours of exaggeration began to be
spread, they were only too pleased to grasp at them and reassure themselves that
things were not as bad as had been described. One member, Mr. R. Scott, with
interest in the South Staffordshire coalfield went to almost ludicrous lengths to
contradict the picture drawn by the Employment Commission. His statement that,
"mining was generally looked upon as a healthy, cheerful and pleasant occupation",
indicates his complete lack of knowledge of conditions in South Staffordshire and in
particular of the feelings of the miners. Unfortunately, there were many such un-
substantiated statements from members with mining interests who were regarded
by others as experts on the subject. Often their statements were preferred to the
evidence collected by the Commissioners even though Lord Ashley and the
Commissioners had made the point that the views of owners had been found to be
unreliable as they never went underground and received their information second
hand.

Mr. Scott came to the real point at the end of his speech when he pro-
posed that the Bill should be postponed until another session to allow time for an
enquiry into the evidence and to enable parties, "to see how it might affect their
interests".  

13. HANSARD. Volume LXIV 1842.
14. Ibid.
Presumably Mr. Scott and other interested parties would then make sure that anything which affected their investments did not appear in the Bill.

Lord Ashley described how he had received a deputation from the mining districts and after discussion he now proposed that Clause 2 should limit the age at which boys should descend the pit to ten instead of thirteen and restrict the duration of labour for boys aged ten to thirteen to three days a week and twelve hours a day. This amendment and the other clauses of the Bill were agreed to.

On June 24th in the House of Lords opposition to the Bill began in earnest. The Marquis of Londonderry, who had mining interests in County Durham, was to be totally opposed to the Bill from beginning to end, and this, together with his actions in the years following its enactment, earned for him the hatred of many of the miners. The Marquis presented petitions from coal owners in Northumberland and Durham calling attention to, "the exaggerated impressions which the high colouring that had been given to the hardships of the mining population in the report of the Commissioners, had produced on the public mind". 15

He attacked the report saying that there was so much exaggeration that he hoped that the true and false would be separated before any Act was passed. The Commissioners, fresh from the Factory Commission, had the expectation and desire of finding the same bad conditions among the miners. He criticised the way of collecting evidence;

"communicating with artful boys and ignorant young girls, and putting questions in a manner which in many cases seemed to suggest the answer". 16

He thought that,

"the manner in which the report had been accompanied by pictures of an extravagant, disgusting, and in some cases of a scandalous and obscene character,

15. HANSARD, Volume LXIV. p.538
16. Ibid. p.538
was not such as should have been adopted in a grave publication, and was more calculated to excite the feelings than to enlighten the judgement". 17

As Mr. Scott had done in the House of Commons, the Marquis was here refuting the evidence of the Commissioners because it did not compare with his own experience, experience that was limited to second hand reports from his colliery overseers. He inferred that the Commissioners could hardly expect their evidence to be taken seriously when they had questioned the ignorant collier children and ignored the educated proprietors whose opinions were much more to be trusted. The hope that the Bill might improve the colliers' educational standards was not shared by the Marquis who pointed out that,

"Our fields could not be ploughed, our mines wrought, nor our ships sailed by means of the pen alone". 18

This statement seems to imply that an uneducated labour force was essential for these trades to be carried on efficiently.

In the opinion of the Marquis there was a place in society for everyone and the requisite education would always be supplied without all this fuss and stir. Too much education would destroy the balance of society.

In the House of Lords on June 30th, the Marquis of Londonderry renewed his attack on the Commissioners' report and upon the Bill's being considered in the Commons. His objections stemmed from the fear that the measures being considered would prevent some mines from being worked and make the working of others difficult. In his speech he informed the House that he would contest every clause except the exclusion of females. 19

Throughout the entire passage of the Bill, the Marquis of Londonderry seemed to consider it only as a piece of legislation which might affect him financially

18. Ibid. p. 543
19. Ibid. p. 783
and which was therefore to be opposed. The positive good to the mining population which would result from the Bill seemed not to concern him and indeed from the treatment given to his own miners in later years, it was obvious that he had little regard for them or their children.

When Lord Ashley moved the third reading of the Bill on July 1st, it became obvious that pressure had been brought to bear on members of the House. Leading the opposition to the Bill's third reading, was a Mr. Ainsworth, who himself owned several collieries. Lord Ashley was so pressed to adjourn the reading that he had to divide the House and even then Mr. Ainsworth forced a second division. However, Lord Palmerston gave his support to the Bill and it was eventually read a third time, though its consideration was adjourned until July 5th. On this date, Mr. Ainsworth presented fifteen or sixteen petitions against the Bill from the colliers of Bradford. He then indicated that he would not oppose the Bill at this stage but would let it go to the Lords, "with all its faults and failings". 20

In giving his reasons for disapproving of the Bill, Mr. Ainsworth painted a dismal picture of the colliery areas should it be enacted. The exclusion of women and children would mean that thousands would be unemployed and hundreds of families thrown into the workhouse. Present distress would be increased, whilst the wages of those still working would be reduced by up to fifty per cent. The plan for working boys on the relay system was totally impracticable as was the clause preventing children under ten from entering a mine. It would be impossible to prevent a man from taking his children into the pit unless a policeman were stationed at each colliery.

Mr. Ainsworth doubted the accuracy of the Commissioners' evidence; in his opinion the collier children were in a better state than factory children and the effect of the Bill would be to deteriorate their condition. He advised Lord Ashley not to be too hasty, but rather to be content with the exclusion of women from the mines.

Several other speakers supported Mr. Ainsley in his call for more time to consider all aspects of the question before passing legislation. Speaking in support of the Bill, Mr. Brotherton put forward the principle that,

"it was always necessary, where strong self interest operated to the continuation of abuse, that such abuse should be checked by legislative interference". 21

Unfortunately, the self interest in this case was among those who were responsible for the legislation so that the continuation of many of the abuses seemed certain.

Lord Palmerston, who had supported the Bill, expressed doubts as to its fate in the Lords. He hoped that it would pass through unaltered, as it should, with Government support. Lord Ashley had been promised warm Government support in the Commons by Sir John Graham, and it would be a mockery if that support were not continued in the Lords.

The Bill had thus passed through the Commons with only one amendment and that had been proposed by Lord Ashley himself. Opponents of the Bill were confident that in the Lords measures would be taken to delete or amend those clauses which might have affected the profitable working of their own and their Lordships' mines.

It seemed, at first, that Lord Ashley would be unable to find anyone to present the Bill in the Lords. He recorded in his diary,

"July 8th, very much trouble to find a Peer who would take charge of the Bill. It is the admiration of everybody, but the choice of none. So often refused, that I felt quite humbled, I was a wearisome suitor for a moment's countenance. All had some excuse or other; praised it, but avoided it." 22

He eventually approached Lord Devon, who agreed to take charge of the

On July 12th, the Marquis of Londonderry presented several further petitions against the Bill and accused Lord Ashley of misrepresenting the feelings of the Northern coal owners on the Bill. He read a letter from Robert Brandling, Chairman of the Coal Owners' United Committee, which included a resolution thanking all the members of the House of Commons who had,

"used their utmost exertions to guard against any unnecessary restriction being imposed upon the coal trade of Northumberland and Durham by the Act recently introduced for regulating labour in coal mines." 23

The position of the Government was made clear when Lord Wharncliffe stated that they intended to remain perfectly passive with respect to the Bill, but though they would take no part as a Government they would as individuals.

In the House on the following day, Lord Palmerston asked the Head of the Home Department, Sir John Graham, how he reconciled Lord Wharncliffe's statement that the Government would be passive with his own pledge given while the Bill was in the Commons, that the Government would give warm support. In his reply Graham tried to qualify his earlier statement by saying that although supporting the Bill in general, he and the Government reserved the right to consider details and he assumed that this was what Lord Wharncliffe had meant also. 24

The debate continued on July 14th when the Bishop of London and the Archbishop of Canterbury presented petitions in support and expressed the hope that the Bill would pass through the House without alteration. However, attacking the Commissioners' report once again, the Marquis of Londonderry asked that the Bill should not be hurried through, more time should be given to collecting "impartial" evidence and not such as was contained in the two thousand pages before the House,

23. HANSARD. Volume LXV 1842. p.6  
24. Ibid. p.85
obtained from interested persons. The Marquis then warned that the passing of the measure might be the beginning of a flood of grievances got up,

"---for the purpose of working on that hypocritical humanity which reigns so much at present." 25

Moving the second reading, the Earl of Devon praised the fairness of the Commission, adding that even without any evidence they should, on common feelings of humanity, have rejected the employment of women underground. The absence of any such feelings in the Marquis of Londonderry were confirmed when he interrupted the Earl's speech to shout, "Some seams of coal require the employment of women." 26

Two amendments were introduced by the Earl of Devon. The clause on apprenticeships was to be altered so that no person under ten could be apprenticed and no apprenticeship should last longer than eight years. The age required for a person to be in charge of an engine was reduced from twenty-one to fifteen.

Objecting to the Bill, the Earl of Radnor, said it interfered with labour and that they should not attempt to enforce morality by Act of Parliament, the pit was not the only place where immorality took place.

A motion that the Bill be read a second time six months later was moved by the Marquis of Londonderry who made yet another attack on the evidence given in the Commissioners' report. He now accused some of the sub-commissioners of being incompetent and unfit for their duties and tried to discredit one, a Mr. Franks, because he had been imprisoned for a libel. During his speech, the Marquis made two statements which once again showed his total disregard for the women and children in the mines and his abysmal ignorance of their real condition. Speaking about the effect of the withdrawal of women, he concluded, "women do not mind work", and as far as boys were concerned, he thought, "they are as fit for work at eight as

26. Ibid. p. 107
It was left to the Bishop of Gloucester to censure first the Earl of Radnor for suggesting that it was not the duty of the legislature to enforce moral duties and then the Marquis of Londonderry for his remark of, "hypocritical humanity" which had been implied against Lord Ashley. As there was no seconder for the Marquis of Londonderry's motion, the Bill was read for a second time without a division.

During the Committee stage on July 25th, several amendments were unsuccessfully introduced to allow certain classes of women to remain in mines. The substitution of twelve years for ten years was moved in clause two, but this was rejected. Lord Ashley wrote bitterly in his diary on the following day.

"July 25th, Bill passed through Committee last night, in this work, which should have occupied one hour they spent nearly six and left it far worse than they found it, never have I seen such a display of selfishness, frigidity to every human sentiment, such ready and happy self-delusion."

Lord Redesdale moved the third reading of the Bill on August 1st, and this was immediately opposed by the Marquis of Londonderry. In a final attack on the Commissioners' report, he implied evidence had been collected from the worst mines and more space had been devoted to the bad districts than the good. Drawing attention to the fact that under the inspection clause of the Bill an Inspector might come to a pit, but there was no compulsion on the owner to let him down or give him any assistance, the Marquis then made it clear that he for one would give the Inspector no assistance whatsoever.

Although Lord Redesdale did not think that the Marquis of Londonderry would be willing to brave the inference which would be drawn from throwing any difficulties in the way of inspection, Lord Wharncliffe took the precaution of moving that an additional sentence be added to the inspection clause:

27. HANSARD. Op. cit. p. 120
"Owners and occupiers of mines are to furnish the means for inspectors to visit and inspect mines."

This was agreed to and the Bill read a third time.

The Lords' amendments were considered in the House of Commons on August 6th. Lord Ashley felt that they had invalidated the principle of the Bill and made it inoperative. Supporting him, Lord Palmerston could only hope that the good feeling of those engaged in the mines and collieries would counteract the evil effects of the amendments. He regretted that the support promised by the Government had not been given, their reluctance to object to the amendments proved that there was a power greater than their own which exercised a sort of coercion over them.

This inference of pressure from the colliery owners was taken up by Mr. C. Buller who remarked that he,

"was afraid that the House of Lords was inclined to consider every measure in relation to landed property than to humanity." 30

Although Lord Ashley regretted the modifications, he invited the House to accede to the Bill, and the amendments were agreed to. The Bill received Royal Assent on August 10th, 1842. The Act provided that:-

(1) After March 1st, 1843, no females should be employed underground.

Lord Ashley's original Clause had intended all women to be excluded from the mines. The wording of the new clause allowed women to enter the mines, e.g. to take in food for their husbands. Thus the legal restriction was now on employment, not entry.

(2) Males under ten were not to be employed underground.

The original Clause had stipulated thirteen years. Again restriction was on employment rather than entry to mines.

Inspectors were to be appointed to enquire about the enforcement of the provisions of the Act and the state and condition of persons working in mines.

No apprentice could be taken under ten and the term of apprenticeship must not exceed eight years (except as mason, joiner or mechanic). All apprenticeships contrary to these regulations became void and present apprenticeships would end at eighteen.

Ashley's original Clause had abolished the apprenticeship system.

Penalties of not more than £10 nor less than £5 to be incurred for every person employed contrary to provisions.

For misrepresenting age, parents were liable to a fine of 40s. 0d.

Persons employed above ground at collieries are not affected by the Act.

No steam or other engine was to be under the care of a person under fifteen. Penalty £20–£50.

Wages must not be paid in public houses.

Anyone informing about contraventions of the Act would receive half the sum collected in penalties.

Anyone convicted could appeal to the Quarter Sessions.

From the publication of the Children's Employment Commission Report to the passing of the Bill only three months had elapsed and in spite of Ashley's expression of disappointment in the House of Commons about its mutilation, he was nevertheless elated that some of the worst aspects of underground life had been removed. He recorded in his diary;

"August 8th  Took the Sacrament on Sunday in joyful and humble thankfulness to Almighty God for the undeserved measure of success with which He has blessed my efforts for the Glory of His name, and the welfare of his creatures."  

Lord Ashley had emerged from the debates with an enhanced reputation as the guardian of the working classes and he had been well enough supported in the Commons by the majority of M.P's. The intense opposition had come from those members who had some financial interest in the mining industry. Even the pressure brought to bear on members of the House of Lords had happily been insufficient to negate the Bill completely. The necessity of the Bill on humanitarian grounds had been so obvious from the very beginning that few would have risked the notoriety of having opposed it completely. The Marquis of Londonderry may have unwittingly assisted the Bill by his completely biased opposition. Some of his statements and interjections showed such complete self-interest, ignorance and lack of feeling that many must have disassociated themselves from him, when a more reasonable approach might have won them over to his side.

As far as education was concerned, the Act did little to change the situation in the mining districts, especially in the North. It was true that boys under ten and all girls were now freed from the pits, but no mention had been made of providing education for them. There were no compulsory education clauses as in the Factory Acts and the proprietors had no responsibility for these children. If there were to be any improvement in the educational field, it would have to be on an entirely voluntary basis. The possibilities of improvements were more obvious in the clause prohibiting the employment of women, but again this would have no effect in Durham and Northumberland where women were not employed.

The Bill was to come into effect on March 1st, 1843. By January of that year the Marquis of Londonderry had begun the formation of a league for the repeal of the Bill. He received support from Scotland where many women were employed. On February 22nd, 1843, Mr. Cumming Bruce, a Scottish M.P., presented a petition signed by a thousand women asking that they should be allowed to continue working in the mines. He eventually forced a division on the question and was defeated by 114. No further attempts were to be made to hamper the Bill, and on November 28th, 1843, a Commissioner was appointed under the Act to supervise
its working. He was instructed,

"---to ascertain and report the manner in which the provisions of the Act were observed; to take such steps as might be in his power to secure to the labourers employed in mines and collieries the benefits which have been guaranteed to them by Parliament; and to inquire into, and from time to time report upon, the general state and conditions of the persons so employed." 32

Hugh Seymour Tremenheere was the man appointed and his reports over the next sixteen years were to trace the actual effects of the Act on the mining community.

Report of the Mining Commissioner 1844
Although the 1842 Act met with strong opposition from the colliery proprietors, the colliers themselves received it almost with indifference. It might be assumed that the removal of their wives and children from the cruel conditions in the pit would have received their support. Petitions had indeed been presented from colliers who supported the Bill but the opposition seemed able to produce just as many signatures from those who opposed it.

Undoubtedly, however, the main reason for their lack of interest was the fact that the 1842 Act did not touch upon any of the real grievances under which they had been suffering for a long time. The banning of children from mines came well down on the list of colliers' grievances and if the children had had to wait for the action of their parents to get them out of the pit they would certainly have been there for another twenty years.

While Parliament debated and argued over a measure which they were sure would benefit the colliers, the colliers themselves were agitating for the removal of grievances that Parliament knew nothing about. ¹

The income from a nine year old boy was a useful extra in the collier's home, but the main source of income was the wage of the collier himself and it was interference with this wage that eventually roused the collier to join together with his workmates to strike, to fight, to starve - things he certainly would not have done merely to keep his children out of the pit.

In many areas the miners were employed by "binding" with their employer.

1. BOYD, Coal Pits and Pitmen, p. 110
On binding day the miner signed a bond or contract signifying his willingness to work under the conditions of the bond for one year. It was in the conditions of the bond that most of the collier's grievances lay. Written into the Bond were penalties and fines which were imposed on the miner if he broke certain conditions. For example, fines were imposed for sending up small coal, or if a miner sent up a tub which was underweight, it was forfeit or "laid out" and he received no payment for it. In some areas the conditions of the bond were so harsh that it was difficult to earn a living because of the fines imposed. One case is recorded of a man in a northern colliery being fined 22s. 0d. during a period when he could only earn 6s. 0d. \(^2\) Indeed, men sometimes finished a week owing the colliery money, instead of receiving a wage.

The colliers objected to the harshness of the fines and the way in which they were imposed. Each man's coals were weighed as they reached the surface. The weighman was employed by the owners and in some cases was paid according to the number of tubs he managed to find underweight. If he rejected a tub the miner lost any earnings from those coals (although, of course, the owner still received his profit from their sale).

Details of the system at West Holywell Colliery, County Durham, are given by William Mitchell in his pamphlet;

"We work tubs at 4½d per tub, and when a tub is laid out we are fined 6d and paid nothing for hewing the coals. The fine is for sending small coals to the bank, and yet they are selling them for 6s. 0d. the chaldron." \(^3\)

The miners had no check on the honesty of the weighing nor on the accuracy of the weighing equipment which was never tested by Weights and Measures Inspectors. A miner could come to the surface after filling ten tubs in his shift, only to find that six had been rejected as underweight.

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2. FYNES. Miners of Northumberland and Durham. p. 44
3. MITCHELL. What do the Pitmen Want? pp. 16-19
Thus when the full provisions of the 1842 Act came into force on March 1st, 1842, their impact on the ordinary Northern collier was slight and they caused little inconvenience to the proprietors.

Tremenheere's report of 1844 covered the first year of the Act's operation and it indicated that the Scottish coalfield, where large numbers of females had been employed, had suffered most from its effects. The Act undoubtedly caused some immediate hardship in Scotland where no able-bodied person was able to claim on Parish funds for relief, a law which assumed that all able-bodied persons could find some sort of employment. The hardest hit were single women, widows and orphan daughters who had spent all their working lives in the pit. The number employed on the surface of the coal mine doubled, with the result that wages were halved. For those who could find no regular employment, life became a fight for survival.

The fears that some proprietors had voiced about closure of pits, increased running costs and a rise in the price of coal as a result of the Act were not realised. In fact, the Commissioner reported that most collieries seemed to be working with greater regularity and in a more satisfactory way.

The important improving effects of the Act were felt in those communities where women with families who had previously been working in the pit were now able to devote their time to their families. Tremenheere stressed the importance of the relationship between child and parent in his report and it was perhaps because this relationship was better developed in Durham where women were not employed underground, that this coalfield escaped many of the criticisms concerning the general low state of pit communities. In one paragraph Tremenheere presented the solution to most of the problems connected with these communities.

"A healthy state of Society can spring from no other source than the family life of the people. A prudent care and watchfulness on the part of the parents, over

4. Report of the Mining Commissioner 1844. p. 2
the formation of the habits and character of their children, a readiness to sacrifice
time, ease, self-indulgence, to the paramount duty of bringing up their offspring in
the knowledge and practice of religion and virtue, and on the part of the children,
affection, respect, deference, obedience, these reciprocal feelings and duties lie at
the very foundation of social order and well-being."\(^5\)

Tremenheere saw this improvement in family relationships not only as a
means of lifting the colliers out of their physical and moral degradation, but more
practically as a means to ending the strikes that were prevalent throughout the country
at the time he was writing his report. Although Tremenheere probably did as much
as anyone to improve the colliers' conditions, the next paragraph of his report makes
it clear that the thought of colliers as anything but humble servants never entered
his mind. Writing about the importance of discipline in the home, he gives his im­
pression of what he thought should be the aim of the collier's education; to teach him
his place in society and prevent him from trying to rise out of it.

"Dissoluteness of life, rudeness of manners and contempt for the authority
of parents, lead immediately to contempt for, and opposition to, and distrust of, the
legitimate authority of masters. If a due subordination has not been learned at home,
it will be little practised elsewhere. If the inferior is never taught due respect to the
superior, immediate insulation is the consequence. When every man thinks himself
'as good as his neighbour' the superior refuses to acknowledge this imaginary title in
the inferior, both parties therefore stand aloof. And from this state of insulation to
open hostility the descent is rapid."\(^6\)

It seems that Tremenheere imagined that when the colliers had been
educated to appreciate and accept their role in society was one of humble servitude,
then all the strikes would cease. The master's orders and decisions (obviously always
correct ones), would be accepted without question.

5. Report of the Mining Commissioner 1844. p.41
6. Ibid. p.42
Tremenheere had diagnosed the root cause of the discontent and unrest in the colliery districts, but his remedy was bound to fail because he assumed that only one party in the dispute could possibly be wrong - the colliers. The eventual solution to the problem could, in fact, be said to have been the exact opposite of Tremenheere's - the recognition, which was to come in the next century, that workers and employees had equal parts to play in industry and that every man was, indeed, 'as good as his neighbour'.

The strikes which were concerning Tremenheere in the early years of the 1840's were the beginning of the miners' fight to end the master/servant relationship. Previous disputes had been founded on wages, how much was to be paid for a certain amount of work. Now the colliers complained about other things, not about the amount of their wages, but about methods of paying and conditions generally. Trade had been bad at the beginning of the 1840's, wages had been lowered and men discharged. The Chartists used the unsettled conditions to spread their doctrines and stir up further discontent. It was probably the activities of the Chartists among the colliers that prompted Tremenheere to offer education as a solution to the strikes. Most of the miners were too ignorant to grasp the political implications of Chartism. The only words that impressed them were those they wanted to hear, illiteracy preventing the majority from taking a wide view of the situation.

Instead of small groups at a single colliery taking some action to improve conditions, the colliers were beginning to meet together to discuss grievances and possible action as a united body. This was the beginning of the Miners' Association, the trade unions and the Co-operative Societies. What Tremenheere saw as gatherings of ignorant colliers were in fact the beginnings of a movement which was eventually to bring self-respect, equality and recognition to the mining communities.

The real hope for the future lay with the children of the 1840's. They had been freed from their work to be educated, but the legislature had omitted to provide the means of educating them. There would have been no problem if every proprietor
had acted as did the Duke of Buccleuch who gave the following notice to all the workmen employed at his Dalkeith colliery:—

'(1) From and after January 7th, 1845, no boy will be allowed to work in any department of the Dalkeith Colliery until he has reached the age of twelve years.

(2) Before any boy can be allowed to commence work in the colliery, he must be examined as to the amount of education he has received; and if he cannot read and write to the satisfaction of the Manager, or of such other person as may be appointed by His Grace to conduct the examination, he will be disqualified from receiving employment until he has acquired the requisite education.

(3) That the parents may have no excuse to plead: for neglecting the education of their children, intimation is now particularly given, that to the children of these parents who produce satisfactory evidence that they are unable to pay the ordinary fees charged at the colliery school, education, free of any charge, will be afforded so long as that inability exists."

This notice of March 1844 gave the Dalkeith Colliery children a more or less compulsory education to the age of twelve, something for which the vast majority of colliery areas had to wait over twenty five years. Had all owners acted in this way, one of the main purposes of the 1842 Act, the education of the children, would have been achieved. Many colliery owners, however, not only made no effort to provide education for the children but even tried to pass off the responsibility of seeing that young children under ten were not employed. In many areas children were not employed directly by the proprietors but by the men themselves. The proprietors considered that they complied with the Act by giving general orders to their men not to employ women, or boys under ten, and endeavoured to throw the responsibility on the men. Children under ten continued to be employed in many areas. In a report, Tremenheere remarked on the difficulty of trying to enforce an Act which provided no machinery for carrying out its provisions;

"---but there being no machinery provided in this, as in the Factory and Print Works Acts, for carrying out its provisions and no certificate of age required, it is not to be expected that the Act, in its present state, will be effectually observed." 8

The overman, told to reject boys under ten, had no better guide than their physical size and often their stunted growth made even this unreliable. Where no effort was made by the proprietor to provide education for the collier's children, the responsibility was thrown on the parents. They had always had the choice of sending their children into the pit or keeping them out and sending them to any available schools. In the past, the children of nearly every collier found themselves in the pit at the earliest possible moment. The passing of the 1842 Act merely gave them an extra year or two of sunshine and freedom; there was no change in the parents' attitude to education. They generally excused themselves from sending their children to school by pleading poverty, and even those who did finance a year or two in a school withdrew their children as soon as they could be legally employed underground.

Tremenheere summed up the situation which existed two years after the introduction of the 1842 Act as follows,

"At present, except in those few neighbourhoods where some special exertions have been made, nearly a whole generation of boys is growing up as undisciplined and ignorant as the majority of the present race of adults. Of those under ten, few are sent to a day school, still fewer of those above attend any but Sunday Schools, and very many either do not do that, or carry away with them scarcely the rudiments of any knowledge whatever." 9

Many proprietors were satisfied that, by providing schools for their employees' children they were doing all that was expected of them. The question of compelling attendance was, in most cases, not entered into, neither was the curriculum of the schools nor the results of the teaching. Schools had been established in the

8. Report of the Mining Commissioner 1847. p. 4
The charges in the old schools were often higher than at the new schools with trained masters and certainly the instruction was of a low standard. A description of these schools appears in Tremenheere's 1846 Report:

"A few of the masters appeared to be fairly qualified to teach, in their own way, all they pretended to, reading, writing and arithmetic, but the majority of them are, as might be expected, men of very humble acquirements. The books they use are such as the parents choose to send. There can, consequently, be no regular course of instruction in anything. The Bible or Testament (both often torn and imperfect) is read, it is needless to add that very little explanation is attempted. Each child is taught whatever catechism he brings with him."^{10}

Tremenheere was perturbed that such an education left the child with little knowledge of the world around him, or of the social and economic problems of society, so that in adult life he was impressed by agitators and easily led to actions which were against his own interest.

Unfortunately, the areas most in need of good schools and well trained teachers were those least likely to get them because of the indifference of both proprietors and colliers. Northumberland and Durham were generally well provided for. Even before the 1842 Act many colliery villages had good schools and since the Act, those lacking these facilities were making the effort to provide them. Both the Earl of Durham and the Marquis of Londonderry, who had vast mining interests in the area, provided schools, often paid the master's salary, and in some cases paid for books, but there was no compulsion to attend. The Consett Iron Company was

especially thorough in providing education for employees' children. By 1849 an almost complete system of eight schools had been built up. There were two boys' schools attached to the Established Church, and four boys' and one girls' school attached to Non-Conformist Churches. The masters were paid £70–£80 per year and provided with a house. One penny a week was deducted from each employee and the remaining sum for the schools was paid by the company. If any child was absent he was reported and an inquiry made as to the reason. 11

By 1847, Tremeneheere was able to report:

"— the localities where a child of a collier would have to go much more than a mile to school are very rare." 12

The fees in these schools were often only one penny and seldom more than twopence per week. Thus the means of obtaining a basic education in the three R's were available in every coalfield at a cost so low as almost to remove the excuse of inability to pay. What was needed was something to get the children into the schools. There was general regret among intelligent people in the coalfields that the 1842 Act had not included some sort of compulsory schooling. Some proprietors, as described earlier, had taken it upon themselves to provide this compulsion by requiring certain educational provisions to be fulfilled before they employed boys. The benefits of having a literate labour force became obvious from the reports of increased production, better labour relations and fewer accidents which came from those few proprietors who had been providing efficient education since before the 1842 Act.

Not only the owners, however, but the colliers themselves, were beginning to recognise the value of education. The 'Miners' Association of Great Britain', with over sixty thousand members, was led by intelligent, far seeing men who were anxious to improve the colliers' conditions by reasoned argument rather than bitter strikes. The Association presented a petition to the House of Commons in May 1847 setting

12. Report of the Mining Commissioner 1847. p. 4
out various requests and suggestions amongst which was one concerning the education of their children.

"Your petitioners have observed with much satisfaction the laws compelling the masters in factories to provide some sort of education for the children who work there, and your petitioners submit to your Honourable House that a similar plan would be of great use to the children of colliers." 13

This request indicated that the colliers' leaders realised that, left to themselves, the majority of the Association's members would take little, if any, advantage of the schools then available.

The proprietors of the larger collieries, whilst not pressing the matter, generally felt that some form of compulsory education should be extended to the coal mines. 14 Any opposition came from the owners of the small mines who feared increased expenditure on schools and teachers, as well as the bother of collecting and inspecting certificates of education. There were also those who genuinely felt that education was something to be left entirely with the parent and any kind of interference was undesirable. This view was certainly valid when considering parents who were able to plan an education best suited to their particular children, but it was totally inapplicable to the illiterate collier whose only consideration was the two or three shillings his son could bring in from the pit at the age of ten.

In his 1847 Report, Tremenheere put forward a plan which, he suggested, would be little trouble to employers and no hardship to parents or children. 15 The three main points to be enacted were:-

(1) No boy to be allowed to work in a mine until he produces a certificate stating that he has attended school for forty-eight weeks altogether, from seven until the time of being admitted to work at a colliery.

13. BOYD. Coal Mines Inspection. p. 80
15. Ibid. p. 5
Boys could receive forty eight weeks of education free, then the employer could deduct twopence a week from their wages when they started work, to pay off the debt.

Fines to be imposed on employers using boys without certificates and on anyone issuing a false certificate.

Tremenheere agreed that forty eight weeks, especially if spread over two or three years, was a pitiful amount of schooling but he hoped that once the duty of sending their children to school had been forced on the colliers' minds, then more voluntary attendances might follow. Even if this did not happen, the forty eight weeks might just be sufficient to start the child off on the right path. The colliers were so backward that any measure was worth trying. However, the plan fell on deaf ears and no action was taken.

By 1850 Tremenheere was able to report that there had been some improvement in the manners and language of the colliers, although the half-savage manners of the last generation were being replaced, "by a universally pervading sensuality". Money was being squandered on "poultry, the earliest and choicest vegetables and even port wine". Here we see, once again, Tremenheere's rather condescending attitude towards the colliers. The items mentioned were perfectly normal fare on the table of the owner, but any collier eating an occasional chicken was an extravagant, sensuous glutton. The causes of these, "animal indulgences", were, according to Tremenheere, bleak surroundings at home and work, absence of privacy, ignorance of the women of the household duties and the vacancy of mind arising from a lack of culture. Added to these could be the fact that very often the managers and contractors who set the moral tone of the men under them were illiterate and of poor character.

While he wrote with cautious optimism about the progress made since 1842, Tremenheere was under no illusion about the task before those who were trying to

17. Ibid. p. 8
educate and improve the colliers:

"---to bring a large, concentrated mass of people that have grown up in ignorance and perverted views, and under scarcely any restraints, moral or social, to that state of intelligence and self-command, and that sense of their duties to themselves, their families and their masters, which gives credit and dignity to an honest and industrious community, is an object requiring the well-directed efforts of many years." 18

The eight years since the passing of Lord Ashley's Act had shown that any hopes of a comprehensive educational system for the colliers' children being set up on a voluntary basis by the owners were, in most cases, not going to be fulfilled. A more urgent problem was that even where good schools existed, they were not being attended by colliers' children. Some positive action was required by the central Government to provide a uniform educational system throughout the coalfields. While this action was being considered, other plans were being formulated and brought into being in one or two areas and these were to have moderate success with a small number of children.

While the campaign for better educational opportunity in the colliery areas had gradually been gaining strength during the 1840's, another more immediate problem had occupied the attention of those connected with the mines. The terrible explosions that were claiming hundreds of lives each year had forced Parliament's attention on the mines and the colliers. Thus it was from committees and inspectors dealing with explosions that the educational reforms were to come, not as a social benefit but as one of the solutions to the yearly slaughter in the pits.

18. Report of the Mining Commissioner 1850. p. 11
CHAPTER SEVEN
SAFETY BY EDUCATION

The hazards of coal mining are the same to-day as they were a hundred years ago. Strict safety regulations and careful inspection still fail to curb the numbers killed each year in the pit. Only a few are 'Acts of God', or unpreventable accidents; the majority die because of carelessness on their own or someone else's part. The individual miner can take precautions to preserve his life underground and be blown to pieces by the criminal act of a workmate lighting a smuggled cigarette. The safety of everyone lies in the hands of each individual. This was as true in the early days of mining as it is to-day, but the present day safety-conscious attitude of miners was missing and this, together with the lack of knowledge of cause and effect, made the mines of the 1840's veritable death-traps.

Men, women and children had been killed in the pit from earliest times and their deaths went unremarked. Inquests were not held on victims of colliery accidents until the beginning of the nineteenth century. The only records available are of the more spectacular disasters which forced themselves on public attention because of the large numbers killed and the gruesome details about the victims.

As coal is mined, a gas, methane, is released. This gas, when mixed with air in certain proportions, forms a highly explosive mixture, the explosive power being greatly increased by the presence of fine coal dust. The gas from seams near the surface has usually been able to escape through cracks and fissures in the
strata so that the early miners working these top seams were spared the hazards of explosion. However, as mines increased in depth, the miners continued to use candles, their traditional method of lighting. These had been reasonably safe in the shallow pits but in the gaseous atmosphere of the deeper seams they were lethal. The miners learned by grim experience the properties of 'firedamp' and took what simple precautions they could.

A particularly terrible explosion occurred on May 25th, 1812, at Felling Colliery, when ninety two men and boys were killed.1 This led to the formation, in nearby Sunderland, of a society to inquire into the causes of explosions and the means of preventing them. It was due to the efforts of the Sunderland Society that from 1814 onwards inquests were held more frequently after mine accidents. The miners' safety lamp can also be said to have originated as a result of the interest and concern of this society.

The first hint of some sort of Government inspection came in 1839. On June 28th of that year fifty two had been killed at St. Hilda Colliery, South Shields.2 As a result of this, a Commission was set up in South Shields to investigate the cause of accidents in coal mines. This Commission presented a report in 1842 which referred to the need for Government inspection of mines;

"---it is surprising that the coal mines of Great Britain, so vital to her strength and prosperity, should be left entirely to the unassisted efforts of individuals, without organisation, or even supervision of the State."3

Of course, this state of affairs suited the owners admirably. Their mine workings were thus inaccessible to all but those who worked in them, and economic but dangerous working conditions could be risked without fear of adverse comment. Any Government inspection was certain to mean increased costs for many owners.

1. BOYD. Coal Mines Inspection. p. 26
2. Ibid. p. 37
3. Ibid. p. 38
and even the closing of the mines for some.

Whilst occasional death in a dangerous mine raised no comment, the owners feared the large scale disaster which forced attention on their methods of working. Such a disaster occurred at Haswell, near Newcastle upon Tyne on September 28th, 1844, when ninety five men and boys were killed in an explosion. After an appeal from the miners of the country, through the Miners' Association, the Government detailed two well known scientists, Professors Lyell and Faraday, to attend the inquest to enquire into the cause of the accident and issue a report. It was in this report that the first opinion was given that ignorance, both in workmen and officials, contributed towards accidents in mines. The two Government representatives reported that more than half the pitmen who gave evidence were unable to write and they concluded,

"We believe that if the education of the miners generally, and especially of those set over them, can be materially raised, it will conduce to the security of the lives of the men in the perfecting of the art of mining more effectually than any system of Parliamentary inspection which could be devised."  

The owners had followed the enquiry through representatives from their Coal Trade Committee and on its completion they appointed a sub-committee to reply to the various recommendations made by the Commissioners. They were obviously unimpressed with the view that improved education would reduce accidents and seemed content that they were doing everything that could be done. The sub-committee reported, "while duly impressed with the value of education to every class of the community" they were satisfied to note that, "almost all colliery schools are patronised by the owners and that increasing care is bestowed on the education of the workmen."  

5. Ibid. p. 71
6. Ibid. p. 72
7. Ibid. p. 72
In spite of this complacency on the part of the owners, investigations continued to trace the cause of explosions to ignorance. Dr. Lyon Playfair was sent by the Government to examine Jarrow Colliery after thirty nine lives had been lost in an explosion on August 21st, 1845. He found that neither of the deputy overmen could write or read fluently and remarked in his report that,

"---the men under the viewer entrusted with the care and ventilation of the mine are ignorant and uneducated."  

It was not that the overmen needed to be fluent readers and writers to carry out their duties which were of an entirely practical nature, but they needed to be able to work out and appreciate the consequences of any action they took and often their total lack of education made this impossible. Tremenheere made this point in his 1847 Report;

"It has been made perfectly clear that the immediate causes of the deplorable accidents that are continually occurring in mines, especially from explosions in collieries, are to be found in almost every instance in just that sort of conduct in the presence of danger that may be expected from dull and unintelligent minds. It is seldom, perhaps, so much from a reckless disregard for danger, as from a stolid ignorance or obliviousness of the natural consequences of acts which expose them to danger, that most of the serious and fatal accidents in mines occur."  

Although the ignorance of each individual was potentially dangerous to everyone in the mine, the sphere of activity of the ordinary miner was limited to one or two simple operations which, if carried out conscientiously and carefully, involved little risk of causing a major explosion. It was the officials of the mine, the Viewer, Underviewer, Overman and Deputy Overman who were responsible for the decisions to be taken about methods of working and ventilation. The miners could only hope that their particular officials knew their job, but as explosions continued to attract

9. Ibid. p. 74  
attention it became clear that many collieries were run by men little better informed than the ordinary coal hewer.

Through their associations and unions, the miners made it clear that the least they could reasonably expect from their superiors was that they were capable of carrying out a job which involved the responsibility for the life of each man in the pit. The suggestion was made, and found many supporters, that those in charge of collieries should be examined and issued with a certificate of competency before being allowed to act as colliery managers. The miners had the greater interest in the competency of their officials because their personal safety was involved. However, the owners, too, could only benefit by having capable men running their mines; production was higher, complaints from men were fewer and the risk of explosion was less. In many areas the owners had great difficulty in finding suitable men for posts of responsibility. The job required a knowledge of pit work that could only be got by personal experience and also an intelligent and literate mind. This combination was rare in most of the mining communities. Usually the owners had to be satisfied with workmen who had shown their practical capabilities, but whose education was very meagre. The suggestion that examinations should be held for officials was going to mean a change in attitude to education from both men and owners. Education would become a practical necessity for any man hoping to become an official and for every owner who needed a supply of such men to keep his mine working. From the reports of Commissioners sent by the Government to enquire into explosions and from the agitation of the miners expressed through their unions and associations, it became clear that some legislation was required to prevent mines being worked under dangerous conditions. An Act was passed in 1850 which provided for the appointment of Inspectors who were to be concerned with the safety of the men.

As the 1842 Act was to remain in force there were now two systems of inspection. The inspector under the 1842 Act was concerned with the general con-
dition and welfare of the mining community on the surface while the 1850 inspectors dealt with their safety underground. The division between the two was not, however, completely defined. The inspectors appointed in 1850 were informed that although,

"it will not fall within your province to take any direct measures for promoting education among the miners, you may usefully avail yourself of any fitting opportunity of pointing out to them its importance and advantages, and lend your influence to the encouragement of any well defined plans for advancing their moral and intellectual improvement."\(^\text{11}\)

Tremenheere's reports indicated that the advantages of education were far from evident to the colliers of many areas. There had been some improvement in the provision of schools and qualified masters and more children were attending, but these improvements were nullified by the attitude of many of the parents. The Dame schools and those under the supervision of totally unqualified pitmen had taken several years to instil into the pupils who stayed with them a very elementary knowledge, often only the ability to read and write. It had been hoped that in the same time the new, well-qualified teachers, would be able to give a fuller, more complete education to the colliers' children. This hope was being thwarted by the parents to whom being educated meant merely possessing the ability to read and write. The children were certainly learning to do this more quickly, but as soon as they were reasonably competent, their parents withdrew them, satisfied that they had educated their children:

"The parents are frequently in the habit of urging the schoolmaster, 'to finish their boys quickly', that they may take them to work."\(^\text{12}\)

Thus the result, in some areas, of better schools and masters, was a reduction in the time spent there by colliers' children. Although the child might have reached the same standard of literacy as in the old schools, he did so at an

11. Instructions addressed to Inspectors of Coal Mines
Parliamentary Papers 1851 XLIII. p. 401
12. Report of the Mining Commissioner 1851. p. 4
earlier age. By being taken away from school at eight or nine instead of ten or eleven there was less chance of his retaining his knowledge and being able to use it to further his education at a later date. The qualified masters spent most of their time giving only the simplest instruction because few children remained long enough at school to benefit from more advanced courses. 13

As there seemed no hope of any sort of legal compulsion being introduced to see that children attended the schools, Tremenheere outlined, in his 1851 Report, a scheme by which it was hoped to tempt boys to remain at school for a longer period. The bait was to be an annual prize of £4, a sum equivalent to about half a boy's wages. There were also to be book prizes for deserving pupils. Although Tremenheere talked about persuading the pupils to stay longer at school, it was in fact the parents who had to be persuaded. The chance of a £4 prize might just be sufficient to induce the father of an intelligent boy to allow him to remain at school for another year.

Tremenheere recognised that there were objections to giving prizes in this way, but he thought that the special circumstances in the colliery areas warranted the trial of such a scheme. The Inspectors of Schools were consulted and agreed to the idea. Tremenheere devised a prize scheme and it was put into practice in eighteen National Boys Schools in South Staffordshire and Worcestershire. Judging by Tremenheere's 1852 Report, this scheme had some success.

"The masters whose opinions I asked, informed me, nearly without exception, that the effect of the scheme had been to raise the average age of the boys in the first class, to excite a great deal more emulation, to raise the standard of attainment, and to add to the number at the school."

However, restricted as it was to eighteen schools, the prize plan had no impact on other areas where the problem of poor attendance continued. Even within the eighteen schools, its effect must have been limited by the meagre capabilities

13. See Appendix B. Report of the Mining Commissioner 1852
of the majority of the pupils. Schoolmasters, pupils and parents must have known those who were capable of competing for the prize. Apart from this small minority, the children could have little real interest in the scheme.

Tremenheere realised that the only real solution to the problem was legislation which would make education compulsory. In his 1852 Report he recalled the petition which had been sent from the Miners' Association in 1847 asking Parliament to apply the clauses of the Factory Act to the mining districts. Since that time, nothing further had been done by the Government, although the suggestion had not been lost sight of in the mining districts. The question was raised again in 1851 when several interested men from Northumberland and Durham (the Hon. and Rev. John Grey, Mr. Nicholas Wood, Mr. Morton, Mr. T. Forster, Mr. Boyd) put forward propositions for educating colliery children to which most of the leading proprietors in Northumberland and Durham were prepared to agree. These propositions, which they sent to Tremenheere, were:

1. The legal age for employment underground would be revised from ten to twelve.
2. Boys between twelve and fifteen would be compelled to go to school for two days in each week.

Although this first measure had already been adopted on a voluntary basis in some areas and would have been fairly easy to apply in several others, Tremenheere felt he could not recommend it for general adoption. There were still many areas where it would be opposed and he pointed out that in thin seam areas, the ten year old limit was almost impossible to impose in the absence of any form of local inspection. Another difficulty was the demand in mining areas for boys to go into factories. The boys generally preferred anything to the pit and thus a scarcity of boys had arisen in many pits. If the age were raised to twelve, the boys would

15. Report of the Mining Commissioner 1852. p. 33
16. Ibid. p. 33
17. Ibid. p. 34
start in some other job which had no age limit and would aggravate the diminishing supply of boys to the pit.

Tremenheere was in favour of the second measure, but after discussing the problems it involved with owners in South Staffordshire, South Wales and Scotland, he concluded that it went beyond what could be suggested as generally applicable. 18

The special circumstances and conditions of a coal mine made the part-time employment of boys extremely difficult, if not impossible, to operate. To begin with, such a system would involve relays of boys so that those at school were replaced. This meant the employment of even more boys in the pit than there were at the time, and, as has already been mentioned, in some areas the scarcity of boys was already a problem. Even where boys were available, a change-over in the middle of the hewers' shift was full of difficulties. In the factory, a boy could stop work, walk through a door and be ready for school. The pit-boy might have two or three miles of tortuous underground roadway to travel before reaching the shaft, a journey made hazardous by travelling tubs, men and horses. At the shaft he might wait half an hour before a lull in coal work would allow the onsetter to send him to the surface. Even at the top of the shaft he was in no condition to go to school; not even the most enlightened schoolmaster would have welcomed him, covered in coal dust and wearing his pit clothes, into a classroom. A walk home, wash, and change of clothes would be necessary to complete the transition from pit-boy to scholar, the whole operation taking perhaps two hours. It was clear to all who were practically engaged in mining that any system that involved the change-over of boys in the middle of a shift was hopelessly impractical.

Tremenheere was of the opinion that instead of the Factory Act which the Miners' Association had mentioned, the Print Works Act (8 & 9 Vict. C 29) was much more easily applicable to the mining areas. He proposed that all boys at work in the collieries between the ages of ten and fourteen should, in the words of the Print

18. Report of the Mining Commissioner 1852. p. 35
Works Act,

"be compelled to go to school for thirty days or one hundred and fifty hours in each six months."

This would work out at little more than an average of one school day or five and a half hours a week. He thought that this scheme would be acceptable to all the principal mining districts. 19

The other provisions of this Act which would be adopted were:-

(1) Parents would provide a school certificate book which the master would fill in each week.

(2) Before employing a child, the employer must obtain a certificate from the schoolmaster saying that the child has received the stipulated education and he must receive a certificate every six months while the child is employed.

(3) There would be penalties for employers and parents if they did not carry out the provisions of the Act.

During his tours of inspection, Tremenheere had found many areas where the pits did not work on Mondays, mainly due to the men recovering from their weekend celebrations, and he suggested that this idle day could well be utilised to provide the necessary five and a half hours education for the boys. In areas where the pits did work a full week, Tremenheere suggested that the Print Works Act be amended to allow boys to obtain their certificates by attending evening schools.

After consulting nearly all the important coal proprietors Tremenheere was able to report, in 1853, that this scheme had unanimous support. He had amended the Northumberland and Durham proposal that education should be provided from ten to fifteen to ten to fourteen as he thought that this would be acceptable in all districts. There had been some criticism that one hundred and fifty hours in six months was too short a time for anything useful to be achieved. Tremenheere, however, had

19Report of the Mining Commissioner 1852. p. 35
consulted the Factory Inspectors about the effect that the Act had had in Printworks and was told that the results had been good. Some of the boys in the Printworks had, in fact, voluntarily extended their hours of education.

The application of this Act to the coal mines might have resulted in the easing of the shortage of suitable men for appointment as officials. Generally speaking, a boy leaving school at ten had little thought of becoming a mine official. His ultimate aim might be to work on the coal face as a hewer, a task which required no formal education. What little had been learned before the age of ten was quickly forgotten and even the ability to read and write gradually weakened without daily use. It was not until seventeen or eighteen that the boy, with a more mature outlook on pit life, saw the advantages of an official position. However, to achieve such a position meant the re-learning of everything that had been taught in his earlier days, a task which must have deterred many a capable lad from proceeding any further. The one hundred and fifty hours every six months, even if it were insufficient to achieve much new learning, might at least help the boys to retain their early reading and writing abilities until they could appreciate for themselves the benefits of an education.

To confirm the necessity for some measures to be taken to educate boys of ten to fourteen in colliery districts, Tremenheere included a number of testimonies from proprietors and agents in his 1853 Report. One such is from a Mr. Woodhouse who managed several collieries in the Midlands.

"Notwithstanding all the encouragement given of late years to education, I am very far from satisfied that much progress is being made. The young are growing up in very many places with which I am conversant in a lamentable state of ignorance. We want the support of the Law to give a proper impulse to education and to enable it to produce the results we hope for from it." 20

In June 1853, a select committee on accidents in coal mines had been

appointed and Tremenheere was invited to give evidence. He outlined his prize scheme and also described how he thought the Print Works Act could be applied to the mines. After taking evidence from owners, Agents, Managers and others interested in the industry, the Committee published their final report in June 1854. Although the majority of the evidence had been concerned with the technical aspects of accident prevention, the frequent reports of ignorance being the primary cause of disasters made the consideration of education in colliery areas a matter of prime importance. In their report, however, the Committee made little mention of education. Tremenheere's plan was not to be recommended to Parliament on the following grounds:—

(1) Two factory inspectors, Mr. Kennedy and Mr. Homer had expressed the view that the half time system rather than the Print Works Act would be better suited to the colliery children.

(2) Some witnesses and several petitions presented to the Committee had expressed the opinion that children should not work in coal mines at all until they were twelve.

(3) There had been many objections as to the practicality of either plan.

With such conflicting views being expressed, the Committee obviously felt that a decision would have to be made by someone who had had more time to study all the aspects of the situation. Tremenheere was disappointed that no positive action was to be taken and in his 1855 Report he wrote scathingly about those who had raised objections to his scheme;

"Objections of some kind must always be anticipated against any measure of this description, which must impose some trouble on all employers, which must be distasteful to those who, from the active interest they have shown in the education of those in their own immediate employ, do not require any impulse or restriction proceeding from legislation, and which cannot be expected to be acceptable to those who show but little regard for the moral welfare or intellectual improvement of those
around them."  

The result of the Select Committee on Accidents, of 1853–4, had been a further inspection Act passed in August, 1855, which dealt with the safety measures in mines, no mention being made of education. The Act was to remain in force for five years.

A further warning about the need for some positive action in the colliery areas came at about this time from the Inspector of Schools. In his report for 1854-5 Mr. Norris wrote,

"I must, therefore, conclude this report by repeating the same conviction which I have so often expressed before, that nothing short of legislative interference can redress the educational balance of the mining districts. At present, the divergence between the employers and the employed is increasing every year. Every year's delay brings us nearer to a crisis."  

The evidence from inquests continued to show that the mines were often in the hands of men totally incompetent for the responsibility. The culmination of these reports came at an enquiry into the cause of an explosion at Cymmer Colliery, South Wales, which occurred on July 15th, 1856, causing the deaths of one hundred and fourteen men and boys. The evidence of the neglect and incompetency were so strong that the Coroner's Jury returned a verdict of manslaughter against the Manager, Overman and fireman of the Colliery. They were, however, acquitted at the Assizes on technical grounds.

Mining is an industry in which the technical difficulties of production become greater from year to year. As the thick, shallow seams are worked out, production must be maintained from the thinner, deeper coal. Economic working becomes difficult and problems of safety become more pressing. The Inspectors of Mines realised that the working of the mines could only increase in complexity and

22. Minutes of Committee of Privy Council on Education 1854-5
23. BOYD. Coal Mines Inspection. p. 134
24. Ibid. p. 135
that future officials would have to be of a much higher standard than those of the 1850's. There was a danger that the industry might be held back in future years by a failure to educate and train boys to fill these posts of responsibility. The warning was given in 1859 by the Inspector of Mines,

"The necessity of educating the working classes becomes more evident every day. To adult persons I do not particularly refer, as regards them, it would, I fear, be a hopeless task, beyond that of moral training and strict discipline. It is the cause of the rising generation which I am advocating, of those who will have to manage and work deeper shafts, surrounded by greater dangers than any that have yet been reached and perhaps seen; and hence arises the question how and by what means are such desirable results to be obtained? While it affords some relief to find in many places in the mining districts, a system of general education may be obtained, it disappears like a dissolving view on discovering that as it is not compulsory it is too frequently neglected." 25

The 1855 Inspection Act was due to come before Parliament for renewal and it was hoped that the omission of any educational clauses would be remedied. There were meetings of Inspectors, proprietors and miners to discuss what alterations should be made and on August 12th, 1859, in the House of Commons, Mr. Aynton asked,

"---whether it was the intention of the Government to enquire into the effect of prolonged labour of children in mines of coal and iron-stone, as the Act for inspection of mines expired next year." 26

The Government indicated that some sort of enquiry would be made but what form it would take had not been decided. Before any action had been taken, however, the Mines Regulations and Inspection Bill was brought in and read a first time on February 14th, 1860. The Bill was the first concerning mines to include any sort of education clauses. It proposed that no boy under twelve should be employed underground with the exception that between ten and twelve a boy might be

26. HANSARD 1859. Volume CLV p. 1384
employed if he were certified as being able to read and write by a competent schoolmaster. Every month that the boy was employed, the owner also had to obtain a certificate showing that the boy had attended school for not less than twenty hours during the preceding month.

The first and second readings of the Bill passed without debate, although both workmen and owners were exerting pressure with numerous petitions and deputations putting their objections and recommendations. At the Committee stage of the Bill on June 13th, 1860, Mr. Paget moved that the upper age limit should be raised to thirteen and that any boy above ten should be allowed into the mine on condition that attendance at school up to thirteen should be forty hours a month, attendance not to be on consecutive days and not during the evening. This amendment would bring the age for employment in mines into line with that of the textile factories. Mr. Chire opposed this amendment, pointing out that the limit of twelve had been fixed on the almost unanimous recommendation of the Inspectors and it was undesirable to interfere more than necessary between employers and employed. If the children were going to be away for two days in each week, it was equivalent to saying that they could not go down the mine at all and the whole industry would be thrown into confusion. Many owners were afraid that the education clauses would adversely affect their interests and their views were represented by Mr. Liddle who opposed all the education clauses. He argued that their effect would be to throw many children out of work and these would find other employment, thus eventually reducing the supply of trained colliers. Added to this was the unfairness of applying a restrictive system to one particular industry and the fact that a compulsory system of education would tend to check the voluntary efforts of the owners. Mr. Adderly made the interesting suggestion that the clauses should be removed and then made general to all industries in a separate education Bill. This would remove all claims of unfair treatment and in any case he thought that as they voted one million pounds each year

27. HANSARD 1860 CLIX p. 397
for education, they had a right to expect a minimum national standard which he thought was that every child of twelve should be able to read and write. 29

The owners were again represented by Mr. Taylor who admitted that he employed more than a thousand miners. He objected to so many hours being consumed on education and said that it would involve great loss both to masters and children, although he omitted to mention what the loss to the children would be. 30

The compromising nature of the education clauses was made obvious by Mr. Henley 31 who asked if the age of employment had been advanced from ten to twelve because the work in the mines was unhealthy, or because children were exposed to danger, why should that condition be relaxed for children who could read and write. He could understand the Government when they said that because working in mines was dangerous and unhealthy 32 children should not be allowed to work in them under twelve. But why a child might be exposed to that danger merely because he was able to read and write he could not understand.

After a division, the amendment was defeated and twelve years remained as the upper age limit.

As there was no mention in the Bill of any restriction to be imposed on the hours of labour of boys, Mr. Kinnaird proposed to remedy this by moving an amendment that boys of ten to fourteen should not be allowed to work more than eight hours a day. By using a system of relays, he was sure that such a regulation could be easily carried out. 33 Supporting this amendment, Mr. Ayrton was sure that its effect would be to distribute the men's work more equally over the whole week in-

29. HANSARD 1860 CLIX p. 400
30. Ibid. p. 404
31. Ibid. p. 406
32. Mr. Clive had already pointed out that the mortality among children 10-15 working in mines was 22% compared with a general mortality of 11 1/2% for that age group.
33. HANSARD 1860 CLIX p. 409
stead of being intermittent and irregular. 34

The impracticability of a relay system was pointed out by several members, as was the fact that any interference with the hours of labour of the boys directly affected the whole running of the colliery.

In an attempt to meet objections, Mr. Kinnaird amended his eight hours to ten without increasing support for his proposal. 35 To some members, it was becoming obvious that the motives behind the discussion on the education clauses were largely those of self-interest and that the basic humane reasons for the clauses were being overlooked. Mr. Ayrton asked what were the grounds for saying that it was impossible to limit the hours which boys should work in a mine? He had heard none. To say it was impracticable, meant nothing more or less than that it might affect the profits of coal-owners with whom this was a mere question of money. He understood it was the practice of men employed in mines not to work one day and overwork the next, he did not think that the children should be subjected to that overwork, simply because the men, for their own gratification, did not choose to attend their work regularly. 36

Also trying to resist the pressure of the owners and their representatives was Mr. John Locke who pointed out that the simple question was whether the amendment fixed the right number of hours for children to work. All the Committee had to do was fix the hours and let the employers and men work out the arrangements. He hoped that the House would not listen to the arguments of interested parties against the dictates of humanity. 37 However, in spite of these pleas, the 'interested parties' made sure that both amendments were rejected, so that boys could still be worked for any length of time that was convenient to the profitable running of the mines.

34. HANSARD. Op. cit. p. 414
35. Ibid. p. 845
36. Ibid. p. 847
37. Ibid. p. 848
The requirements of a certificate of education provoked further discussion and amendments. As the Bill stood, the required twenty hours of education per month could be acquired at any time, e.g. 10 hours on a Sunday and 10 on a Monday or four Sundays of 5 hours. Mr. Paget proposed that the child should obtain a certificate of attendance at school for 5 hours in each of the two days, not consecutive and on which he should not have worked at the mine, between 8.0 a.m. and 5.0 p.m. excluding Sundays. A further amendment was moved by Sir G. Lewis that a boy should attend school for not less than 5 hours on one day during the preceding week, Sundays being excluded. Although an attempt was made to delete 'on one day', this was defeated and the amendment was agreed to.

The whole idea of the education clauses was attacked by Mr. Henley who pointed out that their provisions went beyond the Factories Act. The principle that children should not earn their bread if they could not read or write, even though they might not have had the means of education, was a principle which certainly had never been adopted before.

After discussions and various amendments on other aspects of the Bill, it was read for a third time on July 9th, 1860.

Both workmen and owners had carefully followed the progress of the Bill through the Commons. Representatives of both had been in London during its passage and each clause and amendment had been fully discussed. The amended Bill was thought to be a reasonable compromise which would be reasonably acceptable to both men and owners.

The passage of the Bill through the Lords was expected to be achieved without any further changes and the workmen's delegates left London to report back to their members. At the second reading it became clear that there was to be further opposition to the education clauses when Lord Ravensworth, owner of many collieries, opposed them.

39. Ibid. p. 853
40. BOYD, Coal Mines Inspection. p. 143
indicated that he would introduce further amendments when the Bill came before Committee. His proposal, which was agreed to, was that it would be optional for a boy either to obtain a certificate of his ability to read and write, or to attend school for twenty hours in each month subsequent to his employment. Thus boys under twelve who could read and write could be employed without the need for continuing their education.

On the recommittal of the Bill to the House of Commons Mr. Ayrton opposed the Lords' amendment, proposing that to ensure that the twenty hours education was spread evenly through the month, the words 'three hours a day for two days in each week', should be added. Therefore, when the Bill received Royal Assent on August 28th, 1860, its educational provisions were that:-

(1) After July 1st, 1861, males under twelve would not be allowed to be employed underground.

(2) Boys between ten and twelve might be employed if,

(a) a certificate was obtained from a competent schoolmaster stating that the boy could read and write, OR

(b) in the second and every subsequent month during which the boy was employed, the employer shall obtain a certificate from a schoolmaster stating that that boy had attended school for not less than three hours a day for two days in each week during the preceding month exclusive of attendance on Sundays.

(3) The owner must fill the certificate while the boy is employed and for six months after employment ceases. The certificates could be asked for by Her Majesty's Inspectors.

(4) Anyone giving a false certificate was liable to a fine of £5–£10.

41. BOYD, Coal Mines Inspection. p. 144
42. HANSARD 1860 Volume CLX. p. 1756
As the 1842 Act was repealed (except for sections regarding women), the Inspector under its provisions, Seymour Tremenheere, made his last report in 1859 and the duties of enquiry passed to the Inspector of Mines appointed under the 1860 Act.

It should be remembered that the education clauses were only a small part of a much more comprehensive piece of legislation which was aimed primarily at producing safer, better regulated mines. Education was not being regarded as desirable from a purely cultural point of view, but because it was a necessity. Future mines would need an educated labour force, education reduced the liability to strike and costly explosions were less likely with literate and responsible officials. These were the arguments that made the owners grudgingly accept the education clauses.

Some form of compulsory educated had been advocated by Tremenheere, Mine Inspectors, Coroners and Government officials for many years. The compulsion that was provided by the 1860 Act was to be negated by the attitude of the majority of owners in the years following 1860. They had been empowered to insist that their boy employees should be educated, but most resorted to methods which left the children no better off, educationally speaking, than they had been before the Act came into force.
CHAPTER EIGHT

THE NEWCASTLE COMMISSION AND RESULTS
OF THE 1860 MINES & COLLIERIES ACT

Written evidence about the educational condition of the miners before the 1842 Act is sparse and the descriptions in earlier chapters have relied to a great extent on the evidence given to the Children's Employment Commission. Following the passing of the 1842 Act, it is possible to trace the general progress of education in the colliery areas through the reports of Seymour Tremenheere and to a lesser extent through the reports of the Inspectors of the Committee of Council on Education.

Fortunately, while the 1860 Mines Regulation Act was being debated in Parliament a Royal Commission was collecting evidence about the state of education in England and Wales and this gives a more detailed picture of educational conditions in the colliery areas some twenty years after the Children's Employment Commission. This Royal Commission had been appointed in June 1858, "to inquire into the state of popular education in England, and to consider and report what measures, if any, are required for the extension of sound and cheap elementary instruction to all classes of people."

The Commissioners found that there was little or no information about the educational provisions for various groups of workpeople or individual districts of the country. To provide this information, ten Assistant Commissioners were appointed to investigate specimen districts. The districts selected comprised of two agricultural, two manufacturing, two mining, two maritime and two metropolitan. Mr. Foster was to investigate the mining area made up of the unions of Durham, Auckland, Teesdale and Weardale while Mr. Jenkins was allocated the unions of Neath, Methyr and Merioneth. The reports of these two Assistant Commissioners provide us with a comprehensive picture of the state of education in these two areas.

1. Commission Appointed to Inquire into the State of Popular Education in England or more usually referred to as the Newcastle Commission.
in the two years prior to the introduction of the 1860 Act. The Welsh district presented special educational problems because of language difficulties, but the area covered by Mr. Foster could be said to contain conditions similar to, if not better than, those in the other principal coalfields. The population was not, of course, made up exclusively of coal miners and Foster distinguished three main groups; lead miners, coal miners and agricultural workers.\(^3\)

Northern Coal Owners, Mines Inspectors and Seymour Tremenheere had always tended to describe the conditions of the Northumberland and Durham miners as rather better than those of their colleagues in the Midlands and Scotland. Foster's description of the social condition of the coal miners is far from complimentary, but it must be remembered that he had not had the opportunity as had Tremenheere, of visiting other coalfields. To a newcomer to the mining districts, even the best conditions must have appeared primitive and repulsive. Comparing the colliers with the other two groups in the area, Foster commented,

"—lowest in the social scale are the coal miners, a recent heterogeneous, fluctuating and rapidly increasing population, earning high wages, which they know no way of spending, but in the gratification of animal appetites."\(^4\)

Although there had been some improvement in accommodation since 1842, the colliers' houses were still, in many areas, little more than hovels:

"A collier village presents for the most part a miserable and repulsive aspect. It consists of parallel rows of low houses, without pavement, drainage or enclosure, either in front or rear."\(^5\)

With whole families living in two or even one room, moral standards might be expected to be low and the Commission confirmed this:

"---adultery is a matter of mere jest ..... incest is frightfully common

4. Ibid. p. 321
5. Loc. cit.
and seems to excite no disgust ..... the language heard in the collier villages, not only between the men, but among women, boys and girls, is profane and filthy in the extreme."  

While these observations may have been true of a greater part of the population, the growth and influence of the Dissenting churches at this period, particularly in the colliery villages of Durham and Northumberland, indicates that not all colliers had succumbed to their miserable surroundings. Also encouraging were the statistics of the report which showed some increase in the number of schools and the Scholars attending them. The following is a comparison of the numbers attending school in Auckland union in 1858 with those returned by the census of 1851.  

<table>
<thead>
<tr>
<th>Population</th>
<th>1851</th>
<th>1858</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public day schools</td>
<td>34</td>
<td>47</td>
</tr>
<tr>
<td>Private day schools</td>
<td>33</td>
<td>54</td>
</tr>
<tr>
<td>Day scholars</td>
<td>3,725</td>
<td>6,702</td>
</tr>
<tr>
<td>Average attendance</td>
<td>3,227</td>
<td>4,755</td>
</tr>
<tr>
<td>Evening schools</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Evening scholars</td>
<td>30</td>
<td>402</td>
</tr>
<tr>
<td>Sunday schools</td>
<td>43</td>
<td>74</td>
</tr>
<tr>
<td>Sunday scholars</td>
<td>3,122</td>
<td>6,367</td>
</tr>
<tr>
<td>Average attendance</td>
<td>2,307</td>
<td>4,933</td>
</tr>
</tbody>
</table>

Although the figures show a considerable increase in the number of schools available and in the pupils on their books, the average attendance had increased by a much smaller proportion. The report showed that 31% of all the public week-day schools in Foster's district had been established since 1853. This increase in the number of schools with a disproportionate increase in the average daily attendance produced a superfluity of accommodation so that by 1858 the percentage of school accommodation (at 8 sq. ft. per scholar) as compared with the average daily attendance

7. Ibid. p. 329  
8. Ibid. Volume I. p. 636
The desultory attendance of many of the pupils on the school books is shown by the following table:

<table>
<thead>
<tr>
<th>% Proportion of scholars returned as having attended school during year.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50 days</td>
</tr>
<tr>
<td>Mr. Foster's</td>
</tr>
</tbody>
</table>

In spite of the regulations which had been in force since 1842, that no boy under ten should be employed underground, Mr. Foster estimated that 15% of the collier boys in his district were under ten. With no surgeon's certificate required and no means of ascertaining age except by physical appearance or parents' evidence, the regulation was easily bypassed. Mr. Foster found evidence of a boy of six being employed and of the fly-leaf of a family bible being altered to add two years to the age of the young sons of a widow, so that they could go into the pit. The statistics showed that 68% of the scholars attending public day-school in the Durham district were under ten and 78% under eleven.

As all types of schools were to be inspected by the Commissioners, Mr. Foster grouped the schools of his area under five headings:

1. Inspected Schools
2. Uninspected Schools
3. Adventure Schools
4. Sunday Schools
5. Evening Schools

Inspected schools were those under the surveillance of the Inspectors appointed by the Commission of Council for Education and they were generally found

10. Ibid. Vol. I. p. 651
11. Ibid. Vol. II. p. 348
12. Ibid. Vol. II p. 349
to be satisfactory. Many children in the colliery villages, however, attended schools provided by the coal-owners or what were called private "adventure" schools. These schools were uninspected and, judging from Foster's report, of a uniformly low standard. Writing about the schools provided by the coal-owners he reported that,

"---one is forced to conclude that there must be either gross negligence, or ignorance of the proper methods of tuition, or both, where it is usual for children of five years old to be from six to twelve months over the alphabet, and for those who have been two years at school, to be only at words of two or three letters. The truth is, when teachers are left almost entirely to themselves, without previous training, without proper books and other apparatus, without counsel in difficulty, and without protection from insult, they almost invariably become first disheartened, secondly idle, and thirdly, in too many cases, addicted to drink. In numerous instances, we found the master of a collier school either smoking, or sitting idle, or out among the neighbours." 14

The private "adventure" schools were in an even more deplorable state than these colliery schools, the premises generally being much smaller and the instruction being purely nominal with perhaps a feeble attempt to teach reading.

"The worst of them are those in which thirty or forty children are crowded into the kitchen of a collier's dwelling, and the mistress divides her attention between teaching them, minding her own baby, and cooking for her husband and sons." 15

Even in those uninspected schools which had teachers of reasonable intelligence, the task of educating children was almost impossible. Parents sent whatever book or fragment of a book there happened to be in the house so that no two children of the same reading ability had the same book. Money was not available for equipment, so that blackboards were not often found and the few desks and slates were often broken through constant use. 16

15. Ibid. Vol. II. p. 336
16. Ibid. Vol. II. p. 337
None of the Sunday schools in the Durham area made any attempt to introduce secular instruction, and it seems that there was general disapproval of this being done. There was, however, one feature of Sunday school teaching which attracted favourable comment. Foster had found in the day schools that the words read from a book, even with apparent ease, conveyed few or no ideas to the pupil's mind so that when questioned about what they had just read they were unable to answer, reading was just a mechanical process. He concluded that the language of books was an unknown tongue to the children of the illiterate, especially in the remoter areas. It was utterly unlike their vernacular dialect, both in its vocabulary and construction and was probably no more intelligible than Latin was to the poor of the Middle Ages who chanted meaningless words to their Priests. Schoolmasters invariably attempted to familiarise their pupils with the use of this literary language so that knowledge stored in books would become available to them. Foster pointed out that this knowledge could also be conveyed to the child's mind by using language that the children already understood. It was this system that was used in the Dissenters' Sunday schools;

"---the teachers conducted their earnest catechising and the pupils their eager and intelligent answering, in one of the most uncouth dialects it was ever my lot to hear." 19

In the Church of England Sunday schools, the teachers were generally volunteers from the wealthier families whose language was less comprehensible to the children than that of the Dissenters who were no better socially than their pupils and who spoke the more easily understood local dialect.

The deplorable state of many of the day schools was one of the main reasons for the discrepancy between the number of children who should be at school, and those actually there.

"Nothing is so irksome to a child as to sit quiet without anything to do, which

Ibid. p. 339
Ibid. p. 340
in most of the schools I have seen forms a large part of each scholar’s daily duty. Only second to this in irksomeness is the repetition of tasks to which no single idea is attached. Schooling under these circumstances comes to be regarded by the children as mere punishment – often actually threatened as such – and by parents as a sort of necessary evil, in too many instances the only expedient for keeping unruly children out of mischief.”

Although schools were not well-attended, Mr. Foster pointed out that there was no indifference to education or prejudice against it. The majority of parents wanted to have their children educated, but their failure to do so was chiefly due to the inefficiency and repulsive character of the schools themselves. Parents were discouraged when, after four or five years' schooling, they found their children unable to do more than spell their way through a chapter of the New Testament.

Coupled with this lack of faith in the schools themselves was the fact that children could be employed at an early age (the legal limit of ten often being overlooked) and if they still spent their time rather pointlessly sitting quietly opening and closing a door somewhere in the pit, at least they were getting paid for it. Whilst there was no public demand for female labour in most of the colliery villages, the management of a large family of men and boys meant that the girls were also removed from school as soon as they could make themselves useful in the home. Mr. Foster gave his remedy for the situation in a single sentence:

"---parents require motives more powerful than those which now exist and the children's aversion needs to be overcome by making school employment much pleasanter than it generally is at present, which ought to be a matter of no great difficulty."  

Expense seemed to have little to do with children not attending school; in

21. Ibid. p. 350
fact, the colliers held in contempt anything that was cheap, and it was difficult to get people to believe that that which costs little can possibly be as good as the more expensive article.

"We pay but a penny, and of course we get but a pennyworth", was a frequent observation of parents with reference to colliery schools in the neighbourhood of Durham. 22

It was not necessary to make education cheaper, but better, although Foster pointed out that better schools would still not induce some parents to keep their children at school for longer periods. He arrived at the same conclusion as many others had on previous occasions, that there must be some form of compulsion;

"---it is the universal opinion, subscribed to by parents as well as teachers, employers of labour and managers of schools, that education, in order to be general and efficient, must be obligatory in some shape or other; and the general feeling appears to be, that a certain amount being required before labour is begun at ten or twelve, there should be legal provision for continuing it afterwards by sparing for this purpose a reasonable portion of the child's time. The coal-owners are much in favour of this, but so long as there is nothing to render it equally binding upon all, none will venture to make it his own rule." 23

In his final recommendations, Foster thought that strict enforcement of the law forbidding employment under ten would help towards directing the children into schools. After rejecting the half-time system, the plan of the Print Works Act and a system of evening schools as being unsuitable for continuing education up to thirteen, he suggested 24 that two whole days in each week should be devoted to school. In many pits the boys had occasional days of rest because they were so numerous that there was not sufficient work for them all. These days could be used for schooling.

23. Ibid. p. 352
24. Ibid. p. 353
Some of the leading coal-owners in the area assured the Commissioner that they would gladly do more for the education of their labourers if they knew how. The Commission of Council for Education worked from London and their Inspectors were kept occupied by their duties and unable to give much assistance. What the owners wanted was some authority on the spot who could advise them on the establishment and staffing of schools and then look after them when established. The owners were, after all, in the industry to mine coal and could hardly be expected to be expert in educational matters.

After collecting together the evidence from their ten Assistant Commissioners, the members of the Royal Commission published their final Report in 1861. They were very cautious about stipulating what education was necessary and what a parent’s duty should be:

"The best standard that we can suggest for public purposes, is that a man is morally bound to give his children such an amount of education as the respectable members of his own class usually consider necessary."

When this standard was applied to the colliers, the amount of education considered reasonable was very small indeed.

Any form of compulsion was not recommended, in spite of reports that it was the only way to ensure that all children received some education. Several reasons were given for rejecting it. Mr. John Snell, in evidence given to the Commission said,

"English sentiment is unmistakably opposed to compulsion and the means of evasion are so numerous that a law to this effect would probably fail from unsuitableness and want of proper sympathy."\(^\text{26}\)

The Commissioners themselves saw practical difficulties arising from the fact that if education were made compulsory the Government would be bound to see

that the means were available for providing it. This would mean sharing control in
schools operated by religious bodies, with its inherent complications, and giving
assistance to those too poor to be able to afford school fees. In any case, the
Commissioners were sure that education on voluntary lines showed signs of im-
proving and spreading, thus relieving them of a difficult problem.

"The state and prospects of education in this country, as displayed by our
evidence and returns, do not seem to us to warrant the recommendation of a measure
which would entail so much difficulty and danger, and give so great a shock to our
educational and social system." 27

Specific recommendations concerning coal mines were limited to two: 28

(1) The certificates of ability to read and write and attendances
required under the new 1860 Mines Regulation Act, should
not be valid unless the school from which it was issued had
been declared by the Inspector to be excellent, good or fair
for that purpose.

(2) All boys engaged in mines and collieries, whether provided
or not with a certificate of ability to read and write, should
be compelled to attend school for the time specified in the
1860 Act.

(This second provision had, in fact, been included in the original
Act, but was removed by an amendment in the Lords)

In spite of the assurances that some coal owners had given to Mr. Foster
that they were anxious to assist in the education of their employees, the educational
clauses of the 1860 Act were regarded by most of the owners and their representatives
as another unwelcome restriction on their freedom to make the maximum profit out
of their mines, and they quickly took steps to minimise their effects.

The examination and filing of the necessary certificates of education for
each boy employed would entail the use of time and money which could be better
employed in the practical business of mining coal. Any effects of the education

28. Ibid. p. 550
clauses could be immediately eradicated by simply not employing the boys to which the clauses applied.

The Act came into force on July 1st, 1861, and many owners ensured that by the time all boys under twelve had been dismissed and they gave orders that no more were to be employed, thus relieving themselves of the responsibility of certificates of education.

The reports of the Inspectors of Mines for 1861 and 1862 show that by that time in most areas, the employment of boys under twelve had practically stopped:-

Mr. Hedley H.M.I., Derby, Nottingham, Leicester, Warwick. 1861 Report:
"As the seams under 2'6" in my district are not worked, the employment of boys under twelve is not required and only in very few instances are they employed under this age."

Mr. Moore H.M.I., East Scotland. 1862 Report:
"I have not found any boys under twelve underground in my district. The prevailing feeling among masters seems to be to dismiss boys under this age rather than be involved with certificates."

H. M. I., Stafford and Worcester. 1863 Report:
"During 1863 only one boy was employed between ten and twelve."

H. M. I., Northern Districts. 1864 Report:
"Scarcely any boys, either above ground or below were employed."

The only pits which continued to employ boys under twelve were those working thin seams of coal. In these cases it was cheaper to comply with the education clauses of the 1860 Act and keep the boys, than to dismiss them and have to heighten roadways so that older boys and men could travel through them. These boys, working in the still atrocious conditions of the thin seam pits, were the only ones who were to gain any educational benefit from the 1860 Act.

Those who were now barred from the pit did not find their way into schools, as might have been hoped. In his report to the Commission of Council on Education,
Rev. C. R. Moncrieff, who inspected schools in Northumberland and Durham and Cumberland makes this point; 29

"Wherever I have had the opportunity, in colliery schools, I have enquired whether the Mines Regulation Act, 1860, has had any perceptible influence in raising the age of scholars attendance, i.e. in promoting the attendance of boys between ten and twelve. The answer, both from the schoolmasters and from owners and Viewers has, I believe, invariably been in the negative. I believe the provisions of the Act are fairly carried out, but I am nor aware of any instances of boys attending school and receiving the certificate required. Viewers would rather dispense with them altogether than have the trouble of looking after the certificates. It does not, however, I am sorry to say, follow that because they do not go down the pit they are therefore at school. Other employment, not within the scope of the Act, is found for them, so that nothing is commoner than to be assured on good authority on the one hand, that there are no boys of that age in the pit, and to see on the other hand, that there are hardly any of them at school."

The Report of the Royal Commission on the state of the popular education had described the deplorable state of many of the colliery schools, and it is doubtful if the boys would have derived any benefit if they had been persuaded or compelled to remain at school after ten.

In areas where mine and factory were side by side, the boys who had been excluded from underground work would easily find employment elsewhere. The effect of the 1860 Act in such areas was to break the long tradition of son following father into the pit. In earlier days, a boy's first day down the pit had set the seal on his future career; very few escaped to follow other trades. Now, at ten, boys were being sent to factories and mills so that by the time they reached twelve and were acceptable for employment underground, they were settled into new ways and had

29. Parliamentary Papers 1864 XLV. p.105
no desire to go into the pit.

The break up of the closely knit colliery community had begun in 1842 when women had been excluded from mines and outsiders gradually began to marry into pit families. Now in factory areas there were families in which only the father worked at the pit so that in one or two generations the pit work tradition would completely disappear.

In areas where the pit was the only source of industrial employment, things were different. Boys excluded by the 1860 education clauses could perhaps turn to agriculture as an alternative, they could stay at school until twelve, or they could simply remain unemployed, doing odd jobs until they were able to enter the pit. Northumberland and Durham were areas such as this, with widely scattered villages which had been built up around the pit shaft. Factories were too far away from most to offer alternative employment and as Rev. C. R. Moncrieff's Report shows, few of the boys took the opportunity of acquiring extra education by remaining at school until twelve. In areas such as this, it seems that the boys filled their time as best they could until the pit offered employment at twelve, although a few exceptions were made. Where a boy's mother was a widow or his family was unusually large or in very poor circumstances, he was sometimes employed under the 1860 regulations as a generous gesture on the part of the colliery Viewer. 30

Thus, the education clauses, which had caused so much heated discussion during the passage of the Bill, had only served to eliminate those to whom they were supposed to apply. The compulsory school attendance for which Tremenheere and the Mines Inspectors had campaigned was a reality only on paper. In factory areas there was the possibility of a shortage of skilled colliery labour for future years owing to the flow of miners' sons into other industries. Even the lad in the remote colliery village could be said to have been better off before the Act came into force.

If he had no intention of remaining at school - which the majority had not - at least then he could go into the pit and occupy his time learning the trade he would probably follow for the rest of his life instead of having to kick his heels at home until he was twelve.

Numerous accidents and explosions in the years following 1860 made it clear that the new regulations were not going to bring about a miraculous decrease in the number of lives lost. The demand for coal was pressing and production was being increased from the steadily deepening mines. New ideas about ventilation, methods of working and safety were discussed and it became clear that only intelligent managers and overmen would be able to put them into practice. Enquiries into accidents and explosions continued to reveal the deplorable state of ignorance of men in charge of large mines, employing hundreds of men. The H.M.I. for the south western division commented on this in his 1861 report;

"Some recent inquests have demonstrated in a lamentable manner that which I have long been aware of, namely, the deplorable amount of ignorance too often found in those who are actually entrusted with the practical management underground, many of whom, indeed, do not know a letter of the alphabet."

Certificates of competency for managers were put forward as a solution to the problem but the introduction of a qualifying examination at that time would have aggravated the situation by debarring many of the practising colliery managers without providing anyone to take their places. Owners complained about the lack of suitable officials to be found among the men; yet they produced this very shortage themselves by keeping boys out of the pit until twelve so that they need not bother with the education that would have produced the officials they needed.

A basic elementary education was necessary for any official but as mines became more complex, this was not sufficient. Some kind of trade school was needed to train future officials in the science and art of mining. A few areas already had such schools. In his 1862 Report, the H.M.I., south western division, Mr. Brough,
mentioned the work of the Bristol Trade and Mining School where young colliers were educated in methods of safe working and made the point that officials should be acquainted with more than the mere daily routine of duty;

"Mining schools in every district would economically afford to working men the opportunity to attend classes, as they now do at Bristol, and to acquire that knowledge without which no person whatever should be vested with the supervision of a fiery pit."

The mining school was undoubtedly the answer to the regular supply of competent officials, but there were few miners capable of making use of its facilities. It was not the place of the mining school to teach the man to read and write before it set out on a course of instruction on mine working. The basic knowledge and abilities had to be assumed and for a young man of twenty, who had attended school for perhaps four years, from six to ten, and never had the opportunity of keeping up his skills of writing and reading, this was a big assumption.

The continued heavy loss of life in the mines due to accidents was attributed by the men's leaders to the inefficiency of the 1860 Act. 31 Other long-standing grievances continued to aggravate the colliers who expressed dissatisfaction with the Act at various meetings around the coalfields. This unrest culminated in a representative meeting held in Leeds in November of 1863, 32 to which every district sent a certain number of delegates. Apart from safety matters, improved education for boys, restriction of age for employment to twelve, and reduction of working hours were advocated. This meeting resulted in the formation of "The Miners' National Association" which had for its object the consideration of, "the interests of operative miners, as regards legislation, the inspection of mines and compensation for accidents". 33

31. BOYD. Coal Mines Inspection. p. 158
32. Ibid. p. 158
33. Ibid. p. 160
The pressure for further and better legislation was kept up by the miners' organisations who sent delegates to meet members of Parliament and presented a steady flow of petitions. Resulting from this pressure a select committee was appointed,

"---to enquire into the operation of the Acts for the regulation and inspection of mines, and into the complaints contained in petitions from miners of Great Britain with reference thereto, which were presented to the House during the Session 1865." 34

The enquiry lasted through three sessions of Parliament and the final report was published in 1867. It was fairly clear that some alteration in the Law would have to come, and the recommendations of the Select Committee would probably form the basis of any new legislation. Because of this, both owners and men made every effort to influence the Committee by presenting masses of evidence to support their cases.

The petition from the miners which had lead to the appointment of the Committee had set out all their grievances and requests. The two relevant to children were:

(1) That your petitioners are deeply impressed with the low social condition of miners, and believe that this mainly arises from a want of opportunity and means to educate their children, and the impossibility of making them an intelligent class of men, so long as colliers' boys descend the mine at ten years of age."

(2) They requested Parliament, "---that boys be not permitted to enter mines till they are twelve years of age, and also that their working hours be limited to eight hours a day to all under fourteen."

When the miners' petition came to the Commission's consideration, they considered the most important part was that referring to the social and moral condition of the miners. 35

34. BOYD. Op. cit. p. 162
35. Report of the Select Committee on Mines Inspection 1867 XII. p. iv
After reviewing the provisions made for educating collier boys under the existing law (1860 Act) and listening to various witnesses, the Committee reported that the effect of the education clauses in the 1860 Act had been to generally prevent the employment of boys under twelve. They gave three reasons for this:—

(1) The unwillingness of managers and owners to trouble themselves with the inspection of certificates.

(2) The difficulty of fixing a convenient time for the attendance of the boys at school.

(3) The objection entertained by some owners to the employment of boys under twelve at all.

Some witnesses had wished that no boy under fourteen should be employed underground, but the absence of such a severe restriction on other trades and, "the special need of early training in the business of coal mining," made the Commission reject this and revert to twelve as the minimum age for employment.

Attendance at school for periods after employment had begun was not thought desirable by the Commission. Although attendance was required up to thirteen in trades regulated by the Factories Act, the Commission pointed out that there were more facilities for carrying out that Act in the factories than there would be in the mines. They also pointed out that the coal owners would already be under a handicap by not being able to employ a boy until twelve while the Factories could take them at eight.

Representatives of the miners had urged that daily working hours of boys under fourteen should be restricted to eight. The Committee, however, accepted the evidence given by owners and managers that excessive employment of boys was not general and that the work was not laborious or injurious to health. The most powerful single factor however, which lead to the rejection of the miners' request, was

36. Report of the Select Committee on Mines Inspection, 1867. XII p. iv
the fact that it was impossible to restrict the hours of the boys without also restricting
the men. The Commission were concerned that this request stemmed not from an
interest in the boys' welfare, but from a desire to use them as a means for controlling
the labour market;

"Such shortening of adult labour and the consequent diminution of production,
is regarded with much favour by certain witnesses representing the miners. They
look for an enhanced price of labour as the result of diminished production, arising
from diminished hours of labour.....It is needless to do more than remark that it
would be a violation of all sound principles thus to create by Act of Parliament an
artificial scarcity of labour." 37

Thus, often having affirmed that the social and moral condition of the
mining population was the most important problem to be faced, the Committee re­
commended that there should be no change in the Law as to the age for employment
of boys, or to the general educational conditions subject to which they were per­
mitted to work, or to the number of hours that a boy might work. It was clear from
their recommendations that the Committee regarded the protection of commercial
interests as being of greater importance than the rectifying any of the miners'
grievances.

The report, published in July, 1867, was too late in the session for any
Parliamentary measures to be taken but all concerned confidently expected some
action to be taken during the Session of 1868. It was, in fact, to be another four
years before any new legislation was passed.

37. Report of the Select Committee on Mines Inspection 1867. p. 18
CHAPTER NINE

THE 1872 MINES REGULATION ACT

During 1868, the subject of providing further legislation was brought up by members several times, Mr. H. A. Bruce, who was to introduce a Bill, called attention to the report of the Select Committee and expressed the hope that the matter would be considered by the Government during the recess. In his reply, the Home Secretary pointed out that although the subject deserved attention, the pressure of other urgent matters made it impossible to introduce any measures during that session. The miners' leaders continued to agitate for further measures to improve the conditions of the working population. At a meeting held near Sheffield on September 5th, 1868, attended by several Members of Parliament, a resolution was passed that reduction in accidents and improvement in mines' inspection was, "one of the most pressing and important that could possibly occupy its attention". ¹

The election of that year which resulted in a new Government excited the interest of all the population of the coal mining areas who anticipated that 1869 would bring their promised legislation. Mr. Bruce had become Home Secretary in the new Government and it was he who brought a Bill before Parliament on 15th April, 1869. ² Although its main purpose was to provide safer working conditions, it included clauses concerning children:-

(1) The employment of children under the age of ten underground was to be prohibited.

(2) Up to the age of sixteen their hours of work would be restricted to twelve in any twenty-four.

(3) The provision of the Workshops Regulations Act of 1867 were to be extended to all children and young persons employed above ground.

1. BOYD. Coal Mines Inspection. p. 171
2. "A Bill to Consolidate and Amend the Acts Relating to the Regulation and Inspection of Mines"
The Bill was discussed at meetings of both management and men with the result that many amendments and suggestions were made to Mr. Bruce. As the miners felt that it failed to meet many of the grievances they had complained about for many years, petitions against the Bill were received from many district meetings. The main objections of the miners' representatives were as follows:

1. They wanted to limit the working hours of a boy to eight instead of twelve.

2. All boys of twelve should have a certificate from a schoolmaster stating that they could read and write before obtaining employment.

3. They wanted every manager examined and issued with a certificate of competency.

Other objections dealt with the inspection and safety clauses of the Bill.

The owners, on the other hand, wanted the education clauses of the 1860 Act to remain and instead of restricting boys labour to twelve hours in twenty-four, they suggested twelve hours labour with an interval of eight hours.

While discussions had been going on, the Bill had been read a second time and was due to go to Committee at the end of June. On June 19th, however, it was withdrawn, and Mr. Bruce told the House that he had no hope of passing a satisfactory measure during that Session. The resolving of the differences between owners and men could not be done quickly, so legislation was once more postponed.

At the end of the year, statistics showed that the number of deaths underground had increased by one hundred and five on the previous year's figures and Inspectors' reports continued to lay the blame for many accidents on ignorance.

4. Ibid. p. 182
5. Ibid. p. 184
among managers and men.

On February 10th, 1870, Mr. Bruce introduced a Bill which was little changed from that of the previous year. After its second reading, the hopes of all concerned were again frustrated when, after numerous postponements, the Bill was again shelved due to the pressure of more important political questions. The Mines Regulation Bill was becoming an embarrassment to the Government, its repeated postponement leading to increased pressure from the miners for something to be done. A new Bill was brought in on February 13th, 1871, and in his introductory speech, 6 Mr. Bruce referred to the Select Committee's difficulties in dealing with the education of miners. He agreed that the law as it stood failed completely to educate the collier boys. The Select Committee had proposed that all under twelve should be excluded from mines in the hope that, up to that age, they would take advantage of the education facilities now to be extended to them by the Education Act of 1870 and believing that, if this exclusion were carried out, it would be unnecessary to impose any further restriction. Mr. Akroyd (Halifax) had suggested that children should be allowed in the mines at ten but only for three days a week and that they should receive at least ten hours education a week. The Association of Mines had proposed that no child under twelve should be employed and only then if he possessed a certificate of proficiency in the three R's. They also wished to restrict the hours of work of boys between twelve and sixteen to eight hours a day and compel their attendance at school for a certain number of hours each week. Mr. Bruce here expressed the suspicions that had been heard in the Select Committee that these proposals of the men seemed to contain more than a desire for education. Many Trade Unions had made it one of their objects to prevent the employment of children so as to keep up the rates of wages, by keeping down the number of people employed, and when such a proposal as this was made there must be seen in it some other object than the advance of education.

6. HANSARD 1871. CCIV. p.193
Having considered the proposals from all parties, the clauses relating to boys were altered to make the following provisions:

1. Boys could commence work at ten.

2. Between ten and thirteen would only work underground three days a week and not more than twelve hours a day.

3. Between thirteen and sixteen would only work fifty-six hours per week.

4. Up to thirteen every boy would attend school for ten hours per week and the teacher would have the power to have school fees deducted from a boy's wages.

The suggestion that colliery managers should require certificates of competency was not included.

So many new features had been included in the Bill that new rounds of discussions were called for among representatives of men and management. The education clauses were generally opposed by the owners, especially those working thin seams, while strong support for them came from the men, who were still pressing for an eight hours per day limit on boys' employment. While these discussions continued, the Parliamentary Session approached its end and on July 17th when Mr. Gladstone announced those measures which could not be satisfactorily concluded the Mines Regulation Bill was among them. After so many delays, this announcement caused great consternation among all concerned and pressure was again put on Mr. Bruce by Members of Parliament and the industry's representatives for some further action. His solution was to propose a Select Committee of forty Members of Parliament representing all the interests involved who would attempt to narrow the differences that still existed. While this plan received the support of the owners, the men's delegates had no confidence in a tribunal which seemed to them

8. Ibid. p. 191
to consist of colliery proprietors and their friends. The plan was therefore dropped and the Bill left to wait until the next Session.

For the fourth time in as many years, Mr. Bruce introduced his Mines Regulation Bill on February 12th, 1872. While he regretted the delay due to questions of greater political importance, he hoped it would be compensated for by the improved provisions of his new Bill. The education clauses remained unchanged, but whereas the 1871 Bill had proposed that boys of ten to thirteen should only work a limited number of days per week, the new measures would introduce a more elastic system and offer the alternative six half days work per week where it could usefully be adopted. The hours of work recommended for boys under thirteen were reduced from twelve to ten. Other new clauses included the requirements of a certificate of competency for managers of mines.

The Bill was read a second time on March 4th, and at last reached the Committee stage on June 21st. An amendment to exclude all boys under twelve was proposed by Mr. Pease who thought that the extra two years' schooling resulting from this would make the boys much more valuable to their employers when they eventually started work. The difficulties of thin seam working were once more used by Mr. Powell as the excuse for objecting to this amendment and although Sir Robert Anstruther pointed out that if a boy were not allowed in a thick seam mine he much more ought to be prevented in a thin seam, the amendment was rejected. Mr. Kay ShuMeworth proposed that the Bill should be brought into line with the Factory Acts under which no child under thirteen was allowed to work full time. It was pointed out, however, by Mr. Bruce, that such an amendment was unnecessary as this point could be left to the discretion of the new school boards, who would have the power to compel boys between twelve and thirteen to attend school during a certain number of hours each week. The only new clause introduced was one which provided for penalties to enforce

10. HANSARD 1872. CCIX. p. 232
11. Ibid. CCXII. p. 35
the attendance of children at school.

After its third reading, on July 16th, the Bill passed to the Lords, where Lord Shaftesbury, thirty years after the passing of his own 1842 Act, debated a measure which made many of the provisions which had been impossible at that time. Boys were still, however, able to enter the mine at ten and Lord Shaftesbury proposed that this should be raised to twelve and that certificates of strength and health should be produced before a boy began work. As the whole question of age had been so fully discussed by the Commons, Lord Shaftesbury was persuaded to withdraw his amendments so that, with only minor alterations, the Mines Regulations Bill passed through the Lords and received the Royal Assent on August 10th, 1872.

The provisions of the new Act which concerned the employment and education of boys were:-

(1) No women, girls or boys under ten were to be employed underground.

(2) Boys between ten and twelve could not be employed except in a mine in which a Secretary of State by reason of the thinness of the seams of such mine, considered such employment necessary, and by orders, published as he might think fit, allows the same on the following conditions:-

   (a) for not more than six days in any one week;
   OR  (b) if he is employed for more than three days in any one week for not more than ten hours in any one day;
   OR  (c) in any case for more than ten hours in any one day;
   OR  (d) otherwise than in accordance with the regulations contained in the remainder of the Act.

(3) Boys under sixteen could not be employed for more than fifty-four hours in one week or more than ten hours in any one day.

(4) Boys between ten and twelve shall attend a school for at least twenty hours in every two weeks. This time was to be made up so that it did not exceed,

12. An Act to consolidate and amend the Acts relating to the Regulation of Coal Mines, and certain other mines. 35 & 36 VICT. c 76
(i) three hours at any one time,
(ii) five hours in any one day,
(iii) twelve hours in any one week.

Sundays and any time before 8.00 a.m. or after 6.00 p.m. could not be included.

(5) Non-attendance could be excused for:-

(a) Certified sickness.
(b) School holidays.
(c) For any time during which there is no school which the boy could attend within two miles from the residence of such boy or the mine in which he worked.

The employer had to obtain a certificate of attendance from the teacher for each preceding fourteen days and these certificates had to be kept for six months.

(6) The principal teacher could apply in writing to the person who paid the boy's wages for a sum not exceeding 2d per week or one-twelfth of the boy's wages for each week the boy attended school.

(7) An Inspector under the Act could disqualify a teacher for granting certificates.

(8) The boy's parents had to see that he attended school in accordance with the regulations of the Act.

The Act came into force on January 1st, 1873, and in February of that year the high price and scarcity of coal caused the appointment of a Select Committee to inquire into the causes of this scarcity. The report of the Commission published in July 1873 gives some indication of the immediate reaction of the owners and the effects that the 1872 Act were having on the industry.

Since the 1860 Act, boys under twelve had almost ceased to be employed

13. Select Committee on Coal
in most of the coalfields because of the owners’ reluctance to deal with the necessary certificates of education. The education clauses of the 1872 Act had little effect, therefore, because the boys they applied to did not exist in the majority of collieries. Thin seam collieries had, however, continued to employ boys under twelve and the new regulations had much more effect on them. Under the provisions of the 1860 Act, a boy could be employed more or less full time in a thin seam mine. The 1872 regulations were such that boys could work only part of the week and relays would be needed if the mine were to keep up production. In his evidence to the Select Committee, Mr. Tennant estimated that production at the Low Moor Colliery which worked thin seams, had decreased about 10% due largely to the restriction on the labour of boys. When it was pointed out that boys could still be employed half-time, Mr. Tennant claimed that there were insufficient boys in the district to work relays. He also claimed that thin seams could not be worked without boys, a claim supported by Mr. T. Wyman. It was clear that these gentlemen had not considered the obvious solution of cutting the roof and floor to allow men and horses to travel in the thin seam roadways. Mr. T. A. Wales, who did this in his thin seam mines, found no need to employ any children under twelve. The heightening of roadways in mines which had previously relied on small boys to transport the coal would, however, undoubtedly raise production costs and thus the price of coal on the market. The Chairman of the Association of Coalowners of Great Britain estimated that the effect of the regulations concerning boys would be to increase the price of coal between 1s. 4d. and 1s. 8d. a ton.

If the clauses relating to boys under twelve had little effect on the majority of collieries, the same could not be said for the restriction of the working hours of boys under sixteen to fifty-four a week and ten in any one day. Because of the interdependence of men and boys in the mine, this regulation applied, in fact, to everyone employed underground. Its actual effect, as estimated by Mr. A. Hewlett was to

15. Ibid. para. 1198-1203
16. Ibid. para. 1568-1572
17. Ibid. para. 2216-2219
18. Ibid. para. 1984-1986
reduce output by about 15%.

Hewers had always been notoriously irregular in their work, often staying away on Mondays and then working long hours later in the week to make up their output. It was now difficult for them to do this, as the boys who removed their coals were limited to ten hours of work on any one day. One good effect of the Act could be, therefore, that the hewers would change their irregular habits and settle into a better organised pattern of work which might even result in increased production.

If the 1872 Act caused concern about reduced production and increased costs, it did little to alter the position of most of the children living in colliery areas. They still could not go into the pit until twelve and yet there was no certainty that they would attend school until that age. The Act may, in fact, have reduced the number of boys who received compulsory education because some thin seam collieries, finding it difficult to meet the requirements of the Act, dispensed with the boys. Thus, boys from thin seam pits, who had been receiving some compulsory education under the 1860 Act had a choice of three courses of action; to attend school, go into a factory, or stay at home until they could enter the pit legitimately at the age of twelve without any educational qualifications at all.

The 1860 Mines Regulation Act had resulted in the disappearance of boys under twelve in practically all the coalfields, but the schools had gained little from this exodus from the pits. Several reasons were given for this by Mr. Foster in his evidence to the Newcastle Commission including the fact that many schools were so inefficient and ill-equipped that parents and children had a natural aversion to them. 19

The position after the 1872 Mines Regulation Act was different. While legislation to protect boys in the mines had progressed steadily since the 1842 Act there had also been a movement towards providing an elementary education for all working class children. This movement could be said to have started with the granting of £20,000 by Parliament in 1833 for the building of schools, and progressed under the

Committee of Privy Council appointed in 1839 to superintend the spending of any sums granted by Parliament for education.

While Government assistance was made available for schools, it was generally thought desirable to leave education in the hands of the voluntary bodies and any suggestion that it should become compulsory were rejected as impracticable and undesirable.

Following the Reform Act of 1867, however, some politicians became more disposed to consider education, especially as World Exhibitions began to show that Britain was slipping from her place as the leader in technical innovations. Technical education on a large scale was obviously going to be needed and this implied a ground work in elementary education. In the coal industry, the first patent for a coat-cutting machine came in 1862, steel wire ropes came into general use, nitroglycerine was introduced into the pits as an explosive and mechanical ventilating fans produced underground air currents of unheard-of speed and quantity. This rapid progress in all fields of industry required an increasingly intelligent labour force. An examination of education in Manchester, Birmingham, Leeds and Liverpool in 1869 showed that many children were receiving no education at all. In Liverpool, a quarter of those between the ages of five and thirteen never entered a school. In colliery areas where there had been no improvement in schools since the Newcastle Commission of 1861, there is no reason to suppose that the children were much better off educationally than those in these four provincial towns.

The initiative was taken by the Government in 1870 with the passing of, "An Act to provide public elementary education in England and Wales."

The provisions of the Act applied to the whole country and it provided for the setting up of School Boards in areas where suitable school accommodation was insufficient. Where voluntary organisations were unable or unwilling to provide necessary accommodation, school boards were formed to supply the initial deficiency and they could then anticipate any increase in demand and provide accommodation accordingly. The Board also had the power to take over (with Education Department
consent) a school previously run by voluntary managers. All schools provided by
the Board were open to inspection by H. M. Inspectors and had to observe the Code
of Education Department. Thus, wherever School Boards were formed, the educational
facilities generally showed improvement. When some colliery areas and schools were
involved, the change must have been very considerable.

Although fees were still charged in board schools, it was possible for
the school board to pay the fees for any child resident in their district if, in their
opinion, the parents were unable to pay. This applied to attendance at any public
elementary school, not necessarily to a board school.

The Act took the first steps towards compulsory education by providing
that a School Board could make attendance between five and thirteen compulsory by
publishing byelaws. These byelaws, however, had to provide for the total or partial
exemption for children over ten who were certified by an H. M. I. to have reached a
certain standard of education.

In areas where school boards were not formed there was also an improve­
ment. The Act required that,

"there shall be provided for every school district a sufficient amount
of accommodation in public elementary schools available for all the children resident
in such district."

A public elementary school was one conducted in accordance with the
conditions required to obtain an annual parliamentary grant, conditions which ensured
a good minimum standard of accommodation and teaching. When determining the
initial deficiency in any district, the Education Department took into consideration all
schools which in their opinion would give an efficient elementary education. The Act
thus ensured that even if a School Board was not formed, due to sufficient voluntary
effort being forthcoming, each district was supplied with schools which complied with
certain minimum standards.

In 1873 therefore, the boy who was debarred from the pit because of the
Mines Regulation Act found himself in a situation entirely different from that of the boy of twelve years before, made idle by the 1860 Act. If a School Board had been formed in his district and had published byelaws requiring compulsory attendance, he might find himself at school until the age of thirteen, unless he was able to obtain an inspector's certificate showing that he had reached a certain standard of education. If attendance had not been made compulsory, or if no school board had been formed in his district, then at least the available schools were more attractive and efficient. Progress could be made, and parents cured of the idea that schooling was a waste of time. It was still possible, however, for a boy to receive little or no education and enter the pit at twelve almost illiterate. This possibility was to remain for three years only, after which the Elementary Education Act of 1876 prevented it. Section 4 of this Act made it the duty of every parent to see that every child between five and fourteen received efficient instruction in the three R's. No child under ten was to be employed and those over ten only if they fulfilled one of the following conditions:—

(1) A certificate of proficiency in the three R's had been obtained,

(2) A certificate of having 250 attendances at an efficient school in each five years following the age of five had been obtained, (This was known as the "dunce's certificate" as it allowed children unable to obtain a certificate of proficiency to be employed).

(3) They were over ten and employed and totally exempt under the Factories Act or Byelaw of the Education Act.

The Act also set up new bodies called School Attendance Committees concerned with school attendance in areas where there were no boards. Now any boy over twelve employed underground had either to have received at least five years education or have shown himself proficient in reading, writing and arithmetic. The basis was being laid for a new industry depending more and more on machines and a skilled, intelligent labour force and less and less on the brute force of the old hewer and the broad shoulders of the putters. When in 1880 another Elementary Education Act made compulsory education universal the emancipation of the pit boys was complete.
CHAPTER TEN

SUMMARY

In considering the history of coalmining communities in the nineteenth century, many complex factors have to be related to each other to give a clear picture of the reasons for certain things happening. There is rarely a case of some action being taken for one specific reason. Expansion of the industry, the nature of the work in mines, the attitudes of miners and owners, accidents in mines, the powerful vested interests in coal, all these, with many other factors, have to be studied to discover the real motives behind some reform.

Children are unable to protect their own interests; because of immaturity, lack of knowledge and physical weakness, they must always rely on some adult to mediate on their behalf. This adult is usually the child's parent whose love is generally sufficient to protect the child from danger or excessive exploitation. In the early years of the nineteenth century, the harrowing conditions of children working in mines might lead one to believe that any sort of parental feeling was absent in the mining community. If parental feeling had been the only factor leading to children being sent into the mine, then this belief might have been justified. However, the actual pressures were so complex that it is impossible to say that there was in fact any single reason for a boy of five finding himself in the pit.

From the child's point of view the dominant force came from his parents. His complete dependence on them made their wishes decisive; if they sent him into the pit at six, then that was his lot and could not be changed until he gained some sort of independence. Before such a decision is condemned as harsh, the pressures on the parents must be considered. Although it might be thought that the parents' natural inclination would be to keep their child out of the pit for as long as possible, it must be remembered that most parents had themselves gone into the pit at an early age, and that the custom of early employment was deeply entrenched in the mining areas. A parent sending his son into the pit at five or six was, therefore, not doing anything
unusual and certainly nothing that would earn him the condemnation of his neighbours, who carried out the same practice. Thus, parental concern was obscured by well established custom.

If working conditions seemed horrific to outsiders, they were what miners for generations had been used to and had come to accept. The picture of the miner callously condemning his young son to a life of misery is not true in that, however callous it may seem to us to-day, at the time it was a perfectly natural thing to do. Some children, in fact, looked forward to the day when they would go into the pit and work with their fathers and brothers. Far from being forced brutally underground, they went proudly to their first day's work as the following extract shows:

"---at the mature age of nine years and of my own free choice, I proudly donned the pit-boy's flannels, and, with the bait poke over my shoulder and the candle box in my pocket, I looked down with pity on the poor boys who had to continue at school and struggle on with vulgar fractions, whilst I should not only earn some money, but be initiated into what seemed to me the mysteries and the manly phraseology of a pit-boy's life."¹

Although this initial enthusiasm very quickly waned, the desire of a boy to probe the exciting mysteries of the pit and grow in stature in the eyes of his contemporaries must have made the initial entry into the dismal working conditions of most mines much easier.

It seems then, that even where there was no pressing need for children to go into the pits, they nevertheless found themselves underground because of custom and habit. For some parents, however, the overwhelming consideration was money and where this was the case, parental feeling was indeed lacking. This need for money arose from the large size of the collier's family, the low rate of wages, but more often from the seeming inability of many colliers to work for a full week. In many areas,

1. PARKINSON. Stories of Durham Pit Life - 1837. p. 15
the pits never worked on a Monday, not because the owners declared a holiday, but because the miners did not go to work. The money lost by this idleness had to be made up by working longer hours on the remaining days and by making sure that every available wage earner in the family was employed. In the worst cases, fathers used their children to subsidise a life of idleness, drinking and gambling.

In fairness, however, it would probably be wrong to put this absenteeism down to laziness alone. A high absenteeism rate has always been a feature of the mining industry and even in 1966 pits have been reported as having up to 60% of their personnel absent on Monday mornings. Anyone who has experienced working conditions in some collieries can easily imagine and sympathise with the reluctance that the miner shows at 2.00 a.m. on a Monday morning for going to work.

There were, of course, cases of genuine hardship, where widows relied on the income from their children or where the father was injured in the pit and became a financial liability instead of the family breadwinner. In these cases, whatever the attitude of parents, young children found themselves in the pit because their meagre earnings were genuinely necessary. Further pressures to get the children into the pit very often came, through their parents, from the Managers and owners. Where seams were thin, owners were particularly anxious to employ children at an early age and parents received every encouragement to send them. In thick seams where the need was not so urgent, most owners made no effort to prevent the employment of young children. They provided a cheap transport system and a supply of trained men for future years. The need for early training was often given, by both owners and miners, as an excuse for young boys being sent underground. While there was undoubtedly a need for a boy to develop the "pit sense" mentioned in Chapter One, the actual mechanics of any job in the pit at that time could be mastered in a short time. Restrictions on the age at which children could be employed, imposed in future years, produced no falling off in the supply of skilled miners so that the excuse that early training was necessary was not really valid.
Owners could easily relieve themselves of any responsibility for the children in their mines by pointing out that the parents, who knew what conditions were like, voluntarily took their boys underground. If parents were satisfied, then it was certainly not up to the owners to interfere in any way.

The final pressure on the children was the absence of any alternatives to the pit. In the isolated colliery communities life revolved around the mine shafts. There was no other employment to be had. Any schools that existed were so wretched that even the pit seemed a haven from the cruelty and boredom of the classroom. Parents found their children a nuisance, and getting them employment at the mine kept them out of trouble and profitably occupied.

It will be seen, therefore, that the conditions which horrified Lord Ashley and the Commissioners of the Children's Employment Commission in 1842 caused no comment from those who had been employed in, or connected with, the mining industry for many years. The condition of children in mines, which was indeed deplorable, seemed to many of the miners, the only possible way of life for them and they were surprised that such indignation had been expressed about it. If there had been no outside interference then, there is little doubt that the miners themselves would have made little effort to protect their children from exploitation.

Lord Ashley's 1842 Act was the only piece of legislation concerning children in mines which was to be based on purely humanitarian grounds. His basic argument was that it was inhuman to subject women and young children to the degrading conditions of the mine. This was the argument which forced the Bill through, for few cared to be labelled inhuman, the notable exception being the Marquis of Londonderry, although even he has been absolved of this charge by some modern writers. 2

2. RAYNES, J.R. Coal and its Conflicts.
"Lord Londonderry has been very much misrepresented. He tenaciously held certain righteous principles as to employment. One was that every man must give of his best, a second was that every employer must do his best for his men."
However, even the claims of humanity did not prevent the financial interest in the industry, represented by the House of Lords, from reducing the Bill to a bare minimum of restrictions and even these were to prove inoperable in many areas because of the lack of adequate inspection and penalties.

Nevertheless, in the circumstances existing at that time, Lord Ashley could be well pleased with his Bill. Even if its immediate effect were disappointing, it was to clear all women and girls out of the pits in a comparatively short time, although young boys were to linger much longer. The humanising effect on the colliery communities of women being barred from the pit was the Act's greatest single contribution to the welfare of the children.

The 1842 Act was also to be responsible for the introduction to the mining scene of Seymour Tremenheere who for seventeen years was to be the Government's only official reporter on the state of the mining population. To appoint one man to superintend the enforcement of an Act of Parliament over the whole of Britain was ludicrous, and the choice of Tremenheere seems to have pleased very few of those actively concerned with the industry, especially the miners themselves.

His sources of information were generally the owners and viewers. Indeed, the men complained that often the first intimation that he had been in their area was the publishing of his report. Tremenheere's whole attitude to the miners and their industry has been perfectly summed up by E. Welbourne:

"He seems to have been one of those evangelical philanthropists whose ideal of industry was the paternal employer, to whom the little girl were to bob, and the little boys touch their forelock."3

While he strongly advocated educating the colliers' children, his reasons for doing so reveal his condescending attitude to the miners. Education would reduce the number of strikes by helping the miners to recognise that their position was that of a servant to a master, who, according to Tremenheere, did little wrong, and who

3. WELBOURNE. The Miners' Unions of Northumberland and Durham.
was to be served faithfully, even in the face of reductions in wages, poor housing and harsh fines. However wrong Tremanheere's motives were, he was at least active in urging that education should be provided, although most of his own schemes came to nothing. The fact that he kept the necessity for education before the eyes of the legislature for year after year in his reports could only be a positive contribution towards the provisions that were eventually made and while his detractors may have been justified, his work between 1842 and 1859 was an important factor in the movement towards emancipation of the collier children.

The voice of a lone Commissioner necessarily carried little weight in an industry that was rapidly expanding and which had to deal with more pressing problems than the education of the pitman's children. The children could wait a while, but the strikes and discontent arising from the miners' yearly 'bond' needed immediate attention. Unions were formed only to fail after a few months due to lack of funds and leadership and the overwhelming power of the owners. Although many of these early unions failed, the spirit of co-operation between the men had been created and was to be responsible for national organisations with huge membership and able leaders. When the immediate claims of their members had been met, these national unions could turn their attention to the children and campaign for better education and improved conditions much more forcefully than any individual. Unfortunately, claims for better education became just one minor aspect of the battle between owners and men. Throughout negotiations between management and the unions, the claim for improved conditions for children was never accepted at its face value. The peculiarities of the industry meant that the working hours and conditions of boys also dictated those of the men. Because of this, any move to reduce the hours of boys was regarded by owners simply as a device by the unions to improve the conditions of their members. That there was some truth in this some union leaders even admitted openly, but it meant that the genuine desire for education, which undoubtedly existed among many of the miners, was never able to have its full effect on discussions and negotiations. The children undoubtedly suffered as a result of being drawn into
these industrial manoeuvres.

The merits of educating collier children simply to make them better members of the community carried little weight among colliery owners who rarely laid out money for something that was to bring them no return. Thus, Lord Ashley's hope, that the children freed from the pit would be educated in schools provided voluntarily, was not realised in most areas. Where schools were built, many owners considered it sufficient to donate an annual sum and leave it at that. The fact that the school was more than half empty and the teacher totally incompetent was irrelevant. They had provided good money and to those who were used to reaping huge profits from any capital outlay, the same principle must have seemed applicable to a school.

It was fortunate that there was one problem which attracted the sympathetic attention of miners, owners and Parliament, and that education became involved in its solution, otherwise the colliers' children would have had to wait until the late 1870's for their education. Accidents, which killed dozens of men at one blow and which each year accounted for a thousand or more lives, could not be ignored or argued about. Everyone was united in planning measures to reduce the slaughter. Although there were many complicated factors involved in each individual accident, the reports of Inspectors and Coroners began to show a common feature - the ignorance of the miners. Many were being killed because their uneducated minds could not grasp the implications of their actions. Others died because the mine officials, often completely illiterate, could not control the natural forces in the increasingly large mines. The industry was expanding, pits were becoming deeper, the thick seams were being worked out and thinner seams brought more complications. The problem of an ignorant labour force would clearly be aggravated as the years went by.

The Inspection Acts of 1850 and 1855 dealt with the more pressing problems of safety in mines, but those responsible for framing the legislation obviously felt that educating the colliers was a very doubtful way of dealing with the problem and no means were included in either of these Acts for obtaining any sort of education. However, the accident rate showed no sign of decreasing and reports continued to stress the need
for some elementary education. The years between 1855 and 1860 were spent in meetings and discussions between men, owners and Members of Parliament trying to arrive at some satisfactory solution that was reasonably acceptable to everyone.

The resulting Act of 1860 included in its provisions the first attempt at providing an education for boys in the pit. Boys under twelve were not allowed underground unless they produced a certificate stating that they could read and write or unless they attended school for not less than three hours a day for two days a week while they were employed (up to the age of twelve).

It seemed that this provision might have the desired effect. In isolated mining communities where the pit offered the only employment, parents now had an incentive to see that their boys could read and write before they reached the age of ten so that they could go straight into the pit. Even if this were not done, the boys would at least receive two years of part-time education while they worked at the pit. A boy could only benefit from these new regulations if he were employed at the pit and it had been assumed by the legislative that the employment of boys between ten and twelve would continue. The majority of owners, however, decided that the collection of the required certificates would not only be troublesome but might actually cost them money, and they therefore made nonsense of the education clauses by refusing to employ any boys under twelve. The practical effect of the 1860 Act was simply to raise the age at which a boy could be employed underground from ten to twelve. Educationally he was no better off. Any hopes that these extra two years of enforced idleness would lead to an increase in voluntary attendance at school were not to be realised. The Newcastle Commission Report of 1861 gave a dismal description of schools in colliery areas and expressed the opinion that the schools themselves and the teachers in them were often responsible for children staying away. Certainly in many cases, the boys would have benefited more by being in the pit than attending school.

In all the arguments about education up to this time, the main concern was about getting the children into a school; what happened when he got there seemed to
be of secondary importance. The assumption that once there he would receive an adequate education was ill-founded and only very rarely the case. To the miner and his wife an education was reading and writing and teaching in colliery schools was largely restricted to these. The evidence given to the Newcastle Commission showed that in many cases reading was taught as a mechanical ability and was achieved without any understanding of what had been read, while writing consisted of a shaky signature learnt by constant repetition. In studying any tables of figures relating to school attendances and the educational condition of children at this period it must be remembered that attendance at school and 'education', in the present sense of the word, did not, very often, go together. Thus, even if the 1860 Act had been complied with by the owners, its educational effect would certainly have been severely restricted by the state of the schools at that time. In an industry requiring skill and intelligence the worker has an incentive to learning. Apart from the satisfaction of doing a job well, wages and promotion depend on his ability to master all the techniques of his work. The coal mining industry in its early days could not be said to require either knowledge or intelligence. The illiterate and the educated hewed the same coal, and earnings depended upon physical strength. Lack of education was no bar to promotion. If a man showed a mastery of his job and a certain amount of inherent intelligence, he could rise to underviewer without ever being called on to read or write. In such a situation, education was a luxury which most parents decided their children could do without.

The nature of coalwork did not require the quick, nimble mind that the mill machinery tended to produce. When earning a living did not produce an incentive to learn then the only thing left was learning for learning's sake, an idea that was completely foreign to the mining communities. Perhaps the nearest they got to it was in their Sunday Schools where lessons were taught from the Bible with an enthusiasm that was often lacking in the day schools. Many miners found their incentive to learn in the Church and many of the able union leaders were devout Churchmen. While the Sunday Schools might provide a reason for learning to read it was their only
real contribution to the education of the children. Large numbers, inadequate teachers, lack of time and materials, made any contribution towards secular education negligible even where it was attempted.

If the Church's contribution to secular education were small, its effect on the social life of the mining communities was more spectacular. The Dissenting Churches went from strength to strength during the nineteenth century and nowhere was their influence as great as in the mining areas; small congregations meeting in cottages grew to well organised Church communities in a few years. The men of the Church carried their influence into the pit where they often held responsible positions. Stories of wild, immoral, pitmen began to die out and as the children passed through the Sunday Schools, it became clear that the old image of the mining community had gone.

The shortcomings of the 1860 Act had been expected to be put right after the report of the Select Committee of 1867. Political complications were to delay further legislation until 1872 when an Act included several clauses relating to the hours of employment and the education of boys. While the reduction in their hours of work gave some physical relief to boys under sixteen, the educational provisions were once again to have little effect, applying as they did to boys between ten and twelve in thin seam mines. There was, however, some improvement from another quarter. The Education Act of 1870 led to more efficient schools and in some cases compulsory attendance. Incentive had been provided in the 1872 Mines Act by the introduction of certificates of competency for colliery managers. Education was now essential for any miner wanting to improve himself and for once it seemed that the schools would be equal to the demand. More efficient schools attracted more pupils and finally the Education Acts of 1876 and 1880 brought the colliers' children together with those of all other industries into a system of compulsory education. It required a measure solely concerned with education finally to ensure that all pit children received an education.
CHAPTER ELEVEN

CONCLUSIONS

Industrial legislation's effective contribution to the improvement in the condition of pit children was to remove the youngest of them from the underground workings.

Entry into the pit's depressing and demoralising environment was, for most, inevitable, but at least its enforced delay exposed the children for a little longer to the few opportunities available to them for improvement. Those who were fortunate enough to have an encouraging home background could continue for an extra year or two with their usually inadequate education. A few took the opportunity of breaking away from the pit and began the disintegration of the closed mining communities which had done so much to perpetuate ignorance and prejudice against education. In the majority of cases, however, the only beneficial effect was that the boys spent their time in surroundings more congenial and healthy than would otherwise have been the case.

The legislation that has been described failed to produce an educated labour force because of the entanglement of educational needs with other factors connected with the industry.

The first requirement in the industry was to maintain profits and all other considerations, including safety and education, were subordinate to this. There is no doubt that the powerful ownership of the mines retarded educational progress. Influence was exerted to reject or modify proposals aimed at helping the children because they were commercially undesirable. The blame did not rest entirely with the owners. The miners themselves aroused doubts in the minds of the legislators by trying to use the pit boys to improve their own conditions. The involvement of the children in the eight hour day movement certainly delayed and modified some
During this period there was no legislation, apart from the 1842 Act, which arose from humane consideration of the children. The measures that did assist the pit boys were by-products of the need to prevent accidents, to establish better labour relations and to ensure the future supply of trained officials when it became clear that the technical advances of the industry were outstripping the capabilities of its workmen.

The educational clauses of the later Acts were largely ineffective because they relied on the owners making a genuine attempt to apply them and this was not done. It was difficult to run a mine with boys who spent two days a week at school and it was inconvenient to collect and record certificates of education. Since both difficulties could be avoided by employing older boys this was generally the action taken to meet the provisions of the Acts.

The hopes of those concerned with earlier legislation, that exclusion of boys from the pit would automatically lead to more effective education, were not realised. The miners had little regard for education and their work did not require it. The institutions set up to provide it were often incapable of fulfilling their function. The pit boy did not want to go to school, his parents were not sufficiently interested to compel his attendance, and colliery management had other things to occupy their minds in the day to day running of the mine. Thus the efforts to promote education simply by providing children with the opportunity to go to school were, in most areas, doomed to failure. Only clauses requiring compulsory attendance at school could have had a real effect and these did not appear in any of the mining legislation of the period.

There is no doubt that, without interference in the form of the Education Acts, the mining industry would have waited many more years before the pressure of technical advance eventually produced some form of compulsory education for its employees and their children.
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APPENDICES

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APPENDIX 1

Figures obtained from "A Treatise on the Extent and Probable Duration of the Northern Coal Field" by T. Y. Hall, published in Newcastle in 1854.

1 chaldron = 53 cwts = 2\frac{3}{4} tons approximately

The following is an account of the quantity of coals exported from the River Tyne and the River Blyth previous to 1843.

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1836 - 1842</td>
<td>7,697,880 chal.</td>
</tr>
<tr>
<td>1830 - 1835</td>
<td>4,800,000 chal.</td>
</tr>
<tr>
<td>1800 - 1827</td>
<td>20,223,273 chal.</td>
</tr>
<tr>
<td>1791 - 1799</td>
<td>4,625,827 chal.</td>
</tr>
</tbody>
</table>

The vend from the Tyne in 1780 was 366,260 chal.
and in 1785 was 449,997 chal.

In 1710 the average of the previous 4 years was 178,143 chal.

The average export from the Tyne in 1613 (calculated from the duty paid) was 60,000 chal.

The quantity of coal exported from the Wear previous to 1843 was;

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1836 - 1842</td>
<td>3,296,140 chal.</td>
</tr>
<tr>
<td>1829 - 1835</td>
<td>3,255,000 chal.</td>
</tr>
<tr>
<td>1816 - 1828</td>
<td>6,023,281 chal.</td>
</tr>
<tr>
<td>1748 - 1815</td>
<td>16,944,386 chal.</td>
</tr>
</tbody>
</table>

The vend from the Wear in 1748 was 147,403 chal.
and in 1710 was 65,760 chal.

The exports of the Wear during the seventeenth century may be taken at one-third that of the Tyne.
APPENDIX 2

Report of Dr. James Mitchell to the Children’s Employment Commission on the
mines of the South Durham Coalfield.
C.E. C. Appendix Part 1 p. 129.

TRAPPERS

Between 2 and 3 in the morning, the mother wakes her eight year old
son and feeds him on bread and coffee. He leaves for the pit with a tin bottle of
coffee and a hunk of bread.

Down the pit he walks along the horse-way for a mile or more until 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.

His place of work 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 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. He has no
light. His hours are spent in total darkness.

After a few years when he is older and stronger, he is promoted to hold
a string of a door in the rolley-way or horse-way. There is no increase in pay
but he holds a higher rank in the pit.
Lord Ashley read a letter from Thomas Barber, auditor of the Halifax Union, concerning the cruel treatment of a boy apprentice. He then read a report from the Halifax Guardian, extracts from which are given below:

"It is this week our painful duty to record one of the most revolting cases of barbarous treatment that it ever fell to our lot to notice. The case affords another illustration of the cruelties practised upon children doomed to slave labour in a coal mine, and we beg distinctly to observe, that we have understated rather than overstated the treatment of the wretch whose name we shall shortly introduce."

"James Whiteley, a poor orphan boy, about 17 years of age, was apprenticed to Joseph Whiteley, a collier, residing at Blackley, near Elland, about 7 years ago as a hurrier. He was then about 9 years of age. From the first day of his apprenticeship to his cruel master he has been the subject of the most severe and harsh treatment. The labour to which he was put in his mere infancy was the veriest drudgery, and when his limbs failed to do their duty a strap, or not unfrequently a thick piece of wood, was most inhumanly applied to his person. Six-o-clock in the morning was the usual hour at which the poor boy was sent into the pit, and at the same hour in the evening - but not infrequently 8 or 9-o-clock he again emerged, his only subsistence being a muffin, or some other such eatable, and the water in the pit. The cruelties upon him have been greatly increased since his inhuman master was married (about two years since), the woman it appears having taken a dislike to the poor orphan boy. As a sample of the barbarities which this collier boy has had to undergo let the punishment he has experienced during the last fortnight suffice."

"It appears that the severe flogging which Whiteley received caused him once or twice to run away from his master. A short time ago he was so beat with a hurriers strap and a heavy piece of wood that he again resolved upon running away.
He did so, but on Tuesday week he was brought before the Halifax magistrates by his master charged with disobedience. Through the threats and menaces of the cruel tyrant who had treated him so barbarously, he was prevented stating the whole facts of the case to the bench. The lad had intended showing the various wound inflicted on his person, enough, however, was said to induce the magistrates to reprimand the master, and the boy was ordered to go back again, and the master warned not to ill treat him in future. This warning, however, was neglected. The same day he administered a most brutal castigation to his victim which he repeated every day while the lad remained with him. Our readers may imagine that the harrowing details which are to follow are tinged with an air of fiction. They are facts. The poor lad when down the pit was beat with a stick, and between each stroke the instrument was dipped in water. The lad's back became one mass of sores and it was impossible for him to lie in bed. While subject to this inhuman treatment, he was allowed three meals per day of thin water porridge only, and in consequence of his brutal treatment boils broke out in all parts of his body. Frequently he was sent into the pit without breakfast, and obliged to perform the whole of this drudgery. What made this the more painful was the fact of his labouring under the effects of a severe wound inflicted upon his right knee some time since. On that occasion, while beating him with a hurriers strap, the master took hold of the end opposite the buckle, thus causing a more severe punishment, in one of the strokes the buckle caught the poor lad on the right knee and tore away a large piece of flesh. The lad, however, was still forced to work."

"On Thursday night week this monster master ducked the lad's head three or four times in a bowl of water, wetting his shirt all over, and then forced him into the cellar where he was locked up all night without bed, chair, table, or even a morsel of straw. The same treatment was about to be practised on Friday night, but he begged so pitifully for mercy that he was allowed to go to bed. On Saturday night, however, he was again forced into the cellar, where he remained
all night. On Sunday morning he was brought out, no breakfast was given him, but as a further punishment his master suspended a heavy bag of iron around his neck, and forced him to walk up and down the room, under the terror of another flogging."
(The article then describes the boy's further escape and capture.)

"He was brought before the magistrates on Tuesday. His back was exhibited and presented from the nape of the neck downwards one continued series of bruises, evidently effected by some solid thin weapon. His right hand was also dreadfully swollen in attempting to parry the blows. One part of his body presented rather the appearance of raw, diseased meat, than of human flesh and skin."

"The lad was subsequently removed to the workhouse, where he was put under proper medical treatment."
APPENDIX 4

STATISTICS SHOWING THE STATE OF EDUCATION OF PITMEN

(1) Report to Committee of Council on Education by Reverend John Allen, H. M. I., on the state of elementary education in Northumberland and Durham. (Minutes of Committee of Council on Education, 1840-41)

(a) Page 138

Mr. John Buddle was kind enough to transmit, at my request, to the collieries under his mining inspection, some queries relative to the state of education:-

<table>
<thead>
<tr>
<th>Colliery</th>
<th>No. of Pitmen Employed</th>
<th>No. who can read and write</th>
<th>No. who can read only</th>
<th>No. who can neither read nor write</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wallsend</td>
<td>265</td>
<td>145</td>
<td>76</td>
<td>44</td>
</tr>
<tr>
<td>West Towneley</td>
<td>206</td>
<td>100</td>
<td>50</td>
<td>56</td>
</tr>
<tr>
<td>Benwell</td>
<td>153</td>
<td>89</td>
<td>29</td>
<td>35</td>
</tr>
<tr>
<td>Elswick</td>
<td>127</td>
<td>56</td>
<td>51</td>
<td>20</td>
</tr>
<tr>
<td>Backworth</td>
<td>92</td>
<td>55</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>TOTAL</td>
<td>843</td>
<td>445</td>
<td>220</td>
<td>178</td>
</tr>
</tbody>
</table>

Pensher Colliery: 57% can read and write
31% can read only

Rainton Colliery: 37% can read and write
43% can read only

Pittington Colliery: 50% can read and write
35% can read only

(b) Page 138: Figures from Mr. John Hedley of Holywell.

433 persons are connected with the colliery
185 can read and write
268 of 433 are above 14 and 36 of these cannot read

165 are under 14, 70 are infants, leaving 95 of whom 49 are able to read, leaving 46 to be added to the 36 above as the number of illiterate persons capable of receiving instruction (about 22\%).

(c) Page 139: Returns from Mr. T. J. Taylor of the state of pitmen and their families at East Holywell and Earsdon Collieries.

East Holywell: There are 71 families, containing 385 persons

- 209 are above 14
- 176 are below 14
- Can read only 68 (about \( \frac{1}{3} \) imperfectly)
- Can read and write 108
- Neither read nor write 33

Earsdon: There are 108 families, containing 516 persons

- 299 are above 14
- 217 are under 14
- Can read only 86
- Can read and write 154
- Neither read nor write 59

Of the 217 children 84 are in attendance at day school

(d) Page 141: Out of 141 pitmen committed to gaol at Durham during the year ended October 1st, 1840;

- 44 could read and write
- 24 could read only
- 73 could neither read nor write


<table>
<thead>
<tr>
<th>Newbottle Colliery</th>
<th>General Population</th>
<th>Pitmen's Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number who can read and write</td>
<td>693 (39.0%)</td>
<td>217 (28.0%)</td>
</tr>
<tr>
<td>Number who can read only</td>
<td>446 (25.0%)</td>
<td>230 (30.0%)</td>
</tr>
<tr>
<td>Number who can neither read nor write</td>
<td>364 (21.0%)</td>
<td>202 (26.0%)</td>
</tr>
<tr>
<td>Number at and under 5 years of age</td>
<td>257 (15.0%)</td>
<td>119 (16.0%)</td>
</tr>
</tbody>
</table>
### Lambton Colliery

<table>
<thead>
<tr>
<th></th>
<th>General Population</th>
<th>Pitmen's Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number who can read and write</td>
<td>263 (29.0%)</td>
<td>167 (27.0%)</td>
</tr>
<tr>
<td>Number who can read only</td>
<td>309 (34.2%)</td>
<td>222 (35.9%)</td>
</tr>
<tr>
<td>Number who can neither read nor write</td>
<td>186 (20.3%)</td>
<td>124 (20.0%)</td>
</tr>
<tr>
<td>Number at and under 5 years of age</td>
<td>147 (16.2%)</td>
<td>106 (17.2%)</td>
</tr>
</tbody>
</table>

### Littleton Colliery

<table>
<thead>
<tr>
<th></th>
<th>General Population</th>
<th>Pitmen's Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number who can read and write</td>
<td>505 (28.4%)</td>
<td>402 (25.8%)</td>
</tr>
<tr>
<td>Number who can read only</td>
<td>584 (32.8%)</td>
<td>517 (33.3%)</td>
</tr>
<tr>
<td>Number who can neither read nor write</td>
<td>366 (20.6%)</td>
<td>345 (22.2%)</td>
</tr>
<tr>
<td>Number at and under 5 years of age</td>
<td>323 (18.2%)</td>
<td>290 (18.7%)</td>
</tr>
</tbody>
</table>
APPENDIX 5

(Durham County Records Office LO/E/516)

The numbers in the existing schools are fully maintained, and the New Schools at Old Durham and New Seaham, tho' not six months in operation, contain 400 children and employ five additional schoolmasters and mistresses. The total number of teachers of whom I have now to give account to your Ladyship is no less than 16 and the total number of children nearly 1,500.

The efficient working of the schools has been greatly promoted by the large supply of Books granted by your Ladyship during the past year, in the case of the Bibles and Testaments this is especially remarkable most of the Schools having made decided and satisfactory progress in religious knowledge during the year.

The teachers generally are actuated by the best feeling, penetrated with a sense of your Ladyship's anxiety for the Spiritual and Mental Welfare of the children and zealous in their endeavours to carry your wishes into effect.

The boys leaving school and going to work have been tested in the manner pointed out by your Ladyship, and the result, so far as my observation goes, is very satisfactory. With more than the required proficiency in reading and writing, there has been, in the cases which came under my notice, an amount of religious knowledge which, I trust, will prove a seed of much future good. As an assurance to your Ladyship that your wishes on this point are being carried out, and as an enduring and interesting memorial of the system you have established I would respectfully suggest that a book be kept at each colliery in which every boy going to work should leave a specimen of his handwriting and have a certificate of proficiency in other respects entered by the Viewer, Schoolmaster or other
competent person and that these books should be submitted to your Ladyship at the Annual Examinations.

I would further suggest a sort of competitive examination at which the children selected for prizes in their respective schools should be brought together and examined together with a view to determine the comparative merits of their several teachers. A special prize to the successful candidate and a special mark of your Ladyship's approval of his or her teacher would act as a powerful stimulus to both Teachers and Children throughout all the Schools.

Irregular attendances of Girls

Irregularity of attendance was not nearly so great when children attended a private school in their neighbourhood.

I earnestly hope and believe that you will reap the fruits of the good seed sown by seeing a more intelligent and efficient body of workpeople springing up around you.
EMPLOYMENT OF CHILDREN.

Fig. 18 represents the mode of putting backwards with the face to the ground.

Fig. 17 represents the mode of putting in Fife and Clackmannan Shires.

Fig. 17
1. The candle-holder: a socket of iron, having a spike at right angles for the convenience of sticking the light in the sides of the pit when stationary. The spike also forms a handle when the light is carried before them.

2. A skull-cap, having a leather band, into which the candle-holder is thrust when the hands are employed in locomotion.

3. The girdle and hook for attaching to the chain.

4. Represents the position of the girdle.
In passages of somewhat greater height they drag their loads with the belt and chain in the manner represented in Fig. 2.

Fig. 2.
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