Caring for the Coal Miner (Part 01 of 11) - Introduction and the dangers encountered

by William McAdam

Introduction

Coal mining is amongst the most hazardous of occupations, because the miner is in constant conflict with the forces of nature. Coal is extracted from coal seams situated at varying depths below the surface of the earth and dangers exist from the moment the miner enters the cage to descend into the mine. The work underground is carried out by the support of artificial illumination either by a light (lamp) carried by the miner or by illumination that has been installed at appropriate places underground.

In the early days of mining lighting was provided by the use of candles, or by carbide lamps. The lamps consisted of two cylinders, the lower one contained carbide and the upper one was filled with water which when mixed with the carbide produced a gas that was ignited to provide the flame. Candles or carbide lamps could only be used in mines that were considered to be gas free (Naked Lamp Mines).

In the deeper mines oil lamps of the type devised by Sir Humphrey David were used, these initially did not have a glass surrounding the flame and this restricted illumination. When this problem was resolved it improved illumination considerably. As these lamps were sealed the user needed to be particularly careful in handling or
sitting his lamp since he could easily end up without a light. This would lead to total darkness and this was a most dangerous situation for the miner to find himself in.

Later, two types of electric lamps were developed, a hand lamp carried by the miner and a cap lamp, which had a battery, a cable and a headpiece. The battery was carried on a belt and the lamp piece was clipped to a cap or helmet.

**Dangers encountered**

Where did the dangers exist in a coal mine? The answer was everywhere. If, therefore, we look at a miner proceeding to work we can identify some of the situations in which danger is a factor.

When he started work the miner collected his identity disc and then proceeded to the lamp room where he was issued with a lamp. As indicated lighting was mainly by oil lamps and his first duty was to examine the lamp and to blow round the glass part to ensure that the base of the lamp containing the wick, which produced the light was airtight. If this was not airtight it could be a danger if the lamp was used in a place where the gas Methane (Firedamp) was present.

To reach the shaft the miner climbed a set of steps known as the gantry, and occasionally accidents have occurred here. The shaft was also a dangerous place since when accidents occurred in shafts they were invariably serious ones.

Proceeding to his working place the miner travelled along roadways, and depending upon the height of the seam of coal, the roadway may only have been of sufficient height to allow the tubs of coal to travel out to the shaft. This meant that the roadway may only have been five feet high and of course anyone travelling in the
roadway would have to bend forward to avoid bumping his head if he looked up. It has often been said that a miner can be recognized by his forward stance, which resulted from travelling under these conditions. The roadways had small insets called refuge holes at regular intervals along roadways to ensure that if someone was travelling either into or out of the mine and tubs of coal were being transported at the same time there was a place where the person could safely wait until the set of tubs had passed.

Nevertheless accidents involving the transportation of coal were common. The terms “inby” and “outby” refer to entering the mine and returning to the shaft to leave the mine. When arriving at the coalface and preparing to work the miner needed to be constantly aware of the danger of the roof conditions.

Roof conditions were dependent upon the structure of the rock strata, which could be made up of solid stone, post stone or possibly even shale which is far more difficult than stone to support and control. The roof could be unstable and pieces of stone called slips could be present. These slips were very dangerous since they were often unseen and could easily slip out and fall at any time. A common test carried out by the miner to estimate the condition of the roof was to strike the roof with the end of his pick handle and the resultant ring or sound indicated its condition. This sound test was also used by deputies and officials using their yard stick (measuring stick).

Miners needed to be aware of the state of the ventilation and temperature in the mine, since any change in the direction of airflow or temperature indicated that a problem had arisen.
If water was present, either leaking from the roof or coming up through the floor of the seam it made working conditions even more difficult and was an extra hazard.

Explosives were used to blast both coal and stone and despite the stringent regulations applied to shot firing many accidents occurred during the exercise of this procedure.

The pressure of the atmosphere affects the exudation of gases particularly when low pressure is experienced. At every mine a barometer was placed at the pit head for anyone to read but was particularly for use by the Managers, Overmen, and Deputies who had the responsibility of checking the pressure before entering the mine. The gases found were Carbon Monoxide (White damp) Carbon Dioxide (Black damp) and Methane (Fire damp). The presence of Methane has caused many deaths from resultant explosions.

The proliferation of coal mines in the 19th century and in the early 20th century was an additional source of danger because plans for these mines were not available. The inundations of water from old workings resulted in many deaths.

In Durham County the coal seams varied in height from as low as 12 inches to about 6 feet. Working in the low seams caused very cramped and difficult conditions.

With all possible dangers outlined above it was inevitable that accidents were almost a daily occurrence. Some injuries may just be a slight wound or bruising although more serious injuries were not uncommon and unfortunately were occasionally fatal. This brief summary of the many dangers that existed in coal mining indicate that despite the regulations of the various Coal Mines Acts, which were designed to
make the mine safer and so prevent accidents occurring, records show that the mining industry remained particularly dangerous.

**Caring for the Coal Miner (Part 02 of 11) - the care and treatment of the injured miner**

In the 17th century coalmines were generally small and were either drift mines or bell pits. A drift mine was one in which access was gained by driving a road way from the surface to reach the coal.

Bell pits were shallow in depth the shaft usually averaging between 30 feet to 50 feet, and access was gained by using a rope or chain. Entry was gained by holding onto a support inserted in the rope or chain and standing or sitting in a bucket arrangement that was fastened to the rope or chain. Entering or leaving the mine by this system was a dangerous procedure for the miner, man or boy, and it is to be remembered that boys of a very tender age were employed in mining even until early in the 19th Century.

The treatment of injuries and of transport to the surface must have been traumatic under these conditions, and if the injuries sustained were of a serious nature the difficulties encountered would do little to assist the recovery of the injured miner. From the small amount of evidence available there is little to indicate that there were any organized schemes of aid for the treatment of injured miners. When an accident occurred the treatment would be aimed at controlling any bleeding, supporting injured limbs and removing the injured man from the mine as carefully as possible.
If serious injury was suspected, a doctor, probably the local G.P. would have been called and dependent upon the injuries, treatment would be administered at the scene of the accident. In the days before anaesthetics were used the suturing (stitching) of wounds and the setting of broken limbs would have been very painful.

If the doctor decided to send the patient to a hospital, horse transport would be used. Hospitals at this time were only available in the larger towns and presumably the decision to send an injured miner to hospital would depend upon the seriousness of the injuries, the distance to hospital, the prevailing weather conditions, and the time the journey would take.

If the injured miner was to remain at home the first requirement was to wash off as much of the coal dust as possible. Sometimes a relative or friend assisted, but often a person in the community who was known to have experience in caring for the sick and injured would assist the family. Such people may not have been trained in nursing techniques, but they seemed to have been readily available and were always willing to give their services voluntarily.

The community were very supportive and everything possible was done for the injured person despite the poor facilities available at that time. The local doctor assisted by the Nurse /Midwife would administer the appropriate treatment; however, many patients did not hesitate to accept alternative treatment using remedies that were based on folklore.

Ever present was the problem of infection of wounds and this was treated by applying various forms of poultice. Herbs such as comfrey leaves, mustard, or bread were heated and applied. It has been suggested that there was a potion or
ointments to cure most conditions. In the case of wintergreen ointment and similar concoctions used for strains and sprains people believed that the stronger the smell then the greater the benefit. These concoctions were produced by various people, but the ingredients were always carefully guarded and strict secrecy maintained.

Recovery from injury was not assisted in many cases by the poor housing conditions; with large families living in two bed-roomed houses it was often difficult to provide the injured miner with peace and quiet while recovering from his injuries.

Industrial injuries were not the only medical problem encountered by miners; diseases associated with their working conditions also prevented the miner from working.

Prevalent in the 19th Century was Nystagmus, a condition which affects the eyes and is caused by working in very poor illumination. The incidence of Pneumoconiosis and Silicosis, caused by inhaling coal dust or stone dust was a serious problem and became more apparent when machine mining was introduced in the early part of the 20th century.

Tuberculosis was experienced and affected not only miners but members of his family who were susceptible to it. Bursitis or beat knee was a common consequence of working in a low seam, as was beat elbow, both associated with working in cramped conditions, miners also suffered from torn or damaged knee cartilages again a direct result of working on their knees for long hours.

The speed of recovery was very important since compensation or accident benefit was not available at that time and it was a case of no work then no pay.
Consequently many injured miners relied on help from relatives or other miners in the community. In some instances other members of the family may be working in the mine and this helped to ease money problems. In the early days in the absence of compensation or other benefits there was always the tendency for the miner to attempt to return to work before he had fully recovered since not only did this mean he would receive his wages but he would continue to be allowed to live in a colliery house.

**Caring for the Coal Miner (Part 03 of 11) - the need to progress**

The number of serious accidents and fatalities caused much concern in the late 19th Century from the miners personally, their trade unions, the coalmine owners as well as members of parliament, and in several instances some progress was made at individual mines.

The first large scale improvements followed the formation of the St. John Ambulance Association in 1877 by the Order of St. John of Jerusalem. The Association had recognized the need to provide education and training in First Aid and to provide the materials necessary at places where the risk of injury was high.

This lead to the formation of the St. John Ambulance Brigade in 1887, which proved to be most beneficial not only to coal miners but to workers in all forms of industry including the police force, railways, factories, shipyards and quarries. One person whose participation was of paramount importance to the progress made was Sir John Furley, who was born in Ashford in Kent in 1836. As a boy had always been interested in soldiers and the military, however, he did not achieve his ambition of
pursuing a military career. He was educated at Harrow and subsequently read Law. He became involved with the St John Ambulance Association and he represented British interests at meetings held in Geneva, and gave his wholehearted support to the work of the Association. He is credited with the design of the Furley stretcher and of the Ashford two wheeled litter, which was used extensively throughout Britain.

Surgeon Major Peter Shepherd was the Association’s Training Officer and he was the author of the first training manual published in 1878 titled “Aids for Cases of Injuries and Sudden Illness”. Training classes began and very soon all forms of industry became involved.

In County Durham sections or Divisions of the St. John Ambulance Brigade were formed in most villages often associated with the local coalmine. This lead to formal training and the opportunity for people to obtain a qualification by examination. In the course of time the possession of a First Aid Certificate was one of the qualifications recommended by many employers. It is interesting to note that in 1893 Queen Victoria received some 400 - 500 Miners, in Windsor Great Park in recognition of them having gained a First Aid Certificate. All the miners’ were from the Derbyshire and Nottinghamshire Collieries which were owned by Colonel Seely.

I am fortunate to posses a very rare book by W. Cullen M. D, titled “Ambulance Illustrated”. This book published in 1906 by Gowan & Gray, Ltd. London & Glasgow includes 60 photographs showing the application of the triangular bandage, the treatment of fractures, artificial respiration, and the lifting and handling of patients. However there are only five pages of text. The first photograph in the book is of the Glasgow Corporation Tramways Head Office Team following the winning of a trophy
in 1905, and team members are depicted in several of the instructional photographs throughout the book. It is interesting to note the instructions given for the treatment of wounds, burns and scalds, and electrical burns, and I quote from the text:-

“Wounds”. “After the first manifest danger from loss of blood the most urgent claim of a wound is to make it and place it that it cannot be invaded by the Pus Germ, and so become suppurative or matter forming. This germ is practically everywhere - in the air, in dust, in dirt, on the skin, the clothing, or the implement causing the injury. It must be dealt with as perpetually lying in wait to attack broken surfaces, and the gospel of opposing it is summed up in the phrase” “Absolute or Surgical Cleanliness”.

“First Aid, is to thoroughly lave the wound with plenty of fresh water and a clean cloth, then fix a First Dressing comprised of new lint dipped in pure water or half and half whiskey and water above it ,and so seal it against the atmospheric attack of germs.”

“For Burns and Scalds: The first is caused by dry heat, the latter by moist. Treatment: Keep out the air. Cover with flour and cotton wool, or Carron Oil, Olive Oil, Vaseline, or Lard.

For Electricity Burns: Clean Loaf of Bread and pure water poultilces, frequently renewed,“

The descriptions probably reflect medical practices at that time.

Caring for the Coal Miner (Part 04 of 11)- Bolckow, Vaughan & Company
The Dean & Chapter Colliery was sunk by the Bolckow, Vaughan Company in 1902 and was one of a group of collieries owned by them. Dean & Chapter was the largest in the group employing approximately 3000 men in 1925. The colliery was transferred to Dorman & Long Co. Ltd, in 1929 and it is recorded that in the period from 1904 when production began until 1929, 73 miners suffered fatal injuries. The number of serious accidents is not recorded but it can be assumed that many occurred during this period. My information indicates that the provision of First Aid was very good.

A Division of the St John Ambulance Brigade was formed not long after the colliery opened with many colliery officials and miners as members. The Colliery possessed a horse ambulance and an Ashford Litter, which had a cover fitted over the stretcher to protect the patient against the rain, wind and cold. This litter was still in use in the 1930s although only when the motor ambulance was not readily available and then only for someone with a minor injury such as a bruised foot. As a school boy I once saw the litter being used to bring a miner home. First Aid stations were sited underground and a treatment room was provided on the surface.

A photograph, taken in 1919, of the Dean & Chapter Division shows the team who won the Anderson Cup, however since there are 19 uniformed members in the team it is suggested that the competition probably involved foot drill, the lifting and handling of patients, and stretcher drill. This indicates the interest and desire to provide care for those sustaining injury in the mine.

Caring for the Coal Miner (Part 05 of 11) - Dorman Long & Company
The colliery was transferred to Dorman & Long from Bolckow, Vaughan & Co. Ltd. in 1929. Records indicate that from 1929 until the colliery closed in 1966 a further 55 miners lost their lives and whilst this is still a high number it does indicate improvement when compared with the first 25 years.

The most dangerous occupation was that of the coal hewer, and the most common cause of death was due to falls of stone. From my experience at the Colliery in 1940 I gained the impression that safety was considered very important. The Colliery had three shafts leading to different seams of coal and these were known as Number 1, Number 2, & Number 3, pits. Each pit had a miner selected by the trade union as the Local Pit Inspector, and he accompanied the Mines Inspector, the Colliery Manager (or his representative), when inspections were made.

Inspections were conducted on a regular basis, but in addition to these regular inspections, an inspection was always held after a serious or fatal accident.

New entrants, mainly boys were given safety training and were usually employed on the surface to gain experience of the pit routine before being employed underground.

In accordance with the Coal Mines Act, a First Aid Treatment Room was provided and an attendant was available at the start of the shifts and throughout the daytime. The attendant was not employed full time in the first aid room but was given a number of other duties, which he could perform and still be available for First Aid duties.
First Aid stations were set up at selected places underground and these were equipped with stretchers, blankets, sets of splints and a wooden box containing a tourniquet, ampoules of iodine and a variety of dressings, large, medium and small as well as a supply of finger dressings. Occasionally it was my duty to replace the used items.

In addition every Deputy carried a tin first aid box and if any items were used during his shift he left it at the disc office and it was replenished ready for his next shift. The ampoules of iodine were very well used as an antiseptic. They stained the skin yellow, and they caused a slight burning effect, and consequently their use was not recommended by the medical profession.

A point of interest is that the wooden first aid boxes were usually made by the apprentice joiners to give them practice in making dovetail joints. They measured 20” long, 9” wide, and 8” deep, and were painted black, with a red cross imposed on a white circular background. The boxes were not locked and had a carrying handle made of rope.

The nearest hospital was in Durham City but Dorman & Long, had an arrangement for all serious injuries to be taken to the Royal Infirmary at Sunderland. From the treatment point of view this was excellent, however the extra travelling distance involved was a problem for relatives wishing to visit the patient in hospital.

The owners were concerned not only for the miner who had sustained injury, but also that while he was absent from work he could not produce coal and so they introduced a review system. The Company Doctor had a schedule of visits and he usually visited Dean & Chapter Colliery about once a fortnight to examine those men
absent and receiving compensation. If he thought the miner was fit enough to resume work he indicated this and if not he asked the miner to return in two weeks for another examination.

In many cases the result was straightforward but when the miner felt he was not ready to resume his work then problems existed and then the trade union compensation secretary was involved. This person played a very important part in assisting the miner by ensuring that he only returned to work when he was fully fit.

Since Dorman & Long owned a number of collieries three ambulances were available on 24-hour call. They were stationed at Bowburn, Mainsforth, and Leasingthorne. The ambulances served the following collieries: - Bowburn, Chilton, Dean & Chapter, Leasingthorne, Mainsforth, Sherburn Hill, and Thursdale.

Dorman Long & Co. Directors First Aid Trophy

The Company had always demonstrated the importance of safe working conditions, safety training, and first aid training. As previously stated the Company owned several collieries and steel works in the Middlesbrough area and a number of ironstone mines in North Cleveland.

Each year a first aid competition was held, starting with preliminary rounds in each individual industry to produce two teams from the coalmines, two from the steel works, and two from the ironstone mines. The six teams then competed in the final, which was held in Middlesbrough Town Hall. The final was the most elaborately designed competition of any first aid contest. Whatever the scenario that was to test
the teams the staging was as near realistic as possible even to the extent of the provision of a replica ambulance that was powered by batteries.

At one final the scenario involved an accident at a steel works blast furnace. The replica of the blast furnace that was built within the Town Hall was so exact that both competitors and spectators had no need to use their imagination. In addition there were also items on display to interest spectators. This contest was held in such high esteem in the world of first aid that it was not unknown for members of prominent railway teams, police teams, and from other industries to attend as spectators. Often we compared notes on the treatment of injuries of coal miners and steel workers and systems that applied under Dorman & Long Co. The competition was also a social occasion. Following the presentation of the Directors Shield a very enjoyable reception was held in the crypt of the Town Hall.

The aim of the competition was to increase proficiency and expertise in First Aid and although the teams were in serious competition with each other many friendships were formed. Two of the teams that regularly reached the final were the Cleveland Steel Works “A” Team, and the Dean & Chapter Colliery “A” Team. When I was captain of the Dean & Chapter team one of my main rivals was Mr. Edgar Plunkett who was the captain of the Cleveland Steel Works Team. We formed a family friendship, which has continued, throughout our lives.

Caring for the Coal Miner (Part 06 of 11) - Coal Mines Inspectorate

In the 18th Century and early 19th Century the coal owner ran his coalmine as he wished and there was little in the way of regulations requiring him to ensure the
safety of his workers. The number of serious incidents and the loss of life that occurred throughout the British Coal Industry caused great concern amongst miners, and representations were made by the trade unions and members of parliament but improvements were very slow.

In 1835 a Select Committee of the House of Commons sat to discuss Accidents in Mines but little progress was made. An inspector for schools Mr. Hugh Seymour Tremenheere was commissioned by the government to inquire into the state of elementary education and the general social conditions throughout the districts of Monmouthshire and South Wales.

Based on his findings he recommended to the Home Secretary, Sir George Gray for the need to appoint a Government Officer of Mines, in each district where explosive gas was present in collieries. In further discussions with the Home Secretary he was able to outline the support he received from a number of proprietors and managers of collieries in favour of some form of inspection.

In the mining districts of Northumberland and Durham he found complete readiness to co-operate with any scheme. In 1850 a Mines Act was passed indicating that the principle of state intervention in the interests of safety in mining was established. This lead, in 1862, to the appointment of six safety inspectors. This was a very small number to inspect the whole of the British Coal Industry. Such a small team could only cover major incidents such as explosions and other causes of loss of life. By the end of the century a further 30 inspectors had been appointed and by the time of the revised Act of 1911 the number of inspectors had risen to 90.
In 1950 the number of inspectors had further risen to 165, with some of these being specialists in the following areas, electrical appliances, mechanical applications, ventilation, communications, transport, and the welfare of ponies. The trade unions continued to press the case for inspectors and further improvements in safety for their members. This resulted in every pit appointing its own representative, chosen from the workmen; to accompany an inspector and the owner’s or manager’s representative. They had the authority to request an inspection if and when they felt that circumstances warranted it.

In Durham County an inspector Mr. R. Donald Bain became concerned about the loss of life and the number of serious injuries that occurred in the industry. In 1904 he presented a shield for an annual competition in First Aid amongst men employed in any form of mining, this involved coal, lead and ironstone mining. The competition was known as The Durham Mines Inspection District Ambulance League. Preliminary rounds were held to produce six teams for a final competition, which was held in Durham Town Hall. The standard of competition was very high and when I was competing it was always a relief to get through the early rounds. The last final to be held in Durham Town Hall was in 1948 and included a team from North Skelton Ironstone mine.

In 1949 the Donald Bain Shield was given to the National Coal Board to be used as the trophy for the Durham Divisional Final. In the Durham Division the competition was based on areas and one team from each of the six areas competed for the Shield. In the same year the National Coal Board introduced a national competition and the winners of the Shield qualified for the national final. Suffice to say that teams from Durham maintained a high standard in the national finals with both
Shotton Colliery 1956, and Dean & Chapter in 1958 winning the Mitchell Hedges Trophy.

In 1925 a new competition to encourage teams that had not qualified for the final of the senior competition was introduced. Mrs. Elizabeth Bain the wife of Mr. Donald Bain donated a shield to be known as The Elizabeth Bain Shield. The team winning this shield would then of course be eligible to enter the senior competition the following year.

In 1949 the Donald Bain Shield was transferred to the National Coal Board, and became the trophy for the team winning the Final of the Durham Division. The winners of this competition qualified to compete against the winners of all the other divisions in the Coal Board National Final. The National Final was held in the Winter Gardens, Blackpool, and the trophy was, The Mitchell Hedges Trophy. This was a most impressive trophy.

**Caring for the Coal Miner (Part 07 of 11) - Coroner Graham and the Coal Mines Fire and Rescue Brigade**

Mr. John Graham was the Coroner for the Chester Ward in Durham County and he became very concerned at having to frequently officiate at inquests involving the loss of life of miners. He was often out spoken in his comments advocating changes. In 1924 he presented a shield for a competition by teams of qualified first aiders, but open to all forms of industrial workers not just miners. A copy of the inscription on the shield is shown below: -
Presented To

The Order Of St. John Of Jerusalem In England

By

John Graham. D.L.

Findon Cottage Nr. Durham.

Hon. Associate Of The Order Of The Hospital Of

St. John Of Jerusalem In England.

H. M. County Coroner of Durham. The Last Survivor

Of Elected Coroners In England & Still In Office Elected BY

Freeholders of Chester Ward County Durham, December 12th. 1875.

This Shield

Is intended for annual Competition Open to all Teams

Of workers employed in any industrial occupation within

County Durham.

Who may be holders of First Aid Certificate of the
St’ John Ambulance Association.

December 12th 1924.

The first final was held in Durham Town Hall in 1926, and the six teams taking part were Blackhall Colliery, Boldon Colliery, Brandon Colliery, Dean & Chapter Colliery, Tyne Dock London & North Eastern Railways, and Gateshead Police. The contest was won by Brandon Colliery with Tyne Dock L.N.E.R, in second place.

When presenting the trophy Coroner Graham expressed his pleasure at seeing teams from outside the mining industry competing in the final rounds of the competition. Mr. Graham was born in 1833, was elected to Coronership at the age of 40, and, therefore, he was 93 years old when he attended the final. This First Aid competition was held annually in the Durham Town Hall until 1948. The competition is still being held today although it is held at various venues throughout Durham County. It is now organized by Durham County St. John Ambulance Brigade.

**Coal Mines Fire & Rescue Brigades**

In any incident such as fire or explosion there was never any lack of volunteers to assist with the rescue of trapped miners, particularly if lives were in danger. Many collieries devised their own methods of rescue and from early times organized their own rescue services.

However, the Mines Accident, (Rescue and First Aid), Act of 1910 required collieries to train at least five men, at each establishment, in rescue procedures. They were
required to be tough, fit, holders of St. John Ambulance Certificates, and to have a
detailed knowledge of the underground workings. They also needed: the ability to
use breathing apparatus, know how to use canaries to detect gases, be competent in
the use of safety and hand lamps, and be able to read mine plans. (Mine plans were
to be available immediately if required.)

This lead to the formation of permanent rescue brigades, and in the North-East a
joint brigade was formed and was known as The Durham & Northumberland
Collieries Fire and Rescue Brigade. Rescue stations were established at Ashington in
Northumberland, Benwell Towers in Newcastle, Houghton Le Spring and Crook in
County Durham.

I attended the Crook Rescue Station and the breathing apparatus used there was
mainly the Aerophor - Brown Mills type. This apparatus used liquid air and when
assembled provided the rescuer with oxygen for a period of over three hours, which
was normally sufficient since the standard working time in any operation was two
hours.

Carbon Monoxide is colourless, odourless, tasteless, and lighter than air, and it is the
most deadly of gases found in mines. This was the reason why canaries or small
warm-blooded mammals were used to detect gases.

Because of the extreme danger of the inhalation of carbon monoxide each rescuer
was responsible for the assembling and testing of his own apparatus. He must check
each part as he assembles it and then water test it when it is completely assembled
to ensure that there is no possibility of outside gases entering the apparatus.
Rescuers who are members of colliery teams are all volunteers and training in all
aspects of rescue was maintained at a very high standard, for in the words of the song “Only fools rush in where angels fear to tread”.

In the explosion at Easington Colliery in 1951 two rescuers died from carbon monoxide poisoning.

**Caring for the Coal Miner (Part 08 of 11) - Trade Unions**

As an individual the miner could not make much progress when he had a problem, the opportunity for discussion with the owners was very limited and invariably the response was a negative one. This led to the formation of groups of miners seeking to resolve their problems, and in turn to the formation of larger groups which became recognised as trade unions.

In the 1830's -1840's, efforts to establish trade unions in Durham County were from time to time prevented by the coal owners. The struggle to form a union continued and in 1869 some progress was made. A lawyer Mr. W. P. Roberts had taken an interest in miners’ welfare, particularly in the hash conditions of employment. He represented the Miners’ of Great Britain and was successful in breaking the yearly bond, thus releasing the miner from a fixed contract with his employer. Individual miners were then free to move from one colliery to another. The yearly bond was a fixed contract that the miner signed committing his employment to that mine owner for twelve months. The mine owner had the power not to release the miner from the contract. In many instances the signature of the miner was simply his mark or a cross since many miners in those days could not read or write.
The Durham Miners’ Mutual Association (D M A) was formed in 1869 and meetings were held in the Market Hotel in Durham. Their first headquarters were built in North Road in Durham in 1876. As the membership of the union increased these headquarters proved to be too small and a much larger headquarters was built at the present site, Red Hills in Durham in 1915. At each colliery a Lodge of the Union was formed and each lodge had a chairman, secretary, and treasurer. If a problem could not be resolved at colliery level, the assistance of the officers at headquarters would be involved and often a result beneficial to the miners was obtained.

Although this may seem a little remote from “Caring for the Miner” it was significant that a lodge had the authority and support of the D.M.A. on which to call.

In 1903 following discussions held at the Westminster Place Hotel in London, Lord Davey gave favour to the miners regarding Bank Holidays when he declared that miners would not be required to work on August Bank Holiday. However, Boxing Day was no longer to be regarded as a holiday.

The Acts of 1873 and 1887 involving the appointment of a miners’ representative known as the Checkweighman. This was a most important step forward since the owner or manager could not sack this person.

A further advance in caring for the miner occurred when it was decided to provide a free house and coals for aged or infirm miners. In this connection the Ecclesiastical Commissioners were helpful in allowing the purchase of a colliery village known as Haswell Moor, which consisted of 112 houses at a cost of £25 each. The trade unions of Durham can rightly be proud of being pioneers in this field.
The Victoria Garesfield Lodge in 1924 requested that the Durham Miners Association consider the provision of a home for injured miners. Consideration was given but no progress was made until 1930 when following negotiations between the Coal Owners Association and the D.M.A. Conishead Priory at Ulverston was bought for £35,000 and was opened on 23rd August 1930. The opening ceremony was performed by Mr. T. Taylor President of the Durham Coal Owners and Mr. J. Robson Chairman of the District Welfare Committee.

This convalescent home provided accommodation for 170 miners who usually stayed for two weeks. A miner would apply to his lodge for a place and if successful he would travel by train from Bishop Auckland to Ulverston, often with a little financial assistance from the lodge. I had the opportunity to visit the home in 1960 and the quality of the facilities, food, accommodation and facilities such as the library, reading room, and grounds were of an excellent standard. This ensured that every effort was made to aid the miner in his recovery from injury or illness.

In 1923 Lord Londondery expressed his concern for miners who suffered from chest conditions and he offered to Durham County Council his property of Seaham Hall for use as a treatment centre, and although it took some time to materialize the Hall was officially opened in February 1930 as a Tuberculosis Sanatorium.

In 1942 the Minister of Fuel & Power, Mr. Emanuel Shinwell had expressed some anxiety about the wastage of labour in Durham and in his discussions with the trade unions and the Miners’ Welfare Commission he prompted the establishment of a rehabilitation centre for miners. In 1943 the Hermitage at Chester-Le-Street was purchased from Sir Arthur Wood, a former Durham mine owner to provide treatment for all forms of injury and illness.
Most lodges had a Compensation Secretary and because of the inadequacy of the various National Compensation Procedures this office proved extremely valuable to the miner. It has been said that a good compensation secretary was worth his weight in gold. The Compensation Secretary could attend any medical examination with the miner, tribunal, or court hearing with the miner and could speak on behalf of the miner, and as a result many of the decisions were given in favour of the miner.

Another form of assistance was the Miners’ Relief Fund. The first fund was started in about 1877 but only lasted for one year, because the demands on the funds exceeded the income. From time to time various schemes developed and although they were only able to offer small amounts of assistance, they nevertheless provided much welcome assistance in times of need.

It can be seen that throughout the history of the Miners’ Trade Unions the care, health, safety and well being of the miner and his family have always been central to the aims of the Unions.

Caring for the Coal Miner (Part 09 of 11) – Nationalisation

The miners’ representatives had, from early in the 20th Century lobbied for any form of central organization and despite reference to parliament both the owners and the government could not agree terms so little progress was made.

The 1946 Nationalisation Act meant that the miners’ aspirations had been fulfilled when on the 1st January 1947 the coal mines of Great Britain were nationalised. This resulted in many changes, particularly in the safety, health, welfare and care of the
miner. In practice the National Coal Board was divided into areas called divisions and the divisions where further broken down into areas. Each division had a medical officer; this was also extended to each area within the division.

At Dean & Chapter Colliery the First Aid Room was always well equipped and there was a Rescue Station ready for use by the Rescue Brigade. In 1949 the First Aid room was updated and a State Registered Nurse was employed. Her name was Sister Hood and immediately many changes occurred. The First Aid men became Medical Room Attendants, and the Medical Centre was staffed 24 hours a day.

Techniques for treatment of wounds changed with emphasis being placed on aseptic procedures. Sterilization of instruments and the autoclaving of materials, dressings, cotton wool, gauzes, etc, enabled wounds to be more thoroughly cleaned. It is impossible to have a colliery without dust and to maintain a surgically clean treatment centre is extremely difficult. The need for extended training of Medical Room Attendants was recognized and various courses were arranged on a Divisional basis.

In addition some time was spent in the casualty department of Durham County Hospital, first as an education exercise but also to enable the Medical Room Attendants to learn how to prepare an injured miner for admission to hospital. The aim was to leave coal dust at the colliery and every effort was made to clean the injured person as thoroughly as possible before taking him to hospital or to his home. Unfortunately injuries to the spine produced serious consequences, if the spinal cord was damaged and often resulted in paralysis (paraplegia) consequently special attention was given to the careful handling of any miner with a back injury.
In the mid 1950s the Durham Division of the Coal Board together with the Miners’ Welfare Scheme arranged a two-week holiday at the Squires Gate Holiday Camp in Blackpool. Two coaches were adapted to take wheel chairs and a miner was accompanied by his wife or a member of his family. A doctor, two nursing sisters, and two medical room attendants provided medical support. Throughout my two weeks at the camp I was amazed at how busy we all were. Every morning and evening a surgery was held to attend to minor problems such as bedsores, re-dressing of injuries or the treatment of minor illnesses such as coughs, colds and stomach upsets. On several nights I attended Blackpool Hospital taking patients to casualty, with problems such as a blocked catheter.

During the daytime we would take patients in their wheel chairs to the beach. On one occasion a wheel was damaged when mounting a pavement and I was directed to take the wheel to a cycle shop for repair and after explaining that the wheel belonged to a paraplegic miner, the wheel was repaired without any delay and no charge was made.

It would be appropriate to mention that in 1944 the Home Office gave permission for first aid men to administer morphia injections to injured miners. Since it was not uncommon for the journey from the place where the injury occurred to the surface to take two hours or longer this facility to relieve pain was welcomed by all concerned.

With the formation of the National Health Service in 1948 the treatment of the miner was enhanced in many ways, for example the Hermitage at Chester Le Street was taken over by the N.H.S. but still provided treatment for miners as well as for the general public.
The St. John Ambulance Brigade.

I have already mentioned the effect of the formation of the St. John Ambulance Brigade with regard to First Aid training in the community, and now I will outline the effect it had within the coal industry. Divisions of the brigade were formed in most colliery villages, the Colliery Manager often becoming the President, and the local Doctor the Divisional Surgeon. Interest in the Brigade was engendered when people of importance in the local community such as these held office. The forming of a mens’ section (ambulance) and a womens’ section (nursing) provided a qualified group of people who could assist any miner or family when the need arose.

The value of competitions as an aid to training was recognised soon after the formation of the St. John Ambulance Brigade, and in 1897 Sir Thomas Dewar, Sheriff of London, presented a shield for an annual competition within the brigade. In 1914 Murton Colliery where the first team from Durham County to win the Dewar. In 1958 Durham were again successful with Dean & Chapter Colliery winning the trophy. Colliery teams have featured as winners of the shield on numerous occasions.

Most national industries had their own First Aid Competition and in 1950 the Duke of Gloucester, Grand Prior of the Order of St. John presented a trophy for a competition between the national winners of the industries. This silver trophy comprised of a knight mounted on a horse. The first winners were Brighton Police, who were representing the St. John Ambulance Brigade. I am pleased to say that Dean & Chapter Colliery won the trophy in 1959.

_Caring for the Coal Miner (Part 10 of 11) - Pit ponies_
The question may be posed “How can the Pit Pony care for the Miner”? The tubs used to carry the coal varied in size, 8cwt, 10cwt, 15cwt, or sometimes even larger depending upon the height of the coal seam and the roadways underground. From personal experience of working with a pony there is no doubt that he saved the miner the effort of moving the tubs of coal to a gathering point ready for transport outby.

There have been occasions when a pony has refused to move from a point and subsequently a fall of roof has occurred. On these occasions the pony seemed to possess a seventh sense. There is no doubt that the pony was most helpful to the miner. Sacriston Colliery closed in 1985 and the last two ponies that remained in the Durham Coal field were transferred from this colliery to the National Mining Museum at Cap House Colliery in Yorkshire to end their days in retirement. The number of Horses and Ponies employed in collieries in 1938 was 32,059 and by 1962 this number had been reduced to 6,471. These figures show the extent to which they shared the burden of labour and so assisted in the care of the miner.

**Conclusions.**

The serious accident rate and fatalities in the early days of coal mining can be attributed to; the risks miners took to produce coal, the lack of safety regulations, the lack of knowledge in First Aid and in the after care of injured miners, as well as the owner’s desire for the greatest output of coal. Fortunately many people became aware and alarmed at the situation and improvements gradually took place.
The introduction of First Aid training from the 1880s onwards was important and as pressure from the trade unions assisted in the formulation of various Coal Mine Acts, responsibility for safety was placed on the owners’ as well as the miners themselves.

The need for mines inspectors was a further step forward. Mr. Donald Bain who had the vision to encourage first aid training through providing a shield for competition was helpful. The concern and interest of the Coroner Mr. John Graham, who also provided a trophy for first aid competition, for all forms of industry was also helpful.

Sepsis from contamination of wounds was always a problem and it was with relief that Penicillin was introduced and became available in the 1930s. X-ray equipment would have assisted diagnosis had it been available earlier and no doubt injuries to small bones in the wrist, hands or feet may not always have been correctly treated, and may possibly have resulted in some deformity.

Other facilities such as, Anaesthetics, Antibiotics, Blood Transfusions, Plaster of Paris, Tetanus Injections, would have enhanced the care of the miner and possibly some lives may have been saved. It was not until 1944 that the giving of Morphia was authorized and this was a further step in relieving pain for the sometimes long and arduous journey from the coalface to the surface.

It is suggested that the greatest steps in caring for the miner occurred after the Nationalisation of the coal industry. Medical Treatment Centres and various welfare schemes were set up following Nationalisation. The introduction of the mobile x-ray facilities used for detecting pneumoconiosis, and other chest conditions was well received. The after treatment of injuries and skin problems at treatment centres reduced the recovery time.
Traditional practices are sometimes a problem. I well remember when I commenced work at the colliery that not all men wore safety helmets, and it was some time before this became generally accepted. Another example was the wearing of safety gloves. This was regarded as a sign of softness by the older men. Younger miners employed a degree of ingenuity by cutting pieces of rubber conveyor belting to make both hand protectors and back protectors. They threaded the strips through a belt so that it protected the small of the back when lifting or pushing tubs.

I have considered the caring of the miner in the widest sense, not just from a treatment point of view, so that anything that contributed to his well being has been included in this project. Having been employed in various capacities in the industry I consider that anything that can be done to assist those who work in coal mining is well worth while and I trust this project gives an indication of the problems encountered, and of the progress made to relieve pain and distress.

**Caring for the Coal Miner (Part 11 of 11) – Timeline**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1843</td>
<td>Mr Hugh Seymour Tremenheere, Government Inspector for schools appointed as the first inspector for Coal Mines</td>
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<tr>
<td>1869</td>
<td>Mr W. P. Roberts Miners’ Lawyer. He wins the case to release miners from the yearly bond with the owners of coal mines</td>
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<tr>
<td>1889</td>
<td>Formation of Miners’ Federation of Great Britain</td>
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<tr>
<td>1897</td>
<td>St John Ambulance Brigade provided training in First Aid</td>
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<tr>
<td>Year</td>
<td>Description</td>
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<td>------</td>
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<tr>
<td>1900</td>
<td>Horse Ambulances used to convey injured miners.</td>
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<tr>
<td>1904</td>
<td>Mr Donald Bain. An inspector of coal mines provided a shield for annual competition in First Aid. The competition was called The Durham Mines Inspection District Ambulance League.</td>
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<tr>
<td>1908</td>
<td>Coal Mines Act. Eight hour shifts introduced.</td>
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<tr>
<td>1913</td>
<td>439 miners killed in an explosion at the Universal Colliery, Senghenyll in Glamorgan, Wales. This is the biggest disaster in the history of the British Coal Fields.</td>
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<tr>
<td>1923</td>
<td>Coal Mines Act. Workmens’ Compensation introduced.</td>
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<tr>
<td>1926</td>
<td>Coroner John Graham presented a shield for First Aid competition amongst persons employed in any industry in Durham County. Coal Mines Act Miners’ Welfare Fund formulated.</td>
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<td>1927</td>
<td>First pit head baths provided in Durham County at Boldon Colliery.</td>
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<tr>
<td>1930</td>
<td>Durham Miners’ Convalescent Home opened at Conishead Priory Ulverston Cumbria.</td>
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<tr>
<td>1938</td>
<td>Agreement reached for Miners’ holiday with pay with effect from 1939.</td>
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<tr>
<td>Year</td>
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<tr>
<td>1943</td>
<td>Rehabilitation and treatment centre for miners opened at the Hermitage, Chester-le-Street</td>
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<tr>
<td>1944</td>
<td>Medical examinations and training introduced for new entrants into coal mines</td>
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<tr>
<td>1945</td>
<td>First Aid Rooms replaced by Medical Treatment Centres</td>
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<tr>
<td>1947</td>
<td>1st January Coal Mines Nationalised</td>
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<tr>
<td>1954</td>
<td>New Medical Treatment Centre opened at Dean &amp; Chapter Colliery</td>
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<tr>
<td>1958</td>
<td>Dean &amp; Chapter team winners of the Mitchell Hedges Trophy National Coal Board. National First Aid Final</td>
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</tbody>
</table>
| 1959 | Dean & Chapter team win the Dewar Shield. St John Ambulance Brigade, National Final  
Dean & Chapter team win the Grand Prior Trophy. St John Ambulance Association Final |

*Digitised by Helen Davison*
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