# DISEASES OF 19<sup>TH</sup> CENTURY TREDEGAR



Cefn Golau Cholera Cemetery – Tredegar.

In the 19<sup>th</sup> Century haphazard growth of Heads of the Valleys towns caused many problems. The rapid influx of so many people to work in this new utopia where many believed that the streets were paved with gold required the rapid building of numerous dwellings. There was severe overcrowding with 5 to 10 children in one 2-bed-roomed house, typically built without planning control, sewer or water supply. People simply emptied sewage into the street, gutters, rivers or ponds. Fresh water was in short supply with much diverted for use in the iron works: to obtain drinking water people would have to queue for hours at a spring, well or water pump. Living conditions were squalid, harsh and oppressive with an almost total lack of hygiene. These conditions inevitably led to frequent epidemics; like other industrial towns Tredegar suffered outbreaks of tuberculosis, typhus, smallpox, scarlet fever, chicken pox, scarlet fever, whooping cough, measles, diphtheria, dysentery and cholera at one time or another. Mortality rates were high and especially horrifying was that a large number of infants died before the age of one and many who survived then failed to reach their fifth birthday. Such infant mortalities affected the average life expectancy which in the 1850s was far lower than that of today's.

What caused so many infants and children to die? In the first place young children had not had time to build up their resistance to infection and if their parents became infected they undoubtedly also suffered. Children born in overcrowded conditions were highly susceptible to respiratory infections and other air-borne conditions. The lack of washing facilities increased the risks of gastro intestinal infection while poverty denied them proper nutritional and medical care. Newly born children were the greatest at risk mainly due to improper feeding, the employment of mothers in the ironworks and coal mines and the improper administration of soporific drugs. With many mothers working up to twelve hours a day and for six or seven days a week children were not receiving adequate care. Often babies and small children were drugged while their parents were at work in order to keep the child quiet for their baby sitters. Then when their parents returned home from work often fatigued the child was often drugged again so that their parents were not disturbed. This often led to children being drugged several times a day with no control on the dosage.

Apart from the poor living conditions mentioned previously what else contributed to the town's poor health? Undoubtedly the lack of public health provisions and overcrowding were major factors, as was poverty causing a lack of nourishing food, many not being able afford meat with a husband having to support a wife and family on a minimum wage. Many workers would live on a packed lunch of bread and butter and they could not afford proper and suitable clothes. between poverty and disease was vagrancy. There were many vagrants who travelled from town to town spreading all types of infections and diseases. The population explosion in Tredegar also affected health, the area being was totally ill-prepared for such a large influx of immigrants who were themselves also totally unprepared for urban life. People who had formerly lived in agricultural areas or Wales still kept pigs and other animals inside their houses. They also brought with them habits such as throwing slops or pouring chamber pots into the street or urinating and defecating in the open. In the countryside where the population was sparse these habits were of little concern but in a town like Tredegar which was densely populated disease became Workers and immigrants from other countries who came to Tredegar inevitable. because of poverty and hunger in their homeland also brought with them various diseases. All in all the poor environmental conditions that existed meant that disease in the earlier part of the period ran rampant and unchecked

As the century progressed laws were passed to correct the health concerns, the death rates of various illnesses began to drop and there were far less instances of "epidemic" proportion. Many of the following diseases continued into the 20th century and only disappeared when treatments such as vaccination were developed to prevent them.

### Chicken Pox

Chicken-pox is one of the most common diseases in children being highly contagious and easily spread through coughs or sneezes of infected individuals, or direct contact with the secretion from the chickenpox rash. It appears in the form of little spots, round, not depressed in the centre like those of small-pox. The illness is preceded by symptoms of fever, chills, headache, weariness, and sometimes aching in the back and limbs. Often nothing particular is noticed in the child till the eruption appears as little spots, first over the trunk, and then over the face and limbs. The spots soon fill with a clear fluid which by the fourth day begins to dry up, in some instances leaving only a slight redness where the pox once appeared. Many believed that chicken-pox was a lesser dose of small-pox but this was proven not to be so; it is its own distinct disease. Neither vaccination nor small-pox gave protection from getting chicken-pox; with the disease occurring almost exclusively in childhood.

## **Diphtheria**

A common childhood disease that is highly contagious and mainly spread by direct physical contact or breathing the secretions of those already infected. Diphtheria was recognized by the formation of a thick grey membrane in a child's throat making it difficult to breathe. Fever, sore throat and weakness also accompanied the growth and quite often resulted in death. Robert Koch, a German scientist, studied the disease and determined the "bacillus" bacteria to be the cause. He also determined that as the bacteria flowed through the bloodstream, it damaged cells in the heart. Two medical students took the results of Koch's experiments and were successful in developing an "antitoxin" which would both prevent and cure the disease.

## **Typhus**

This was one of the most persistent and devastating diseases of the early 1800s. Typhus was a social as well as physical disease being most common in crowded conditions where lice spread easily. It was a disease that would break out without warning it would sap a person's strength and moral. It was a result of hunger, dirt and overcrowding, it was carried in the fasces of lice which would dry to a light dust which would then enable a victim to be infected by simply breathing in this dust or by scratching on the hand. Several major outbreaks occurred in Ireland during the 1800s. During the first outbreak in 1816 it is estimated that 100,000 Irish perished. The Irish typhus spread to Wales, where it was sometimes called "Irish fever" it killed people of all social classes as lice were endemic and inescapable, but it hit particularly hard in the lower or "unwashed" social strata. This disease was not highly fatal although during an outbreak it would result in about 1 in 10 deaths. It victims were mainly young adults and it had far reaching economic effects it was one of the most powerful causes of pauperism.

### **Poliomyelitis**

Poliomyelitis affects mainly children, it attacks the spinal cord and brain, often leaving a child to wake up and find his limbs paralyzed. Only bed rest appeared to offer any help in lessening the affects of the disease. It wasn't until the middle of the 20th century (1952) that an American doctor by the name of Jonas Salk developed a vaccine for the prevention of the disease.

#### Rickets

This also hit mainly children and was caused by vitamin D deficiency and was produced by a variety of dietary and environmental conditions, it was a disease of the slums of ignorance, poor hygiene and paucity to sunlight. Rickets is a softening of bones in children due to a lack of calcium potentially leading to fractures and deformity.

# Consumption

Consumption or "tuberculosis" was another common cause of death and was responsible for about 1 in 5 deaths. The term consumption was applied as it described the action of the body tissue wasting away. It was and still is a highly contagious disease and the bacteria which causes it is often carried in milk and other foods and sometimes the saliva of a person who has the disease. It was found that only direct sunlight killed the bacteria. This was an epidemic disease that selected its victims from those whose resistance was low and who were deprived a stable nourishment and lived in an overcrowded environment. It eventually would drown the lungs of its victims. Although basically an urban disease it also had a devastating effect on those who previously had no exposure so that especially immigrants were at risk. In 1882, Robert Koch discovered that bacteria causing the disease begins as fine granules, barely visible to the human eye which would attach and grow in every organ of the body, including the lungs and the brain, either damaging or destroying the organ.

# **Smallpox**

Smallpox was one of the most feared diseases which posed a continual threat often flaring into epidemic outbreaks It affecting people of all ages but was especially fatal to young children. Smallpox was and is caused by a virus which creates small blister-like bumps on the skin and in the mouth and throat, sometimes swelling causing difficulty in breathing. After catching it, however, and surviving, one does not get it again. A vaccine for the disease was discovered in 1798 by Jenner but it was until the first Vaccination Act in 1840 the disease continued unchecked. However even then the working class ignored the need for vaccination with less than half those registered at birth being vaccinated. These led local doctors to believe that only vaccination should became compulsory

### Scarlet Fever

Scarlet fever was particularly prevalent between 1830 and 1880 a period in which there were frequent and severe epidemics and during this time it became the main child killer.

#### Cholera

This was the most dreaded of all diseases, acutely infectious, caused by drinking water from contaminated sources. Cholera causes a slowing in the blood circulation this led the skin to turn blue and shrink, with inevitable death. Superstitions existed that cholera could be caught simply because one was afraid of it, or because there was too much oxygen in the air, while others attributed the spread of such diseases to 'miasma', an invisible gas or vapor which was airborne and entered the body via mouth or nostrils. Some people stopped eating fruits and vegetables because these fruits were believed to be a cause. All along however the pollution and the consumption of contaminated water supplies continued unchecked.

Towns and villages had grown rapidly in the early 19th century. Dwellings had been thrown up to provide urgently needed accommodation for growing populations. Workers' cottages were strung together, row upon row, with no regard to basic sanitation or drainage requirements. Conditions were cramped and with the absence of running water and no adequate facilities for waste disposal, the area was ripe for disease. Human waste was sometimes collected to be sold as fertilizer but was mainly emptied into the rivers or into "night-soil" pits often dug near local water sources with the obvious risk of contamination.

In 1832 the first major cholera outbreak struck and by the following year many people had succumbed throughout Tredegar. The speed at which the disease struck its victims was horrific - a person who appeared normally healthy in the morning could be dead by nightfall. The painful deaths that accompanied this outbreak had left a legacy of fear amongst the people, heightened by the fact that doctors were baffled by the causes of the disease. It was during this outbreak that the site at Cefn Golau was first used after other cemeteries were closed to cholera victims.

The long hot & dry summer of 1849 caused Tredegar great apprehension with news that cholera was in Rhymney in July and at Nantyglo in August as well as an outbreak at Merthyr. In August, the worse fears were confirmed when an excise man, T. Price, who resided in Charles Street regarded as one of Tredegar's healthiest locations, became the town's first victim. In less than a month there was scarcely a street in the whole town that was not affected. The town was in the grip of the "King of

Terrors". The authorities began cleansing operations and lime and disinfectants were distributed. The doctors frantically searched for a cure, trying all known remedies, but without success. Many people turned to religion as a savior and the local chapels were packed during the outbreak. People resorted to covering themselves with ointments and taking quack cures but still, the death-toll mounted. People began to leave their homes and flee into the countryside. Those remaining steered well clear of cholera victims' funerals staying indoors and watched the processions from a distance. So great was the fear that hardly enough people could be found to help in the burial of victims. Such was the stigma attached to the disease, that some families buried their dead at night time on the mountainside. What was particularly horrifying for people was that whole families who were fit and healthy in the mornings could be dead by the evening. The 1848 outbreak reached its height in the months of August and September but, with the onset of cold and rainy weather, the disease began to disappear. Many looking for the cause of the disease began to blame the influx of poor Irish immigrants, many of whom were in a ragged condition and carrying lesser diseases. However, educated opinion was fast concluding that dirty and squalid conditions were the chief source of the disease. This outbreak, in particular, had disastrous effects and few families were to escape unscathed. In many cases, the family bread-winner would be removed condemning his survivors to the horrors of the 'Poor House'. A further outbreak occurred in 1866.

In 1854 <u>Dr. John Snow</u>, a London anaesthetist, finally established a connection between cholera and contaminated water supplies, basing his observations on a particular public pump situated at Broad Street, Soho. Using statistical analysis, he was able to establish the pump as the source of the outbreak and by removing the pump handle, the epidemic was contained. In the cholera cemetery at Cefn Golau it is estimated that there are 235 graves and although there are no records to say how many people died from cholera between 10% and 12% of the population is a reasonable estimate.

## **Typhoid**

A bacterial disease characterised by high fever and diarrhea lasting about three weeks. The appearance of rose-colored spots on the abdomen was the tell-tale sign of typhoid, which also commonly caused patients to lapse into delirium during the second

week of the fever. Like Cholera most commonly spread by contaminated water, typhoid was also known as "cess-pool fever" in the late 1800s because of its association with poor sanitation. Typhoid fever was highly contagious and had a mortality rate of 10-20%, though the mortality rate was closely tied to age -- it usually wasn't fatal for children. In rare cases, known as "walking typhoid," the symptoms were very mild and patients were able to go about their business more or less normally. However, some of these cases ended in perforated bowels, causing death by peritonitis if the tears were small or, in a worst case, massive bleeding which killed in minutes

### Childbirth.

Childbirth was often recorded as a cause of many female deaths in the 19<sup>th</sup> century. Almost all babies were born in homes and were usually delivered by a family member or a midwife; thus infection and lack of medical skill were often the actual causes of death.

### Industrial Accidents and Diseases

Although not actually a disease, people who entered certain trades in the best of health, might eventually become pale and shadowy representations of what they once were. Colliers and miners working in the depths of the earth could experience a damp atmosphere contaminated with gases and coal dust leading to pulmonary diseases and possible premature death that could easily have been reduced by improved ventilation. This continual inhalation of dust, together with the dampness, great fluctuations in temperature and overwork also made underground workers particularly susceptible to tuberculosis. Pneumoconiosis and Silicosis, although not recognized at that time, were diseases caused by exposure to coal dust, also leading to early death. Many children were also exposed to these diseases at an early age because the nature of their employment and it is believed that in many cases this stunted their growth.

Furnace workers, many of them female, were exposed to the elements during often-atrocious weather conditions. So intense was the heat emitted by the furnaces that during summer months men often fainted and puddlers could go blind due to constant exposure to this intense heat and glare. Such workers could be easily recognizable by faces often ghostly-white, eyes sunken, and limbs gaunt and thin. These workers very often died from constitutional break-downs, paying a terrible price for their higher

wages. Workers were also constantly at risk from accident which could lead to permanent injury or even death. In the mines many were killed by roof falls or explosions. It is interesting to note that the majority of underground explosions were in coal mines as opposed to iron ore mines because it was in the coal seams that the threat of gas was at its greatest.

In the ironworks burns, scalds, explosions, falls of iron or falls by workers were all too frequent. As in the mines many of the victims were children many of who were maimed or even killed. As far as the iron masters were concerned they expressed the opinion that accidents were either the result of their workers, ignorance of, or disregard for safety procedures. At that time it was easier and cheaper to replace a worker than a piece of machinery.

# John Morgan



Friendly Societies collected small sums from workers as insurance against sickness and hard times. This "Ivorites" sign is to be found at the end of Ladysmith Terrace, Tredegar.