WINSFORD'S INSPECTOR OF NUISANCES: THE DEVELOPMENT OF A 'VILE TOWN'S' INFRASTRUCTURE, 1890-1930

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Summary

To today's reader it may sound improbable but in the mid to late nineteenth century toxic black clouds blanketed the industrial centre of Winsford. The culprits were the hundreds of chimneys belching out clouds of smoke from the open pan salt-making process. There was little or no environmental control and the salt makers were infamous for using the cheapest dirty coal supplies. One visitor described the place as a 'vile town'[6], living conditions were miserable and unhealthy with no running water or sewerage systems. Overcrowding, poor sanitation, spread of diseases and pollution prevailed. Workers were paid low wages that barely allowed them to buy food and pay rent. The paper describes how Winsford tackled these problems in the late nineteenth century and the first quarter of the twentieth century.

What was life like in Victorian Britain?

In the late twentieth and the early twenty first century, we have become used to a relatively high standard of living but we do not have to go far back to find a very different situation. The Industrial Revolution brought with it harsh living conditions for the working masses and, in Victorian times, life generally was grim. Death rates were high, and far worse in the new industrial towns than in the countryside; smallpox, typhus, tuberculosis and cholera were endemic.

From the early nineteenth century there had been pressure for the state to intervene in public health but there was considerable opposition from those who held the purse strings. A key driving force

to improve the lot of the masses was Edwin Chadwick's 1842 report, *The Sanitary Condition of the Labouring Population*.[1] Chadwick argued that disease was the main reason for poverty, and that preventing disease would reduce the death rate amongst the poorest in Britain. His report drew focus on the discrepancy between the life expectancy of wealthy and poor people in towns and rural areas.

The Government's first response was the 1846 Nuisances Removal and Diseases Prevention Act, summarised by Cunningham Glenn, [2] which was designed as temporary legislation to help to stem the spread of cholera. The act set out procedures for the removal of 'nuisances' and increased the powers of the Privy Council to make regulations for the prevention of infectious disease. For the record, the term nuisance covered a wide range of issues[3], including:

- Dwelling houses that were so filthy and unwholesome as to be injurious to health.
- Any foul or offensive ditch, gutter, privy, cesspool or ashpit.
- The keeping of animals (pigs and cows) in a way that could endanger health.
- Accumulations of dung, manure, offal, filth or refuse.

Around the same time a cholera epidemic killing over 50,000 people in England and Wales[4] prompted the government to legislate for the prevention of disease, through both public and individual health measures. In 1848, the first Public Health Act caused the setting up of a Board of Health, giving towns the right to appoint a Medical Officer of Health. However, the act was effectively toothless as there was no compulsion for towns to act and indeed, in order to set up a local board of health, towns needed 10% of rate payers to sign a petition saying they were in favour with the inevitable result that little progress was made. Finally in 1872 the Government stepped up and introduced a Public Health Act with specific orders for the urban authorities to

enforce slum clearance, to provide sewers and clean water, and ensure the removal of nuisances. The appointment of medical officers was made compulsory in urban areas under this legislation.[5]

Immediately this had more impact than the 1848 Act as it was now compulsory for towns to take action. The new act demanded that the local authorities make provision to pave streets, to construct sewers and to drain houses, to check the spread of disease and prolong the term of human life, and most importantly to improve the social condition of the poorer classes.

So what was life like in Winsford at the time?

Generally, Winsford had a very bad reputation - described as 'a vile town'[6] as we have seen - with hundreds of chimneys belching out toxic black clouds of smoke from the open pan salt-making process. In his book, *Pilgrimages in Cheshire and Shropshire*, Fletcher Moss summed up his journey to Winsford as follows as he cycled along the main road from Middlewich:

> As we journey on, the sights, sounds, and smells of the country become worse and worse, until we are in one of the vilest holes, the chief place of the slink trade of Cheshire [6]

Slink is a slang term for meat whose history is doubtful, the word describing the way the dealers slink past the local authorities.

The reader will probably agree that Fletcher Moss could barely have painted a more unflattering picture of the town but one which, it could be argued, is borne out by photographs from the late nineteenth century, as Figure 1 demonstrates. Here we see the unmade road forming High Street and a blanket of black smoke hanging over the town centre. On page 135 of his book Fletcher Moss wrote, as he was climbing the hill from the 'bottom of Winsford' towards Over:[6]

> Up the long hill from Winsford to Over we trundle our bicycles amid perfumes indescribable. What hath Araby the Blest to offer in comparison with these? It would be a relief to have a few whiffs from the Ship Canal. The steep hill and the filth remind one of Coalbrookdale but here the stinks are worse than there.

A harsh description indeed but most probably accurate, indeed the pall of black smoke remained a feature of the Winsford landscape until the last open pan salt works run by Geo. Hamlett & Sons closed in the 1960s although by this time the smells were much less repellent.

In 1875 Winsford, in common with most other small towns, had no public water supply (all water for drinking, washing and cooking

Figure 1: The 'Bottom of Winsford in 1892' (by permission of Winsford History Society).

being supplied from wells), no sewerage system, no streetlights and footpaths were not formed or paved. Undaunted, the newly formed Winsford Urban District Council (WUDC) set about to improve matters in line with the requirements of the 1872 Act, and the first significant step was the appointment of John Henry Cooke as secretary to the Local Board of Health in 1875, a man who, over the next 50 years, became synonymous with the development of Winsford. The development plan took some time to take shape but eventually it was agreed and the first Medical Officer of Health (MoH), Dr Thomas Garstang, was appointed, in 1890, with support from the recently appointed Inspector of Nuisances, Ralf Oakes. Dr Garstang served until 1916 when he was succeeded by Dr Pickton. Ralf Oakes was succeeded by Thomas Hickson in 1906.

The Inspector of Nuisances and his role

The Inspector of Nuisances (IoN) was key in driving forward the improvements to infrastructure and to living conditions for the poorer classes. Although the IoN was not the only resource charged with the town improvements, initially he was the sole full-time resource and as we will see the task facing him was immense. The succeeding paragraphs of this paper summarise the work undertaken by the IoN and his principal role in driving the improvements forward. All information has been gleaned from the annual reports of the MoH for the Council and the minutes of the WUDC meetings held by Cheshire Archives & Local Studies (CALS), Winsford Historical Society and the Welcome Foundation. The annual reports of the MoH incorporated reports by the IoN and these are especially useful to our present purpose.

At the outset, it is important to note that the reports up to 1911 were 'rigidly compressed on grounds of economy' as Dr Garstang noted in the 1912 Report[7] and therefore yield less information. Short reports are also a feature of the period of the 1914-18 war years; however, from the appointment of Dr Picton in 1916 more comprehensive reports were the norm and significantly more challenges were made to the status quo.

A cursory review of the MoH reports over the years from 1906 to 1920 gives the reader a clear picture of the scope of the IoN's role. To summarise this, the IoN was expected:

To report on:

- The physical features of the area.
- Social conditions.
- Workers' occupations & the influence of those occupations on public health.
- Vital statistics: births, deaths, causes of death, notifiable diseases.
- Use of hospitals, including isolation hospitals, and other gratuitous medical relief.

To identify, and remedy:

- Issues with the water supply and quality.
- Drainage issues.
- Problems with rivers and streams.
- Sewage issues.
- Issues with refuse and the cleaning of privies.
- Unfit dwelling-houses.
- Unwholesome conditions on canal boats.

And to supervise and inspect:

- All food manufacturing premises including slaughter houses.
- The Maternity & Child Welfare section.
- All Factory premises.

A study of the annual reports readily indicates what a herculean task the IoN took on. It begs the question: how did one man managed to achieve all these tasks with only his bicycle to get around the area?

A measure of the difficulty of the job of the IoN can be better understood by sharing some common activities and unpleasant tasks encountered in the annual reports, viz:

- Dealing with infestations including rats and cockroaches.
- Inspecting slaughter houses. Many instances of poor hygiene are reported.
  'I visited Joseph Fitton's slaughter house in Gravel Lane where the floor of the slaughter-house was badly holed and uneven and I needed to wade through pools of blood.'
- Removing dumped material from backyards.
  'Once again I was called to a house in Well St. where the backyard was covered in waste and faecal material.'
- Dealing with infectious diseases.
  'Today I disinfected 6 houses with mercuric chloride.'
  'All schools were disinfected twice yearly and typically over 200 houses per annum needed disinfecting.'
- There were many instances of 'unsound meat' being sent to Manchester market. Some of the butchers in Winsford appear to have been somewhat unscrupulous in their activities.
- Identifying & remedying unsanitary activities.
  'I discovered two "underground bake-houses" in a dreadful state. I condemned both.'
- Clearing faecal material from ditches in Woodford Lane.
- Random monitoring of the scavengers who collected the night soil between 10 p.m. and 6 a.m.
- Sampling the effluent on the filter bed surface, described as 'a very difficult task'.
- Monitoring the 'unsatisfactory cesspool' at the Red Cross Hospital in Gravel Lane.[8] This is mentioned in the WUDC council minutes of October 1917 when the IoN was instructed 'to ensure the cesspool was emptied monthly' [9].

And one not so unpleasant activity:

- Inspecting the activities of the Midwives quarterly!

The investigation of claims about the sale of 'unsound meat' is worth a note as it appears that Winsford was well known as a centre for the unsavoury trade. Fletcher Moss[6] reports as follows:

> In Cheshire there are a great number of old cows and beasts which are 'killed to save their lives' as the country folk say; and calves which no one has seen alive. These are transformed at Winsford, the meat being consumed wherever it can be passed off. The butcher waxes fat, while the piemen and sausage makers flourish'[6]

Returning to the MoH annual reports for Winsford, the reader will readily agree that the list of the above activities are far from exceptions; the appended IoN annual reports indicate that issues like these were a constant concern for the period 1900 to 1924 and indeed in the years beyond, although it should be added that the situation gradually improved from 1920 as we will see later.

In particular the 1921 report[10] describes the progress in reducing the number of cesspool privies in the town as follows: 'These cesspool privies are insanitary, they pollute the sub-soil and in heavy rain often overflow onto the surface of the backyard' Here the MoH links the cesspool privies to outbreaks of enteric fever, however, as will be seen later, the author cannot establish anything but a tenuous connection with the list of notifiable diseases by year.

It is evident that there was a clear policy to convince the householders of the need to replace the cesspool privies and on page 21 of the 1921 Report, the Medical Officer reports [10];

> When the IoN can point out to an owner that he can scrap his stinking privy at the bottom of the garden, install a good WC adjacent to the back kitchen with a coal house adjoining,

> improve the wash house, lay down an impervious yard and generally convert a tumble down hovel into a respectable artizan's dwelling, commanding a higher rent, then the owner is tempted to agree. The mere conversion to a pail does not make the same appeal to him, and, even if he agree to do it, the general improvement of the property does not eventuate'

We will explore this in more detail later on in the paper.

Generally, as with all urban areas in the early 1900s, Winsford had numerous shops to cater for the needs of the growing population and an interesting list of the registered shops, factories and workshops in Winsford in 1916, taken from the IoN report, is shown in Figure 2.

The year 1919 was a particularly busy year for the inspector as it coincided with the outbreak of the Spanish influenza epidemic:

- 929 notices were issued in connection with prevention of nuisances.
- 530 visits were made to houses with suspected 'infectious diseases'.
- 70 houses were disinfected with mercuric chloride
- Infected patients had to be moved to the Davenham isolation hospital.
- Many houses were categorised as overcrowded.
- All schools were disinfected during the Easter, Summer and Christmas holidays.
- A special disinfection had to be carried out during Spanish influenza epidemic.
- 36 factories & 117 workshops were inspected.
- The 27 slaughter houses were inspected quarterly.
- 1046 houses had defective privy middens, covering over fifty percent of Winsford's housing stock.

Workshops.—The Home Office Table (Table 10) shows that supervision is maintained, and that there is little to find fault with.

The following are known, registered, and inspected.

FACTORIES.

Boat-building	1	Laundry	1
Brick-making	1	Mineral Water maker ...	1
Cabinet-making	1	Motor Engine-maker ...	2
Clothing	1	Salt Works	16
Corn-mills	2	Silica	1
Engine and Boiler-maker	1		—
Fustian Cutting	5		34
Iron Foundry	1		—

WORKSHOPS.

Boots and Clogs... ...	10	Millinery	6
Bottling Stores	2	Picture-framers	2
Bread-bakers	16	Printers	2
Brick-makers	2	Rope-maker	1
Builders	8	Sausage-makers	7
Cabinet-maker	1	Smiths	4
Cloggers	8	Stonemasons	3
Coach-builder	1	Tailors	7
Confectioners	5	Tarpaulin	1
Cycle Repairers	5	Tinplate	1
Dressmakers	12	Tripe-dresser	1
Harness-makers	2	Wheelwright	1
Herb Beer	1		—
Ice Cream	1		116
Joiners	4		—
Laundries	2		

Figure 2: Winsford's Workshops & Factories 1916 (by permission of Winsford History Society).

On closer inspection of the reports, the reader will readily see that close on 2,700 visits, factory inspections and disinfections were carried out in the year equating to nine each working day over the six working day week, Sunday being a day of rest.

Progress on Infrastructure Development

Progress from 1875 was slow but by the early 1900s the MoH reports suggest that some advances had been made and indeed the 1906 [11] report claims that the town was considered a 'model authority' with:

- Street lighting.
- Street paving.
- Clean running water.
- 'Extensive' town waterworks.
- 'Excellent' sewerage provision & 'state of the art' filter beds.

At this stage, apart from the lighting and paving of the main streets, it should be added that the claims were somewhat exaggerated as subsequent reports paint a less than rosy picture. This is particularly true of the water supply, sewerage and the condition of the housing stock. Sewage treatment was a regular topic of conversation at the Council meetings and, in 1910, Dr Garstang cast doubt on the claim of 'state of the art' filter beds. His note in the 1910 report borders on sarcasm when he states that the filter beds are 'either the best or the cheapest in the United Kingdom … whatever your point of view'. This is referred to in the 1919 report [12].

Let us look at the water supply, sewerage and housing in a little more detail.

Water Supply

As part of the plan to improve the town's infrastructure, in 1875 WUDC paid Lord Shrewsbury £1,500 to purchase the right to take water from three springs in Little Budworth. These springs were called 'Stretches', 'Austins' and 'Butts'; they were located in fields approximately 400 yards north of the Shrewsbury Arms on the Chester road and remained

Figure 3: WUDC Water Tower (by permission of Alan Ravenscroft).

in use until 1948. From the source, water was conducted through a 10 ins pipe to the WUDC Waterworks in Whitby's Lane behind St John's Church. The water works can be clearly seen on the 1890s maps of the area where a water tower was constructed in the 1870s (see Figure 3) and a reservoir was added in 1899 as demand increased.

Alas the water was not treated and it is plainly evident from the reports that the IoN spent considerable time following up reports of an off taste and bacterial contamination from Winsford and indeed Middlewich inhabitants who were also supplied with water. Testing programmes were in place each year and in 1913, Thomas Hickson found Bacillus coli in the water supply, attributed to the 'heavy manuring' of the surrounding land. At the same time he investigated a 'slimy ooze' flowing into Stretches spring. This latter contamination was identified as coming from the adjacent farm midden. The contamination was reported to Northwich RDC[13] but apart from an instruction to the farmer to move the midden, little action appears to

have been taken. The MoH Report states whilst the midden had been moved several yards away the standard procedure had not been followed, namely 'to relocate the midden on a concrete slab draining to an impervious manure tank with a pump but without an overflow'. Consequently, the problem did not go away and the issue is raised in several further reports following World War One, the 1924 report [14] states 'at a point a few yards above the main intake of Stretchers spring a slimy ooze is invariably noted contaminating the water'. The 1925 report [15] adds more weight to the complaint and the Northwich RDC surveyor was notified and reported back to the IoN that 'I have dealt with the situation': more of this later.

As we have seen over the 30 years from 1890, many complaints were made about the quality of the water and often we note that householders were advised to boil the water before drinking. To support the sampling activities, regular samples of the water were sent to the Public Health Laboratory in Manchester and the reports identify many instances of bacterial contamination. The level of contamination came to a head in 1921 when samples from Stretches Spring were found to contain very high levels of bacteria, leading Professor Sheridan Delépine, the head of the laboratory, to write to WUDC including the following sentence: 'Although there is no evidence of faecal pollution, the number of bacteria is so great and their kinds so many, that the water cannot be considered safe for domestic purposes.'[16]

Some years earlier, Mr Beckett, the WUDC Water Engineer, had presented a plan to the WUDC council meeting, on 24 June 1914 [17] to extract water from nearby Oakmere. The proposal had been costed and the water would be supplied through a 'main to be carried direct from Oakmere to the Council's Reservoir in Whitby's Lane for £12,188'. The minutes read that 'after a long discussion', the motion was moved by Councillor T. Walton and seconded by Councillor Massey and was carried unanimously. Agreement was reached in March 1915, with Lord Delamere, to extract water from Oakmere. However the decision to progress with the development of the scheme

took some time, being considered in a Council meetings in February 1917[18] but deferred, due to the sum of money involved. In this particular meeting, the Water Works Committee was asked to examine the possibility of extracting more from the existing springs and, in February 1918, the Water Works Committee met at Little Budworth to review additional water supply.[19]

Driven by the letter from Professor Delépine and a joint letter to the Council, from Dr Picton and Mr Hickson, on 8 January 1921 which stressed the need for increased water supplies to the town, the scheme was considered again. This letter is reproduced in the 1921 report.[20] However there is a paucity of information as to what happened next, the minutes of the WUDC Council and the MoH reports reveal very little and the next record of the new scheme is mentioned in the 1925 report[21] where the letter referred to above is set out in detail.

What is clear is that the Oakmere scheme took twelve months to develop and was completed in 1924 with a filtration and treatment plant. It provided 20,000 gallons per hour to Winsford and Middlewich (including Wimboldsley and Newton). Interestingly, a supply was also provided to the White Hall in Little Budworth, somewhat off track from the main supply line but this was Roscoe Brunner's house and he was chairman of the chemical manufacturer, Brunner Mond, then a major employer and indeed generous benefactor to the mid-Cheshire towns. Brunner Mond was also one of the four chemical companies which came together in 1926 to form ICI. The request from Mr Brunner, in a letter dated 25 March 1925,[22] to be connected to the source was not one to be treated lightly! Attached to the letter was a report from the Brunner Mond chemistry laboratory in Northwich which had carried out a chemical and 'microscopical' examination of the water.

There is a great deal of detail in the 1925 report about the engineering which went into the scheme with filtration being supplied by the Candy Filter Company, a company still involved in water filtration to this day.[23] The resulting water was described, by the Candy

Filter Company in their tender document, as 'clear & bright, entirely free from suspended material, entirely free from suspended matter and colour, guaranteed not to act on lead and without a peaty taste'. The 1926 report[24] records that the Oakmere supply was 'taken into use on the 31st March 1927' presumably reflecting the date of publication of the 1926 report. The supply from Oakmere was conveyed in a 9ins. main over the seven miles to the waterworks in Whitby's Lane. However, despite spending over £16,424 on the Oakmere supply,[25] a note in the 1928 report [26] states that 'it is essential to use the Spring water to its fullest extent as this is much cheaper than the Oakmere supply'; it goes on to say that 'the Oakmere supply should be used as a reserve and supplementary supply after all water available from the springs had been used'. This combined supply appears to have gone on for several years as in the 1936 report[27] 'a Bell's Chlorination Filter' had been installed to deal with contamination of Spring water. Furthermore the 1928 report[28] states that the Oakmere Water Scheme cannot fully be utilised because the mains would not stand Oakmere pressure: in the author's view, a very unlikely story as a pressure reducing valve at source would have eliminated that problem. The author suspects that the filtration costs were prohibitive, but this is purely conjecture.

Although the purpose of this paper is to cover the period from 1906 to 1930, the period when Thomas Hickson was the IoN for Winsford, it is worth noting for completeness that the water supply from the Springs was still in use in 1938[29] and continued throughout World War Two until in 1948 the Mid-Cheshire & SE Cheshire Water Board took over the supply to Winsford from boreholes in the Delamere area.

In view of the apparent dangerous levels of bacteria in the Little Budworth supply it is interesting to speculate what effect water quality had on the health of Winsfordians. The MoH reports give comprehensive information on 'notifiable diseases' in Winsford from the late 1880s through to 1930. However, on investigation of these reports, the only notifiable disease within them which can be attributed

to contaminated water is enteric fever, commonly known as typhoid. Somewhat surprisingly, this is noted at a very low level both before and indeed after the start-up of the Oakmere scheme: the average incidence of occurrence of typhoid being 3 to 4 per annum in a population of approximately 11,000. In simply focusing on the notifiable diseases, this study has not identified any significant effect of contaminated water on the health of the population before the Oakmere scheme was implemented albeit in conjunction with the Little Budworth Springs supply. Unfortunately the percentage of total supply from Oakmere is not available in the reports.

In reviewing the sickness and invalidity data, it should be remembered that this was pre-NHS and we may suspect that bouts of diarrhoea were common and were not recorded, as visits to the doctor were infrequent and costly. We can only conclude that it was simply part of our day-to-day life at that time. Our forebears were clearly made of sterner stuff!

Sewerage

The principal driver for sewerage provision was the introduction of the water closet or WC but as in most towns WCs were rare and generally only for the wealthy until the 1930s. From Victorian times to the 1930s most of the population relied on privies, be they cesspool privies (privy middens), pail closets or earth closets. The cesspool privies (privy middens) toilet system consisted of an outhouse, commonly called a privy, associated with a midden (a dump for waste). They were widely used in in England in the late nineteenth century but were difficult to empty and clean.

In 1899 there were 2,811 cesspool privies in Winsford serving over 95% of the townsfolk. These consisted of a backyard outhouse with a seat and a container sunk in the ground to contain the waste, diagrammatically represented in Figure 4. The outside part, in front of

Figure 4: Sketch of Cesspool Privy (author's sketch)

the door, is covered with a stone to allow access to the Scavenger who was paid to empty the contents into pails every nine weeks using an 18ins. scoop on a long handle. The receiving pail, containing semi-liquid contents, would then be carried to the 'night soil' cart in the road

outside, no doubt sloshing the contents onto the yard and the scavenger's clothes but it appears they avoided getting it down their necks by the use of a 'kepi style' flap attached to their caps!

The reports confirm that cesspool privies were impractical and unsanitary, and frankly a nuisance to public health. Resolving problems with cesspool privies was one of the main activities of the IoN and one can easily imagine that the very act of scooping waste into pails in the dark was very difficult, generally leading to an undesirable mess. In addition in times of heavy rain, the privies would overflow, flooding the yards with ashes and faeces which demanded the attention and action of the IoN. The reports record many instances of backyards being flooded.

Figure 5: The Pail Closet (Source: User Musphot on Wikimedia Commons).

The resultant night soil was purchased by local farmers to fertilise their fields and Thomas Hickson notes in one of his reports that the 'Manurial value of this class of night soil, used fresh, is very high. On cabbages and as a mulch for fruit trees it gives excellent results'![30]

The pail closet (Figure 5) was the successor to the cesspool privy. It is claimed that this was first used in Rochdale[9] and whilst it required emptying on a weekly basis, it was much cleaner and was widely acclaimed by the Winsfordians in 1900 when 28 were installed in the town.[31]

An improvement on the pail closet was the earth closet and a sketch of the Winsford earth closet is shown in figure 6. This sketch is taken from the 1919 report and was drawn by Thomas Hickson himself. Thomas worked with Birtwistles, the Over Square ironmonger, to design this closet.

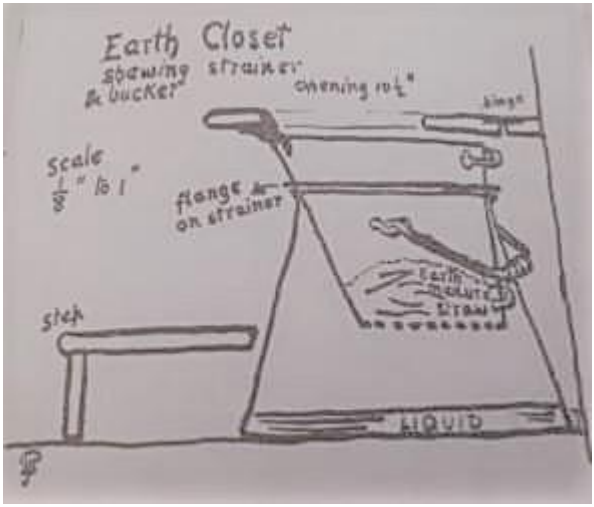

Figure 6: The Earth Closet (by permission of Winsford History Society).

In this design a two pail system is used with the upper pail having a perforated bottom to act as a strainer holding the 'solids'; the 'liquids' draining through to the lower pail. The scavengers removed the solids and the liquids were poured onto the cabbage patch at the bottom of the garden! Thomas Hickson describes this earth closet as follows, 'this closet, if emptied every day or two is odourless, as the surface of the strainer's contents consists simply of dry earth, through which the smell of the urine in the bucket below does not pass [32]'!

Gradually the water closet began to take over as is reported in the 1925 report [33], see Table 1 below

Table 1

Closet Accommodation

	1919	1925
Cesspool Privies	1039	822
Water Closets (WCs)	1147	1392
Pail & Earth Closets	500	576

This was a slow process and it should be noted that some houses still had pail and earth closets through to the 1970s, A review of the 1950 report[34] notes 277 pails and privies in use in Winsford reducing to 21 in 1970 report.[35]

Over time the introduction of the WC demanded better sewerage systems for both Over and Wharton and improvements had to be made; by 1920 improved sewers had been installed across the town. The Over sewer started near Chester Road Chapel and made its way down Delamere St to the Four Lane Ends (Over Square). Here the sewer split into two with the main branch following High St as far as Stubbs' Arcade at the end of Siddorn St where it turned down Clough Row. From there it crossed the Drumber on an aqueduct, emerging in Royal St, then turned left down Weaver St and finally down William St to the Over side filter beds. The other branch made its way down Swanlow

Lane, turned left down Gladstone St, left at Ways Green into Weaver St where it joined with the High St branch.

The Wharton sewer started at Wharton Hall and made its way down Crook Lane to Wharton Church where it split, one leg went down School Road and Ledward St to the 'Rec Stumps' on Station Road. The other leg continued down Crook Lane turning into Station Road, picking up the School Road branch and finally making its way to the Rilshaw Lane filter beds. The Over and Wharton beds remained in use until the 1960s. Plate VIII (before p. XX) shows the routes of the Over sewerage system in red and the Wharton sewerage system in blue.

At the time the new sewers covered most of the domestic housing but, somewhat surprisingly, no provision was made for the remaining part of the town. The busiest part of the town, the 'bottom of Winsford', with its preponderance of salt works and shops, was not served by sewers; the sewage from this area was ducted straight into the river! (This can also be seen in Plate VIII in yellow.) The 1925 report[36] notes that:

> a row down the Weaver from the north end of the flashes beneath the bridge and for a mile northwards reveals the existence of hundreds of pipes, some sewers and drains, but mostly overflow brine pipes running directly into the river just above the water line.

The filter beds were described in the MOH report for 1901 as the 'most efficient in the UK' and for many years, thanks to the vast amount of cinders produced by burning the very low grade of coal in the open pan salt process, WUDC took the opportunity to sell what they described as 'leading edge technology' to other councils. As we have previously noted, Dr Garstang was not eager to support this claim.

The design of the filter beds was very simple. Crude sewage was delivered to a bed of cinders two or three feet above river level,

standing partly on land and partly in the water. To ensure efficient filtration, the bed was regularly raked and fresh cinders were added as it sank into the river. However, the beds were not without issues, there were many complaints of unpleasant smells and during periods of heavy rain the sewage ran straight into the river. In 1926 the condition of the River Weaver was reported by Thomas Hickson to be poor;[37] the major contributor to the pollution was sewerage from the 'bottom of Winsford' (see Plate VIII) running directly into the river. Tests undertaken at the time showed that the level of dissolved oxygen was 0.4 ppm. To gauge how poor the water quality was at this time, today in modern Britain healthy water is generally described as having a dissolved oxygen concentration of between 6.5-8 ppm, 6 ppm being the lowest level tolerable to brown trout [38].

Sampling from the very basic design of filter bed used in Winsford was very difficult and the reader will recall that one of the IoN's tasks was to sample the effluent at the filter beds. Thomas Hickson reported that effective sampling on this cinder bed, encrusted with faecal material was extremely difficult. By 1919 the MoH was recommending a new technology for the filter beds but readers who were resident in Winsford in the 1950s and suffered the smells from the beds will testify to the fact this took many more years to implement.

Housing

A perusal of the reports shows clearly that WUDC did not have housing improvements for the working class at the top of its agenda, probably in keeping with other similar towns. Indeed it was the Town Planning Act of 1909 - summarised by Bentley and Pointon Taylor [39] - that forced the councils in urban areas to tackle unsatisfactory housing. This act consisted of three key parts: first, it prevented the building of 'back-to-back' houses, secondly it demanded that local authorities introduce systems of town planning and thirdly for the first time it required that all new homes had to be built to certain legal standards.

The housing situation for the masses in Winsford was grim. In 1911 there was not a vacant house in Wharton and only eleven in Over and these were large houses described as 'unsuitable for the working classes' [40] The reports from that year paint a gruesome picture: in 1911, 33 houses in Princess St with privy-middens, no ashpits, dirt floors, with damp interiors and over-run with cockroaches, were condemned. The privy middens were converted to peat pails, slopstones were fitted with waste pipes, yards and passages paved, numerous repairs to drains, gulleys and roofs and completely refurbished then disinfected with mercuric chloride, a most potent and poisonous chemical.[40]

In 1912 enteric fever broke out in Hill St, 43 houses were identified as 'filthy and uninhabitable with significant privy infection'. In total 65 houses had to be disinfected with mercuric chloride. In the 1913 report.[41] Thomas Hickson reported finding very unsatisfactory living accommodation and overcrowding in 124 houses in High St, Weaver St, Winnington St, Gladstone St, Dingle Lane, Chapel St, Haigh St, Latham St and Delamere St. The remedial work included 'converting cesspools to water-closets, fitting new house drains with gullies, ensuring gradients to sewers, paving rear yards newly fixing new slopstones complete with lead piping and other requisites where none existed previously'. All 124 houses were also disinfected with mercuric chloride.

Alongside these issues, as long ago as 1910, the IoN had criticised the work of the scavengers who were in the habit of tipping the contents of the privy middens and peat pails in the street awaiting collection the following evening. This appears not to have been remedied as we see again the activity being criticised in 1912[42] as follows: 'the contents of the privy middens are still wheeled into the roadways and lie there for some time awaiting collection, this is a dangerous nuisance especially to school children'.

Gaining improvements put Thomas Hickson under great strain leading to illness and an urgent application was made to WUDC for

further support in 1913.[43] Dr Picton stated the following in the 1913 report:

> Additional assistance is undoubtedly needed; and the Council is fully aware of it, but has postponed action in the hope that the exceptional stress of 1912 and 1913 will not be repeated, and further because it has a natural disinclination to place the whole cost on the local rates. My plain duty is to record that the need for additional assistance is urgent and imperative.

As a side note, the issue was raised each year until 1918 when the Council approved at new salary of £175 per annum at the Council meeting in November 1918.[44] This was hardly a princely sum when the average annual wages for train drivers was over £130 and for engineers and bricklayers £110.[45]

The situation declined and the very short (no more than ten pages) World War One reports note that more and more streets were inspected and found wanting. Houses with insanitary privies and ashpits, dirt floors, defective slopstones, and general overcrowding and unclean conditions were regularly reported and more disinfection with mercuric chloride was required.

We noted above the acute shortage of housing stock in 1911 for the masses and Table 2 on the next page shows the lack of response to the issue. It was not until the 1920s that a programme of housing development was to start, however it must be acknowledged that the First World War will have put a brake on any proposed developments.

Only twelve houses were built in the decade between 1910 and 1920 when the MoH had recommended that 40 new houses were required to meet the needs of the community. This is recorded in the 1930 report,[46] viz: 'In 1919 I reckoned that 40 or 41 houses were then needed, as there were 93 overcrowded houses with an excess of 164 persons above the standard of two persons per room', in addition ' five families live in vans off the Market Place'.

Table 2
House Building in Winsford 1910-1926

Year	Number	Comments
1910	4	
1911	0	
1912	0	Not a single set of plans for a dwelling house submitted to the Council for 18 months*
1913	?	None recorded
1914	7	
1915 - 1919	0	World War One impact
1920	1	Ten new houses in progress in Crook Lane for completion 1921**
1921	11	10 Council houses
1922	17	All private houses
1923	21	All private houses
1924	46	All private houses
1925	31	Private with State assistance
1926	16	Private with State assistance

*1912 MoH Report p54 **1920 MoH Report p13

As reported earlier in this paper, 1919 was an extremely busy year as the day to day workload was significantly increased by the outbreak of Spanish influenza. Extensive and regular disinfection had to be carried out during the epidemic. In the period from the 16th July 1918 to the 5th April 1919, there were 53 deaths attributed to Spanish flu'. Interestingly of the 53 deaths only eight were salt workers and Dr Picton attributes this to the local custom of using a salt solution as a preventative nasal wash in 1919 [47] he goes on to say 'in this connection it is of interest to note the smallness of the death rate amongst salt workers from influenza and pneumonia'.

Returning to housing, the Council reluctant to spend on new housing, continued to prevaricate and Thomas Hickson suggests the Council may have been hoping that 'as so many men were now working in Northwich they may go to live in Northwich, as a consequence pressure in regard to overcrowding will be considerably relieved'. The 1929 Report [48] makes interesting reading, the following is reported, 'the Clerk begs to remind the Council that our total indebtedness amounted to £4,120. There is scarcely any other town in the country with all the facilities we have which has such a small indebtedness'. Perhaps the Council was not as cash constrained as it appeared after all!

Many instances of poor living conditions continued. In 1920 Thomas reported that yards in several houses in John St were littered with ashes and 'miscellaneous refuse' after privies had overflowed following heavy rain. This was coupled with a diphtheria outbreak in Greenfield Cottages behind St John's Church. All properties had to be disinfected but by now the chemical used for disinfection was Cyllin, a formaldehyde derivative somewhat less toxic than mercuric chloride. Time marched on and, in 1924, 73 houses had to be disinfected after infectious disease was found rampant, but at last some progress emerged when 46 new houses were built by private enterprise (see Table 2) although it should be pointed out that this may have been driven by an impending State Subsidy which had been applied for by these builders [49].

In 1925 Thomas reported that 'Overcrowding persists in many properties' and in one instance 'parents, two grown up sons, four children and a baby shared one double and a single bedroom'! In the same year severe damp problems were noted in 60 of Falk's 'bass houses' in Meadow Bank. The use of bass for as a housing is raw material is interesting. As we have seen, a low grade coal was used for heating the salt pans which left behind much more ash and clinker (locally known as bass) than ordinary household coal, and this low grade coal was also used for domestic purposes. As a consequence, the disposal of ashes was more difficult than in other towns and in order to

control the problem, walls and roads were made from bass from the salt pan fires. One of the major salt producers, Herman Falk, built a whole hamlet of sixty houses in Meadow Bank from this fused clinker which became known locally as the 'bass houses'. Unfortunately the houses were built without an impervious concrete raft and as a result the houses were severely affected by damp in 1925 [50]. At the time all 60 houses had to be cleaned and disinfected with Cyllin.

Three more years went by but finally in 1928, the Council took action when Peter Heaton was appointed Surveyor to the WUDC. This was the first time that the Council formally recognised that insufficient building was being carried out and decided to commence a programme of construction. The reports from 1928 are particularly interesting as they include Peter Heaton's drawings of his 'houses for the masses' complete with their own WCs and for the first time bathrooms, very uncommon in Winsford in 1928! The investment in bigger and better housing stock was seen right across the UK but it was notable that the councils across the country had had to be driven by the Government to move forward and the real motivation was the Government's promise to subsidise rents, promising to hold them between 5s.10d. to 6s.per week.

This marked the beginning of council house development in Winsford and in 1929 the first occupants of Kingsway council house estate took possession**.** Simultaneously, unsatisfactory houses were demolished in Holland's Yard, Bakers Lane and Crook Lane.

Progress was finally being made and, in his 1930 report,[51] the MoH wrote a summary of the improving standard of housing. These are two extracts:

> Of the 2,802 houses all but 240 are of the working class type, with rents between 3/6d and 10/6d. The simplest consist of two ground floor rooms, a parlour and a kitchen. There was formerly a cess-pool privy at the bottom of the garden and in 1914 these

totalled 1,039. The present figure (1930) of 502 represents a great deal more than merely privy conversions; it represents a thorough overhaul of the house and yard. This work was carried out by Mr Hickson with indefatigable zeal; remodelling these old houses became almost a religion and the improved state of property in Winsford is mainly due to him. Though no one ought to build such houses today, there is none that has been improved under his supervision that cannot be kept a wholesome and sanitary dwelling …

The better houses are in Swanlow, Crook Lane and Wharton Road, built on a bad plan with narrow frontage and obstructive back buildings. The kitchen overlooks the yard and the front room faces the street but most designs cut off the sun. No farmer designing a pig-cote would make such a blunder! Next are the houses in Crook lane, more open to the air and light than their predecessors but much better and cheaper are the houses of the last five years in Station Road, Grange Lane, Chester Lane and High Street together with the Council Houses in Gladstone Street. The town has progressed and in 1930, there is clear evidence against housing shortage.

In Conclusion

It had been a tough journey but in 1930 Winsford could boast that it had a reliable potable water supply, street lighting, York stone pavements on the main roads, new sewers and efficient filter beds and separate storm sewers. The installation of water closets was also on the increase although this was not completed until 1962. Clearance of inadequate housing had started, many houses were refurbished and the first new council houses were built in Crook Lane.

The paper has attempted to cover the challenges faced by the IoN in helping to set up a solid infrastructure in Winsford particularly over the period 1906 to 1929 when Thomas Hickson held the position.

The key areas investigated include the achievement of a sufficiency of quality potable water and the remedying of privy, sewerage and housing problems but it should be noted that the reports go much further than this. More than half the pages in these reports indicate that significant time and energy was expended on:

- the control of infectious diseases,
- gathering data and reporting on causes of deaths,
- investigation of the wholesomeness and bacteriological integrity of the milk supply in the town,
- investigating unsound food sold in the town,
- the regular disinfection of schools,
- helping to eliminate the nuisance occasioned by the smoke from the salt factory chimneys,
- the monitoring of tuberculosis in cattle,
- dealing with admittances to the Davenham isolation hospital (47 patients were admitted in 1926 for instance [52] resulting in clearing the houses of personal effects, disinfecting clothing and bedding and thoroughly disinfecting the premises)

It is tempting to go into these important issues in more detail but notwithstanding their import, the scope of this paper has of necessity been restricted to infrastructure issues. However it is accepted that the above factors have a very important bearing on the town development.

In summary, by 1930, 40 years after the appointment of the first Medical Officer of Health (MoH) and Inspector of Nuisances, in 1890 Winsford's infrastructure was finally taking shape but the workload had taken its toll on Thomas Hickson. He was admitted to Albert Infirmary where he passed away on 28 October 1929, aged 66, to some extent a remarkable age when one considers the thoroughly unpleasant tasks he was required to carry out as Winsford's Inspector of Nuisances. with constant exposure to noxious chemicals. However, he could be proud of what he achieved and whilst Thomas was not a lone fighter in

improving Winsford's infrastructure it is clear that he played a major part.

Author's Note:

I undertook this research on receipt of a collection of dusty old books found in the loft of a bungalow in Cinder Hill in Whitegate. The bungalow had belonged to Percy Atherton, a Winsford jeweller, and the books were the collated reports of Winsford's Medical Officer of Health from the late nineteenth century to 1930. Attached to the reports were the reports of Winsford's Inspector of Nuisances. I flicked through the books and found that the Inspector of Nuisances was a Thomas Hickson, I read on and suddenly realised that Thomas was my great grandfather hence my fascination with the subject and this paper.

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