

**January 27 1849**

**SANITARY CONDITION OF LEICESTER**

**PUBLIC INQUIRY** On Thursday, W Ranger Esq, the superintendent inspector appointed by the Board of Health to inquire into the sanitary condition of Leicester, attended at the Town Hall to receive evidence upon the subject.

There were present among others, the Town Clerk, Dr Barclay and Mr Buck, the Sanitary Medical Officers, Dr Shaw, Mr Flint, the Corporation Surveyor, Mr T Millican, one of the Vice Chairmen of the Board of Guardians, Mr C Smith of the firm of Miles and Smith, Mr C C Macauley, Mr B G Chamberlain, Clerk to the Board of Guardians, and Mr C Goddard.

Mr B G Chamberlain presented a list of the places in which epidemic diseases were prevailing, which had before been given to the Sanitary Medical Officers.

Mr Ranger said that he appeared as the agent of the General Board of Health, in pursuance of the notice which had already appeared, in order to institute an inquiry into the sanitary state of the town. The order to be pursued was, first, to inquire into the localities where epidemics and endemics prevailed. One of the best tests of the sanitary condition of a district was furnished by infant mortality, which was independent of occupation and many other causes. He found that of infants, in 1841, one in eight died at Billesdon, and one in six in Leicester. Thirty per cent died before the age of five years in the less unhealthy districts, and in the others 43 per cent. The mortality in 1841 was 1358 in a population of about 50,000, or about 1 in 36, while at Billesdon, the mortality was only in the proportion of 1 in 91. The difference of the average duration of life in the two places was about twelve years in favour of Billesdon. If they took the money statistics of the question, according to ordinary computation, the loss of labour amounted to about £90,000. It was not intended to give undue importance to that fact ; but that there was something due to it would not be denied. Those facts he had mentioned would alone give occasion for inquiry, but an inquiry had been called for by an enlightened public, and that inquiry was to be quite open and transparent to everyone. He might call attention to what would be the ordinary course of working out remedial plans in this town. Every district would be protected by the general board (which, he was permitted to say, took particular interest in the present inquiry), and would not be called upon to contribute more than a fair share of rates, as compared with the advantages to be derived by it from the plans suggested. Those who participated in the benefits would be the parties to pay for them. That of course was taking the worst view with regard to charges. He was not in a position to state what the charges would be in this town, but he had found that in other places he had been enabled to suggest plans by consolidation and diverting expenditure, so as to give the benefits of the Public Health Act without any additional cost. That arose from taking into account the unproductive labour of the poorer classes in fetching water, and other matters, and also the diverting other expenditure, by inducing the poor to render their houses more comfortable and better ventilated, and by the better ventilation of streets as well as houses. He could not apply these observations to this town until he had been over it. Their instructions were to pursue the most rigid economy in point of expenditure, while their plans were to be on the broadest possible basis. The preliminary inquiry would be based upon the density of the population as compared with the area which it occupied. He should be glad to receive the testimony of the medical men present with regard to the particular localities which required his attention, and they might also afterwards furnish, if they pleased, statements in writing. After receiving statements, either for or against the inquiry, he should proceed to inspect the different localities externally and internally, with regard to want of sewerage, ventilation of courts, allies and streets, ventilation of abodes, over crowding of lodging houses, &c. In visiting the last he need only be accompanied by the police inspector. One other observation he would take the liberty of making – though he might complete part of the inquiry in the present three days, if he found it necessary to revisit the town a public court would not be needed, as his object would chiefly be to consider the drainage and supply of water. If gentlemen would communicate to him, in writing, their communication would be duly weighed, and he would be open to communications up to the time of making the report. When made, it would be transmitted to the town, and they would have a month allowed for its consideration, and an opportunity of making what observations they thought

proper. Mr Ranger then proceeded to receive the following evidence.

Dr Barclay handed in two reports which were presented on February 20 1847 and November 22 1848, to the Town Council. Also a list supplied by the sub inspector of places requiring the personal visit of the Commissioner. He then stated that a great number of nuisances of all descriptions had been removed under the Act for that purpose ; the number of proceedings having been 630. Fever, erisipelas and smallpox were the prevalent diseases of the town. Fever had not prevailed to a great extent in the lowest parts of the town, but in the higher uncultivated parts, where there had been a great many pigs kept. Erysipelas had prevailed to so great an extent in the Infirmary and Fever House that they had been obliged to be shut up. The administration of opium to children was very common among the lower classes. Factories were few, and well ventilated. The operatives were generally employed at home, but the rooms in which they worked were very close. Some houses were built back and front or back to back, in which cases there could be no ventilation. The crying evil was the privies and cesspools, which were many of them constructed of only single brick and with bad cement, so that the neighbouring soil was completely saturated with excreta. The cesspools were generally uncovered so as to expose a large evaporative surface to the air, rendering it very unwholesome in summer. The system of emptying them was also very bad. The small slaughter houses scattered through the town were mischievous, the blood and swillings having in some cases to travel a quarter of a mile in the open street. The blood was also kept for swine, and thus involved the keeping of pigs. Offals and horse flesh were also boiled down for swine, and knackers' yards existed in several neighbourhoods, where the smell of boiling down was much complained of.

Mr C Smith stated that it was a common custom in this town, sanctioned by builders and architects, to dig down to the springs of water and let the privies drain into them, to avoid the necessity of a cesspool. Such things had been done in the centre of the town, and in consequence the water in the locality was completely poisoned. There was no building act in the town. Near his own residence in Southfields Place, the main drain on being opened was found to be choked up with the refuse of other drains. He was obliged to have stench traps on his premises, and to employ a person frequently to clean them, which was attended with some expense. The stench arising from the gratings in the streets was very offensive.

Mr C Macauley expressed his gratification at the subject being taken up, and his hope that something effectual would be done, and that drainage if effected would be on scientific principle ; as in other towns, which had not been so afflicted before, fevers had broken out and continued upon the opening of under drainage. Within his recollection, Leicester had been one of the most healthy towns in the midland district, and its mortality was then below the average. The town ought to be very healthy, as it stood upon a much larger area than usual, in proportion to the density of the population.

Mr Ranger observed that the measures which he should recommend would be on the broadest possible basis, and that everything should be embraced which was found necessary. It would be so both for his own reputation and that of the Board of which he was the officer.

Mr Macauley believed that all the small yards leading out of the great streets were in a state most prejudicial to health.

Dr Shaw stated that the town was quite free from cellar dwellings, and had a low average of population, about 4 1/2 to each house. The houses were on the average two storey houses, most of them with courts at the back, and generally only inhabited by one family. The main cause of the great mortality was the defective sewerage, which had originated in piecemeal operations. No absolute engineering difficulty existed against a perfect system of drainage, but it would be necessary to go beyond the limits of the town. Stench traps had fortunately been established to some extent, but not sufficiently, in the present drains. There were certain local reasons which in his opinion would prevent the town having such a favourable rate of mortality as other towns, and these were owing to the state of the river for miles above and below the town. The valley in which Leicester lay was open to the north east and south west, and owing to the stoppage occasioned by mills and the canal, after every quick rain, the district became inundated, which would cause the

production of immense quantities of miasma. The ventilation was obliged to come in the direction stated, because of the hills of Charnwood Forest on one side, and the oolitic hills on the other, and the consequence was that the miasma was necessarily driven upon the town. Another point to be taken into consideration should be that some restriction should be placed on the mode of building in the town, as the fever house was furnished with its inmates not from the central and dirty districts of the town but from the newly erected portions where the humus had not been removed previous to building. Over the river in Holme Street and that neighbourhood, the drains were mere receptacles of the back water of the river. The lodging houses, like those of all other towns, were in a very filthy state, and he wished that orders were never issued by the Guardians to put paupers in them.

Mr Millican stated that the Guardians never sent mendicants nor their own poor to those places, but that if parties were found in them requiring relief, they were not removed.

Dr Shaw stated that he had heard that the smallpox, owing to one case having been left in a lodging house, had spread all over the neighbourhood, and that forty one deaths might be distinctly traced to that cause.

Mr B G Chamberlain stated that the presence of parties receiving relief in lodging houses arose not from destitute parties coming into the town, but from parties who had money to pay their own expenses taking lodgings at these places and remaining there until they were taken ill and then requiring relief. The destitute vagrants were provided for in the temporary workhouse.

Mr Ranger observed that the common lodging houses would all be put under certain restrictions.

Dr Shaw considered that the town was very deficient in the supply of its water, which would be wanted especially to flush drainage.

Mr Ranger said that the principle upon which he and his co-inspectors would act, would be a constant supply of water and constant drainage, which alone could be effectual in preventing mischief.

Mr Buck presented a statement of the mortality in 1841, 1846 and 1848. In 1846 and 1847, fever prevailed to such an extent that the Board of Guardians were obliged to open an additional fever house. The mortality from diarrhoea amounted to 178 in 1846, which was a very great number, considering that in 1848 only 81 were registered. Much of this ought to be considered as fever, and this epidemic disease excited much attention at the time and caused the register to be carefully analysed. The typhus fever of the district differed much from that of London, its character being ulceration of the intestines. He was inclined to attribute much of these epidemic diseases to the imperfect drainage, the demoralised state of the lower classes, and the absence of personal cleanliness occasioned partly by the scarcity of water. Second and third rate sewers were not of sufficient size to carry off the drainage, and when opened were found to be nearly full of black concrete, so hard as to require the use of the pickaxe to remove it. One opened in Humberstone Gate in 1847, near his own residence, was full of this concrete, hard as chalk at the bottom and becoming gradually softer to the top, which rendered the sewer nearly useless, as the rain water, being unable to find its way through such an apology for a sewer, was obliged to seek its level in the streets and cellars of the inhabitants. In the neighbourhood of this very sewer, two large steam engines discharged an immense quantity of water into an independent channel at right angles, which emptied itself afterwards into a sewer near the canal, which anomaly showed the necessity of some scientific surveyance. In 1845, the neighbourhood to the extent of several hundred yards was under water for several hours ; and in 1846, fever of a very fatal character prevailed there. The smallpox, a disease whose appearance was particularly obnoxious to medical men and society generally, originated with the case of a boatman, who was reported to the Guardians as sick in a boat on June 19 1848. He was taken to a lodging house, No 1 Abbey Street ; and the disease spread thence from house to house to No 15, and extended thence from street to street, Green Street, Garden Street and Orchard Street. The registers of mortality furnished forty one deaths from that period to January 24 1849. A great amount of indifference existed among the poor with regard to vaccination, and a great repugnance to medical attendance also was felt, from whence originated the great infantile mortality.

Mr Millican admitted the defective state of the drainage, but considered that there were many

sources for the supply of water, such as steam engines and other means. There was a steam engine in King Street throwing up 7,000 gallons per hour for ten hours a day, and two in Charles Street throwing up 5,400 gallons. In proof of the ample supply of water from springs, he had a well in his property adjoining these engines, only 13 feet deep, and had never been short of water since he had held the property. He had also houses in Queen Street, where the springs were so powerful as frequently to rise into the cellars. The water was undoubtedly rather hard. The culverts being near the surface, he had been obliged to sink a well, at a cost of about £10, to drain the cellars, as these had frequently to be pumped out. There were many other steam engines than those he had mentioned, placed in situations where the water might be rendered available. He owned and had control of 106 houses, which were furnished with 58 pumps, and he had no doubt that the tenants would state that they were well supplied with water. The pumps and wells might cost about £10 each, and about the same sum might be expended annually for repairs. The rents averaged from 1s 3d a week to £30 a year. The houses were not supplied with water closets but had open privies. A boiling house existed close to some of his premises, and though it had been certified it had not been removed, and fever had been the consequence in the neighbourhood.

The Town Clerk explained that this case could not be dealt with under the nuisance removal act, as there was no accumulation of noxious matter which could be certified.

Mr Millican stated also that he had been at some expense upon cesspools during the year.

Mr Goddard stated that his object was merely to express his opinion that the present mode of getting rid of filth by culverting was very imperfect, and that he would recommend all the drains to be filled up, as they were at the time when the town was more healthy than at present.

Mr Ranger considered that the expression of opinion was a mere wasting of time while gentlemen were in attendance to show him over the locality, whose time was valuable. He then proceeded, accompanied by the Sanitary Medical Officers, to inspect the places, a list of which had been handed to him.

The following is a list of the places visited by the Superintending Inspector, Medical Sanitary Officers and others :- Cox's Street, Redcross Street, Cumberland's Yard, ditto, Wright's Yard, ditto, Hodson's Court, Dun's Lane, Great Holme Street, Augustine Friars, Black Friars, ditch at the bottom of Sarah Street, Hewling's Yard, All Saints Open, Johnson's Yard, Sanvy Gate, Elbow Lane, Durham Street, Olive Hill, Needle Gate, Pares's Street, Watling Street, Burley's Lane, Hull Street, Royal East Street, Pork Shop Yard, Belgrave Gate, Public Wharf, Britannia Street, Mill Street, Russell Street, Denman Street, Wheat Street, Lewin Street, Metcalf Street, Bedford Street, Eaton Street, Providence Place, Sanderson's Yard, Wheat Street, Pike Street, Wharf Street, Dover Street, Nag's Head Yard, London Road, Calais Hill, Green's Lane.

Yesterday Mr Ranger resumed his sitting in the Town Hall, and previous to receiving evidence had some conversation with J Ellis Esq respecting the probable outfall of the main sewer. He then examined H Paget Esq of Birstall at considerable length, and received from him much valuable information as to the subsoil and capacity for drainage of the lower parts of this locality, as well as the probable value of the manure of the town, the meadow crops, rents and other matters relating to the neighbourhood. Mr Ranger then stated that after receiving evidence from any parties who chose to offer themselves, he should visit those localities mentioned by the medical officers which had been omitted on the preceding day, the factories, the Union Workhouse, the schools, and other places where ventilation was considered of importance, and should also proceed to the outfalls of the sewers.

Mr W Lewin stated that his opinion was that there was no necessity for any waterworks in Leicester except for flushing the sewers. There was plenty of water for domestic purposes supplied to every dwelling, hard and soft. The cooking water was generally supplied from wells, and that for washing from cisterns fed by spouts in the roofs. He had been for about thirty years occupied in the plumbing business, and never knew any deficiency of water. The general custom was to have two pumps to every five houses. The hard water was principally filtered by gravel and springs and the water, except in the conduit field, lay nearly to a level. The conduit field was a large bed of sand extending from the Spinney hills to the Infirmary Square, about twenty seven feet below the

surface, and emptying itself into the Soar. Below that was a bed of red marle, in which there was no water for more than thirty feet, Under the central part of Leicester there was no gravel, but the wells were in the red marle, and about twelve yards deep where they entered an immense spring. There had been a scarcity of water in a dry summer in this district. The cost of a pump and well complete in the gravel was about £9. The average repairs might amount to 5s a year, and in the deeper wells to 10s. The consumption of water by each family might be 70 gallons per week of hard, and of soft water about eight gallons. The cost of cisterns would vary from £10 to £5. The hard water sometimes corroded the pipes, but not so as to penetrate them. The cost of plumber's work for a water closet, without a pump, would be about £10, and the supply of water would be obtained from a cistern in the roof. When this water failed a supply would have to be pumped up. The houses which had water closets were those which had no back yard. He was the owner of about 60 small houses, which were built about twenty feet by twenty four, and seventeen feet to the eaves, containing four rooms.

Mr Thomas Thompson, Humberstone Gate, complained that the approaches of Queen Street and Southampton Street, to the luggage station, were quite unsafe. They had a considerable rise, about 1 in 30. Queen Street was made at the time when the railway was opened. Nine drays were constantly employed, each making about sixteen trips a day, with a horse each, and carrying from two to three tons. The roads were in such a bad state that it was unsafe for the drays to pass along ; they were paved. The overseers admitted that the roads were in a bad state, but would not do anything. This state of things had existed about five years.

Mr S Stone, Town Clerk, gave evidence as to the extent, description and drainage of the corporation property.

Mr Flint then entered into various details as to the levels of different parts of the town, the present drainage, and other matters connected with the inquiry, after which Mr Ranger proceeded with his personal inspection of the town.