Report to the General Board of Health on a preliminary inquiry into the sewerage, drainage, and supply of water, and the sanitary condition of the inhabitants, of the parish of Selby, in the county of York / by William Lee.

PUBLIC HEALTH ACT.

(11 & 12 Vict., Cap. 63.)

REPORT

TO THE

GENERAL BOARD OF HEALTH,

ON A

PRELIMINARY INQUIRY

INTO THE SEWERAGE, DRAINAGE, AND SUPPLY OF WATER, AND THE SANITARY CONDITION OF THE INHABITANTS

OF THE PARISH OF

SELBY,

IN THE WEST RIDING OF THE COUNTY OF YORK.

BY WILLIAM LEE, Esq.,

SUPERINTENDING INSPECTOR.

LONDON:

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FOR HER MAJESTY'S STATIONERY OFFICE.

1850.

NOTIFICATION.

THE General Board of Health hereby give notice, in terms of section 9th of the Public Health Act, that on or before the 20th day of December next, being a period of not less than one month from the date of the publication and deposit hereof, written statements may be forwarded to the Board with respect to any matter contained in or omitted from the accompanying Report on the Sewerage, Drainage, and Supply of Water, and the Sanitary Condition of the Parish of SELBY, in the West Riding of the County of York; or with respect to any amendment to be proposed therein.

By order of the Board,

HENRY AUSTIN, *Secretary.*

Gwydyr House, Whitehall,
4th November, 1850.

PUBLIC HEALTH ACT (11 and 12 Vict., cap. 63).

Report to the General Board of Health on a Preliminary Inquiry into the Sewerage, Drainage, and Supply of Water, and the Sanitary Condition of the Inhabitants of the Parish of SELBY, *in the West Riding of the County of York.* By WILLIAM LEE, Esq., Civil Engineer, Superintending Inspector.

WHEREAS, in pursuance of the Public Health Act, (1848,) the General Board of Health appointed for the purposes of that Act, have, upon the petition of not less than one-tenth of the inhabitants rated to the relief of the poor of and within the parish of Selby, in the West Riding of the County of York, (the number of the said petitioners greatly exceeding thirty in the whole,) directed William Lee, a Superintending Inspector, appointed for the purposes of the said Act, to visit the said parish, and to make public inquiry, and to examine witnesses as to the sewerage, drainage, and supply of water, the state of the burial-grounds, the number and sanitary condition of the inhabitants, and as to any local Acts of Parliament in force within such parish for paving, lighting, cleansing, watching, regulating, supplying with water, or improving the said parish, or having relation to the purposes of the said Act; also as to the natural drainage areas, and the existing parochial or other local boundaries, and the boundaries which might be most advantageously adopted for the purposes of the said Act:—

Now I, the said William Lee, having previously given the notices required by the said Act, proceeded upon the said inquiry in the manner directed by the said Act, and do report in writing to the said General Board upon the several matters with respect to which I was directed to inquire as aforesaid, and upon certain other matters, in respect of which I deem it expedient to report for the purposes of the said Act as follows:—

Gwydyr House, 19*th August* 1850.

MY LORDS AND GENTLEMEN,

AFTER receiving your instructions and giving the requisite notices, I proceeded to Selby, and opened the inquiry into the sanitary condition of the parish in the Town Hall there, on Wednesday the 6th day of March last, at 10 o'clock in the morning. A considerable number of the influential inhabitants of the town was present, and after taking the evidence of Mr. Matthew Butterworth, proving that the public notices of the inquiry had

been duly affixed to the doors of the churches, and chapels, &c., I explained to those present the general objects of the Public Health Act, and the particular clauses relating to preliminary inquiries, and the application of the Act. I then briefly stated the views of your Honourable Board as to the economical construction of public works, and the necessity of such works to the health of the inhabitants. After a few observations as to the most convenient mode of conducting the investigation, I made minutes of such localities as were subject of complaint by the inhabitants present, and then proceeded to make an inspection of the whole of the town. I feel pleasure in informing the Board that I met with the most cordial assistance and co-operation from all classes of the inhabitants, and am convinced that they are deeply impressed with the absolute necessity for sanitary improvements. During the inspection I was specially accompanied by the Rev. George Best, Roman Catholic Priest; John Fothergill, jun., medical officer of the Union workhouse, and of the Selby Union medical district; Joseph Dobson, Esq., banker; William Dobson, Esq., merchant; Mr. Thomas Standering, spirit merchant; Mr. John Linton, mechanical engineer; Mr. George Lowther, high constable of the Lower Division of Barkstone Ash; Mr. Thomas Colton, druggist; Mr. Thomas Cutting, druggist, and Mr. Thomas Wade.

The inspection occupied the remainder of that and part of the following day, after which I sat in the Town Hall and received the evidence of all persons able and willing to give information touching the inquiry, and until no further evidence was offered.

Description.—Selby is a market town and parish, and the head of a Union, in the lower division of the wapentake of Barkstone Ash, in the West Riding of the County of York. The town is situate 14 miles and a half south by east from the city of York. The Poor Law Union comprises 24 parishes or places, of which 16 are in the West Riding and 8 in the East Riding. The whole population of the Union was, at the census of 1841, 15,100. The population of the parish at the same time was 5,376. The area of the parish is 3,180 acres, of which the township is said to contain 2,622 acres 3 roods 20 perches, and the commons, which were enclosed by Act of Parliament, obtained in 1797, 746 acres 36 perches.

The town is situated upon the river Ouse, which is here navigable for ships of 150 to 200 tons burthen, and is a tidal river. What was called the great north road from London to Edinburgh passes through Selby, and it was, before the construction of railways, a considerable posting town. The Leeds and Selby, and the Hull and Selby Railways unite here, and there is also a line from Selby to Market Weighton, so that, although the town is not situated upon any great line of railway, north and south, it

has the advantage of excellent communication with other places both by sea and land.

Selby was anciently called Salebeia, and is supposed to have been a Roman station. It was selected by William the Conqueror in 1069 as the site of a magnificent abbey for Benedictine monks, which was dedicated to St. Mary and St. Germans, who had so vehemently opposed the Pelagian heresy.

The Honourable Mrs. Petre is lady of the manor of Selby, and owner of 2,482 acres, constituting more than three-fourths of all the land in the parish. Courts leet and baron are held twice a-year, and the leet jury exercises some jurisdiction over the main drainage of the parish for agricultural purposes. Some time since a great improvement was effected by the lord of the manor, by opening a view of the west front of the Abbey Church, and by enlarging the market-place and the roads down to the wharves. More recently a new street has been formed, called the Crescent, which consists of commodious houses, and adds considerably to the appearance of the town.

The Abbey Church contains many features of extreme beauty, and though much disfigured by the hands of persons devoid of taste, and ignorant of the first principles of gothic architecture, it is still an object of great interest and attraction. The living is a perpetual curacy, in the gift of the lady of the manor; and besides the church, there are in the town places of worship belonging to the Roman Catholics, the Society of Friends, Independents, Wesleyans, and Unitarians.

The fertility of the surrounding district has been greatly increased by a process of irrigation by which the waters of the rivers Ouse and Aire are detained upon the land, until a sediment has been deposited forming excellent manure. A large quantity of wood is produced in the vicinity, and formerly flax was cultivated, and prepared to a considerable extent. Flax-spinning is still carried on; there are two large mills, several rope, sailcloth, and sacking factories, three iron-foundries, two tanneries, and some breweries. The chief article exported is stone, which is sent coastwise. There is an estate of feoffees for pious and charitable uses bequeathed by various individuals, in the reigns of Elizabeth and James I., and now consisting of houses and lands yielding together about 150*l.* per annum. There are several other considerable bequests since that time.

Mr. Lowther, the High Constable, says:—

"There are no places of recreation in Selby to which the public have access. All the land is enclosed, except about 15 acres, which were awarded for the general use of the parishioners. There are three plots, and the principal one of eight acres has been nearly run away with by persons carting sand from it. It is now merely a series of ponds, and nearly useless. It is about a mile from the town, and if drained and marled, would be greatly improved."

There is a local Act of Parliament, 37 Geo. III. 1797, intituled "An Act for Dividing, Allotting, and Inclosing the Commons and Waste Grounds within the Manor and Parish of Selby, in the West Riding of the County of York." There is a clause in this Act, page 38, referred to above, to which I think it necessary to draw the attention of your Honourable Board, "for filling up and arching over the church drain." It will be for you to decide whether this clause would or would not render necessary a provisional order for the application of the Public Health Act to Selby.

Another Act of Parliament, 45 Geo. III. 1805, is intituled "An Act for Draining and Improving certain Low Grounds and Carrs within the Parishes, Townships, and Places of Selby, Brayton, Thorp-Willoughby, Hambleton, Wistow, Scalm Park, Cawood, Sherburn, Lennerton, Rest Park, South Milforth, and Barkston Ash, in the West Riding of the County of York."

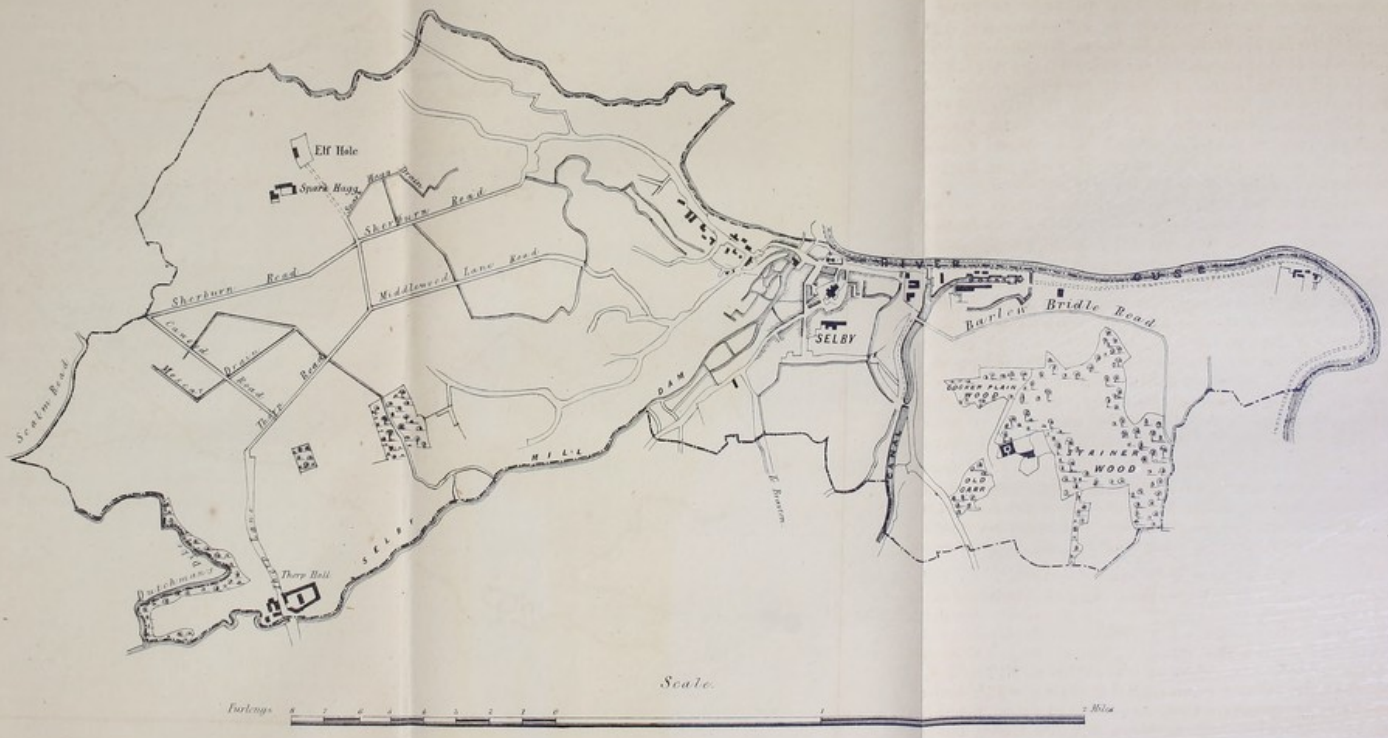
The preamble recites that in the above places about nine hundred acres of low land were subject to floods from the damming up of the water at the Selby mills, and appoints a Commissioner, with successors, to construct and maintain proper drains with sluices, &c. The Board will be able to judge whether or not this Act comes within the meaning of the Public Health Act. If so, I think that such drains as may have been made under the authority of the said Act within the parish of Selby, should, with the other powers of the said Act, so far as relates to the parish of Selby, be vested in the local Board of Health. There is no other local Act of Parliament in force within the parish of Selby for paving, lighting, cleansing, watching, regulating, supplying with water, or improving the same, or having relation to the purposes of the Public Health Act.

Plans.—I have been unable to obtain the small scale Ordnance Map at one inch to a mile, but I believe that the detail survey has been completed, and published, so that the works for the improvement of Selby may be proceeded with immediately on the application of the Act.

Contour, Geology, and Meterology.—Lying in the valley of the Ouse, which is here a tidal river, the general contour of the parish, but especially of the town, is flat and unfavourable to the discharge of surface water. The existence of the Drainage Act above alluded to is, to some extent, a proof of this. The surface soil is a fine fertile loam, of an alluvial character, which may, to some extent, be called a subsoil, as it is found many feet thick. There have been several Artesian wells sunk in the town, and Mr. John Adams, who had been connected with the works, gave me some evidence as to the geological strata pierced, though he had not preserved any record of the borings. He says:—

"Our well is about 105 feet deep, and has a 6-inch bore hole. We have iron pipes for 22 yards deep. The railway well is 102 yards

SELBY.


Elf Hole
Sherburn Road
Sherburn Road
Middleward Lane Road
Scalm Road
Thief Road
Thorp Hall
SELBY
Barlow Bridle Road
LOCKER PLAIN WOOD
STAINER WOOD
OLD QUARR
DAM
MILL
Scale.
Furlongs
Miles

deep. The first stratum is common loam for a few yards, then strong blue clay about 8 or 9 yards thick; then sand 8 or 9 feet; afterward about 7 yards of clay as before, then reddish sand 2 or 3 yards thick; after this a strong clay continues to the depth of nearly 60 yards, when we come to sand or rock about 3 or 4 feet thick, and very difficult to bore. We have then clay again down to the water."

The geological formation is the new red sandstone. No meteorological observations have been kept in the district. The prevalent wind is westerly.

Population and Rate of Increase. Number and Classification of Houses.—The population of Selby in 1801 was 2,861. In 1811, 3,363. In 1821, 4,097. In 1831, 4,600, and in 1841, 5,376. At the same rate of increase as the preceding 10 years, the present population would be, 6,100. The rate of increase from 1801 to 1811 was 17·54 per cent. From 1811 to 1821, 21·82 per cent. From 1821 to 1831, 12·27 per cent. From 1831 to 1841, 16·86 per cent., and from 1841 to 1849, I have taken it at 16·86 per cent. I am unable to give the number of houses at an earlier period than 1831, when there were 1,008. In 1841, they had increased to 1,187, and at the end of 1849, the number returned to me was only 1,138, a circumstance for which I am unable to account.* The rate of increase in the houses from 1831 to 1841, was 17·75 per cent.

The number of inhabitants per house was, in 1831, equal to 4·56. In 1841, it was 4·52; and in 1849, 5·36.

I am indebted to Charles Newstead, Esq., solicitor, superintendent registrar for the following:—

Classification of the Annual Rateable Value of the Houses in the Parish of Selby.

Rateable Value.	Number of Houses.	Rateable Value.	Number of Houses.
Under £3 . .	311	£25 and under £30	33
£3 and under £4	262	30 ,, 40	28
4 ,, 5	100	40 ,, 50	10
5 ,, 6	83	50 ,, 60	5†
6 ,, 7	53	60 ,, 70	4‡
7 ,, 8	39	70 ,, 80	2
8 ,, 9	29	80 ,, 90	..
9 ,, 10	15	90 ,, 100	..
10 ,, 15	80	100 ,, 110	1§
15 ,, 20	43		
20 ,, 25	40	Total . .	1,138

* I have since received a note from Charles Newstead, Esq., informing me that in the rate-book several yards full of houses, or cottages, are rated to the landlord in one sum, and *as one house or cottage*, instead of each cottage being separately rated.

† One of these includes a ropery.

‡ Including two mills, a brewhouse, and a tan-yard.

§ The Union-house. The railways are rated respectively at 900*l.* and 150*l.*, and the canal at 175*l.*

Minutes of Inspection.—The various evils existing in the town are so combined that I find difficulty in separating them under the several heads of "water supply," "drainage," "nuisances," &c., and have therefore included under this, such extracts of what came under my own observation as appeared necessary to show the real state of Selby.

At *Thornton's-buildings* the pebble pavement is good, but close behind the houses there are privies in a confined area, with windows looking into the soil-holes.

Union-row.—The drainage very bad, and stagnant refuse on the surface. The inhabitants get water from the river. Mr. Dobson says he cannot use his pump-water, it is so bad. He obtains water from the Abbey pump, and filters it.

Park-place.—A very foul ashpit full of stinking fluid, with an evaporating surface of about 12 square yards. It is used by 9 or 10 houses.

Park-street.—A foul stagnant ditch, about 7 feet wide. I examined the Abbey pump, said to be the best water in the town. I found it good, but hard. Mr. Lowther says water is fetched to a distance of 200 yards all round. Mr. Audus, who is a very large owner of house property in the town, has a lease upon the property. He does not wish to lock this pump up, but is compelled in July and August sometimes, or it would become dry.

In *Back Park-row.*—I found a drain stopped up, a piggery, stables, and two foul privies, all together near the backs of the houses.

James-street, second.—Mr. Audus's properry nearly opposite the Wesleyan chapel; the back is unpaved, the privies foul, the channel stagnant, about half a yard wide, with night-soil flowing into it, numerous piggeries, and no back-doors to the houses.

James-street, third.—The property of the same gentleman. The wife of James Connell, one of the tenants, says,—

"I have a large rain-water tub, and at times sell water at one halfpenny a bucketfull."

The privies are foul, and close to the houses. Filthy piggeries, nightsoil, and ashes taken through the four houses, and the same of three houses in Market-lane. No underdrainage on the premises.

In *New-lane* there are six houses belonging to Mr. John Norwood. The privies are close to the doors, and the nightsoil has to be carried through the houses. Mr. John Twist has a small foul drain with a grate close to the window. The nightsoil is emptied into it, and the stench is bad. The same person owns three cottages, one of which is occupied by Ann Conway, widow, who says,—

"We have no back premises, nor any privy. We go to a privy about 100 yards off, and throw all our slops into the gutter on the other side

of the road. We get water from the mill above 100 yards off, and have to fetch and carry it. I have only 2*s.* 6*d.* a-week from the parish, and pay 4*l.* rent for a low room and a chamber."

The gutter alluded to is a foul open ditch opposite the houses, in a most horrible state, giving off large quantities of sulphuretted hydrogen gas. The neighbours complained much of the offensive smells from it.

St. Mark's-square has a drain behind the houses, and Mr. Audus covered it a distance of about 300 yards, at a cost of more than 100*l.*; but it is open behind to St. John's-square, within about 9 feet of the houses, and is so disagreeable, that I could smell it 12 yards off. This a proof of the futility of private effort, as a substitute for proper public works.

Gowthorpe is one of the principal roads in the town, and I found close to the junction of the Doncaster and Leeds roads, at 2 o'clock in the day, about four loads of privy manure lying in the street. On expressing surprise, I was informed that it sometimes remains in the streets two days before it is removed. A drain from Gowthorpe passes through Mr. Chatterton's garden, adjoining the premises of the Rev. George Best. It is open for 60 or 70 yards, teeming with noxious gases, and innumerable small black flies; such I have frequently named in other reports as the plague fly. The drain is about half a yard wide, and has to be cleaned out twice a-year. Mr. Chatterton lays the filth on his garden, and says it is very good tillage.

South-parade consists of 34 houses belonging to Mr. Audus, with a pump between seven very foul offensive privies and an open cesspool. The water cannot be used except for cleansing; 22 of the houses are back to back, paying 1*s.* and 1*s.* 4*d.* rent; and 12 double cottages, paying 4*l.* 15*s.* each. They fetch water from the mill 650 yards distant. Mr. John Precious has 20 houses in one long row, with a privy at each end. The surface of the court is paved for half the width, and until about a year and a-half since the other half was filled with pigsties. There is a stagnant filthy ditch at the upper end. *This court is only about four yards wide, with a high wall in front of the houses,* and the effluvium from the ditch sweeping through it. There were many deaths from cholera, in the yard, in 1832, *and in* 1849 *there were six fatal cases within eight days in the beginning of the year, and two more fatal in autumn, although at the time half the houses were unoccupied.* There is a pump in the middle of the yard, and some of the people use the water, but others do not. The houses are generally well constructed, of brick and tile.

Paradise-square contains 13 houses, and the most abominable privies I found in the town.

On *Church-hill* the surface-channels run across the street from the courts, and are much complained of.

Water-lane. — Mr. Driffield's property. The court is 8 by

5 yards only, and the privies under a bed-room, and incapable of ventilation. The court is built all round, chamber height, and there were two fatal cases of cholera in September last, one a captain of a merchant vessel. The people get water from the navigable river, and let it stand to settle.

Mr. John Tomlinson's property is in a very bad sanitary condition. There are two houses, and in one, Robert Carrick, the tenant had cholera, but recovered. The cellar of his house was full of water to within three steps of the top. In this house, a gentleman called Foster had the front room as an office. He was attacked with diarrhœa, and neglected it for four days, when he was seized with cholera and died in 20 hours. There is no under-drainage, and the nightsoil and fluid from the open cesspool flows along the surface-channel, down the passage, and on the street, where it is complained of at a distance of 30 yards. The tenants obtain water from the river, and are compelled to use it for food. I examined some in the house, and found it foul, brown, and muddy.

In *Mill-gate,* which is about the worst street in the town, a privy was being emptied, and the contents placed in the street at about half-past 4 o'clock in the afternoon.

Blayde's-yard.—A large quantity of manure, a foul channel, the yard unpaved, and at the bottom a ditch, which divides the West from the East Riding. Miss Blayde had cholera, but recovered.

Mr. Paul Wright's property. James Pilkington's wife, one of the tenants, says,—

"We get water from the beck for cleansing, *but we go to the river for water for food.* All the soughs fall into the beck. The pig place and the privies smell very bad, especially when it rains."

All the people I saw in this yard looked sickly.

Mr. William Liversidge's property.—The yard is unpaved, and the channel foul. Piggeries and privy in a disgusting state. Water fetched 400 yards. A lodger in the Chequers beer-house was attacked with cholera, and died in a day.

Adam's-yard has two filthy privies, so full that the soil lies in heaps on the surface of the court. There are nine houses, to these are two privies, and there are two others, in the same yard, for 13 houses. There was much cholera here. John Callaghan lives in the end house, and his wife says,—

"My husband is a nailmaker. We have three children, and pay 1*s.* 6*d.* rent. We have lived here five years. We get water from a pump at the top of the yard for cleansing, but it is very bad water, and we *fetch water from the river for tea. I settle it with a bit of alum, and there is a white sediment at the bottom which stinks badly.* The soil hole, within three yards of the door, smells very bad, especially in summer, and the ditch at the end of the house never runs. All the filth of the

13 houses goes into it, and it is never cleaned out. I had a slight attack of cholera in 1848, and there have been many cases in the row."

Mr. James Bank's property.—Filthy privies: no drainage; no water; no pavement; many pigs, and much cholera.

Mr. William Standering's property. — A foul privy, ashpit; pigs kept at the end of the houses. A large accumulation of manure in the adjoining yard, and a stagnant ditch. There are nine houses, and there were six deaths from cholera.

Miss Elizabeth Proctor's property. The yard is unpaved and saturated with filth. There is a large manure heap. I examined the water. It was most foul with organic matter. The poor people say they use it for all purposes. *The cholera visited this property in September last. In the first house the husband, named Abbey, and four children, were removed in a fortnight, leaving a widow and three children surviving. In the next door, William Rosendale and his wife died, leaving six children destitute. The next door but one to that, William Wetherill and his wife died, and left one child an orphan.* I think I have not, in any town I have visited, met with a parallel to this awful sacrifice of human life, which I have no hesitation in designating as "preventible."*

Mr. Paver's-yard.—The pump-water is so bad that the inhabitants take it for food from the Holm Dyke, into which many drains empty. The privies are within four yards of the pump, and *all the water and filth from the piggeries actually runs in an open channel over the pump-well.* There were seven cases of cholera here, and three deaths. One of the recoveries, if such it can be called, is a child that has lost the use of its legs.

Mr. Pitt's-yard contains most abominable privies and piggeries, besides other nuisances. The water is very bad. A considerable portion of the inhabitants are Irish, and the English informed me that the Irish use chamber utensils, and empty them into the untrapped drain. There were five or six deaths from cholera in this yard.

Copeland's-yard contains five low single-room dwellings, and at 5 feet distance in front is a wall as high as the houses. The rents are 1*s.* per week, and the houses would cost 7*l.* or 8*l.* each. I was told that they were erected when the workhouse would not accommodate all the paupers, on the understanding that the overseers would keep them tenanted.

Mr. Thomas Wade's property.—Dung, dung-holes, foul privies and piggeries, with an open cesspool within three yards of the pump. The water, as might be expected, was very foul. Shemer Higgins lives in one of the houses, and said:—

"The privies smell very bad, especially after a shower in hot weather. The water cannot but be bad, with the privy syping into the well. A

* From an analysis of this water by Mr. Cutting, it appears to contain about 100 grains of foreign matter to each gallon.

drain goes under the adjoining house into the surface channel of the street."

Cow-lane has a foul ditch opposite the houses, and into it all the refuse of the houses is poured, and then it remains stagnant.

Dam-bank is a narrow lane. I saw a man lying ill of fever in a one-roomed house there, with a stagnant ditch in front within four yards of the door, and some horrid privies behind. The people have to fetch water from the river about 600 yards distant.

Mickle-gate, or *Wide-street.*—George's-buildings consist of eight houses, six of which are empty, as being uninhabitable. The court is only a narrow passage, and there are buildings as high as the houses, and within a distance of nine feet of them. The inhabitants keeping front shops in this street have to get water from the river. Mr. John Wood's wife says:—

"We pay about 11*l.* 11*s.* per annum in rent and rates. I fetched ten buckets of water from the river on Friday to swill the yard down, and it stinks now. I would not fetch it for a penny a week."

Mrs. Varley's yard.—She died of cholera, and there was another fatal case in the same yard. A very foul open privy cesspool.

Finkle-street, Savage's-yard.—There were five deaths from cholera here; four of them in one house. The occupant was said to have been one of the cleverest mechanics in the West Riding of Yorkshire. Though an amateur, he made the church clock at Selby. He was a poor but good man, and his death seems to be generally deplored. His wife, an apprentice, and a child also died, and three children are left orphans. There are piggeries, and a foul grate within 9 feet of the door, and two open privies at the end of the piggeries.

Addinell's-yard —There were five deaths from cholera here. The privies were so offensive that I, and the gentlemen who accompanied me, could not bear within 4 yards of the ash-pit, which was 13 by 14 feet, forming a pool of liquid filth only about 5 yards from the houses, and abutting on the gable of another row. *The pump is within 6 feet of it.* I examined the water, and found it to contain much animal and vegetable matter.

Mr. David Bradley, of the Griffin Inn, complained much of the manure heap and piggery belonging to Mr. Armstrong, of the George Inn. It drains through the wall, and I found the stench in the pantry and kitchen very bad. The Griffin privies are built over the main drain, and block it up near the churchyard.

Mr. John Green's yard has a very foul ash-pit close to four houses. I found that the sulphuretted hydrogen gas had caused iridescence on the glass of the windows of one of them.

Leeds Arms-yard.—Miriam Dawson says:—

"I have lived here five years, and have four children at home. I

bind shoes, and earn about 4*s.* 6*d.* per week. I have 3*s.* per week from the parish. I have one low room and a chamber, and pay 1*s.* 4½*d.* per week rent. We get water from the river for drinking. We have a pump in the yard, but the water is not fit for anything but slopping. This is a very disagreeable house to live in. There is one privy against the side and another at the back; they both drain through the wall into the house, but one has not been so bad lately. There is a stable for pigs adjoining the privy. The cesspool is full now, a good height above my floor, and it will soon run through the yard on the surface. I have lived 16 years in Selby, and have never had good health. My children have not been sick particularly in this house, but I had the cholera and was ill six weeks. The privy places and pigs are very offensive indeed, and worse in summer than now."

Wren-lane.—The privies have to be emptied through the houses.

Brunswick-row.—Mr. Stringer Bell, Custom-house officer, lives over the main drain. There is a cupboard in the office, and Mr. Bell has been obliged to bore holes in it to let out the stench that accumulates there. Mrs. Bell says:—

"We have been here nearly two years, and previously resided at Goole. We had good health there, but have never had good health since we came to Selby. We lost a child four years old, from cholera, and have three now living. We are subject to bad smells in the house from the drain, particularly in a morning. When we first come into the office we can scarcely breathe. There is no cellar under the room, and the bottom of the drain is about 4 feet below the floor. I cannot do with the river water, and we beg water from Mr. Standering's pump; our back-door goes into their yard. I suffer much from headache; and Mr. Bell has had two or three attacks of bowel complaint. There is a privy within 5 feet of the door, and the stench is blown into the pantry. There is another privy close to our house belonging to our next neighbour. The sink-stone has been removed out of doors on account of the stench. We pay 11*l.* rent, and all taxes."

Ouse-gate.—Wilson's yard contains twelve houses, two of which are over the privies.

Clarkson's yard has two privies and one ash-pit, with a house over it, which has been empty ever since before the cholera. There was one case of cholera fatal in a few hours. The pump is within 10 feet of the privy. I examined the water, and found a large quantity of flocculent matter in it. The river water is used for food.

A heap of manure lay on the quay. I was informed that it had been there a week. It was much complained of, but there is no authority to cause it to be removed.

Mrs. Petre's property, occupied by Wright, Adamson, and Annelly, has foul piggeries, a bad unpaved surface, dilapidated privies, and a large quantity of stinking semi-fluid matter in an open cesspool.

Dunhill's-yard contains 14 houses, with only one privy, and a

reeking cesspool raised with fluid night-soil considerably above the surface of the yard. The court is well paved.

Wright's-yard is a long court about 7 yards wide, built up with houses on both sides. The yard is paved, but the drainage is bad. There is a joiner's shop over a privy cesspool, so as to prevent ventilation. There are five privies in two clusters with two open cesspools. Two of the privies are for twelve houses, and the three front houses have one each. I was informed that the privies had not been emptied for five years. The inhabitants get water from the river. There were three fatal cases of cholera here.

Cape's-yard.—Pump set against the privy cesspool, and the filth draining from it is now running about the pump. There are six houses to one privy, and one for the public-house in front. I examined the water, and found it to contain organic matter.

Examined "The Drain"—a remarkable term for a green, semi-fluid, stagnant, horrible ditch sometimes called the Back-dam.

Collinson's-yard has a privy cesspool most abominable. It is large, and the fluid raised above the level of the surrounding ground. The surface of the yard is unpaved and in a bad state. The privy, used by 13 houses, very foul inside. No drainage.

I am fully aware that many of the sickening details I have given must excite a very painful and disgusting sensation in the minds of those who may read this Report. I have, however, felt it my duty to lay bare many of the evils existing in the town of Selby, and to show their destructive effects on human life. It is easier to look at this faint picture than to search out and witness the appalling reality, with a full conviction of the misery it entails on the inhabitants, and much better at once to face the existing evils with a determination to remove them, than to close the eyes, and say peace, peace, while our fellow-creatures are perishing from preventible disease.

Disease and Mortality.—Under this head I shall lay before your Honourable Board the evidence of two of the medical practitioners, and some statistical calculations from the registers of births and deaths:—

John Fothergill, jun., Esq., says:—

"I have been in practice in Selby as a surgeon about 21 years, and medical officer of the Union workhouse, and also of the Selby medical district of the Union ever since it was formed, which is about 12 years. I have had to do with parish business connected with Selby for the last 20 years. My professional duties have brought me very frequently into contact with the poor inhabitants of the town, and I am tolerably well acquainted with their sanitary condition. I think the inhabitants are chiefly liable to bilious attacks connected with low continued fever. Sometimes this fever assumes the form of typhus, but not very frequently. There have been frequent cases of obstinate fever, but not of late so much as there used to be. Diseases of the

respiratory organs are very common here. I think phthisis is prevalent here to a greater extent than any other disease of the respiratory organs. There is seldom a season passes over without cases of low fever. It is most prevalent in autumn, but there are times without any fever in the town. The fewest cases are from January to May: I think there is no disease that I should call endemic in Selby. We have had frequent epidemics here. I can scarcely say if there was any epidemic in the town during my experience before the first visitation of cholera in 1832. There were many cases of cholera in Selby at that time. The chief localities were then *Mill-gate*, *Mickle-gate*, *Ouse-gate*, *Ship-yard*, and *Gowthorpe*. At the *Crescent*, the *Church-gard*, and *Union-row*, and also *Bond-gate*. In those streets there were certain localities attacked. The next epidemic was influenza. I think it was equally extensive as the cholera at that time. I can scarcely recollect at present if there were localities where it was more intensely active than in others. It seemed to be generally diffused throughout the whole town. I think the mortality from that cause was not very great. There was not any other epidemic within a short period of 1834. I think the next epidemic fever was the Irish fever of 1847. It was very malignant here but confined principally to the Irish. There are many Irish people in Selby. *Mill-gate*, *Gowthorpe;* those were the principal places inhabited by the Irish. There were several who came into the town infected, and became very bad cases. We have not had any epidemic typhus or typhoid fever of consequence. Influenza prevailed epidemically two years ago, but it was milder than the previous influenza. I think it was not so generally diffused as in 1834. I can give you the localities where I chiefly observed it by referring to my books. In December 1848 and January 1849 cholera was epidemic. It attacked people who, according to the district medical relief book, were most of them tramps who had not resided long in Selby, but were brought from the lodging-houses into the hospital at the Union workhouse. There would not be more than two or three persons constant residents in the town at that time attacked. *Mill-gate* and *Gowthorpe* are the localities of these lodging-houses, and I think there were one or two cases from a lodging-house in *Water-lane*. Bearing in mind these attacks, and also the Irish fever, *there is no doubt that the lodging-houses are calculated seriously to affect the health of the town, and the pockets of the rate-payers*. I believe that the lodging-houses are places into which epidemic diseases may be, and are imported, and also generated, and then spread among the inhabitants, because in many of these lodging-houses when a person comes affected with fever or any other malignant disease, the atmosphere in the house becomes so charged with the effluvium of infection as to propagate such disease to a great extent in that house. The people who take up their abode in these places are often persons who go from door to door as hawkers of small articles or beggars. I believe they do carry the infection, and spread it among the inhabitants of the town. I know of no power existing to regulate the lodging-houses. I am aware that the Public Health Act contains provisions for their regulation, and think it highly desirable that a remedy should be applied. The second attack of cholera began about the 8th August last year, and continued until the third week in October—about 10

weeks altogether. I will give you the number of cases and deaths from diarrhœa and from cholera in my practice.* The first case that occurred was upon the *East Common*, on the east side of the town; it prevailed in *Ouse-gate*, *Ship-yard*, *Water-lane*, *Mickle-gate*, *Finkle-street*, *Mill-gate*, and a portion of *Gowthorpe*. *Generally the localities were the same as those of* 1832, with this exception, that *Mill-gate* was more severely affected proportionately to the other places. The recent visitation was more extensive and more malignant than that of 1832. I think that cholera may be greatly aggravated in localities where there are many people congregated together, and where there is much filth. Still I beg to state that it does not entirely depend upon that. There are certainly many such localities in Selby, and a great portion of the disease existed in those places, but it was spread over other parts of the town. I do not recollect any of the class usually called gentry dying of cholera, except one, a flax merchant, Mr. Robert Foster, whose office you have seen to-day. Among the middle classes a grocer died. All the remainder were among the poorer classes. In 1832 many of the higher class of people were attacked and suffered severely from cholera.

"I think, with respect to the drainage of the town, there are many foul and offensive drains. As to the privies, many are in a very bad condition. Great many of the existing drains are stagnant ditches. At the same time there are some drains in a good state and not stagnant. I would name the Portholme Close drain. I consider it has always been a good drain *when it was cleaned out*. It was a drain that required cleaning out every year. Last year it was not cleaned out when it was required. It does not belong to Selby wholly, and yet, if in a foul state it might be injurious to Selby. It would be better certainly if drains did not require cleansing. The stream only passes into the lower part of the same drain below the mill. It has been much improved during the last year or two by a current of water turned through it. It is an open drain, and passes through the suburbs of the town. I have not had any diseases of the classes I have named in its locality. The Holme Dyke is a natural brook course, dividing the East and West Ridings, and has a good fall. It has been widened and deepened more than 30 years I should think. It runs at the back part of Mill-gate. It was improved to draw off upland drainage water, and has not been made effectual for the sanitary improvement of the inhabitants of Mill-gate. I believe that some privies drain into it, and I believe that some of the inhabitants take water from the Holme Dyke for domestic purposes, below where these privies enter. I should think they are few in number. The water is quite unfit for any such purpose. I do not know that there is a drain in Selby that would flow and not require cleaning out. The dam would be partly stopped in the course of years if not cleaned out. I think an efficient system of drainage is very desirable. A good supply of water is equally necessary. The water in this town is not so good as it ought to be. I do not think that any system of drainage or water supply would prevent cholera,

* Cases of diarrhœa, upwards of 1,000; by early medical treatment a great portion were prevented passing into cholera. The deaths were small in proportion. Cases of cholera, about 120 or 130; the deaths from which were about one-half, or rather more.

but it might mitigate the severity of such diseases. I have heard that Knaresborough and Aberford were both visited by cholera, and that the drainage and water supply of both was very good. I do not know that of my own knowledge. There is a large amount of preventible disease and mortality in Selby. I know that the Public Health Act would enable the inhabitants of Selby to have a system of drainage and a public supply of water. If a constant supply of pure water at a price not exceeding 2*d.* per week could be given it would be a great advantage to the health of the inhabitants. Independently of the benefit to health, such a supply would be a pecuniary saving, when we take into account all the circumstances connected with the present mode of obtaining water."

John Burkitt, Esq., said,—

"I have been practising as a surgeon in Selby 25 years. My practice is tolerably extensive here. I did not hear the whole of the evidence of Mr. Fothergill, but should say that I do not know of any localities in Selby specially liable to disease of any kind. The Irish fever affected the lodging-houses, both in Mill-gate and Gowthorpe. I am not aware that it was found in any other places than lodging-houses.

"There were places free from cholera in 1832. There were also places not attacked in December 1848 and January 1849, and again in August to October 1849. There were other places where it was very malignant. In my practice the localities were not the same in the two visitations. In 1832 I had 1 in the *Ship-yard*; a few in *Ouse-gate*; *James-street*, near Thornton-buildings, 1; Union-row, 4; Brunswick-row, 2; Church-hill, 1; Mickle-gate, 1; Mill-gate, a few; and also a few cases in Gowthorpe. Those were all the localities of cholera in my practice at that time. In 1849 I had 1 in the *Ship-yard; Ouse-gate*, 1; *Gowthorpe*, several; in *Finkle-street*, several; *Mickle-gate*, a few; *Finkle-street* is a continuation of Mickle-gate; *Mill-gate*, a great number; and in *Bond-gate*, 4; *Water-lane* 2 or 3; the *Dam-bank*, 2; and East Common, 1.

"I came in when you were speaking of the Irish fever, and I heard the evidence of Mr. Fothergill given after that. I concur in what I heard of his evidence. I think that disease may be decidedly mitigated by these arrangements. I do know that sulphuretted hydrogen and carburetted hydrogen are both evolved largely from decomposing animal and vegetable matters, and they are both morbid poisons. A very small admixture with the atmosphere is sufficient to produce death. There are extensive laboratories of such gases existing all about the town of Selby. It would be very desirable that all such refuse should be removed before decomposition took place.

"I do not know much of the condition of the burial-grounds here. I have often seen a great quantity of water in the graves, at a depth of perhaps three or four feet from the surface. I am speaking now of the Abbey churchyard, and my remark applies to all parts of it promiscuously. I have seen the water about 14 inches deep. The graves are not dug above a yard and a half deep. Decomposition would, of course, go on much more rapidly in a dry ground. There is a small ground belonging to the Friends. I have not seen so much water in

their ground, the deaths are so few. I have seen occasionally a little water in graves there, but very little, at a greater depth from the surface than in the churchyard; but I cannot speak particularly. I should say that the greater part of the churchyard is crowded. It has been really the only burial-place for the town of Selby always. I think a crowded grave-yard, with water in the graves, is calculated to produce an injurious effect upon the health of the inhabitants in the vicinity. Some part of it is porous, but it appears to have been frequently turned over. The graves are dry at a depth of 4 feet 6 inches in summer. The soil must therefore be sufficiently porous to allow a passage of water. I should think that water may find its way to the pump-wells within a short distance.

"There are many sick clubs in the town of Selby. They have all, with the exception of one, medical officers. I am officially connected with five of them. There is an examination by me of candidates for admission; a medical certificate before receiving sick pay, but no certificate to discharge them from the books. I think they are not generally enrolled. The contribution is something from 1*s.* 6*d.* to 2*s.* per month. The sick receive 10*s.* weekly; in some for six months, and in others for three months, and then half pay: funeral money, 10*l.* Some of the Societies have been established 20 years. I should say that they are generally in a prosperous state. There is one or two that are otherwise. They would probably have been established 15 years. I know of one that has decreased its sick pay because its funds were going. The members are few in number, and becoming old; 240 would be about the largest number in any society. Those in a prosperous condition are admitting new members. The admission fee varies from 12*s.* to 20*s.* I am not aware that any of them have been founded upon the principles of assurance associations. Such principles are the only safe principles. The sick clubs have a great interest in the sanitary improvement of Selby. If the standard of health in Selby could be raised, so that the inhabitants lived one-fifth longer, the sick clubs could either lower their contributions or increase their sick pay; or, if both continued the same, the societies would be placed in a much more prosperous condition than they are in now. A similar beneficial effect would be produced on the amount of the poor-rates. Taking into account the charges for widowhood and orphanage, the effect upon the poor-rates would be even greater than on the sick clubs."

In concluding this division of my Report, I need not remark upon the evidence adduced. From the documents furnished me, it appears that at the two visitations, one in the latter end of 1848, and the other in 1849, extending from the 24th November in the former year to the 25th October 1849, 108 persons died of cholera in the town of Selby out of about 6,000 inhabitants; and from 1st August to 23rd October 1849, the number was 85 deaths. Of these, 15 died in Gowthorpe and branch streets; 3 of whom were removed to the Union workhouse. In Mill-gate 39 died, and in the branches of the same street 10. In Finkle-street and Wide-street the deaths were 19, and in Ouse-gate and Water-lane 11 died. During the epidemic of 1849, a Committee of Health was appointed, and public subscriptions were entered

into. The abstract account of the relief and expenditure is before me, but I think it unnecessary to give more than one or two facts. Suffice it to say, that the Committee appointed a Sub-Committee for domiciliary visitation, and that such Sub-Committee visited 941 houses, and relieved 552 families, during which they disbursed the sum of 228*l.* 12*s.* 0½*d.* The families relieved constitute one-half in number of those in the town; this is some index to the malignancy of the disease in the town, and also of the great exertions of the Sub-Committee to arrest its progress. The Rev. George Best, Mr. Thomas Standering, Mr. William Standering, Mr. John Linton, and Mr. William Hawdon, were the Sub-Committee, and Mr. George Lowther, honorary secretary. I have felt it my duty to mention their names, but that can add no honour to men who have jeopardized their lives for the good of their poor fellow-townsmen. When the cholera ceased, the Sub-Committee presented a Report to the Committee, setting forth their proceedings for the removal of the disease. I quote one paragraph:—

"The Sub-Committee have, in their daily visits, directed their attention to the general state of the soil-holes. *They find upwards of* 2,000 *square yards of night-soil, exposed to atmospheric influence, constantly emitting its pestilential effluvia, and spreading its desolating influence over all parts of the town.* Your Committee express their surprise that people so intelligent and highly civilized should suffer an evil of such magnitude to encroach on their domestic comfort and happiness."

During the inquiry, three members of the Sub-Committee, Mr. Best, Mr. Thomas Standering, and Mr. Linton, presented me with separate Reports, containing much valuable information. I have appended such documents to this Report, and shall have occasion to refer to them hereafter. Mr. Best and Mr. Linton both show the expensive character of preventible disease, and, from the Returns of Mr. Newstead, it appears that, while the mortality in 1841 was 1 in 50, or 20 to 1,000 of the population, the mortality in 1849 was 1 in 25, or 40 to 1,000.

Agricultural Land Drainage.—Mr. Lowther gave me some evidence as to the nature and extent of land drainage. He says:—

"I have had a little to do with the drainage of agricultural land. There has been much land drained within a few years. I should say, in the parish, one half; and the conviction of its importance is daily increasing. The remaining half would be equally improved by drainage. The general arrangement is, that the tiles are given by the owner, and the labour by the tenant. There are some exceptions, but that is the rule. The land is generally held from year to year. If a tenant who had drained his farm were turned out in 12 months afterwards, he would have no legal redress, but must arrange as well as he could with the incoming tenant. The landowners here, however, act

equitably in such matters. It would be an improvement of the farmer's position to be legally safe rather than that he should be dependent on the good feeling of another. The farmers here do not feel insecure for want of leases. In many cases, I think the distribution of charges over a period of years, as explained by you yesterday, would be an advantage.

"The labour generally amounts to rather more than the cost of tiles. The price of putting in is about 4*d.* per foot in depth for 28 yards in length. I have known tiles laid 5 feet deep, and 21 feet apart. The average would be from 2 feet 6 inches to 3 feet deep, and 21 feet distance; but, in some lands, the depth would be 3 feet, and the width apart 30 feet."

Mr. Joseph Richardson said:—

"Some of the drains have not been laid sufficiently deep, and they have filled up."

Mr. John Adams gave me information as to the price of bricks and tiles, &c.:—

"We manufacture bricks at 21*s.* per thousand, suitable for building cottages. I have not had my attention called to hollow bricks, but thank you for the information you have given me. We make drain-pipes for agricultural purposes, 1½ inch, 16*s.* per 1,000; 2½ inches, 20*s.*; 3 inches, 25*s.* Horse-shoe tiles, small at 21*s.*, middle at 30*s.*, and large, 45*s.* Soles have not been generally used, but have become more common within the last two years. No socket or glazed pipes have been made for town drainage. Pantiles are from 30*s.* to 35*s.*; floor bricks, 9-inch squares, 40*s.*; common quality, 30*s.*; hexagons, 35*s.*; channel bricks, 1½*d.* each."

Drainage of the Town.—In the minutes of my inspection, I have given sufficient to show that the drainage of any town could scarcely be in a worse state than that of Selby. I have little to add here. The main drain passes under a great many houses, and the side walls of it stand on the soil, without any paved bottom. It is stagnant and filthy, and requires frequent cleansing by hand labour.

I found that the Portholme close drain had an outlet 5 feet 6 inches below high water, and yet it is not constructed so as to keep the cellars dry.

I would refer your Honourable Board to the supplementary Reports of the members of the Sub-Committee of Health. Mr. Best proves that the town is in a most deplorable state for want of drainage. Mr. Standering adds further particulars to the same effect, and details the result of his own inspection. Mr. Linton shows, 1st, that a system of perfect drainage is *necessary.* 2. That it is practicable. 3. That it would not cause additional expense to the town; and 4. That an actual profit may be derived from the application of the sewage to the land. He shows that the want of drainage causes the houses in the town to

be dilapidated, and injures furniture, carpets, &c., to a great extent, over and above the great injury inflicted on the health of the inhabitants.

Mr. Thomas Leaper, one of the surveyors of the highways, said:—

"I cannot positively speak as to the drains or sewers being under the control of the surveyors, but some are. The gratings in the streets are our property. I have no plans of any drains. There is a covered sewer in Finkle-street which is part of the mill-dam stream. Another in Millgate only crossing the street. The drains generally only cross the streets. There is none of any consequence extending along the streets that I am aware of."

Present Supply of Water.—The same circumstances that have rendered it unnecessary for me to dwell at length on the drainage, operate with respect to the water-supply. It has already appeared that people are compelled to fetch and carry filthy water many hundred yards, and then use it for food. The destitution of the town in this important particular will not be disputed. In Selby all classes are nearly alike ill off for water. Many of the large houses in the market-place have no pumps, but fetch water from the Abbey pump, or wherever they can get it.

Messrs. Gibson and Son, at the flax-mill, have an artesian well, bored 100 yards deep, at a great cost, and they have conferred a great boon on the inhabitants of the town, by putting an iron pipe, one-inch diameter, for cold water, and also a wooden pipe for warm water, through the wall of their building, to the public road, supplied constantly by the engine. No charge is made for the water, but the great distance to which the people have to fetch and carry, makes it much more expensive than water supplied by public works, under a Local Board of Health. I examined the place and found the water very good, and softer than any other in use in the town. There were people waiting turns to fill their pails, and the water seems to be in great demand. I was informed that it is considered to be quite a public misfortune if anything happens to stop the mill.

The town pump is close by the market cross, but it has not been used for five years. It is broken, and there is no one to mend it. It was formerly repaired out of the poor-rates, but when the Union was formed they would not allow the expense. A good deal of water is taken out of the brook called the Mill-dam, but not much is used for food, as it is said to contain some mineral properties. Many of the inhabitants on its margin fetch water from the river, upwards of 600 yards distant, or from the mill, the same distance.

There are gravel springs in the town at a depth of 7½ to 8½ yards, and the greater part of the pumps draw water from this level. It is very hard.

At the railway station there is another artesian well of about

102 yards deep, which raises a large quantity of water to supply the locomotive engines. It is very pure water, and does not fur the boilers. The borehole is 6 inches diameter, and there are two pumps of 6 inches and 4 inches diameter, and 18-inch stroke worked 18 hours per day with an engine of 4-horse power. The engine has 18-inch stroke and ordinarily makes 50 revolutions per minute. The water is raised over a stand-pipe about 20 feet high. After inspecting the machinery I examined Mr. John Adams, who was engaged in sinking the well, and obtained from him the information already given under the head "geology." He said, in addition :—

"I am a timber and iron merchant, and have had to do with sinking artesian wells. We sank one for ourselves, one for Mr. Joseph Gibson and Son, and one for the Railway Company. We have sunk several wells in the town at shallower depths. We go through the first bed of clay, and then bore through the sand and obtain the water resting on the second bed of clay. One of these wells bricked round, with lead or iron pump complete, will cost from 12*l.* to 15*l.* These are the pumps that are said to have bad water. The water is always hard. That in the artesian wells is comparatively soft. Repairs and painting would cost 5*s.* per annum. I do not know of any pumps inside the houses. There are soft-water tanks, sunk about four yards, made of brick in cement, and 6 or 7 feet diameter. A frame is made and covered with slabs, or domed over with bricks, and an entrance for cleansing. They would cost 7*l.* to 8*l.* Where there is a pump in the kitchen the two would cost, say 10*l.* complete. They should be cleansed once in two years. I do not know the thickness of sediment that would come out in two years, but should say 5*s.* per year for cleansing and repairs. I do not know of any of the poor people of the town who have the advantage of such tanks, I should say not one. I think that depreciation might be included in the wear and tear. Some of the poor people have water-tubs at their back doors. They are generally treacle puncheons, which cost, with hoops, about 4*s.* 6*d.* They do not always paint them. Some have covers. They will last 7 to 10 years with a painting of coal-tar, say 6*d.* per two years. There are many of the poor people without even this convenience. Some get water for cleansing purposes, and for food also, from the dam and from the river. The people must either have cans or buckets, containing about 2½ gallons each, but some are obliged to borrow of their neighbours. An ordinary bucket or can costs about 2*s.* 6*d.* The cans are generally painted when bought, the buckets not. They might last five years. In that time they would cost 3*d.* each per annum for repairs. I think that on the average, taking into account the distance, time, expenditure of strength and shoeleather, the poor people in Selby could not go, pump, and return, with water at 1½*d.* per week per house. During the summer water is bought by the poor at ½*d.* per pail. The people use less water than they ought on account of the difficulty of obtaining it. I consider that a public water supply is of very great importance to the inhabitants, and if a constant supply, with a tap in every house, could be afforded at a price not exceeding 2*d.* per week, it would be a saving in money to the poor, irrespective of the advantage to health."

From this evidence of Mr. Adams I am enabled to draw out the actual cost of such miserable substitutes as are available to the inhabitants. It cannot be said that they are supplied with water. I have divided the arrangements into three classes suited to the circumstances of the householders. The first is for those who are able to have private pumps and wells, and a soft-water cistern and tank, without any necessity at any time of fetching water elsewhere. I do not know that there is a house in the town so favourably situated, but that does not affect the cost of the apparatus. It must also be borne in mind that those who are worse off for water than the first class suffer a deprivation at least equal to the difference in cost, otherwise the wealthy would not have expended their money in obtaining a better supply. The second class is for those who have a well and pump, and soft-water cistern common to four houses, and have to fetch or purchase water for food; and the third class is for the poor cottagers who catch a little rain-water in a tub, and have to fetch and carry the remainder.

Cost of Water. 1st Class.

	£.	*s.*	*d.*
Annual interest on well and pump . .	0	13	6
Annual repair of well and pump . . .	0	5	0
Annual interest on soft water tank, and pump	0	10	0
Annual cleansing and repairs	0	5	0
	£1	13	6

Equal to a charge of 7¾*d.* per house per week.

Cost of Water. 2nd Class.

	£.	*s.*	*d.*
One-fourth annual interest on first cost and repair of well and pump	0	4	7½
One-fourth annual interest on first cost, repair, and cleansing of water-cistern . . .	0	3	9
Cans or buckets, and repairs and dilapidation, annual	0	0	10½
Fetching and carrying water, at 1½*d.* per week	0	6	6
	£0	15	9

Equal to a charge of 3¾*d.* per house per week.

Cost of Water. 3rd Class.

	£.	*s.*	*d.*
Water-tub, interest, repair, and dilapidation, annual	0	1	2½
Cans or buckets, and repairs and dilapidation, annual	0	0	10½
Fetching and carrying water at 1½*d.* per week	0	6	6
	£0	8	7

Equal to a charge of 2*d.* per house per week.

It must be remembered in this statement, that the fetching and carrying of water has to be done at all periods of the year and in all states of the weather,—often by women and children, ill-fitted by physical strength for such occupation, or by poor hard-working men, who are thus prevented the enjoyment of proper cessation from labour.

Six specimens of water, marked respectively A to F, were sent by Mr. Best to Mr. Cutting, chemist, for analysis. They were not further designated, but the following is the key describing them:—

A, Abbey pump.
B, River water filtered.
C, The railway well.
D, Water-lane pump.
E, Feoffee pump, Gowthorpe.
F, Mill-gate.

Mr. Cutting says:—

"B and C contain the smallest quantity of mineral matter. There is about the same proportion in each of sulphate of lime, but scarcely any traces of carbonate of lime. C contains more muriate of soda, a comparatively harmless ingredient, than B; but the latter (B) *contains a large quantity of decomposed animal and vegetable matter, and when concentrated by evaporation, emits an exceedingly* PUTRID ODOUR.

A and E contain considerably more mineral impurities than the two preceding specimens. The difference between them is very slight: E contains rather more sulphate and carbonate of lime than A, and A rather more muriate of potash and soda than E.

F and D contain by far the largest quantity of mineral matter, F the most sulphate and carbonate of lime, and D the most muriate of potash and soda. F contains also a larger amount of organic matter than any of the six, except B. The four last give traces of an alkaline carbonate, probably carbonate of potash.

"The quantity sent of the waters was too small to determine the precise weight of the substances they contain, but *sufficient to show that only one of them, viz., C, is fit for drinking and culinary purposes.*

(Signed) T. CUTTING.

"*October* 23*rd*, 1849."

During the inquiry I procured five bottles of water, three of which are identical with those analysed by Mr. Cutting. These have all been tested by Dr. Lyon Playfair for hardness, and the following is his report:—

Designation.	Hardness.
River Ouse Quay	14·6°
Abbey Pump	28·7
Artesian Well (Gibson and Sons) .	7·2
Brook called Mill Dam . . .	39·3
Artesian Well Railway . . .	20·8

(Signed) LYON PLAYFAIR.

I would again refer to the reports of Messrs. Best, Standering, and Linton, as containing statements that fully corroborate all I have said as to the lamentable destitution of the essential element of good water in the town of Selby.

INSURANCE, FIRES, AND MEANS OF EXTINGUISHING THEM.—Mr. Linton and Mr. Best have, in their reports, shown the defenceless state of the town in case of any fire occurring, and some evidence was also given by Mr. Lowther on the same subject. He says—

"I have charge of the fire-engines in my capacity of bailiff to the Honourable Mrs. Petre, the lady of the manor. I have always understood the engines to be the property of the lord of the manor. They used to be exhibited to the Court leet twice a-year, and shown to be in an efficient state, but one has been out of repair 12 years; that is the most powerful one: the other has been out of repair two or three years. I had the latter repaired last year at my own private expense, and it was taken to the first fire that occurred afterwards, and there broken. It has been useless ever since, and if a fire were to break out there would be no means available to extinguish it. Some time since I communicated with some of the insurance offices to ascertain if they would subscribe towards new engines, but did not meet with much success. There are no public funds available for purchasing or repairing engines. Being agent to the Imperial Insurance Office, and having insured several properties in the town and neighbourhood, I feel some anxiety on the subject. Some years since I insured the stock of a flax-spinner for 800*l.*: his hackling was carried on at night by gaslight in a lofty room, and if a fire had occurred in the night there would have been no means of extinguishing it. It was accordingly a special contract at 12*s.* per cent.; that would be about three times as high as the ordinary hazardous rate."

VENTILATION OF STREETS AND COURTS, AND CONSTRUCTION OF HOUSES AND APPURTENANCES. CONDITION OF LODGING-HOUSES.—In the early part of this report I have alluded to certain improvements made many years since in the public thoroughfares, and in this important respect the town of Selby enjoys considerable advantages. There are narrow lanes as in all other towns, but the principal thoroughfares, such as Gowthorpe, the Crescent, Ouse-gate, and Mickle-gate are commodious and well ventilated: a free current of air can pass through them. The great evils of bad water supply and absence of drainage are *remediable;* but where the public streets of a town are narrow and tortuous, an *irremediable* evil exists: happily this is not the case in Selby. I cannot say so much of the courts, alleys, and passages; they are, many of them, incapable of ventilation, and could not be made healthy without the destruction of property. It follows, of course, that the houses in such places are also without ventilation, and therefore the necessity for abundance of pure water, perfect drainage, good pavement, and the removal of all superficial

nuisances is the more imperative. *The less facility there exists for renewing the atmosphere in such places, the greater should be the care exercised to preserve it from contamination.* The minutes of my inspection have already shown the co-existence of cholera and other epidemic and preventible diseases in the same localities with narrow confined courts, abominable privies, and filthy privies. I think that an attentive consideration of that part of my report will convince any reasonable man, whatever doubts may have previously existed in his mind, that the relation of cause and effect is fully established between filth and disease. The construction of many of the cottages is capable of much improvement; but, with the exception of the lodging-houses, nearly all the poor occupy separate tenements. The privy arrangements are, however, fully proved to be disgraceful to a civilized community, and not only incompatible with health, but also with the decencies of life.

Your Honourable Board will probably have observed in my inspection, and also in the reports of the Sub-Committee, the frequent mention of pigsties in close contiguity to human dwellings, and kept in a very offensive state. I am of opinion that, under proper sanitary regulations, there is no reason why a poor man should be prevented from keeping a pig; but from the manner in which they are now kept in Selby, and their great numbers, I am convinced that they exercise a very prejudicial effect on the health of the town. I directed Mr. William Sutherby to make a special examination of the town, and to ascertain the number of sties and of swine kept in them. When it is considered how confined many of the back premises are, how little space there is available for the purpose, and that the return is confined to the *town*, while the whole *parish* only contains about 1,138 houses, the effect of so many pigsties without water or drainage will be apparent.

NUMBER of PIGSTIES and PIGS.

Place.	Sties.	Pigs.
Finkle-street and Mickle-gate . .	32	58
Mill-gate	86	50
Water-side, parallel with Water-lane	8	9
Abbey-yard	25	44
New-lane	51	24
Ouse-gate	55	83
Gowthorpe	110	112
Church-hill	20	38
Cow-lane	8	5
Bondgate	21	25
Total	416	448

Taken by WILLIAM SUTHERBY, 7th March 1850.

William Lee, Esq.

The lodging-houses in Selby form no exception to the general character of such places in all the other towns I have visited. They are filthy, unventilated, crowded with beds, occupied by persons who have no visible means of existence, and are hot-beds of disease and crime. I generally perform the disagreeable duty of visiting them after the inmates have retired to rest, in order that I may see them in their usual condition. Some of the worst of them are in Mill-gate, where the cholera committed such dreadful havoc last year. The first was kept by Barney M'Gowan, containing two low rooms and two chambers. The tenant, his wife, and a girl 16 years of age were sleeping in one bed down stairs. One of the chambers contained four beds, occupied by five males and three females, affording only 161½ cubic feet of breathing space for each person. In one of the beds was a woman whose husband had died of cholera, and a man in an adjoining bed told her, while I was in the room, that she ought to make room for him. The other room, of the same size, contained five beds, some of which were not at that time full; but when each bed is occupied by only two persons, the breathing space will be 126 cubic feet for each person. The price charged per night is 2½*d.* to each person; and a cottage, suitable only for the ordinary family of a labouring man, is made to accommodate from 20 to 30 persons, and yield an income to the tenant of from 25*s.* to 40*s.* per week. This money is too generally derived either from the mistaken charity of benevolent individuals or is the wages of prostitution or theft. Another house was kept by William Conyan, who, with his wife, occupied the low room. In a room upstairs there were four women and girls, and in another room containing four beds there were nine men. All in this house, according to the general custom, were in a state of nudity. In the same yard (Pitt's-yard) were two other lodging-houses. In one of them, kept by Michael Dorkin, I found four beds in a small room occupied by eleven persons with only 84 cubic feet of air to each. The atmosphere was stifling.

John Folliard keeps a one-story house in Dam-bank. A ladder leads to a sort of dilapidated loft in the roof, and here were nine persons mostly lying on foul straw, with only 56⅔ cubic feet of air for each. In the same house, down-stairs, a man was lying on the only bed ill of fever, the lodging-house keeper, who buried his wife in August last of cholera, lying on the floor with his child, and his second wife.

In Gowthorpe, at the bottom of Precious-yard, John Higgins keeps a lodging-house. He has a separate room for his family, and six of them sleep in two beds. In one of the small rooms upstairs were two beds, each containing a man and woman: the policeman identified one of the women as a disreputable character. In this room there was only 189⅓ cubic feet of space for each person.

I visited several other of these houses, but the above painful and humiliating details must suffice as examples of the degraded condition to which some of our own species are reduced. They are surely, sufficient to prove the absolute necessity for placing these houses under proper regulations as to cleanliness, the condition of the beds, the number of occupants, and their social and moral habits. It appears that, during the first outbreak of cholera in Selby, several of the cases occurred in the lodging-houses, and the inhabitants of the town will perhaps have a general notion that these places are not desirable abodes, and even that disease is generated in them, but they probably did not conceive the full extent of the evil. Nevertheless "it is nigh them, even at the doors."

Condition of the Roads and Surface-Cleansing.—The principal roads in Selby are kept in good repair. Many of the streets are paved with boulders or pebbles, and are of course rough, but for inferior roads this forms a cheap and durable surface. Some of the bye-places are in a bad condition, and many of the courts are entirely without pavement, and the soil saturated with filth, so as to form a large evaporating surface of foul matter.

The town is well situated for obtaining flagstones, and many of the footpaths are very smooth and convenient. I obtained evidence as to the state of the highways from Mr. Thomas Leaper, who says—

"I am one of the surveyors of the highways for the parish of Selby. The length of public highways is 13 miles; the turnpike-road is a mile in addition. There are several roads in Selby used by the public, but not repaired by the surveyors. There is a road called Mark-lane that belongs to nobody; it is a quarter of a mile long. Those are not included either in the 13 miles of public highway or the mile of turnpike. I do not know the length of the streets in the town, but will measure them and let you know. The income for the year ending March 25th 1849, was 560*l.* 2*s.* 4½*d.*, consisting of rates 471*l.* 1*s.* 8*d.*, balance from previous surveyors 88*l.* 17*s.* 2½*d.* Materials sold, 3*s.* 6*d.* Expenditure 549*l.* 14*s.* 4½*d.*, leaving a balance of 10*l.* 8*s.* The present year will be about the same. That is about a fair average. The amount in the pound levied on the average of the last five years will be 9*d.* The gross annual value is taken, and one-twelfth deducted from the land, and one-sixth from the buildings. Labourers are paid 1*s.* 6*d.* per day. Spurn gravel costs on the wharf 3*s.* 6*d.* per ton: that includes the cobbles or boulders, and the materials for the macadamized roads as well, except white cliff-stone from Hessle, near Hull, which costs 2*s.* per ton on the wharf. Pitching costs 3½*d.* per yard. The flags come from the Elland district by water, and cost per yard 2*s.* 7*d.* tool-faced. We pay 1*s.* for laying, including lime and labour; but that does not include piecing up of the small cobbles at the edges. Cobbles are the cheapest kind of road we have. Macadamized roads are the dearest. In Bondgate the cobbles were taken up and broken 10 or 12 years ago, and

that road has cost a great deal more than it did previously. Pavement ought to last 10 or 12 years in one of the principal streets. They are bedded in Hessle gravel, which we find: it costs about 2*s.* 8*d.* per ton, but we have mixed ashes with it. We have never used coal-tar to make roads. We got 100 tons of magnesian limestone from the neighbourhood of Frystone, at a price of 2*s.* delivered by railway, to which must be added 1*s.* for cartage. The team-work is contracted for. I bought 95 tons of shingle from Aldborough at 2*s.* 9*d.* per ton. The vessels bring it as ballast, and it costs 9*d.* per ton for carting. The roads are cleansed as a matter of repair by hand labour. We have street-sweeping and cleansing in the town by men acting as scavengers. I watered the streets three or four times in summer. We have a watering cart, but it wants repairing."

State of the Burial-grounds.—The reports of Messrs. Best and Linton show that the burial-ground attached to the church is in a crowded state, that graves cannot be dug a sufficient depth without containing water, and also exposing human remains. The following evidence on the subject was given by Mr. Andrew Turton, who said,—

"I am sexton of the parish of Selby, and have had that office six years. The burials have a good deal increased in that short time. There might be a little ground where the foundation of the old mount is, that has not been used for graves. That foundation is now in the ground. I have had an odd grave or two lately, close to the walls, without finding any bones. Generally I turn up a good many bones in digging a grave. The average depth of graves is about 4½ feet. I find water at that depth, and sometimes sooner, sometimes in dry weather I can get a little deeper. I sometimes get to water at 3 feet in wet weather. There is a public footway through the churchyard.

The piece of land on the north side of it is full, and is very low. I find water within 2 feet there, in wet time. I do not consider that fit to bury anybody in. I always bury the bones again. I also bury the old coffins. I never burn anything. When any person who has not got a grave wants one, I put them down where I can, not to intrude upon others. I am forced to intrude. I keep off as well I can, for fear of people being vexed at me. I always bore to feel for the coffin. I can tell the difference by the iron rod, whether it strikes against wood or stone. Sometimes when the coffins are a good deal decayed, the rod will go in, and in digging a grave I am obliged to tear the remainder of the coffin out. I think we could not find 200 graves at present in all the churchyard. We could not find half the number without disturbing the dead; I do not think I could find 50 without. I know that there were 222 bodies interred last year, and 174 the year previously. There is no cemetery in Selby, nor any other burial-ground, except a small one belonging to the Friends. Since I have been sexton I have dug many graves in the plot on the north side. They were to inter bodies from the Union workhouse, and were dug there by order of the clergyman."

Mr. Lowther said,

"In 1844 my sister died, and I went with the grave-digger to ex-

amine the ground where our family grave was, and he had his searcher with him. The ground appeared completely full. He pointed with his searcher to the spot, and said, 'We can go down here, your father is buried here, and we can go through him. He has been dead so long it will not matter.' He was going to put his searcher down, but I would not let him, and I said he talked more like a savage than a man."

Mr. Robert Morrell said,—

"I am the manager of the York City and County Bank here. I had to bury a child about five years ago, and when the coffin was laid in the grave, it was only about 2 feet beneath the surface, in consequence of which, I had the coffin taken out, and the grave made deeper; and the reason why it was so shallow, as I was informed, was because of its so soon coming to water."

Mr. Jonathan Hutchinson, a member of the Society of Friends, said,—

"We have a small burial-ground in Gowthorpe, and we are so much annoyed with water, that all the recent interments have been in brick and stone vaults, we do not inter more than one in a grave in our ground. We are only a small body here, about 30 persons. The ground is, perhaps, about 15 yards by 20. Ours is the only ground besides the parish churchyard. About one-third of the ground has been added within the last 10 years. We find the water at about 3 feet deep; but it varies with the season, of course."

I received from the Rev. J. L. Walton, Incumbent, a return of the annual number of interments from 1829 to 1849, inclusive. It will be observed that the years 1832, 1848, and 1849, when the cholera visited the town, stand out prominently before all the others.

Years.	Number of Burials.	Years.	Number of Burials.
1829	85	1841	92
1830	79	1842	145
1831	98	1843	114
1832	156	1844	104
1833	133	1845	112
1834	99	1846	100
1835	111	1847	137
1836	134	1848	174
1837	114	1849	222
1838	115		
1839	128	Total .	2,580
1840	128		

The average of the whole period is only 129, but with a decreasing capability to receive the bodies of the dead, the number of interments is increasing.

Watching, Lighting, and Gas.—Selby is under the General Watching and Lighting Act, only as respects the lighting of the

town. There are inspectors, and the amount levied is about 4½*d.* on buildings, and 1½*d.* on land, within the whole parish. That makes 200*l.*, excluding empty property and the excused list. There are about 60 public lamps.

Mr. Joseph Richardson, one of the gas proprietors, said,—

"The contract price for lighting is 3*l.* each, including the lamps, the lighting and extinguishing. The burners are batwings. The lamps are not lit just before and after the full moon. They are lighted eight months in the year. The price of gas to the general consumers in the town is 8*s.* It is something less to the Railway Company. They are the largest consumers we have. The consumption in the town is by meter. The capital of the Company consists of 200 shares of 11*l.* each, increased to 16*l.* by bonus. I do not know the aggregate amount of capital. I will let you have it in the morning. The works were established in 1830. I cannot say whether the concern is registered or enrolled under the General Joint Stock Companies Act or not. The concern is in a tolerably prosperous condition now, but for the first 10 years, did not pay any dividend at all. There was nothing to divide, because the pipes had been laid in the first instance too small, and they had to be taken up, and large ones put down. *That swallowed up the profits of* 10 *years.* We had no engineer to construct the works. The Company recovered from that, and were able to make dividends, and to add to the nominal price of the shares. The average price of coals for making gas is about 8*s.* per ton. The coals used for firing are about 7*s.* per ton. In both cases the leading to be added, 10*d.* per ton. Gas is not extensively used in houses here; I do not know the reason why. The Company lays a pipe through the walls, and leaves the internal fittings to the tenant. I cannot say whether or not the shareholders would be willing to transfer their works to the town, on having secured to them an equitable dividend. The Company returns to the farmers the rate that has been charged upon the land for lighting the town."

I examined the gas-works, situated upon the Thorne-road, and quite removed from any houses. There are five retorts, and the holder will contain about 10,000 cubic feet. Two wet purifiers are used, and the main pipe is 4 inches in diameter. There is no station meter. The coals for making gas are obtained from Silkstone, and coke is sold at 3*d.* for a measure, holding rather more than a bushel. Tar is sold at 4*d.* per gallon, and 5*s.* for a barrel of 24 gallons; but in winter the greater part of it has to be wasted. The farmers are allowed to take the spent lime, and give what they please for it, and the ammonia water is entirely thrown to waste.

REMEDIES.

Public Health Act Beneficial.—In pursuance of my duty, I have now laid before your Honourable Board, such information as I was able to obtain, respecting "the sewerage, drainage, and supply of water, the state of the burial-grounds, the number and sanitary condition of the inhabitants," &c., of the parish of Selby.

The sewerage, such as it is, has been constructed improperly, and the town would have been very much better without any sewers than with those existing. There is no drainage in the town. I could not hear of any house with a drain from the cellar. It would be difficult to find a place of similar size in so great destitution as to water, or using it of so bad a quality. The condition of many of the houses of the poor, the courts, privies, and piggeries, and of the lodging-houses, all demand extensive and radical alterations, while the parish burial-ground is shown to be in a state that is shocking to the commonest feelings of humanity. For the removal of all or any of these evils, and the institution of a better state of things, there is no existing power or local authority whatever. The Public Health Act contains adequate powers for all these purposes, and the inhabitants have petitioned your Honourable Board to apply its provisions to the parish. I fully concur with them in opinion, and think that it will be a most important and beneficial measure to the town. I now proceed to explain how its more important provisions may be brought into practical operation after the application of the Act.

Inproved Water Supply.—After the analysis of Mr. Cutting, and the testing of Dr. Playfair, there can be no doubt that the deep spring water is the best that can be obtained for a public supply, unless high level drainage water could have been obtained, to act by gravitation; an artesian well, with the water raised by mechanical power, will be also the cheapest. Mr. Linton has recommended this mode in his Report, and has shown that the water could be cheaply supplied. As to the requirements of the Public Health Act, herein, it will be satisfactory to the inhabitants to know that the supply must be of *pure water constantly on at such pressure as will carry it to the top story of the highest building in the district to be supplied, and the price shall not exceed 2d. per week for any house.* From actual experiments, with a constant supply of water, and proper drainage, it is ascertained that for all sanitary purposes, public and private, the works must be able to give 20 gallons per day for each individual of the population.

The works, in the case of Selby, would be very simple, because all the apparatus of storage reservoirs, and artificial filtration, would be unnecessary. The artesian well would be about 100 yards deep, and over it would be placed a steam-engine to raise the water to a tank sufficiently elevated to give the requisite pressure, and capable of containing a full day's supply. From this tank, pipes would be laid through the streets, and an iron service pipe and tap placed upon the sinkstone of every house in the town, and another service and tap conveyed to every water-closet, or improved privy.

It will be apparent that without proper plans, I cannot do more

than give a rough estimate of the cost of constructing and completing the works, but the following will be found a sufficiently close approximation to the truth.

ESTIMATE FOR WATER-WORKS.

	£.	s.	d.
Artesian well	100	0	0
Engine-house and shaft	350	0	0
Tank	100	0	0
Steam engine	420	0	0
Street mains	1,000	0	0
Service-pipes and taps	1,200	0	0
Fire-plugs	16	0	0
	£3,186	0	0

Lest this amount should startle the inhabitants, I think it right to explain that by an equitable provision of the Public Health Act the funds for constructing public works may, on the recommendation of the General Board of Health, be borrowed on the security of prospective rates, and repaid by equal instalments of principal and interest, in a period not exceeding 30 years. This will prevent the inhabitants from feeling any burden, or being called upon to pay at once for that which will be equally beneficial to their immediate posterity. The arrangement is also an act of justice to persons of small incomes derived from house property, and to others who may have only a life estate, and to mortgagees in possession, &c. This principle of distribution of charges over a term of years is not confined to water-works, but extends to all other works and improvements under the Act. It is also carefully provided that no man can be called upon to pay for that which does not benefit the property he owns or occupies. The land will not pay for the water-supply, or improvement of the houses, nor one man be charged for that which properly belongs to his neighbour.

Applying this principle of distribution to the water-works, I find that the annual instalment of principal and interest to repay the sum of 3,186*l.* in 30 years, would be 188*l.* 8*s.* 11*d.*; to which must be added probable working expenses. The following would be an estimate of the annual expenditure.

ANNUAL EXPENDITURE FOR WATER.

	£.	s.	d.
Instalment to repay 3,186*l.* in 30 years	188	8	11
Fuel	48	0	0
Wages of attendant	35	0	0
	£271	8	11

The whole difficulty of meeting this expenditure at once vanishes when the following estimate of income is presented.

ANNUAL INCOME FOR WATER.

	£.	*s.*	*d.*
1,200 houses, at only 1*d.* per week per house each	260	0	0
For water supplied to inns, stables, and for manufacturing purposes, say only . .	25	0	0
	£285	0	0

This would leave a surplus of 14*l.* 8*s.* 11*d.* per annum; and though I have not included the wear and tear of engines, it will be evident that for some years that would be a very small item in new works, while the additional houses erected would increase the income far more than an equivalent.

It is my duty also to suggest, that small as is the above weekly charge for a constant supply of pure water conveyed into every house, compared with the cost of the present defective arrangements, yet that in 30 years nearly the whole of this would cease, and the working expenses only have to be provided for, so that the inhabitants will then be supplied with this pure water almost gratuitously.

IMPROVED DRAINAGE.—Such sewers and ditches as now exist in Selby might still be continued to receive the rain water falling on the surface of the streets, and other open places. No injury could arise from this if arrangements were made for the separate removal of all refuse from the houses and other buildings of the town. With an abundant supply of water systematically given, the town could be perfectly drained by means of earthenware pipes.

It might be possible to drain the town by gravitation, but as this would involve the pollution of a tidal river, with the whole of the refuse passing backward and forward several times before it gets clear of the houses; and, also, the absolute and entire waste of all the valuable manure; and as, moreover, I have no levels or sections to guide me, I have preferred to adopt engine power to raise the sewage from a receiving-well, and from thence it can either be distributed over the agricultural land, or passed by a pipe into the river at a distance from the town. In the more distant parts of the town these pipes would commence with 4 to 6 inches diameter, and a sufficient fall, proceeding towards the well already mentioned, and gradually increasing in size to 9 and 12 inches diameter. Into these pipes should be laid other small pipes, of 3 or 4 inches, from every house, court, privy, and building, and all the inlets should be properly trapped to prevent

the escape of effluvium. With the same reservation as in the water-supply, I think the following amount would be sufficient, the manufacture of pipes being supposed on a large scale, and the machinery consequently of the best construction.*

ESTIMATE FOR DRAINAGE.

	£.	*s.*	*d.*
Engine-house and well . . .	400	0	0
Steam-engine	420	0	0
Stand-pipe	60	0	0
Conduit-pipe beyond the town . .	203	0	0
Street-drains	560	0	0
House, court, and privy drains . .	2,100	0	0
	£3,743	0	0

The annual instalment of principal and interest to repay this in 30 years, according to the provision of the Public Heath Act already explained, would be 203*l.* 6*s.* 8¾*d.*, and the following would therefore be the annual expenditure.

ANNUAL EXPENDITURE FOR DRAINAGE.

	£.	*s.*	*d.*
Instalment to repay 3,743*l.* in 30 years .	203	6	8¾
Fuel	48	0	0
Wages	35	0	0
	£286	6	8¾

The whole of this would be liquidated by the following charges.

ANNUAL INCOME FROM DRAINAGE.

	£.	*s.*	*d.*
1,200 houses, at 1*d.* per week per house .	260	0	0
Drainage of inns, stables, and other buildings	25	0	0
	£285	0	0

Leaving a deficiency of 1*l.* 6*s.* 8¾*d.*

AGRICULTURAL LAND DRAINAGE.—From the evidence of one of the medical practitioners, it appears that diseases of the respiratory organs are very prevalent in Selby. It is undeniable that such diseases are much aggravated by excessive moisture in the atmosphere, and it is the opinion of eminent medical men that the germs of many other diseases depend for their activity upon

* It would probably be practicable to make one engine serve for both water supply and drainage, and thus reduce the working expenses, but without a proper survey, I think it better that the estimates should be upon the most liberal scale.

the presence of aqueous vapour in the air. There can be no doubt, then, that the condition of the land drainage materially affects the sanitary state of any town. It would be absurd to speak of the farmers' interest in the question; it is everywhere admitted that thorough drained land is not only more fertile, but the crops are of better quality, and earlier ripe. At Worksop it was proved before me that one of the results of land drainage had been to raise the temperature of the climate one degree during the last 10 years. According to the evidence of Mr. Lowther, about half the land is already drained, and the other would be greatly improved by a similar process. I have only, therefore, to state, that under the Public Health Act such land could be drained under the management of the Local Board of Health on the best principles, and the farmer would have the privilege of distributed charges over a period of 30 years, so that if such thorough drainage cost, say 5*l.* per acre, he would be called upon only for a private improvement rate of about 6*s.* per annum; and if he should be removed from his farm, the incoming tenant, who would derive the advantage of the improvement, would be called upon to pay the remaining instalments.

Sewage Distribution.—I fully agree with the statement of Mr. Linton, in the report appended hereto, that "it is a monstrous absurdity for us to be continually sending ships thousands of miles, at an enormous expense, to fetch an article to fertilize our soil, while, at the same time, we are daily wasting such an enormous quantity of this rich compost, which, by a simple contrivance, may be made available to produce the same effect." Mr. Linton has calculated that the quantity is not less than 5,000 tons of fertilizing matter per annum; and he states that "there is no fear of finding plenty of customers for such a valuable commodity."

Improved Paving.—I should recommend as much as possible the disuse in the town of macadamising materials. According to the evidence of Mr. Leaper, they are much more expensive than pavement. An extensive experience in road-making enables me to say that they are not only the most expensive, but the least durable and the most filthy; they are, also, less easily cleansed than any other; they are absorbent, and have more draught than any other. For court-yards and bye-places a very cheap and durable pavement may be formed of gas tar, mixed up with sand or ashes, or both, with the addition of a small quantity of quick-lime. This, laid about three inches thick upon a bed of dry materials, and then rolled, forms an impervious surface that will last many years, and be washed clean with the greatest facility. It can be laid down complete at from 10*d.* to 1*s.* per square yard, and if we were to suppose the large quantity of 20 yards to be required for each house on the average, the whole would be

defrayed by a weekly charge not exceeding one farthing per house.

IMPROVED CLEANSING.—Having now provided an abundant supply of pure water, with fire-plugs or hydrants at convenient distances in the streets,—an efficient system of under-ground drainage for the removal of all refuse,—and impervious pavement of streets, lanes, and courts,—the whole surface of the town could be washed and made perfectly clean at frequent intervals, with flexible hose and jets of water; and the charge would not exceed one halfpenny per week per house.

THE BURIAL GROUNDS.—I think the churchyard ought to be closed without delay, and a convenient parish cemetery provided at a suitable distance from the town. The burial place of the Society of Friends is small and very little used. I do not think any serious evil would arise from its remaining open, but for the sake of uniformity, that there may be no partiality, but that *all* interments in the town should be in future prohibited, I should advise that this small ground should not be an exception, but that it should also be closed.

CONCLUSIONS AND RECOMMENDATIONS.

The following are the conclusions and recommendations which I feel it my duty to lay before your Honourable Board for consideration:—

1. That the sanitary condition of the parish of Selby is exceedingly defective; that there is much preventible disease; that typhus fever has been epidemic; and that cholera was so malignant during the last year as to raise the rate of mortality to the proportion of 40 in 1,000 of the population.
2. That the position and the climate of Selby are not very favourable to health, but are capable of great improvement.
3. That the avocations of the inhabitants are not in any degree prejudicial.
4. That there is no local authority or public arrangement for the prevention of disease, or having any reference to the health of the inhabitants.
5. That the defective quantity and bad quality of the water, the absence of drainage, the filthy piggeries, disgusting privies, and accumulations of decomposing animal and vegetable refuse, with defective ventilation, constitute sufficient causes of the great amount of disease existing in the town.
6. That the inhabitants are exposed to any indigenous or imported disease, and that in the present defective sanitary state of the town such disease will always assume the most aggravated and malignant form.

7. That the health of the inhabitants would be greatly improved by—

(*a.*) A supply of good water, with a tap in every house, constantly on, under pressure.

(*b.*) An efficient system of drainage of the site of the town, including the courts, and the houses, and other buildings, and the substitution of water-closets or soil-pan apparatus, with proper drains, for the present privies.

(*c.*) Improved paving of streets, courts, and alleys.

(*d.*) Improved systematic cleansing of the streets, courts, and general surface of the town.

8. That the above objects may, in all probability, be effected at the following rates per week for each cottage-house:—

(*a.*) A constant supply of pure water in each house *at one penny.*

(*b.*) A system of complete drainage, with soil-pan apparatus for privy, *at one penny.*

(*c.*) Clean, durable, and impervious paving of courts, &c., *at one farthing.*

(*d.*) Public cleansing and watering of the surface, with hose and jets of water, *at one halfpenny.*

9. That the whole of the weekly payments for the above objects will be less than the present average cost of a small supply of very bad water, irrespective of any consideration of improved health, or the present pecuniary burdens arising out of preventible sickness and mortality.

10. That the low lodging-houses exercise a very prejudicial influence upon the health and morality of the town, and ought to be placed under proper regulations.

11. That the sewage manure may be applied to the agricultural land with great advantage, and so as to produce a considerable revenue to the town.

12. That the parish burial-ground is so crowded as to be unfit for further interments; and that it, and also the burial-ground belonging to the Society of Friends, ought to be closed, so that no more interments shall take place in the town.

13. That there is no local Act of Parliament in force having any relation to the provisions of the Public Health Act, unless those mentioned in the early part of this Report should be in the opinion of the Board of such character.

14. That the application of the Public Health Act would be highly beneficial to the town.

WHEREUPON I RECOMMEND:—

1. That the Public Health Act (1848), except the section numbered 50 in the copies of that Act printed by Her Majesty's

printers, be applied to the parish of Selby, in the West Riding of the county of York.

2. That the local Board of Health to be elected under the said Public Health Act shall consist of 9 persons, and that the entire number shall be elected for the whole of the said district.

3. That the first election of the said local Board of Health shall take place on the 25th day of March, in the year of our Lord 1851.

4. That one-third of the number of the said local Board shall go out of office on the 25th day of March in each year subsequent to that in which the said first election takes place.

5. That every person shall, at the time of his election as a member of the said local Board, and so long as he shall continue in office by virtue of such election be resident, as in the said Public Health Act (1848) is required, and shall be seized and possessed of real or personal estate, or both, to the value or amount of not less than 1,000*l.*, or shall be so resident and rated to the relief of the poor of the said parish upon an annual value of not less than 25*l.*

I have the honour to be,
My Lords and Gentlemen,
Your very obedient Servant,
WILLIAM LEE,
Superintending Inspector.

The General Board of Health,
&c. &c. &c.

APPENDIX.

REPORT of the SANITARY STATE of SELBY, by the Rev. GEORGE BEST.

SIR,

IN order that I might ascertain correctly what kind of accommodation the poorer classes of society possessed, I and my colleagues have visited various parts of this town, and we find it to be generally defective in regard to domestic comforts and convenience among this class of persons. I believe it impossible for the inhabitants of Selby to enjoy a natural and pure state of health, as long as we neglect our duty, by suffering the poorer classes of society to live in dwellings surrounded with all the elements of disease and death. This, no doubt, was a prolific cause of the late calamity, spreading its destructive and desolating effects among a great part of the inhabitants of this unfortunate town. Being treasurer to the Cholera Committee in 1832, I find from my minutes, that during that epidemic there were 91 cases and 35 deaths; and in 1833 there were 18 more deaths from cholera, and 2 deaths in 1834 from the same disease. From 24th November 1848 to 25th February 1849 there were 23 deaths from cholera; and from 1st August to 23rd October 1849 there were 85 deaths; total 108,

or 1 in 49. The annual increase of deaths in the last five years is as follows:—1845, 110; 1846, 123; 1847, 156; 1848, 193; 1849, 223.

This alarming annual increase in the bills of mortality I should consider quite sufficient to arouse the inhabitants of this town to that sense of duty which they owe to society, and cause them to use every available means that they can command to place this town in a proper healthy and sanitary condition.

I am aware that some people are opposed to those improvements on account (as they erroneously imagine) of the increase of expenditure in the local taxes. I think this a mistaken view of the case, and feel fully convinced that the most economical way to deal with the question is, to put this town into the most perfect sanitary condition possible, and I have no doubt, before this investigation is ended, the greater part of the inhabitants will arrive at the same conclusion.

I shall now, Sir, endeavour to draw your attention to the defective state of the drainage of both the public streets, and also the houses. As far as I know, and I believe I am right in saying, that there is not one sewer that runs parallel with any one street in the town.

I believe there is not one house in the town that has a drain for the purpose of taking away the water from below the foundation, in order to make the apartments dry, and consequently healthy. They merely have a kind of sink-pipe to convey away the slops. A great number of the inhabitants are obliged to throw their slops and refuse on the surface of their own yards, or on the street, and thus it is conveyed down the channel, until it finds a grate to make its exit.

The *main sewer* (as it is called) crossing Fenkle-street and New-street, in a north-west direction, continues its course under a number of dwellings and various other buildings, and terminates behind the houses in Ouse-gate below the railway.

This sewer was arched over about 50 years since: it has no brick bottom.* The side walls are erected on the mud, consequently it is continually spreading its deleterious effects to a greater extent over all parts of the town. It is impossible for me fully to describe this awful place, but with your permission I shall be happy to accompany you to examine it, in order that you may be fully satisfied on this point.

I will next endeavour to draw your attention to the quantity and quality of the water. I find the supply both deficient in quantity, and very bad in quality. A great part of the inhabitants are compelled to fetch water from the river; in many cases a distance from 500 to 600 yards, and the poorer classes use this muddy water in its unfiltered state.

I have it from good chymical authority that "the river water, and the water obtained from five other springs in this town, are totally unfit for domestic or even culinary purposes (see Analysis); and also, that the only pure water is that obtained from the railway artesian well." I have no doubt but an abundant supply of this pure and wholesome water can be furnished to the whole of the inhabitants at a less expense than the present cost of labour in fetching the impure water at present consumed. If this part be afterwards proved in evidence, the matter will then be set at rest. Many families have to hire persons for the express purpose of fetching water.

* Except the middle part, belonging to Mr. Audus.

I will next direct your attention to the alarming position of this town in case of accidents by fire. It is true the town possesses two old fire-engines, neither of which are of the least use, as they are not capable of throwing a stream of water three yards from the end of the pipe. It is possible for us to get some new and powerful fire-engines, but even then they would be useless in the chief part of the town, for want of an immediate and sufficient supply of water. If a fire were to take place anywhere near the centre of the town very serious consequences might ensue, and the inhabitants would have no means of preventing the destruction. I consider this a position which no town ought to be placed in. The town's pump in the market-place has not been in use for many years.

Sir, with your permission, I will now direct your attention to the great want of domestic convenience among the poorer classes of society. I and my colleagues have visited nearly 500 houses in different parts of the town. We found 104 houses and families provided with 18 privies and soil-holes, or nearly six families to one place of convenience.

We found 101 houses provided with 11 privies, or rather more than 9 families to 1 place of convenience.

We found 49 houses provided with 4 privies, or 12¼ families to 1 place of convenience.

We found 38 houses provided with 3 privies, or 13 families to 1 place of convenience.

We found 28 houses without a privy at all, or 1 in 17 of the whole number visited without this most essential requisite.

We have visited 486 houses in different parts of the town, and we found them provided with 105 privies and soil-holes. The average of the whole number visited is rather more than 4½ families to each place of convenience.

Several of those public privies are placed under sleeping apartments and places occupied as dwelling-houses.

Another great evil attending those places that have to accommodate such a number of families, is the filthy and disgusting state we invariably found them in, and the strife and contention created among the neighbours in consequence thereof.

For some years the streets of this town have been in a very dirty state for want of a person being appointed to act as scavenger.*

The streets are sometimes swept by the men who work on the highways, but, generally, at very long intervals. In this town a practice prevails of emptying soil-holes and dung-heaps, and allowing them to remain in the streets for a length of time; sometimes two or three days before they are removed.

I will now, Sir, direct your attention to the public burial-ground.

According to an order issued by the General Board of Health—(of 2½ feet between each grave, and not less than 5 feet of soil from the top of the coffin to the ordinary surface of the ground,)—I find it impossible to comply with this order in the present burial-ground of this town;—according to this order, the area of the church-yard would be nearly filled up in seven years, and for want of proper drainage the other

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* This officer is appointed by the Court Leet, but has been defunct or nominal for several years.

part of the order cannot be complied with. I lately measured a grave that was only made 3 feet 6 inches deep. I found the water flowing into the grave full 6 inches. Such is the crowded state of the present graveyard, that I believe it is impossible for any person to dig a grave without removing some part of the remains of those already interred.

I have looked at a great number of graves that have been made within the last six months, and, in all cases, I found human bones thrown out.

On the 10th of January last I saw a grave that had been made for the purpose of interring the body of Maria Wilson. By the side of this grave I counted 10 large bones (that is, such as legs and thigh bones), and one-half of a skull, besides a very large number of small bones, all of which had been disturbed for the purpose of making this grave.

The area of the present burial-ground (exclusive of the interior of the church and that part of the church-yard within the chains on the north side of the church, which the sexton says cannot be used for interments) is about 6,675 square yards. Allowing 42 square feet to each coffin, the ground is only capable of containing 1,430 bodies. I find from the parish clerk's register, that within the last 16 years there have been 2,017 bodies interred in this ground, that is, within this short time 587 bodies have been buried in this place over and above the number allowed by the sanitary regulation issued by the General Board of Health.

N.B.—The parish register of burials in this ground dates as far back as 1400.

I will not now occupy your time any longer, and, in conclusion, I beg to state, that in consequence of the various epidemical diseases which have visited this town, a very serious amount of money has been expended in order to arrest the progress of those calamities. Exclusive of the heavy sums paid by the parish, the amount of money subscribed by the inhabitants in 1832 amounted to 135*l.* 1*s.*, and the amount subscribed in 1849 amounted to 226*l.* 11*s.* 4*d.*, the latter sum was distributed among the poor as follows:—besides wages and necessary expenses, 145 pairs of blankets, 34 pairs of sheets, 62 rugs, 9 beds, 5 mattresses, 148¼ stones of flour, 172 stones of bread, 666¼ lbs. of beef and mutton, 96 lbs. of sugar, 26 lbs. of sago, 166 ozs. of tea, cash 13*l.* 50 tons of coals yet to distribute.

The 226*l.* 11*s.* 4*d.* was exclusive of the 109*l.* 7*s.* 9*d.* collected during the winter for soup and bread, so that the total subscribed in 1849 was 336*l.* 2*s.* 1*d.*

You will perceive, Sir, from this Report, that Selby has been four times visited with Asiatic cholera, as also with the Irish fever: that being specially ordered by the Cholera Committee, of which we are a branch, to take minutes of all nuisances which we found prejudicial to public health, we have been actuated only by a sense of duty. We now feel that we have conscientiously done our duty, and should this town be again afflicted by epidemic, we shall feel ourselves relieved from a very serious responsibility.

REPORT of MR. THOMAS STANDERING.

SIR,

HAVING been appointed one of the Sub-Committee, it was a part of my duty to visit and attend to the wants of the poor creatures who were labouring under that dreadful affliction Asiatic cholera.

Seeing the frightful havoc that this disease had made amongst us, and perceiving, also, the progressive increase in the alarming number of deaths that have taken place in this town in the last five years, caused my attention to be directed to this subject.

I proceeded, with the assistance of my colleagues, to inquire and investigate into the sanitary state of the town.

We found in almost all parts what we believed to be the elements of disease, particularly among the poorer classes—such as impure air, imperfect ventilation, damp and unwholesome dwellings, cellars overflowing with water for want of proper drainage, an insufficient supply of water, and very bad in quality, a great want of privy accommodation, yards crowded with pigsties in dense masses of population, and imperfectly drained, an overcrowded burial-ground, all spreading their pestilential influence over all parts of the town.

I find the water supplied to the inhabitants in all parts of this town to be very impure and not fit for domestic purposes; the distance from the river creates a serious inconvenience, and after the trouble of carrying it such a distance, this water is totally unfit for human beverage.

From an analysis which has lately been made of the water from the railway artesian well, I have reason to believe it to be the most pure and best for all purposes.

I think, Sir, that no rational or right-minded man can believe that any town is in a healthy condition so long as these nuisances are suffered to exist. I shall now, Sir, proceed to lay before you a few cases that have come under our immediate observation.

AN EXAMINATION of the SANITARY STATE of the TOWN of SELBY.

No. 1. *Thornton-buildings.*—Eight houses supplied with water for domestic purposes from the river Ouse, and also have a right of use of a pump which also supplies part of the Crescent, Union-row, and Park-row. The kitchen windows of the above eight houses open directly over the soil-hole adjoining each privy. Distance from the river 140 yards.

No. 2. *Union-row, behind the Crescent*, 23.—Four houses and only one privy; the occupants complain of the privy and soil-hole being a great nuisance. Supplied with water principally from the river and occasionally from the pump above named. Distance from the river 230 yards.

No. 3. *Park-row.*—A privy for each house, with the exception of one privy for two houses. Supplied with water from the river and occasionally from the above-named pump. Distance from the river 200 yards.

No. 4. Six houses adjacent to Park-row, and only one privy for the

whole number; the occupants complain very much for want of better accommodation. Supplied with water principally from the river.

N.B.—The occupants complain of a quantity of diseased potatoes being buried in a dung-heap opposite their dwellings.

No. 5.—*Abbey-yard.*—Six houses in Back Park-street and two privies. Supplied with water from the Abbey pump.

N.B.—The houses being badly ventilated; blank on three sides.

Eight houses and four privies, the soil-hole and a number of pig-sties a great nuisance. Supplied with water from the Abbey pump.

Seven houses in the Abbey-yard behind the Crescent without a privy or soil-hole; the slops and refuse are thrown into the street. Water supplied from the Abbey Pump.

Eleven houses in front of the Methodist Chapel and only one privy; a great number of pigsties; three houses adjoining the others, and one privy; the inhabitants complain generally for want of convenience and from the extreme dampness of their dwellings. Water supplied from the Abbey pump. A covered drain commences here crossing the Snaith-road, and terminates in Mr. Pearson's field near the railway.

No. 6. *Market-lane.*—The occupants complain of the soil-holes and privies being too close to their houses; and also of an open drain which terminates behind John Roberts, parish clerk, near Mr. Gibson's mill. Abbey pump or Mr. Gibson's mill are the two places from which they receive their supply of water.

New Lane.

No. 7. Eight houses and two privies. Supplied with water from Mr. Gibson's mill. 270 yards.

No. 8. Three houses, without a privy or soil-hole; the occupants throw all the slops and refuse into the street. Supplied with water from Mr. Gibson's mill. 210 yards.

No. 9. *Grove-cottages.*—Supplied with water from Mr. Gibson's mill. 170 yards.

No. 10. *St. Mark's.*—Fourteen houses and four privies. Supplied with water from Mr. Gibson's mill. 120 yards.

No. 11. *St. John's.*—Fourteen houses and four privies.

N.B. One pump belonging to both those squares, which has not been in use for these last six years. Occupants supplied with water from Mr. Gibson's mill. 75 yards.

No. 12. *Subscription School.*—Without a soil-hole; has two privies, the contents of which drain into the field.

No. 13. Four houses; opposite side of the foot-path, near the Subscription School, behind Mr. Twist's spinning-shop; and only one privy, and pump out of use. Supplied with water from Mr. Gibson's mill. 80 yards.

No. 14. *Massey's-row.*—Twelve houses, and two privies and one soil-hole, with two open drains in the front, both in a bad state. Supplied with water from Mr. Gibson's mill. 160 yards.

GOWTHORPE.

No. 15. *Feoffees, Audus' Charity.*—Ten dwellings, two privies and one pump.

Feoffee's Charity.—Ten dwellings, two privies and one pump.

No. 16. *Mr. Kay's-yard.*—An open drain in a very bad condition, and a very great nuisance.

No. 17. *Huntsman's-yard.*—A soil-hole a great nuisance.

No. 18. *South Parade.*—Twelve double houses and twenty-two single, seven privies and two soil-holes, and one pump placed between the two soil-holes. The twenty-two single houses badly ventilated, being blank of three sides, with a row of pigsties in front. The water apparently so offensive, the occupants are obliged to fetch all the water for domestic purposes either from the River Ouse or Mr. Gibson's mill. Distance from each 650 yards.

No. 19. *Precious-yard.*—Twenty-two houses, and three privies; one pump; the water not fit to use for domestic purposes; the occupants are obliged to get their supply from the river. Across the end of this property, and the end of South Parade also, is an open drain, extremely offensive, containing a very large quantity of excrementitious matter. Distance from the river 625 yards.

No. 20. *Paradise-square.*—Sixteen houses, with three privies; in the centre of the yard a very offensive soil-hole, the effluvia therefrom affecting the whole square; with one pump, by which the occupants are supplied. Water very hard.

OUSE-GATE.

No. 21. *Neptune Inn-yard.*

No. 22. Eight houses, and one privy and one soil-hole; the privy and soil-hole underneath one of the dwellings; one pump in the yard; the water not fit for domestic use. Supplied with water from the river. The houses badly ventilated, and one cholera death. Distance from the river pump 70 yards.

No. 23. *Clarkson's-yard.*—Thirteen houses, and two privies and one soil-hole; the privies and soil-hole under one of the dwellings; one pump, the water bad. Supplied from the river. One cholera death. The houses badly ventilated. Distance from the river pump 120 yards.

No. 24. *Jane Adamson, Mary Hannilley, Thomas Wright.*—All these three yards contain nuisances.

No. 25. *Dunhill's-yard.*—Thirteen houses, and one privy; one house over the soil-hole. The houses badly ventilated; blank on three sides. One pump; the water bad. Supplied from the river.

No. 26. *John Wright's-yard.*—Twelve houses, and three privies; the soil-hole a great nuisance. The houses badly ventilated; blank on three sides. No pump in the yard. Supplied with water from the river. Three cholera deaths.

No. 27. *Drake's-yard.*—Twelve houses, and one privy and one soil-hole. The houses badly ventilated; blank on three sides. One pump in the yard; water bad. Supplied from the river and railway pump.

No. 28. *Collinson's-yard.*—Eleven houses, and two privies. The

houses are badly ventilated, and blank on three sides. A pump in the yard; water bad. Water supplied from the river.

No. 29. *Canal-bank.*—Four houses, and two privies; no pump. Supplied with water from the canal, saving when the water is bad they fetch it from the river. Distance from the river 200 yards.

No. 30. *Clarkson's Property.*—Five houses; have neither pump nor privy. Supplied with water from the canal. The houses badly ventilated; blank on three sides.

No. 31. *Frank's Property.*—Seven houses, and one privy; no pump. Supplied with water from the canal.

No. 32. *Audus' Property.*—Eight houses, and two privies; no pump. Supplied with water from the canal.

No. 33. *Ship-yard-row.*—Each house supplied with a privy and soil-hole; no pump. Supplied from the river.

Proctor's Property.

No. 34. *Johnny Day's-nook, Water-side.*—Five houses, and two privies, and one pump close to the soil-hole. Supplied with water from the river.

No. 35. *Water-lane.*—Sheldon's lodging-house and Brown's yard in a miserable condition.

No. 36. *Driffield's Property* (*Lincolnshire*).—Five houses, and two privies, and two chambers over the two privies. All the slops thrown into the street. No pump. Water supplied from the river. Two cholera deaths. Distance from the river pump 100 yards.

No. 37. *Blaydes and Carrick.*—Two houses, and two privies and no soil-hole; the excrementitious matter runs into the yard. No pump. Supplied with water from the river. One foot of water in the cellar under the office of Mr. Foster, who died of cholera, and three other cases of cholera, which recovered.

N.B. A drain runs under Blaydes' passage, which has not been cleaned out for nine years, and consequently very offensive. Distance from the river pump 100 yards.

Wide Street.

No. 38. *Thomas Head's-yard.*—Seven houses, and two privies; soil-hole sipes through the wall into one of the houses. One pump; water bad. Supplied from the river. 180 yards distance from the river.

No. 39. *John Green's-yard.*—Four houses, and one privy and soil-hole in front of the houses. One pump; water bad. Supplied from the river. Distance from the river 160 yards.

Finkle Street.

No. 40. *Addinel's-yard.*—Three front houses in the street, and ten houses in the yard; two privies. One pump adjoining the privies; water bad. Supplied from the river. Vause's pantry window opens into R. Obee's soil-hole. The houses badly ventilated; blank on three sides. Five cholera deaths, and five recoveries, in this yard. Distance from the river 280 yards.

No. 41. *Savage's-yard.*—Six houses, and one privy. Pump in the yard, by which the inhabitants are supplied. Five cholera deaths, and two recoveries. The drain in a bad state.

No. 42. *Snell's-yard.*—Eight houses and one privy; a soil-hole a great nuisance. No pump. The water supplied from the river. Three deaths from cholera. Distance from the river 240 yards.

No. 43. *Varley-yard.*—Six houses, one privy. Houses badly ventilated; blank on three sides. No pump. Supplied with water from the river. Two cholera deaths. Distance from the river 180 yards.

No. 44. *Spear's-yard.*—Eight houses, and two privies. No pump. The water to fetch from the river, 140 yards. One death from cholera.

Millgate.

No. 45. *Hospital Houses.*—One school-house, containing fifty-five scholars; a very low, damp, and badly-ventilated place. Six dwelling-houses, three privies. No pump. Houses very damp. The inhabitants complain of disease. Supplied with water from the river.

No. 46. *Mr. Dobson's Houses.*—Six houses, and two privies. Houses damp. No pump. Supplied with water from the river.

Mr. Paul Wright's.—Six houses, and two privies. No pump. Supplied with water from the river pump, 200 yards.

No. 47. A row of houses in the street have each a privy, and no pump. Supplied with water from the river, 200 yards.

No. 48. *Mr. John Adam's-yard.*—Five houses, and two privies, and a drain in a bad state. No pump. Supplied with water from the river.

Eight houses, and two privies, but in such a dirty state that no person can use them. One pump, and water bad. Supplied from the river. Two cholera deaths, and one recovery. Soil-hole sipes through the wall close to the houses.

Thirteen houses, and two privies. Supplied with water from the river. A drain at the end of the yard in a bad state. Distance from the river 370 yards.

No. 49. *Mr. Thomas Sykes.*—Six houses, and two privies and one pump. Water bad. Supplied from the river, 370 yards.

No. 50. *James Banks'-yard.*—This yard awfully bad. One pump, and water bad. Supplied from the river, 400 yards.

No. 51. *Widow Askham and Willis's-yard.*—Both yards in a very bad state. Cholera deaths 3.

No. 51. *Mr. W. Standering's Houses.*—Two front houses, and two privies; seven back houses, and two privies. One pump. The water bad. Partly supplied from the river. Six cholera deaths, and one recovery. Houses damp. Distance from the river 450 yards.

No. 52. *Mr. J. Hutchinson.*—Four houses, and one privy, and one pump. Water bad. Nine cholera deaths.

No. 53. *Mr. Paver's-yard.*—Six houses, and two privies. The water bad. Supplied from the Holme Dyke. Three cholera deaths, and three recoveries. The houses damp.

No. 54. *Pitts'-yard.*—Eighteen houses, four privies in a very dirty state. Houses damp. One pump. Water bad. Partly supplied from

the river. Five cholera deaths, and one typhus fever; four recoveries. The yard in a very filthy state. 550 yards from river.

No. 55. *Copeland's-yard.*—Sixteen houses, and three privies. One pump. Badly ventilated. The houses damp, and the yard in a bad state.

No. 56. *Simpson's Bond-gate.*—One house, in a very filthy state; a man and wife, and seven children, and have neither privy nor pump. They get their water as they can.

No. 57. *Mr. William Standering's.*—Four houses, and two privies. Water bad, but used by the inhabitants. One death by cholera, and two recoveries. The drain in front in a bad state.

No. 58. *John Knowles, Thomas Thompson, and Thomas Walker,* and families, have neither privy nor pump, and they get the water where they can.

No. 59. *Widow Matterson.*—No pump; she gets her water from her neighbours. One cholera death. A drain in front a nuisance.

No. 60. *Brick-yard.*—Six houses, and two privies. No pump. Water from Mr. James Banks' pump. Three cases of cholera; all recovered.

Three houses, and one very nasty privy. Supplied with water from their neighbours.

No. 61. *Mrs. —— of York.*—Four houses, and one privy, and one pump. The water bad. Supplied by their neighbours.

No. 62. *Mr. Kay's Property.* Seven houses, and one privy. One pump. The water bad. Supplied from their neighbours. The soil-hole in a bad condition.

No. 63. *Cow-lane.*—Four houses, and two privies, in such a filthy state as cannot be used. No pump. Supplied with water from their neighbours. Soil-hole opens into the street. One cholera death.

No. 64. *Dam Bank.*—Five houses, and one privy, in so filthy a state as not fit to be used. Supplied with water from the river. Two houses in the same place, and have neither privy nor pump. Four deaths from cholera. Distance from the river 500 yards.

I shall make no further observations upon the report which I have laid before you, as I dare say some of my colleagues will bring the case more prominently before this meeting.

Before I conclude the few remarks which I have to make, I shall beg, Sir, to call your attention to the common practice in this town, which is that of emptying soil-holes in the day time. I have frequently known it to have laid in the street two or three days before it has been removed.

I believe, Sir, the nuisances which I have pointed out never will be removed until this town is placed under the Health of Towns Act, or some other active or controlling power which at present we are not in possession of.

For instance, our Committee drew up a list of nuisances, and laid them before the Sanitary Committee of the Board of Guardians on the 22nd October 1849. The Sub-Committee waited on the Board personally, and requested them to take such steps for the removal of the same as the power they possessed authorized.

I believe the Sanitary Committee never took any notice at all of the matter, and so the nuisances remain as they were to this day.

I know there are some people in this town who only look at the great expense of this undertaking In my opinion the first question ought to be, does the health of the town require it? if it do require it, let it be done effectually. We are in duty bound to use all available means to protect the poorest classes of society from such direful scourges as that which has lately afflicted this unfortunate town.

I feel thoroughly convinced that it is the wisest and best economy to place this town in a proper sanitary condition; and I do believe that the town generally will suffer less from local taxes under proper management than it does at the present time. I am one of the last men in the world to cause any unnecessary expenditure, because it will partly have to come out of the pockets of the *poor* as well as the *rich;* and God knows that they can ill spare any more of their hard-earned pittance which they now receive.

But if a sacrifice be necessary (which I do not believe), I will willingly and cheerfully contribute my mite; and in doing so I shall derive both pleasure and comfort in knowing that I have conscientiously done my duty.

REPORT of the SANITARY STATE of SELBY. By MR. JOHN LINTON.

SIR,

OF all the social questions which agitate the public mind at the present day, that of sanitary reform is, beyond all doubt, the most important, and the one which appeals the most strongly to the sympathies of every humane and enlightened man.

To assist in improving the condition of the poorest classes, and of raising them from the depth of degradation and misery into which for many years past they have been sinking lower and lower, is the ardent desire of every true philanthropist.

In this sanitary movement all persons have an interest; it affects their property—it affects their health—and it affects their lives; yet we find people who are opposed to improvement, whose opposition must arise from not properly understanding this question.

The friends to sanitary reform ought to use every means to convince their opponents of the necessity and the benefit to be derived by fully carrying out the sanitary principle.

In my opinion the basis of sanitary improvement is deep and effectual drainage; without this essential provision it is impossible to put this town into a proper sanitary state.

I will, Sir, with your permission, endeavour to prove that in this town effectual drainage is necessary; next, I will show that it is practicable; then I will endeavour to prove that it will not cause any additional expense to the town; and lastly, that an actual profit may be derived from it.

The drainage of this town is very defective, being nothing more than two or three elongated cesspools, receptacles of excrementitious and other filthy matter, and totally inoperative as regards the drainage.

The main sewer crossing Finkle-street and New-street in a north-west direction, passing under a number of dwelling-houses and various other buildings, and terminating behind the houses in Ouse-gate.

This was formerly an open drain, the middle part of it was walled in by Mr. Audus; about 54 years since he caused a cylindrical drain to be made to the extent of his property.

In 1799 the two ends of this drain were covered by an arch 2 feet 6 inches in width by the same in depth; at that time I find it was in such a filthy state that the cost of the sludge getting out the length of 228 yards, amounted to 23*l.*, as proved by the plan now produced.

One of the men who assisted to arch this drain (and who is still living), says it was an awful place for sludge; that it was not properly cleansed out at the time; that they paid no attention as regards giving the drain any fall; the only thing required was to get the nuisance covered up.

It has no brick bottom, the side walls and arch are built on the mud; this man says it was walled up entirely by guess; they very often had to vary the height of the side walls two or three courses of bricks, in order to suit the bottom of the drain.

I consider this drain a sufficient cause in itself to account for an annual increase of disease and death; having no brick bottom, the surrounding earth will naturally absorb a greater portion of this filthy matter, and extend over a larger surface the deleterious and poisonous mixture that this obnoxious place contains.

After every fall of rain the water from which the inhabitants are supplied is rendered more and more impure (and consequently more injurious to health), by the increase of this obnoxious matter percolating into the wells and springs.

In all parts of the town the inhabitants say that the water is always the worst after rain.

The atmosphere will also become contaminated by the poisonous effluvia arising therefrom; and the inhabitants must suffer from breathing this deadly and unwholesome vapour.

I think, Sir, that I have sufficiently, and I trust satisfactorily, proved that the drainage of this town is inefficient and totally inoperative.

I will, Sir, with your permission, endeavour to prove that it is necessary as regards both the health and interest of the inhabitants that this town should be thoroughly and effectually drained.

Without this most important sanitary provision, the inhabitants will continue to suffer more or less from damp dwellings, cellars overflowing with water, poisonous vapours arising from decomposition, and generally from inhaling a damp and consequently unwholesome and deadly atmosphere.

The loss to the inhabitants generally from the rapid decay (which always takes place in damp houses and other buildings) in wood-work, plastering, carpets, oil-cloths, room papers, and all other things that are affected and destroyed by moisture, if properly estimated, will amount to a very considerable sum of money in the annual expenditure of this town.

Another very serious loss to the inhabitants is the excessive amount of money annually expended in the streets and highways. I find, from the evidence taken before Mr. Ranger, that the amount of money expended on the highways at Doncaster amounted to 222*l.* per year, or an annual rate of 4*d.* in the pound; the highway-rate for Selby amounts to nearly 600*l.* per year, or an annual rate of 10*d.* in the pound.

This most extraordinary expenditure I attribute to the imperfect state of the drainage.

As a further proof of the value of effectual drainage, it is only necessary to examine the streets; you will find where they are partially drained they are always better than any other part; for instance, the pavement near the bridge which has been done 12 or 14 years, at the present time is in the best condition, in consequence of being near and above the river.

I will now, Sir, endeavour to show that it is practicable to drain this town in the most efficient manner.

It is my intention to submit two plans for your consideration, either of them will drain the town effectually. The first plan is to make cylindrical drains with sufficient fall through all the principal streets, and of sufficient capacity to answer all the purposes for good and efficient drainage; and to be so constructed as to have a free current of water always circulating through them, and finally making its exit into the river.*

By this means the drains will always be clean and free from any kind of filth and noxious vapour, and the gully-grates in the streets may be water-trapped in a simple and efficient manner.

The other plan is to construct a closely-covered tank or cesspool, of suitable dimensions and of sufficient depth, in the most convenient situation, in some central part of the town.

From the extremities of the town I would make cylindrical sewers, with sufficient fall and of proper capacity, through and parallel with the principal streets, and to be so connected with the central tank or cesspool as to empty the contents of the sewers into it.

The advantage of this mode of draining is, 1st., You may drain this town to any depth required, as the sewers are completely independent of the river for their outlet.

2nd. You are enabled by this means to convert all the refuse from the sewerage into valuable manure for the purpose of cultivation: by this means alone you may raise a very large annual revenue, considerably more than sufficient to cover all the expense of effectual drainage.

From calculations which I have made, I find that the accumulation of this valuable compost will not be less than 5,000 tons annually, and this town being situate in the centre of an agricultural district, there is no fear of finding plenty of customers for such a valuable commodity.

The total cost of effectually draining this town, and the re-payment, together with the interest, at 5 per cent. per annum, and extending over a period of 30 years, will not, I believe, exceed 150*l.* per annum; at the expiration of that time this charge will cease.

The amount of income derived from 5,000 tons of this manure, at 1*s.* per ton, 250*l.*, leaving a balance of income over expenditure of 100*l.* per annum in favour of the parish, independent of the saving to the inhabitants from the decreased expenditure in the streets, highways, and all other sources.

This question, Sir, I consider not only worthy of your attention, but also of the inhabitants of this town.

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* Town's pump 6 ft. 4 in. higher than top of wall at Abbey Wharf, 11 ft. 10 in. above high-water mark, and 18 ft. 6 in. above low-water mark; 4 ft. 8 in. fall from the extreme end of Gowthorpe to the Abbey Wharf, 9 ft. 10 in. to high-water mark, 16 ft. 6 in. to low-water mark.

It appears to me, Sir, a monstrous absurdity for us to be continually sending ships thousands of miles, at an enormous expense, to fetch an article to fertilise our soil, while, at the same time, we are daily wasting such an enormous quantity of this rich compost, which, by a simple contrivance, may be made available, and to produce the same effect.

By adopting this plan of social economy we shall derive both a local and a national advantage; in the first instance the inhabitants will be benefited by the sanitary improvement which effectual drainage will afford; and, in the second instance, by deriving a profit from that which is now not only wasted but, by its pernicious and poisonous effects, is allowed to injure the health and happiness of the whole town; and, thirdly, it will prove a national advantage, by causing an extra quantity of food, which, to the inhabitants at large, will be found to be a real and lasting blessing.

I shall not, Sir, occupy your time any longer on this subject. I think no person will now doubt either the wisdom or the policy of effectually draining this town, and converting that which has hitherto caused disease and death, by slowly poisoning the inhabitants, into the wholesome articles of human food, thus producing two sanitary effects from one cause, viz., that of destroying the poison and supplying food for the poor.

N.B. By a simple mechanical contrivance this tank or cesspool may be emptied of its contents into liquid-manure carts and conveyed to its destination.

By adopting this method the tank will never have to be opened either for cleansing or any other purpose, except from some accidental cause.

Supply of Water.

I have endeavoured to ascertain, as accurately as I could, the manner in which the inhabitants of Selby are supplied with water; I find a very considerable portion supplied from the river, and from the pumps of their neighbours.

In all parts of the town the inhabitants say the water is always the worst after rain, proving that all the wells and streams at present in use are mere receptacles of surface-drainage, and not fit for culinary, or any domestic purpose.

They also complain very much of having to fetch it such a distance; a considerable portion have to go 500 or 600 yards in order to obtain this necessary beverage, and, consequently, it is used in a very sparing manner.

The position of this town, as regards accidents by fire, is truly alarming; chief part of it being without a sufficient supply of water if fire should occur.

The town possesses two old fire-engines; both are worthless things, always out of repair, and scarcely able to throw a jet of water above the end of the pipe.

Last summer a fire broke out in a stable belonging to Mr. Bradley's brewery, one of those engines was brought to assist in quelling the flames; when attempted to be used it would not discharge the water three feet above the end of the pipe; had there not been a large supply of water in two reservoirs on the premises above the place where the fire first originated, probably the whole premises, and also a great part of the property in the immediate neighbourhood, would have been consumed.

For every sanitary purpose an inexhaustible supply of pure and excellent water can be obtained in this town by boring the depth of 105 yards; a well of this description will cost about 100*l.*

Allowing four gallons of water per day for each individual, the population of Selby will require 21,504 gallons per day; ditto 7,848,960 gallons per annum.

I will now, Sir, endeavour to show the annual amount of manual labour at present expended in order to obtain the quantity above stated; taking the average distance for the whole inhabitants to be 40 yards from the supply, this, I believe, is very considerably less than the actual distance.

I shall estimate the cost and the amount of labour expended by taking the number of men it will require to fetch the above quantity (the distance being 40 yards), and paying each man 2*s.* per day for his labour.

Allowing one man to carry 30 buckets per hour (2½ gallons to each bucket), or 300 buckets per day, at that price each person will have to carry 12½ buckets of water, equal to 37 stones in weight, and to walk a distance of 500 yards for 1*d.*

It will require the labour of 35 men (nearly) constantly employed for 300 working days in each year, and 10 hours in each day.

At this rate each man will have to walk 2,045 miles, and to carry weight equal to 1,366 tons annually: 35 men, or 10,465 days, at 2*s.* per day, 1,046*l.* 10*s.*

Thus it appears that the above supply of water costs the inhabitants of this town an annual amount of manual labour equal in value to 1,046*l.* 10*s.*

I will now, Sir, endeavour to show that the above stated quantity of pure and wholesome water can be supplied by mechanical means to every individual, each having a tap in his own house, for less than one-third of the value of the manual labour now expended in obtaining the impure and unwholesome water now in use.

What I am now going to recommend is to erect water-works on the high-pressure principle, capable of giving a constant supply of pure water to any extent required from an artesian well, with fire-plugs at convenient distances in every street, to be always ready in case of fire.

I find that this abundant and excellent supply of pure water can be furnished to every individual for an average cost of 1½*d.* per week for each family.

I have estimated the cost of such works as I am now speaking of. I believe the actual annual cost of the works, together with the interest at 5 per cent. per annum, and extending over a period of 30 years, will not exceed 175*l.* per annum. At the end of that time this charge will cease.

Annual amount of water-rent, at an average of 1½*d.* per week for each house:—

	£.	*s.*	*d.*
1,000 houses, supplied with water at 1½*d.* per week	325	10	0
100 houses, occupied by poor people, and supplied free	..		
116 empty houses and houses not supplied	..		
Total annual income from water-rate	325	10	0

Deduct from this sum the amount of interest, together with the sinking fund, for the purpose of discharging the debt, which, in the aggregate, amounting to 175*l.* per annum, it will leave 150*l.* 10*s.* for the annual working expenses.

By this calculation you will perceive that an amount of manual labour will be saved to the inhabitants equal in amount to 721*l.* per annum, independent of the security against accidents by fire, cost of insuring property, &c.

Thus at the expiration of 30 years this charge will cease, the property will belong exclusively to the ratepayers, and the only payment required will be the annual working expenditure.

Burial Ground.

On reading the mortality from cholera in proportion to the population, from the 16th of September 1848 to October 1849, as stated by the Registrar-General, out of the 36 districts of London and its environs I find only one, viz., Rotherhithe, worse than Selby, the deaths in that district being 1 in 37½, and the deaths in Selby 1 in 49, while the average in all the 36 districts is only 1 in 153.

The extra medical charges made to this parish for the late epidemic being upwards of 300*l.*, sufficiently show that there was a great deal of sickness and disease. On referring to the minutes of the daily visits of the Sub-Committee during the cholera, I find nearly one-third of the inhabitants were at that time more or less labouring under disease.

I think the crowded state of the present grave-yard is an additional cause of the serious increase of disease and death. I find the area of this ground is 6,675 square yards, exclusive of the church and the ground on the north side, which contains 1,054 square yards.

Within the last 16 years there have been 2,017 bodies interred in this grave-yard.

The average number of deaths for the 16 years is	126
The average number for the last 10 years . .	139
The average number for the last 5 years . . .	161
The average number for the last 3 years . . .	190
The average number for the last 2 years . . .	208

In the last 53 years there have been 6,678 bodies interred in this ground, or more than one body to every square yard of ground.

On the 20th of December 1849 I saw the sexton making a grave for the purpose of interring the body of a person named Stanley; this grave was 3½ feet deep; at this depth the grave was at least 6 inches deep in water. For the purpose of interring this corpse two coffins were cut up, and half of the remains of each body was disinterred, the head and trunk of one, and the lower extremities of the other. From the inscription on the tombstone, one of the bodies was supposed to be the remains of Samuel Coates, innkeeper, Selby. I saw the coffins opened; they were both filled with water. Such is the crowded state of this grave-yard that I think it impossible to make a grave without removing some part of the remains of those already interred.

This progressive increase in the annual number of deaths no doubt arises from want of proper sanitary regulations, such as effectual drainage, a constant and abundant supply of pure water, a new and

improved burial-ground, cottages properly ventilated, better-constructed soil-holes, and general cleanliness in all parts of the town.

I cannot see any sufficient reason why Selby should not rank amongst the first towns in the kingdom in point of sanitary perfection.

In conclusion, I will, Sir, endeavour to show to some extent the loss that is entailed upon the inhabitants by neglecting those sanitary regulations, and also the relative connexion between the annual increase in the number of deaths and the increase of the poor's-rate :—*

	Number of Deaths.	Paupers in the Workhouse.	Out-door Relief.	Total Number Relieved.	Total Annual Cost of the Poor.		
					£.	*s.*	*d.*
1845	110	65	337	402	1,851	8	6¾
1846	123	51	343	394	1,897	7	7¼
1847	156	54	339	393	2,357	16	5¼
1848	193	51	384	435	2,486	7	4¼

The amount of poor's-rate in 1848 exceeds the amount in 1845 by 634*l.* 18*s.* 10*d.* I confess that I cannot account for this excess of increase (seeing the number of paupers relieved are nearly the same) in any other way than by the increase of death and disease from want of proper sanitary regulations.

* Amount of poor's-rate at York, 2,000*l.* annual rate of 2*s.* in the pound.—From the "Yorkshireman" of December 29, 1849. For the last three years the poor's-rate at Selby has been 4*s.* in the pound annually.

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