

**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 townships of New and Old Accrington, in the county of Lancaster / by Benjamin Herschel Babbage, Superintending Inspector.**

**Contributors**

Babbage, Benjamin Herschel.  
Great Britain. General Board of Health.

**Publication/Creation**

London : Printed by W. Clowes & Sons ... for Her Majesty's Stationery Office, 1850.

**Persistent URL**

<https://wellcomecollection.org/works/bx2jynjk>

**License and attribution**

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

2

**PUBLIC HEALTH ACT,**  
(11 & 12 Vict., Cap. 63.)

---

**R E P O R T**

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 TOWNSHIPS OF

**NEW AND OLD ACCRINGTON,**  
IN THE COUNTY OF LANCASTER.

By **BENJAMIN HERSCHEL BABBAGE, Esq.,**  
SUPERINTENDING INSPECTOR.



LONDON:  
PRINTED BY W. CLOWES & SONS, STAMFORD STREET,  
FOR HER MAJESTY'S STATIONERY OFFICE.

1850.

REPORT

OF THE

GENERAL BOARD OF HEALTH.

NOTIFICATION.

PRELIMINARY INQUIRY

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 October next, 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 Inhabitants of the Townships of NEW and OLD ACCRINGTON, in the County of Lancaster, or with respect to any amendment to be proposed therein.

By order of the Board,

HENRY AUSTIN, *Secretary.*

*Gwydyr House, Whitehall,*

*3rd September, 1850.*



LONDON:

PRINTED BY W. GOWEN & SONS, STAMFORD STREET.

FOR THE GENERAL BOARD OF HEALTH.



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

*Report to the General Board of Health on a Preliminary Inquiry into the Sewerage, Drainage, Supply of Water, and Sanitary Condition of the Inhabitants of the Townships of NEW and OLD ACCRINGTON, in the County of Lancaster.* By BENJAMIN HERSCHEL BABBAGE, Superintending Inspector.

*Notting-hill, May 1850.*

MY LORDS AND GENTLEMEN,

IN obedience to your instructions, I visited the townships of New and Old Accrington upon the 16th of April last, and upon the following day opened my inquiry into the state of New Accrington, by holding a public meeting in the sessions rooms. Upon the 19th, at the same place, I opened my inquiry into the state of Old Accrington, and upon those and the following days, I made a public inspection of the two townships, and held public meetings of the inhabitants in furtherance of my inquiry, which I completed upon the 23rd of the same month.

These inquiries were instituted in consequence of the reception by the Board of two separate petitions, one from New Accrington, signed by 197 rate-payers, and the other from Old Accrington, signed by 56 rate-payers, being in each case more than one-tenth of the inhabitants rated to the relief of the poor, as required by the Act. These petitions both bear the same date, viz., 12th November 1849.

I met with considerable opposition to my inquiry, and an attempt to stop it altogether, by declaring it to be illegal; and it was not until I had read and explained to my opponents the several clauses relating to the inquiry in the Public Health Act, that I succeeded in proving to them, that every step I had taken was perfectly legal, and that not only they had no power to stop my inquiry, but that they would be amenable to a fine of 5*l.* if they refused to appear before me, when summoned, in order to be examined touching any matter relating to it, or if they in any other way obstructed it. I also pointed out to them, that I had given 14 days' notice of my intention of making the inquiry, as directed by the Public Health Act; and that, if they considered that there was, as they alleged, any irregularity in the petitions praying for the Inquiry, they should have forwarded to the Board a statement to this effect before the expiration of the 14 days' notice; but that, as they had not done so, it was now too late to stop the inquiry.



As the two townships of New and Old Accrington are intimately connected together, the boundary line between them running through the town of Accrington, I considered that it would facilitate the understanding of what I shall have to say respecting them, if I included them in the same Report; I propose, however, where it is feasible, to point out to which of the two townships the evidence I received is applicable.

The following gentlemen attended the public meetings; viz., Jonathan Peel, Esq.; Robert and Jonathan Hargreaves, Esqrs.; Rev. John Hopwood, incumbent of St. James's; Rev. R. M. Evanson, incumbent of Christ Church; George Bannister, Esq., solicitor; John Arkwright, Esq., surgeon; Charles Hall and John Fish Stansfield, Esqrs., solicitors; Richard Fort, Esq.; and Messrs. Hepple, Clegg, Dugdale, Ratcliffe, Massey, Beesley, &c.

Mr. William Thompson, Mr. James Grimshaw, guardian, and Mr. Robert Redman, relieving officer, accompanied me in my inspection of New Accrington; and Messrs. Redman, Clegg, Dugdale, Ratcliffe, and Massey, in my inspection of Old Accrington. Mr. William Beesley, upon the part of the opposers of the Public Health Act, accompanied me during my inspection of both places, for the purpose of watching my proceedings, and detecting any flaw which might occur in them.

I take this opportunity of acknowledging my obligations to Mr. Robert Redman, the relieving officer, who accompanied me during my local inspection, and bore with exemplary patience the insults with which he was assailed by some badly-disposed persons, who took advantage of my inspection being a public one, to accompany me in my examination of the town; and who, not content with reviling an honest and zealous public officer of his township, did not spare myself in their coarse and insulting allusions. I am happy to say that the numbers of these persons was very small, and that their conduct formed a marked contrast to that of the other inhabitants of Accrington, and especially to that of the poorer classes, by zeal for whose interest these persons falsely pretended that they were actuated.

Having thus pointed out the circumstances originating my inquiry, the time which it occupied, and the gentlemen who assisted me in it, I beg to lay its result before the Board in the following Report.

**TOPOGRAPHICAL AND GEOLOGICAL DESCRIPTION.**—The town of Accrington is situated in a deep valley, in the midst of a very hilly part of the county of Lancaster. At the place where the town is built the valley widens out, in consequence of the junction of three small tributary streams with the main stream, which here goes under the name of Hindburn or Accrington Brook.

Abbey-street, which is the principal street of the town, and runs parallel with the general direction of Hindburn Brook, is situated upon the slope of the hill on the eastern side of the valley; from



ACCRINGTON





0 10 20 30 40 50 60 70 Miles



this street Warner-street, Oak-street, Blackburn-street, &c., branch off to the westward and run down to the brook. Bank-street, which runs in the same direction as Abbey-street, but between it and the brook, intersects the above-named streets. Blackburn street is continued upon the western side of the Hindburn Brook up the slope of the hill, and passes below the station of the East Lancashire Railway. Upon this side of the brook it takes the name of the Blackburn-road, to which place it leads. A street, called Church-street, runs upon the western side of the brook from the lowest point of Blackburn-road towards the old church of St. James's. There are many other small streets leading out of the main streets above-mentioned, which it is not necessary to particularize, as a glance at the accompanying map will suffice to show their position. At the upper end of the town the Warmden Brook is dammed up, and forms several reservoirs, which supply with water the Broad Oak Print Works. Upon the western side the Wood Nook Water has been treated in a similar way, and supplies the reservoirs of the Messrs. Hargreave's large cotton-mill. The two streams join together near the bottom of Oak-street, and their united streams, after crossing Blackburn-street and receiving the waters of the Pleck Brook, flow in a north-westerly direction, between Union-street and the Lower fold, after which they finally leave the town, and take the direction of a village called Church.

The main streets of the town, which I have pointed out in the preceding sketch of it, are tolerably wide and regular, generally well-paved, and have good footpaths running down both sides of them; this especially applies to Abbey-street, which is wide, paved with squared stones, and has spacious footpaths of flag-stone upon both sides of it. As most of the houses in this street and in Blackburn-street, the two principal streets which the stranger sees in passing through the town, are faced with hewn stones, and as the roadway is well kept and channelled, and under-ground drains have been made to carry off the surface drainage, the general aspect of the town is very clean, and justifies the boast of its inhabitants, that it is the cleanest town in Lancashire. Although the main streets appear to be well laid out, and combined with the position of the town upon an undulating surface allow of a free ventilation, the moment they are left and an entry is made into the interior of the blocks of houses, which are formed by their intersections, the case is wholly reversed; small unpaved back yards, alleys, and courts are met with, containing pig-styes and uncovered cess-pits, dotted about in every direction; open drains are found running in immediate vicinity to the houses; the accommodations even of many of the better descriptions of houses are seen to be of the most rude, and, in many cases, most disgusting nature, whilst the free currents of air are either altogether impeded, or struggle faintly onwards, laden with the effluvia arising in abundance from



cess-pits and privies. Those portions of the town, which more particularly answer to this description, are the following, viz., the space which is included between Chapel-street, Hargreave's-street, and Abbey-street; almost the whole of the blocks of the houses between Abbey-street and the brook, including Black Abbey, Oak-street, Warner-street, and Blackburn-street. Upon the opposite side of the valley, the space between the brook and Church-street, and the whole of the Higher and Lower Folds, also answer to the same general description.

There are a great many new houses built or building in different parts of the town; but amongst them are to be found cellar-houses, imperfect ventilation, exposed cess-pits, and the want of proper conveniences, so much so as perfectly to justify the observation of one of the promoters of the inquiry, that the application of the Public Health Act was required as much for the prevention of future evils in new buildings yet to be erected, as for the remedying of existing ones.

The greater portion of the town of Accrington is in the township of New Accrington; but the division between the two townships at this place, is rather difficult to trace precisely in every part, owing to the changes made by the erection of new buildings. Generally, however, St. James's-street, part of Blackburn-road, and the Pleck Brook may be taken as the line separating the town into the two townships.

The subsoil in the valley in which the town is built consists of a stiff blue clay, but considerably higher up, upon the hill sides, the sandstone of the coal measures is met with, and is worked extensively both for flags and for ashlar blocks. Much of the land around Accrington is very wet, and would be greatly improved by being properly drained. In the cellars of several of the houses in the Higher Fold, which is near the brook, there are wells of soft water, which the inhabitants use for domestic purposes, but few of them in this locality being supplied by the water company.

**METEOROLOGY.**—No observations either of the directions of the winds, or of the amount of rain, are kept near Accrington. They are, however, both observed at the Roman Catholic College of Stoneyhurst, which is about  $8\frac{1}{4}$  miles to the north-west of Accrington, the prevailing direction of the winds at that place are stated to be W., W.S.W., and S.W.; and the annual amount of rain, as measured by the rain-gauge, was—

|                               |       |                |
|-------------------------------|-------|----------------|
| In 1846                       | . . . | 30·695 inches  |
| In 1847                       | . . . | 38·377 „       |
| In 1848                       | . . . | 55·897 „       |
| In 1849                       | . . . | 50·610 „       |
| Average of the four years . . |       | 43·895 inches. |

I am indebted to the kindness of the Rev. Alfred Weld for the above information.



GOVERNMENT AND LOCAL ACTS OF PARLIAMENT.—Accrington has no corporation or other governing body, having only lately risen into importance, which has been caused chiefly by the great increase of the population, brought together by the establishment of large print-works and cotton-mills in its neighbourhood.

An Act of Parliament was passed in the fourth year of Queen Victoria, session 1841, in order to establish a company for the purpose of lighting the townships of Old and New Accrington and Church with gas, and for supplying Old and New Accrington with water.

The following are the chief provisions of this Act which affect the sanitary question.

The capital of the Company is limited by the Act to 7,500*l.*, with powers to borrow additional sums of money, not exceeding in the whole the sum of 3,000*l.*, which sum of 3,000*l.*, or any part of it, may be raised by the creation of new shares, if the Company think proper so to do.

The profits of the undertaking, divisible amongst the proprietors of the Company, shall not exceed 10 per cent. per annum in any one year, on the amount paid in respect of each share of the undertaking. The Company have power from time to time to make, construct, lay down, maintain, alter, or discontinue such water-works, steam-engines, water-wheels, reservoirs, cisterns, tanks, &c., upon the lands and streams authorised by the Act to be purchased by the Company, as they shall think proper for supplying the inhabitants of the townships of New and Old Accrington with water; and also to lay down such pipes, and to construct such gasometers and other works as may be necessary for lighting with gas the townships of Old and New Accrington and Church.

The Company have power to break up or open the pavement or soil of any street and highway, and any public sewer or drain therein, making compensation for any damage caused thereby.

Two days' notice is to be given before breaking up or opening any street or highway.

Such opening or breaking up of any street or highway, is required to be done under the superintendence of the persons having the control or management of the same.

The pavement or soil of any street or highway which has been opened or broken up as above, must be reinstated and made good by the Company, with as little delay as possible.

The same provisions are also made with respect to the breaking open or interfering with sewers and drains.

The inhabitants have power to lay down service-pipes, giving the Company 14 days' notice of their intention so to do.

The bore of such service-pipes is not to exceed three-fourths of an inch, except with the consent of the Company.

The Company shall, upon being requested to do so, afford a sufficient supply of water for domestic uses, to every occupier of a



private dwelling-house or part of one, in any street within the townships of Old and New Accrington, in which any water-pipe of the Company shall be laid, at the following rates per annum:—

“ When the annual rack-rent, or value of the premises so supplied with water shall not exceed fifteen pounds per annum, at a rate per centum per annum not exceeding ten pounds.

“ When such rent or value shall be above fifteen pounds, and not exceeding forty pounds per annum, at a rate per centum per annum not exceeding seven pounds ten shillings.

Above forty and not exceeding sixty . . . six pounds ten shillings  
 „ sixty „ eighty . . six pounds  
 „ eighty „ one hundred, five pounds ten shillings  
 „ one hundred, at a rate per centum per annum not exceeding five pounds.

“ Provided nevertheless, That the Company shall not be entitled to receive from any such owner or occupier more than the sum of ten pounds in any one year for such supply; nor shall the Company be obliged to furnish such supply to any occupier for any less sum than eight shillings in any one year: Provided also, that a supply of water for domestic purposes shall not include a supply of water for baths, horses, or cattle, or for washing carriages.”

Water for other than domestic purposes, and gas, to be supplied at such rate and upon such conditions as may be agreed upon between the Company and the consumer.

At the time of laying down any main pipe for supplying any street, highway, or place, the Act requires that fire-plugs for the supply of water in extinguishing fires, shall be fixed.

When required by the Company, every person supplied with water, shall provide a proper cistern to receive and to retain the water so supplied, with a ball and stop-cock affixed to the supply-pipe.

If gas be suffered to escape 24 hours after a written notice has been served upon the Company, they shall pay a penalty of 5*l.* for each day during which the gas shall be so suffered to escape.

As the other provisions of the Act are not immediately connected with the supply of water or gas, it is not necessary to advert to them.

It will be observed, by the provision for the large bore of the service-pipes, and the providing of cisterns to receive and contain the water, that the old or intermittent supply of water was contemplated by the framers of this Act; in practice, however, the constant system has been adopted, the bore of the service-pipes diminished, and the expense and inconvenience of the cisterns done away with.

**MANUFACTURES AND TRADES.**—The establishment of several very extensive bleaching-works, print-works, and cotton-spinning mills, has given a great impetus to the trade of Accrington, and has mainly contributed to the rapid increase of its population as shown by the census returns. The following approximate account



of the number of hands employed at these works, was kindly furnished to me by Mr. Arkwright, the certifying surgeon under the Factories Act :—

|                                                        |       |
|--------------------------------------------------------|-------|
| Messrs. Hargreaves & Co., Broad Oak Print Works        | 850   |
| Messrs. J. Grimshaw & Co., Plantation Mill Print Works | 169   |
| Mr. Croukshaw's Cotton Factory                         | 43    |
| Messrs. Cunliffe & Co.'s                               | 100   |
| Messrs. Hargreaves'                                    | 755   |
| Mr. Thompson's                                         | 85    |
| Mr. Whitehead's                                        | 70    |
| Mr. Priestley's                                        | 40    |
| Mr. Walmesley's                                        | 250   |
| Messrs. Massey and Clegg's                             | 100   |
| Total                                                  | 2,462 |

It would appear from the preceding table, that about one quarter of the population of Old and New Accrington, is employed in these works. In addition to the above-mentioned works, two more large mills are in process of erection.

No manufactures are carried on at Accrington in the houses of the labouring classes, all the work being done in the different factories.

**VITAL STATISTICS.**—The following tables give the population, and the number of houses in the two townships, at the different periods when the census returns were made ; the two last columns of the tables show the per centage of the decennial increase, and the average number of persons living in each house at the different epochs :—

TOWNSHIP OF NEW ACCRINGTON.

| CENSUS. | Population. |          |         | Houses.        |                  |                |         | Increase per Cent. of Population on preceding Census. | Average Number of Persons living in each House. |
|---------|-------------|----------|---------|----------------|------------------|----------------|---------|-------------------------------------------------------|-------------------------------------------------|
|         | Males.      | Females. | Totals. | Occu-<br>pied. | Unoc-<br>cupied. | Build-<br>ing. | Totals. |                                                       |                                                 |
| 1801    | ..          | ..       | 2,246   | ..             | ..               | ..             | ..      | ..                                                    | ..                                              |
| 1811    | 1,145       | 1,236    | 2,381   | 410            | 8                | 7              | 425     | 6.0                                                   | 5.8                                             |
| 1821    | 2,074       | 2,035    | 4,109   | 690            | 6                | 50             | 746     | 72.6                                                  | 5.9                                             |
| 1831    | 2,476       | 2,484    | 4,960   | 861            | 52               | 9              | 922     | 20.7                                                  | 5.8                                             |
| 1841    | 3,442       | 3,466    | 6,908   | 1,226          | 56               | 22             | 1,304   | 39.3                                                  | 5.6                                             |

TOWNSHIP OF OLD ACCRINGTON.

| CENSUS. | Males. | Females. | Totals. | Occu-<br>pied. | Unoc-<br>cupied. | Build-<br>ing. | Totals. | Increase per Cent. of Population on preceding Census. | Average Number of Persons living in each House. |
|---------|--------|----------|---------|----------------|------------------|----------------|---------|-------------------------------------------------------|-------------------------------------------------|
| 1801    | ..     | ..       | 831     | ..             | ..               | ..             | ..      | ..                                                    | ..                                              |
| 1811    | 421    | 464      | 885     | 173            | 7                | 0              | 180     | 6.5                                                   | 5.1                                             |
| 1821    | 607    | 654      | 1,261   | 216            | 5                | 8              | 229     | 42.5                                                  | 5.8                                             |
| 1831    | 663    | 660      | 1,323   | 252            | 31               | 1              | 284     | 4.9                                                   | 5.3                                             |
| 1841    | 893    | 918      | 1,811   | 334            | 12               | 16             | 362     | 36.9                                                  | 5.4                                             |

The actual number of inhabitants in the two townships has been variously estimated from 9,000 up to 12,000. Taking the number



of houses at the present time as the basis for the calculations, and assuming that the average number of inhabitants per house, is the same now as in 1841, it would appear that the total population is about 10,813, it should, however, be borne in mind that any calculation made in this way, must necessarily be vague and uncertain.

The following table of the number of deaths in each of the years 1838 to 1848, was furnished by the Registrar General:—

|                                        |                                      |   |   | In New<br>Accrington | In Old<br>Accrington |
|----------------------------------------|--------------------------------------|---|---|----------------------|----------------------|
| In the year 1838                       | the number of deaths registered were | . | . | 112                  | 34                   |
| " 1839                                 | " "                                  | . | . | 229                  | 47                   |
| " 1840                                 | " "                                  | . | . | 191                  | 41                   |
| " 1841                                 | " "                                  | . | . | 127                  | 29                   |
| " 1842                                 | " "                                  | . | . | 132                  | 42                   |
| " 1843                                 | " "                                  | . | . | 155                  | 50                   |
| " 1844                                 | " "                                  | . | . | 125                  | 45                   |
| " 1845                                 | " "                                  | . | . | 139                  | 35                   |
| " 1846                                 | " "                                  | . | . | 196                  | 67                   |
| " 1847                                 | " "                                  | . | . | 172                  | 42                   |
| " 1848                                 | " "                                  | . | . | 179                  | 32                   |
| Average number of deaths in each year. |                                      |   |   | 159.7                | 42.2                 |

If an average be taken of the number of deaths in the seven years 1838-44, the average population of which years may fairly be assumed to be the same as during the year 1841, namely, 6,908 in New Accrington, and 1,811 in Old Accrington, it would appear that the average annual mortality to 1,000 persons living, was in New Accrington, 22.1, and in Old Accrington, 22.7; a mortality, which although small when compared with that of most of the other towns in the county of Lancaster, cannot be considered to indicate a satisfactory state of health, as it is above the average of all England, which is 21.85 in the thousand, and is considerably above that of the registration district of Ulverstone in the county of Lancaster, which is only 17.07.

As there is no reason why a small manufacturing place, under so favourable circumstances as Accrington, should not by the adoption of proper sanitary measures, be brought into a state at least as healthy as that of a neighbouring agricultural district where there are no sanitary arrangements in force, it may be worth while to compare the mortality of the two places.

Unfortunately I was not able to obtain a return of the ages of deaths, and of the number of births, &c., for the two townships of New and Old Accrington, as the sum demanded by the registrar for making out this return was more than it was considered worth while to expend upon this object, so that I am unable to make that complete comparison which I could have wished.

The number of deaths in New Accrington during the seven years 1838-44, as given in the preceding table, was 1,071, but



had the rate of mortality been the same there as in the district of Ulverstone during the same period, the number of deaths would have been only 827, giving an excess of 244 deaths above the healthy standard. In like manner in Old Accrington it will be found that the excess of deaths was 66, giving for the two townships a total excess of 310 deaths above the healthy standard of Ulverstone. From the inquiries made by the Health of Towns Association it appeared, that the average cost of each death may be taken at 5*l.*, and that for each death in excess, there are at least 28 other cases of sickness, costing upon the average 1*l.* each. The loss of the town of Accrington from these two causes alone, during the above seven years, would then stand thus—

|                                               | £.       | s. | d. |
|-----------------------------------------------|----------|----|----|
| 310 deaths in excess at 5 <i>l.</i> each .    | 1,550    | 0  | 0  |
| 8,680 cases of sickness at 1 <i>l.</i> each . | 8,680    | 0  | 0  |
| Total loss as above in seven years .          | £ 10,230 | 0  | 0  |
| Average annual loss .                         | £ 1,461  | 8  | 7  |

But there is another source of loss to the community from excessive mortality, namely the loss of productive labour arising from that diminution of the average duration of life, which always takes place under such a state of things; there is also a further loss arising from the undue proportion of births which is found to occur, when the number of deaths of children under one year old is greater than the healthy standard. In consequence of not having a complete return from the registrar, I am not able to give an estimate of the additional loss from these causes.

I was furnished by Mr. Redman, the relieving officer, with the following tables showing the total amount of out-door relief for both townships during the years ended 25th March 1849 and 1850, together with the amount paid upon account of the sickness and premature mortality, of able-bodied labourers.

STATEMENT of the SUMS EXPENDED in OUT-DOOR RELIEF

| NAME OF TOWNSHIP.                                  | Year ending 25 Mar. | Paid upon Account of Sickness of Able-bodied Labourers. |    |    | Paid to Widows and Children of Able-bodied Labourers. |    |    | Paid to Orphans of Able-bodied Labourers. |    |    | Total Amount Paid upon Account of Sickness and Premature Mortality of Able-bodied Labourers. |    |    | Total Amount of Out-relief Paid for all Causes. |    |     |
|----------------------------------------------------|---------------------|---------------------------------------------------------|----|----|-------------------------------------------------------|----|----|-------------------------------------------|----|----|----------------------------------------------------------------------------------------------|----|----|-------------------------------------------------|----|-----|
|                                                    |                     | £.                                                      | s. | d. | £.                                                    | s. | d. | £.                                        | s. | d. | £.                                                                                           | s. | d. | £.                                              | s. | d.  |
| New Accrington.                                    | 1849                | 46                                                      | 11 | 6  | 113                                                   | 17 | 3  | 29                                        | 3  | 3  | 189                                                                                          | 12 | 0  | 867                                             | 2  | 0½  |
| „                                                  | 1850                | 53                                                      | 8  | 9  | 120                                                   | 1  | 5  | 36                                        | 13 | 9  | 210                                                                                          | 3  | 11 | 753                                             | 1  | 11  |
| Old Accrington .                                   | 1849                | 8                                                       | 1  | 3  | 4                                                     | 10 | 0  | 10                                        | 0  | 9  | 22                                                                                           | 12 | 0  | 249                                             | 5  | 10½ |
| „                                                  | 1850                | 9                                                       | 10 | 0  | 7                                                     | 16 | 0  | 12                                        | 12 | 4  | 29                                                                                           | 18 | 4  | 228                                             | 19 | 0   |
| Total Amount in both townships for the two years . |                     |                                                         |    |    |                                                       |    |    |                                           |    |    | 452                                                                                          | 6  | 3  | 2,098                                           | 8  | 10  |



From this table it will be seen that upwards of one-fifth of the total amount of money expended in out-door relief in the two townships, is occasioned by the sickness and premature mortality of able-bodied labourers.

It should be borne in mind, that the annual loss of the town of Accrington, beyond the proportion of that of the district of Ulverston, as shown by the preceding calculations to occur from sickness and disease, is the *total* loss occasioned to *all classes*, and not that portion only which falls upon the poor-rates.

GENERAL STATISTICS.—The following table, copied from the returns for the townships of Old and New Accrington which were drawn up for the magistrates of the county of Lancaster in March 1849, give a good idea of the nature and value of the property in these townships.



| DESCRIPTION OF PROPERTY.  | Number. | Extent.   | Annual Value. | Rateable Value. | Number of Horse-power. | Quantity of Flooring. | Number of Hands Employed. | Average Depth of Pit. | Average Thickness of Bed. |
|---------------------------|---------|-----------|---------------|-----------------|------------------------|-----------------------|---------------------------|-----------------------|---------------------------|
| <b>NEW ACCRINGTON.</b>    |         |           |               |                 |                        |                       |                           |                       |                           |
| Land and farm buildings.  | ..      | A. R. P.  | £. s. d.      | £. s. d.        | ..                     | ..                    | ..                        | Yards.                | Feet.                     |
| Woods and plantations     | ..      | 1,330 2 8 | 3,893 14 8    | 3,610 9 2       | ..                     | ..                    | ..                        | ..                    | ..                        |
| Houses under £10.         | 1,216   | 51 2 25   | 5,689 0 0     | 5,044 3 10      | ..                     | ..                    | ..                        | ..                    | ..                        |
| Private houses above £10. | 66      | ..        | 1,424 12 2    | 1,219 15 11     | ..                     | ..                    | ..                        | ..                    | ..                        |
| Inns and public houses    | 11      | ..        | 691 14 8      | 587 10 0        | ..                     | ..                    | ..                        | ..                    | ..                        |
| Shops and beer houses     | 85      | ..        | 1,399 3 9     | 1,196 17 11     | ..                     | ..                    | ..                        | ..                    | ..                        |
| Cotton mills              | 5       | ..        | 2,492 19 0    | 1,984 12 6      | 196                    | 18,872                | ..                        | ..                    | ..                        |
| Bleach works              | 2       | ..        | 90 0 0        | 78 9 0          | ..                     | ..                    | 12                        | ..                    | ..                        |
| Print works.              | 3       | ..        | 2,417 9 9     | 1,990 9 0       | 95                     | ..                    | 941                       | ..                    | ..                        |
| Gas works.                | ..      | ..        | 138 12 10     | 103 19 10       | ..                     | ..                    | ..                        | ..                    | ..                        |
| Railway.                  | ..      | ..        | 882 0 0       | 750 0 0         | ..                     | ..                    | ..                        | ..                    | ..                        |
| Coal mines.               | ..      | ..        | 1,572 5 0     | 1,454 6 0       | ..                     | ..                    | ..                        | ..                    | ..                        |
| Stone quarries.           | ..      | ..        | 195 0 0       | 180 7 6         | ..                     | ..                    | 62                        | 40                    | 24                        |
| Total.                    | ..      | ..        | 20,886 11 0   | 18,201 0 8      | ..                     | ..                    | 12                        | ..                    | 6                         |
| <b>OLD ACCRINGTON.</b>    |         |           |               |                 |                        |                       |                           |                       |                           |
| Land and farm buildings.  | ..      | 420 0 31  | 1,419 16 7    | 1,300 13 10     | ..                     | ..                    | ..                        | ..                    | ..                        |
| Woods and plantations     | ..      | 14 2 18   | 1,612 9 10    | 1,379 10 1      | ..                     | ..                    | ..                        | ..                    | ..                        |
| Cottages under £10        | 346     | ..        | 459 8 4       | 391 18 3        | ..                     | ..                    | ..                        | ..                    | ..                        |
| Cottages above £10        | 25      | ..        | 181 0 0       | 153 17 0        | ..                     | ..                    | ..                        | ..                    | ..                        |
| Public houses             | 3       | ..        | 136 13 8      | 116 18 0        | ..                     | ..                    | ..                        | ..                    | ..                        |
| Shops                     | 11      | ..        | 531 16 0      | 455 17 6        | 120                    | 11,580                | 595                       | ..                    | ..                        |
| Cotton mills              | 3       | ..        | 297 15 0      | 265 17 6        | ..                     | ..                    | ..                        | ..                    | ..                        |
| Bleach works              | 1       | ..        | 214 11 0      | 187 2 0         | ..                     | ..                    | ..                        | ..                    | ..                        |
| Print works.              | 1       | ..        | 105 13 0      | 90 5 0          | ..                     | ..                    | ..                        | ..                    | ..                        |
| Foundries                 | ..      | ..        | 162 15 0      | 135 11 0        | ..                     | ..                    | ..                        | ..                    | ..                        |
| Corn mill                 | ..      | ..        | 238 8 7       | 191 15 0        | ..                     | ..                    | ..                        | ..                    | ..                        |
| Gas works                 | ..      | ..        | 981 9 0       | 829 2 6         | ..                     | ..                    | ..                        | ..                    | ..                        |
| Railways                  | ..      | ..        | ..            | ..              | ..                     | ..                    | ..                        | ..                    | ..                        |
| Total.                    | ..      | ..        | 6,341 16 0    | 5,516 7 8       | ..                     | ..                    | ..                        | ..                    | ..                        |



It will be seen by inspecting this table, that in New Accrington, the annual value of the land and farm buildings is 18·6 per cent. of the total annual value of the property in that township, and that in Old Accrington the proportion is 22·4 per cent.

The master of the National-school furnished me with the following return, showing the average daily attendance at schools in New and Old Accrington during the present year.

|                                              | No. of Scholars. |
|----------------------------------------------|------------------|
| St. James' Church, National-school . . . . . | 190              |
| Infant-school . . . . .                      | 70               |
| Christ Church school . . . . .               | 160              |
| New Jerusalem school . . . . .               | 170              |
| Baptist's school . . . . .                   | 135              |
| Methodist's school . . . . .                 | 35               |
| School attached to the Print Works . . . . . | 80               |
| Private and dame schools . . . . .           | 131              |
| Total average daily attendance . . . . .     | 971              |

Assuming that the proportion of children between the ages of four and thirteen, to the total number of inhabitants is the same at Accrington as in other similar places, namely, about one-fifth, the total number of them would be about 2,162. Hence it would appear that about 44 per cent. of the total number of children between these ages, receive regular instruction.

The sergeant of police informed me, that the average number of people apprehended or summonsed during the last two years for the crime of drunkenness in Accrington was 80, showing that about 1 in 70 of the adult population come under the notice of the police upon this charge during the year.

It will be seen from a return given at page 15, that the total number of public-houses, beer-shops, &c., in Accrington is 41, and as the total number of houses is 1,946, it follows that one house in every 47 is devoted to the sale of beer and spirits.

The following table shows the number of houses of different assessed values in the two townships:—

|                                                           | New<br>Accrington | Old<br>Accrington |
|-----------------------------------------------------------|-------------------|-------------------|
| Number of houses under £1 assessed annual value . . . . . | 10                | ..                |
| " above £1 and under £2 assessed ann. value . . . . .     | 78                | 19                |
| " 2                   " 3                   " . . . . .   | 297               | 65                |
| " 3                   " 4                   " . . . . .   | 366               | 108               |
| " 4                   " 5                   " . . . . .   | 388               | 87                |
| " 5                   " 10                  " . . . . .   | 267               | 110               |
| " 10                  " 15                  " . . . . .   | 69                | 19                |
| " 15                  " 20                  " . . . . .   | 25                | 5                 |
| " 20                  " 30                  " . . . . .   | 9                 | 2                 |
| " 30                  " 50                  " . . . . .   | 8                 | 2                 |
| " 50 . . . . .                                            | 10                | 2                 |
| Total . . . . .                                           | 1,527             | 419               |



The total amount of rates levied for all purposes during each of the last five years, was as follows :

|                                     |      |   |   | New Accrington. | Old Accrington. |
|-------------------------------------|------|---|---|-----------------|-----------------|
|                                     |      |   |   | £. s. d.        | £. s. d.        |
| Total amount of rates levied during | 1845 | . | . | 1,267           | 12 11 360       |
| "                                   | 1846 | . | . | 1,415           | 19 4½ 361       |
| "                                   | 1847 | . | . | 2,348           | 11 10½ 651      |
| "                                   | 1848 | . | . | 2,445           | 12 8 816        |
| "                                   | 1849 | . | . | 1,463           | 12 10½ 471      |

SANITARY CONDITION OF THE TOWN.—The following returns were obtained for me by the sergeant of the police force :—

|                                        |   | New Accrington. | Old Accrington. |
|----------------------------------------|---|-----------------|-----------------|
| Number of public houses                | . | 11              | 3               |
| " beer shops                           | . | 20              | 7               |
| " lodging houses                       | . | 7               | 1               |
| " slaughter sheds                      | . | 5               | 2               |
| " water closets                        | . | 4               | 1               |
| " privies                              | . | 511             | 96              |
| " cess-pits and refuse heaps           | . | 575             | 103             |
| " houses without the use of a privy    | . | 20              | 17              |
| " pigsties containing pigs             | . | 51              | 15              |
| " empty pigsties                       | . | 66              | 60              |
| " habitations containing only one room | . | 101             | 23              |

The effect of the Nuisances Removal Act is to be seen in the number of empty pigsties in the above list. In November 1848, the guardians appointed Mr. Redman as inspector of nuisances; and they proceeded vigorously to put the powers of that Act in force, so much so, that it is doubtful whether they did not go beyond the strict boundary of legality, in their anxiety to cleanse their town, and remove everything which might give the cholera a footing amongst them. Nuisance after nuisance was reported by the active officer; dung-heaps and pigsties disappeared from crowded courts and narrow alleys; obnoxious privies were removed, and new drains were made, and the whole surface of the town was, to a considerable extent, cleansed.

Although a great many persons were induced to remove nuisances, and a few were compelled to do so, many others set the inspector at defiance, and, owing to the difficulty of putting the Act in force, and the limited nature of the powers conferred by it, were enabled to do so successfully.

The cleansing of the town under the Nuisances Removal Act, was continued from November 1848 to February 1850. The following is a return of the number of nuisances removed or altered during the above period, together with the number of instances in which the law proved inoperative.



| NATURE OF NUISANCE.                         | Removed<br>or Altered. | Nothing<br>Done. |
|---------------------------------------------|------------------------|------------------|
| Offensive slaughter houses . . . . .        | 2                      | 1                |
| „ pigsties . . . . .                        | 6                      | 2                |
| „ privies . . . . .                         | 26                     | 10               |
| „ sewers or drains . . . . .                | 19                     | 8                |
| „ refuse heaps, dung heaps, &c. . . . .     | 5                      | 1                |
| Lodging houses in a dirty state . . . . .   | 1                      | 1                |
| Cattle kept below dwelling houses . . . . . | 2                      | ..               |
| Totals . . . . .                            | 61                     | 23               |

From the above list it will be seen that in nearly one-third of these cases, the Nuisances Removal Act proved practically useless. The cleansing that was effected by it, was entirely superficial and of a temporary nature, cesspits were emptied, only to become again full, pigs were removed, but the pigstye remained ready for another tenant, as soon as the fear of cholera might subside, and the attention of the public be turned to some other subject. It is, however, to what was done under this Act, coupled perhaps with some extra exertions to prepare it for the superintending inspector's arrival, that much of the present cleanliness of the town is to be ascribed.

Whilst, however, the general aspect of the town is thus comparatively clean and tidy, the careful observer will meet with many things equally injurious, both to the moral and physical health, and he will find the structural arrangements of the houses in general, to be sadly deficient in all those particulars which are more immediately connected with the state of the Public Health.

The town is very badly drained. Stone drains have been laid down most of the main streets, but they are of a very rude construction, being formed without mortar, and vary in sizes, inclinations, and forms, having been made at the expense of the different owners of property in their neighbourhood, a portion of drain at one time and a portion at another, the object of each person having been to remove the drainage as well as he could from his own premises, without reference to his neighbours. The consequence of such an entire want of system is, as might naturally be expected, that these drains are generally very inefficient, requiring constant cleaning out, repairing, and altering. The drains of the upper part of Blackburn-road, which consists chiefly of new houses, were pointed out to me as being particularly defective, as requiring considerable annual expense in cleansing, and as being a constant nuisance to the houses to which they belong.

Into these public drains run the drainage from the sculleries and washhouses, together with the overflow from many of the cesspools and privies, and as there is not throughout the town, as far as I could discover, a single opening into these drains, either public or private, which is properly trapped, the smell from them



during warm weather is said to be intolerable, and the atmosphere of many of those houses of which the cellar drains run into the main drain, becomes, I am told, occasionally very close and offensive.

The first object which strikes the eye, in perambulating the town, is the very great number of cesspits or cesspools. Their construction is usually as follows:—A space of ground about five feet wide and six long, at the side or back of a privy, is enclosed with upright flag-stones, joined together at the ends and corners by iron cramps. Into this enclosure one or more privies, as the case may be, empty themselves. There is, in these constructions, no attempt made to prevent their leakage; the unpaved ground forms the bottom of the cesspit, and the ends of the stones, forming the sides, merely butt against each other. In the cesspits belonging to the better class of houses the outlets from the privies are carefully covered with ashes, and every precaution is taken, as far as possible, to cover what is offensive to the sight and to the smell; but these were rare exceptions, and I found the ground below and about most of the cesspits, saturated with the ooze from their filthy contents, and, in the majority of instances, there was in them a stagnant pool, with the night-soil floating about in it, which was, in some instances, rendered still more offensive, by being mixed with the drainage from stables and pigsties. Distrusting as are these filthy receptacles of human refuse, loathsome even to describe, they are rendered a thousand times more pernicious by their close vicinity, and in many cases, by their actual contact with human habitations. The back premises of most of the houses in New Accrington, and of many of those in Old Accrington, are exceedingly confined, consisting of small courts and alleys, either entirely void of ventilation, or exceedingly defective in that respect; and in these close and confined back premises these filthy cesspits are found studded about, in all situations; I constantly found them below bed room windows, or within a few feet of kitchens or larders.

In New Accrington I measured 70 of these cesspits, and found that their surface averaged 22 square feet. As the total number of them is 575, the total evaporating surface will be about 12,650 square feet, or rather more than *one quarter of an acre* of decomposing refuse of the worst and most offensive description!

In Old Accrington I measured 19 cesspits, and found the average surface of them to be 36 square feet. The total number of cesspits is 103, giving a surface of 3,708 square feet, or about one-twelfth of an acre.

In these same small yards are also found an abundance of pigsties, but owing to the close overhauling which the town underwent during the time when the cholera was expected, I am happy to say that very few of them are at present in use. Some of these back yards are paved, and a few have sink gratings and covered drains to carry away the refuse water used for cooking



and washing, but the back yards or premises behind the houses of the poorer inhabitants are unpaved, whilst a large proportion of those belonging to a better class of houses are in the same state. Occasionally a stone surface-drain formed to receive the refuse water is met with, but more commonly it wanders away, unconfined, save by the course it has made for itself, in its progress to the street drain.

The following are a few instances of defective arrangements, extracted from the notes of my inspection of the town:—

*New Accrington.*—On Daisy-hill the soakage from the pigsties and the refuse from the houses, runs in an open drain along the public road in front of a row of cottages.

In Timber-street the back premises are confined, the bottoms of the cesspits are about eight feet above the level of the floors of the houses.

Near the lodging-house in the Old-road, there was a small filthy yard, containing a privy, an open cesspit, pigsties, and a manure heap.

In Paradise-street the refuse from the houses ran in an open drain in front of them.

In Woolhurst Bank the back premises were dirty; there was a pigsty, with pigs in it, immediately below a kitchen window.

At the back of Adelaide-street, where there is an open cesspit and a privy to each house, the distance from them to the kitchen doors and windows is about 12 feet.

At the back of the houses in Chapel-street there is a black slimy ditch, at the end of the gardens, which receives the drainage from several pigsties and privies situated along its course. The contents of this ditch at present run across the surface of Plantation-road, into an open drain in front of the houses in Mill-street. One of the inhabitants informed me, that in times of heavy rain this drain overflows the pavement in front of the houses, and is extremely offensive.

At a new house in Elephant-street the cesspit was in a confined situation, at five feet three inches from the house.

At the back of Abbey-street, upon the north-east side, the cesspits were at distances ranging from 12 feet to two feet three inches, distant from the backs of the houses.

At the back of the Parsonage, near Heifer's Bank, there is a farm-yard, with two pigsties, and a filthy manure heap, close under the wall of Abbey-street. The drainage from a cow stable runs over the pitched paving of the open yard.

At the back of the houses upon the western side of Church-street, there is an open cesspit, 18 feet in length, which receives the contents of six privies. The drainage from the houses runs in an open channel, which in winter occasionally overflows, and floods the passage and the lower ends of the gardens. One of the inhabitants complained that in summer she was not able to open



the windows which looked towards the cesspit and drain, as the smell from them was very offensive.

In a small court further on, which opens into Church-street through an archway, there is an open drain which runs the whole length of the court, and at the end of it empties itself into a covered drain, which I found to be full of black mud and stagnant water, two feet deep. One of the women, who lived in the back court, complained that this entry was used as a public urinary, and that the smell arising from its want of drainage was very offensive. In this small court there was a cesspit and two privies at six feet distant from the door of one of the houses.

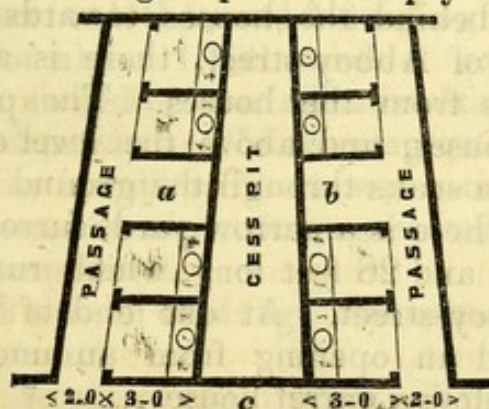
Near the lower end of Warner-street there is a garret-house, approached by steps, with a pigsty under the window, and a cow stable with other pigsties, in the basement story beneath the house.

At a butcher's, in Warner-street, the beasts are slaughtered in the shop; water is laid on in it, but there is no drain to lead it off; an open grating in the street, at nine feet from the door, receives the washings of the blood.

In a court about seven yards wide, which is entered by an archway from the eastern side of Church-street, there is a cesspit 12 feet square, at nine feet six inches from the back of one of the houses in Church-street, whilst, upon the opposite side of the court, in the wall against which this large cesspit is constructed, is the window of a room in which eight children sleep. The two privies opening into this cesspit are used by about 10 families.

At the back of the houses in Warner-street I found a stagnant pool, into which six privies drained; there was also a cesspit and a pigsty, at six feet from the back of a house. In a room, the window of which was above this cesspit, I found a private school, where 34 boys were being instructed.

There is a narrow yard behind some of the houses at the back of Abbey-street, with buildings upon both sides of it. At a place in this yard, which is 14 feet 3 inches wide, there is, below these buildings, a cesspit 15 feet in length, and averaging two feet four inches wide, into which eight privies empty themselves, four of



them being situated upon each side of the cesspit, as is shown in the accompanying sketch. Two passages, only two feet wide,



give access to these privies. As if it had been intended to make the arrangement as bad and as offensive as possible, large open holes have been left in the walls of the cesspit at *a* and *b*, which ensure the diffusion of the stench from the cesspit throughout the narrow passages. There is also a hole left in the outside wall of the cesspit at *c*. The building above this knot of privies is, I believe, a workshop or warehouse of some kind. The houses in Abbey-street, to which these privies belong, pay a rental of 10*l.* a-year. At the other end of this yard there is a cow house and stable, at 17 feet 9 inches from the back of the houses in Abbey-street. An open drain, which receives the drainage from the houses, runs the whole length of this yard.

At the upper end of Back Bank-street, there is a row of privies and cesspits at three feet from the end of a house, and above them is a bed-room window. There is an open drain upon both sides of this street, which receives the drainage from the houses.

At the back of the houses in Cannon-street there is a narrow alley seven feet eight inches wide, surrounded by houses, having upon one side of it an open cesspit eight feet long and three feet six inches broad. There is also a pigsty, but no pig is kept in it at present. At the extreme end of this alley, which is 27 feet in length, there is another cesspit, above which opens a bed-room window. The window of a smith's shop opens immediately above the larger cesspool, and above that again is the window of a joiner's shop.

The back of the houses upon the western side of Warner-street open into a yard 13 feet 3 inches wide. The other side of this yard is formed by the blank wall of some other houses. In this narrow yard there are several cesspits, privies, and open drains.

Between Oak-street and Black Abbey, there is a large yard, in which there are seven cellar dwellings. The area in front of these dwellings is five feet eight inches wide. Along the further side of these areas is a stagnant drain, full of filth, with a large opening immediately opposite to each of the windows. This drain runs underneath the end house, and is supposed to receive the drainage from Warner-street.

In a narrow yard behind the houses, towards the upper end of the north-east side of Abbey-street, there is an open drain at about 6 feet 9 inches from the houses. The privies are 8 feet 6 inches from the houses, and above the level of the drain; the liquid soil from them soaks through the ground into this drain.

In Brigg's-entry there is a narrow yard, surrounded by houses, 5 feet 3 inches wide, and 28 feet long, which runs along the back of the houses in Abbey-street. At one end of this narrow yard there is a privy and an opening from an uncovered cesspool, which is in a shed below a garret house.

At the back of the police station in Cross-street, a narrow passage between the houses, 3 feet 6 inches wide, leads into a small



unpaved yard, surrounded by houses, about 36 feet long by 12 feet wide. The nose is saluted on entering by the stench from an open cesspit, 5 feet by 3 feet 9 inches, upon the right-hand side, whilst the leakage from it may occasionally be seen running over the surface of the ground towards the grating of a choked up drain full of stagnant water, which is at the lower end of this yard. This grating is at a distance of 2 feet 8 inches from the door of a cellar house. There is another unoccupied cellar door near at hand, and two other houses at the upper side of the yard, complete the number of houses opening into it. There are two privies attached to the cesspit.

OLD ACCRINGTON.—In Chapel-lane there is a cesspit, 7 feet by 5 feet, into which four privies empty themselves. A bedroom window above looks into this cesspit. The drainage from the north-west side of this street runs into a stagnant pond in the waste land near the railway station.

At the back of Blackburn-road, north side, there is a large cesspit, or refuse yard, in a most disgusting state, 24 feet by 13 feet, into which privies and pigsties empty themselves. This cesspit is separated from the street by a wall 7 feet 6 inches high. There are houses upon three sides of it, but fortunately no windows open into it.

Upon the south side of Blackburn-road there is a narrow lane, running at the top of the gardens, where the privies and cesspits are situated. This lane was, when I saw it, in a most filthy state. There are no houses upon the upper side of it.

In Union-street the ventilation at the backs of the houses is generally good, as the privies and cesspits are situated at the ends of the gardens, about 30 feet distant from the houses. I noticed however, even here, a pigsty at 7 feet from the back door of a house. There was also a cow shed at 20 feet from the back of a house, and a manure heap between it and the house. There are covered drains running along at the backs of the houses upon both sides of this street, to receive the drainage from them.

At the back of Mr. Hall's house, in St. James's-street, there are two ponds, to which he called my attention. These ponds lie between his garden and the land belonging to the railway; they present a surface of about 1,300 yards of green stagnant water, and he justly complained of their offensive state. One of them is partly in New and partly in Old Accrington.

In the old farm buildings there was a manure heap at 9 feet from a house; there was also a stagnant drain, of which some of the inhabitants complained.

In the Lower Fold the drainage from the houses runs in open channels close to them.

HINDBURN or ACCRINGTON BROOK.—This brook, which runs throughout the length of the town, receives the drainage from all the ditches, surface-drains, and sewers, both in New and in Old



Accrington. Many of the privies open directly into this brook. The soil-shaft of the privies upon the eastern side of Messrs. Hargreave's large cotton factory, empties itself into a receptacle, from whence the soil is from time to time flushed into the brook by opening a sluice. The soil-shaft from Mr. Thompson's mill empties itself into a hole scooped in a gravel bank in the bed of the brook; this bank is exposed to view from a public road. The soil-shafts from some other mills in Old Accrington, below the crossing of the Blackburn road, also empty themselves into the brook. The consequence of so much filth finding its way into this brook is, that in the warm weather, when the water is low, it becomes very offensive. The evil is aggravated by their being two weirs across it, which prevents the sewage water from running freely off, except in times of flood.

The evil effects of the state of the ground around the dwellings of the poorer classes, saturated in too many instances by the liquid contents of the cesspits near them, will be seen to be much worse when the bad state of ventilation of the houses themselves is considered; since, when the soil about the foundations of the houses is saturated with decomposing matter, the foul gases slowly evolved from them, mingle with the atmosphere within, and there stagnating, produce that intense feeling of closeness which is to be found in such houses. In the course of my examination of the town, I found a great many instances of families sleeping in small confined rooms, many of them having no portion of the window capable of opening to admit of air. I took down the particulars of upwards of fifty cases of this kind in the two townships, which I have given in a tabular form below; a great many more necessarily escaped my observation in making a rapid survey of the town.



**TOWNSHIP OF NEW ACCRINGTON.]**  
Instances of Defective Ventilation of Sleeping Apartments.

| No. | LOCALITY.             | Dimensions of " Sleeping Room. |     |          | Size of portion of Window made to Open. |         | No. of People Sleeping in each Room. | Age of eldest Unmarried Male. | Age of eldest Unmarried Female. | Cubic Feet of Space to each Person. | OBSERVATIONS. |         |                                                                                                                                                            |
|-----|-----------------------|--------------------------------|-----|----------|-----------------------------------------|---------|--------------------------------------|-------------------------------|---------------------------------|-------------------------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                       | Length.                        |     | Breadth. | Height.                                 | Inches. |                                      |                               |                                 |                                     |               | Inches. |                                                                                                                                                            |
|     |                       | Ft.                            | In. |          |                                         |         |                                      |                               |                                 |                                     |               |         | Ft.                                                                                                                                                        |
| 1   | Daisy Hill . . . . .  | 15                             | 0   | 14       | 0                                       | 8       | 0                                    | ..                            | ..                              | 14                                  | ..            | 120     | In all cases, excepting when specially noted, the father and mother of the family are comprised amongst the number of people sleeping in the room.         |
| 2   | Ditto . . . . .       | 15                             | 0   | 14       | 0                                       | 8       | 0                                    | ..                            | ..                              | 11                                  | Adult.        | 153     | Four of the 14 persons sleeping in this room consist of children, stated to be taken in for a few days only.                                               |
| 3   | Ditto . . . . .       | 16                             | 0   | 16       | 0                                       | 8       | 9                                    | ..                            | ..                              | 8                                   | ..            | 280     | In 4 beds; family consist of grandmother, father and mother, and grown-up sons.                                                                            |
| 4   | Grange-lane . . . . . | 15                             | 0   | 15       | 0                                       | 7       | 0                                    | 23                            | 16                              | 6                                   | 19            | 262     |                                                                                                                                                            |
| 5   | Ditto . . . . .       | 10                             | 6   | 12       | 6                                       | 6       | 0                                    | None.                         | None.                           | 2                                   | ..            | 393     |                                                                                                                                                            |
| 6   | Ditto . . . . .       | 18                             | 0   | 12       | 0                                       | 8       | 0                                    | 8                             | 10                              | 6                                   | Adult.        | 288     | An old man of 70, a lodger, and an old woman, a widow, sleep and live in same room; the dimensions of the door are 4 ft. 4 in. high, and 2 ft. 7 in. wide! |
| 7   | Ditto . . . . .       | 12                             | 0   | 18       | 0                                       | 7       | 0                                    | ..                            | ..                              | 10                                  | 23            | 151     | Six brothers and sisters, some of them adults, sleep in this room; the parents and youngest child sleep in the kitchen below.                              |
| 8   | Higher Fold . . . . . | 19                             | 0   | 15       | 0                                       | 8       | 0                                    | 14                            | 9                               | ..                                  | ..            | ..      | Lodging-house, 6 to 9 persons in 3 beds.                                                                                                                   |
| 9   | Ditto . . . . .       | 21                             | 0   | 18       | 0                                       | 9       | 0                                    | 8                             | 11                              | ..                                  | ..            | ..      | Lodging-house, 8 to 12 persons in 4 beds.                                                                                                                  |
| 10  | Ditto . . . . .       | ..                             | ..  | ..       | ..                                      | ..      | ..                                   | 8                             | 6                               | ..                                  | ..            | ..      | Ditto.                                                                                                                                                     |
| 11  | Ditto . . . . .       | ..                             | ..  | ..       | ..                                      | ..      | ..                                   | None.                         | None.                           | 5                                   | ..            | ..      | No window in the house made to open.                                                                                                                       |
| 12  | Ditto . . . . .       | ..                             | ..  | ..       | ..                                      | ..      | ..                                   | None.                         | None.                           | 6                                   | 19            | ..      | No window; a well in the scullery.                                                                                                                         |
| 13  | Ditto . . . . .       | 18                             | 0   | 10       | 0                                       | 8       | 0                                    | 6½                            | 4                               | 6                                   | 22            | 240     | Only 2 beds.                                                                                                                                               |
| 14  | Ditto . . . . .       | ..                             | ..  | ..       | ..                                      | ..      | ..                                   | 7                             | 5                               | 4                                   | ..            | ..      | A cellar dwelling, consisting of one room; father, mother, girl of 18, and child, sleep in one bed.                                                        |



## TOWNSHIP OF NEW ACCRINGTON.

## Instances of Defective Ventilation of Sleeping Apartments—continued.

| No. | LOCALITY.            | Dimensions of Sleeping Room. |          |     | Size of portion of Window made to Open. |         | No. of People Sleeping in each Room. | Age of eldest Unmarried Male. | Age of eldest Unmarried Female. | Cubic Feet of Space to each Person. | OBSERVATIONS.                                                                                                                                      |
|-----|----------------------|------------------------------|----------|-----|-----------------------------------------|---------|--------------------------------------|-------------------------------|---------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                      | Height.                      |          |     | Inches.                                 | Inches. |                                      |                               |                                 |                                     |                                                                                                                                                    |
|     |                      | Length.                      | Breadth. |     |                                         |         |                                      |                               |                                 |                                     |                                                                                                                                                    |
| 15  | Higher Fold          | 14 0                         | 20 0     | 8 6 | 4½                                      | 3½      | 11                                   | 17                            | 16                              | 216                                 | In all cases, excepting when specially noted, the father and mother of the family are comprised amongst the number of people sleeping in the room. |
| 16  | Hollings-lane        | 16 0                         | 17 0     | 6 9 | ..                                      | ..      | 8                                    | ..                            | 18                              | 230                                 |                                                                                                                                                    |
| 17  | North-street         | 14 0                         | 15 0     | 8 0 | 30                                      | 16½     | 6                                    | 16                            | ..                              | 280                                 |                                                                                                                                                    |
| 18  | Wellington-street    | 9 6                          | 14 0     | 7 3 | 7                                       | 5½      | 3                                    | ..                            | ..                              | 323                                 | A comparatively new house, the part of window capable of opening was only 2 ft. from floor, being an instance of bad structural arrangement.       |
| 19  | Wood Nook-lane       | 18 0                         | 15 0     | 8 6 | ..                                      | ..      | 11                                   | 22                            | ..                              | 209                                 | A cellar dwelling; same room served for cooking and sleeping; damp.                                                                                |
| 20  | High-street          | 15 0                         | 15 0     | 7 6 | ..                                      | ..      | 7                                    | 18                            | ..                              | 241                                 | A father, mother, married son and his wife both <i>under twenty</i> , with their child, and other children, sleep in this room.                    |
| 21  | Chapel-street        | 13 6                         | 10 0     | 8 0 | ..                                      | ..      | 3                                    | ..                            | Adult.                          | 360                                 | Three girls in one room, father mother, and 6 boys in 2 beds in the other room.                                                                    |
| 22  | Spring-gardens       | 13 6                         | 13 0     | 7 9 | ..                                      | ..      | 8                                    | Adult.                        | ..                              | 170                                 | A cellar lodging-house, 3 beds, men and women sleeping indiscriminately, no questions being asked as to married or not.                            |
| 23  | Back of Abbey-street | 14 0                         | 12 3     | 8 0 | ..                                      | ..      | 4                                    | 15                            | 18                              | 344                                 | One living and sleeping room.                                                                                                                      |
| 24  | Back of Peel-street  | 12 0                         | 10 0     | 8 0 | 6                                       | About 7 | 4                                    | ..                            | 13                              | 240                                 | Four children; room damp and dark, house being a cellar house.                                                                                     |
| 25  | Ditto                | 8 0                          | 13 0     | 7 3 | 6                                       | About 7 | 4                                    | ..                            | 12                              | 188                                 | Ditto.                                                                                                                                             |
|     |                      | 10 6                         | 10 0     | 7 3 | ..                                      | ..      | 3                                    | ..                            | ..                              | 254                                 | Parents and one child in this room, which serves as kitchen.                                                                                       |



## TOWNSHIP OF NEW ACCRINGTON.

## Instances of Defective Ventilation of Sleeping Apartments—continued.

| No. | LOCALITY.                          | Dimensions of Sleeping Rooms. |     |          | Size of portion of Window made to open. |               | No. of People Sleeping in each Room. | Age of eldest Unmarried Male. | Age of eldest Unmarried Female. | Cubic Feet of Space to each Person. | OBSERVATIONS.                                                                                                                                      |                                                                                                                                  |
|-----|------------------------------------|-------------------------------|-----|----------|-----------------------------------------|---------------|--------------------------------------|-------------------------------|---------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
|     |                                    | Length.                       |     | Breadth. | Height.                                 | Inches. None. |                                      |                               |                                 |                                     |                                                                                                                                                    | Inches. None.                                                                                                                    |
|     |                                    | Ft.                           | In. |          |                                         |               |                                      |                               |                                 |                                     |                                                                                                                                                    |                                                                                                                                  |
| 26  | Heifers-bank . . . . .             | 15                            | 0   | 13       | 0                                       | 8             | 0                                    | 40                            | 21                              | 195                                 | In all cases, excepting when specially noted, the father and mother of the family are comprised amongst the number of people sleeping in the room. |                                                                                                                                  |
| 27  | Back of Warner-street. . . . .     | 13                            | 0   | 11       | 0                                       | 6             | 8                                    | 15                            | 18                              | 160                                 | A widow, married son and daughter, and other children grown up.<br>Living and sleeping room.                                                       |                                                                                                                                  |
| 28  | Back of Water-street . . . . .     | Two rooms.                    |     |          | ..                                      | ..            | 5                                    | 18                            | ..                              | ..                                  | Girls and parents in 2 beds in one room, and boys in 2 beds in back room.                                                                          |                                                                                                                                  |
| 29  | Back of Church-street. . . . .     | 16                            | 0   | 16       | 0                                       | 8             | 0                                    | 22                            | ..                              | 341                                 |                                                                                                                                                    | A cellar dwelling, only one room, area 6 ft. 2 in. deep, 2 ft. 10 in. wide.                                                      |
| 30  | Back of Bank-street . . . . .      | ..                            | ..  | ..       | ..                                      | ..            | ..                                   | 20                            | 21                              | ..                                  | Three grown-up girls sleep in same room with parents.                                                                                              |                                                                                                                                  |
| 31  | Back of Oak-street . . . . .       | ..                            | ..  | ..       | ..                                      | ..            | ..                                   | ..                            | 27                              | ..                                  |                                                                                                                                                    | A widow, eldest daughter not married, but has 2 children, grown-up son.                                                          |
| 32  | Ditto . . . . .                    | 12                            | 0   | 11       | 0                                       | 7             | 4                                    | 25                            | 22                              | 161                                 | Lodging-house, 4 beds in this room.                                                                                                                |                                                                                                                                  |
| 33  | Black Abbey . . . . .              | 11                            | 0   | 14       | 0                                       | 8             | 3                                    | ..                            | ..                              | ..                                  | Children.                                                                                                                                          |                                                                                                                                  |
| 34  | Ditto . . . . .                    | 10                            | 0   | 14       | 0                                       | 8             | 8                                    | ..                            | ..                              | 243                                 |                                                                                                                                                    | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months. |
| 35  | Ditto . . . . .                    | 15                            | 0   | 10       | 0                                       | 7             | 6                                    | ..                            | ..                              | 281                                 | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months.                   |                                                                                                                                  |
| 36  | Abbey-street . . . . .             | 9                             | 6   | 12       | 0                                       | 7             | 6                                    | 24                            | 21                              | 122                                 |                                                                                                                                                    | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months. |
| 37  | Briggs-entry . . . . .             | 12                            | 0   | 7        | 3                                       | 7             | 10                                   | 23                            | 20                              | 114                                 | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months.                   |                                                                                                                                  |
| 38  | Below Swan-yard . . . . .          | ..                            | ..  | ..       | ..                                      | ..            | ..                                   | ..                            | 13                              | ..                                  |                                                                                                                                                    | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months. |
| 39  | Yard out of Cross-street . . . . . | 9                             | 11  | 13       | 6                                       | 8             | 0                                    | ..                            | 11                              | 178                                 | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months.                   |                                                                                                                                  |
| 40  | Collier's-row . . . . .            | Large room.                   |     |          | ..                                      | ..            | 9                                    | 23                            | 24                              | ..                                  |                                                                                                                                                    | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months. |
| 41  | At Baxendale . . . . .             | 15                            | 0   | 13       | 0                                       | 6             | 9                                    | 16                            | ..                              | 263                                 | A cellar house, only one room for living and sleeping.<br>Only one bed for father and mother, girl of 11, and child of 2 months.                   |                                                                                                                                  |



**TOWNSHIP OF OLD ACCRINGTON.**  
[Instances of Defective Ventilation, &c., of Sleeping Apartments.]

| No. | LOCALITY.                     | Dimensions of Sleeping Rooms. |          |         | Size of portion of Window made to Open. |         | No. of People Sleeping in each Room. | Age of eldest Unmarried Male. | Age of eldest Unmarried Female. | Cubic Feet of Space to each Person. | OBSERVATIONS |                                                                                                                                                                                                                                                      |
|-----|-------------------------------|-------------------------------|----------|---------|-----------------------------------------|---------|--------------------------------------|-------------------------------|---------------------------------|-------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                               | Length.                       | Breadth. | Height. | Inches.                                 | Inches. |                                      |                               |                                 |                                     |              |                                                                                                                                                                                                                                                      |
|     |                               |                               |          |         |                                         |         | Ft.                                  | In.                           | Ft.                             | In.                                 |              | Ft.                                                                                                                                                                                                                                                  |
| 1   | Old Foundry-yard . . . .      | 13                            | 6        | 15      | 0                                       | 11      | 0                                    | 5                             | 15                              | 17                                  | 446          | In all cases, excepting when specially noted, the father and mother of the family are comprised amongst the number of people sleeping in the room.<br><br>Father is a tinman, and works by day in this room at his trade.<br>A well in the scullery. |
| 2   | Piccadilly . . . .            | ..                            | ..       | ..      | ..                                      | ..      | ..                                   | 7                             | ..                              | 16                                  | ..           | In three beds.                                                                                                                                                                                                                                       |
| 3   | Back of Union-street . . . .  | 12                            | 0        | 12      | 0                                       | 6       | 8                                    | 3                             | ..                              | ..                                  | 320          | Parents and youngest child.                                                                                                                                                                                                                          |
| 4   | Near railway viaduct . . . .  | 20                            | 0        | 10      | 0                                       | 8       | 3                                    | 7                             | 13                              | ..                                  | 236          | Found loaves of bread in this bed-room.                                                                                                                                                                                                              |
| 5   | Union-street . . . .          | 13                            | 0        | 9       | 3                                       | 7       | 0                                    | 7                             | ..                              | Adult.                              | 120          | Two panes of glass broken out by occupiers of house for ventilation.                                                                                                                                                                                 |
| 6   | Black Bull-yard . . . .       | 13                            | 0        | 9       | 0                                       | 8       | 0                                    | 3                             | ..                              | ..                                  | 312          |                                                                                                                                                                                                                                                      |
| 7   | Old Farm-buildings . . . .    | 14                            | 6        | 11      | 3                                       | 6       | 9                                    | 5                             | ..                              | ..                                  | 220          |                                                                                                                                                                                                                                                      |
| 8   | Ditto . . . .                 | 17                            | 0        | 15      | 0                                       | 8       | 6                                    | 8                             | ..                              | 19                                  | 271          | The grown-up daughters sleep in same room as their brothers.                                                                                                                                                                                         |
| 9   | Ditto . . . .                 | 9                             | 6        | 12      | 0                                       | 9       | 0                                    | 8                             | 20                              | 24                                  | 263          |                                                                                                                                                                                                                                                      |
| 10  | Back-lane, Lower Fold . . . . | 12                            | 0        | 12      | 0                                       | 7       | 0                                    | 7                             | 30                              | ..                                  | 246          |                                                                                                                                                                                                                                                      |
| 11  | Lower Fold. . . .             | 12                            | 0        | 8       | 6                                       | 7       | 0                                    | 5                             | ..                              | ..                                  | ..           | Very close.                                                                                                                                                                                                                                          |
| 12  | Ditto . . . .                 | ..                            | ..       | ..      | ..                                      | ..      | ..                                   | 6                             | ..                              | ..                                  | ..           |                                                                                                                                                                                                                                                      |
| 13  | Ditto . . . .                 | ..                            | ..       | ..      | ..                                      | ..      | ..                                   | 7                             | Adult.                          | Adult.                              | ..           | One room for living and sleeping.                                                                                                                                                                                                                    |
| 14  | Ditto . . . .                 | ..                            | ..       | ..      | ..                                      | ..      | ..                                   | 5                             | ..                              | ..                                  | ..           |                                                                                                                                                                                                                                                      |
| 15  | Ditto . . . .                 | 11                            | 6        | 15      | 0                                       | 7       | 0                                    | 7                             | 17                              | 16                                  | 172          |                                                                                                                                                                                                                                                      |
| 16  | Ditto . . . .                 | 15                            | 0        | 12      | 0                                       | 8       | 0                                    | 7                             | ..                              | ..                                  | 206          |                                                                                                                                                                                                                                                      |
| 17  | Near Baptist's burial-ground. | 15                            | 6        | 16      | 6                                       | 7       | 6                                    | 7                             | 11                              | ..                                  | 274          | Cellar house, live and sleep in the same room.                                                                                                                                                                                                       |



I should wish to point out especially to the attention of the Board the following cases, upon account of the extreme want of sanitary arrangements which they exhibit, and the entire absence of proper decent feeling which they manifest. I may here remark that in only one of the cases which I have reported, where grown-up persons of both sexes slept in the same room, was there the evidence of the slightest sense of decency. In that case, and in that one only, a curtain was hung up between the beds of adult brothers and sisters.

The first case to which I beg especially to draw the attention of the Board is No. 1 upon the New Accrington list, where, for the last few days previous to my visit, 14 people had been sleeping in one room. The usual number of occupants of this room is 10, but the children of a relation, who had been taken in for their present accommodation, increased the actual number to 14. The woman of the house said that these children had only been there for three or four nights. The number of cubic feet of space for each person was thus reduced to 120.

In Case No. 5, the dwelling consists of only one room, the window of which does not open. It is chiefly remarkable for the small size of the door, which is 4 feet 4 inches high, by 2 feet 7 inches wide. An old man and an old woman, in no ways related to each other, live and sleep in this room.

In Case No. 7 there are 10 people, consisting of the father, mother, a son 23, and a daughter 19 years of age, together with younger children, who sleep in the same room, giving a space of 151 cubic feet to each person. In this instance the window opens, and is of tolerable size.

Cases 8, 9, and 10, being rooms in lodging-houses, are very bad, in consequence of the small proportion of the window which is made to open.

In Case No. 14, a father, mother, a girl of 18, and a child of a few months old, sleep in *the same bed*.

In each of Cases Nos. 15 and 19 there were 11 people sleeping in one room. In No. 15 the amount of ventilating window space is only  $4\frac{1}{4}$  inches by  $3\frac{1}{4}$  inches; but in No. 19 the window is of tolerable size. The number of cubic feet of space to each person was, in the first case 216, and in the second, 209.

In Cases Nos. 26, 29, and 36 the number of people sleeping in one room varied from six to eight, but in none of them was the window made to open.

To sum up the result of the above table it will be found that, in those instances where I measured the dimensions of the rooms, there were 194 people nightly sleeping in places where the average cubic feet of space allowed to each person was only 213 feet.

In Old Accrington, the number of houses being much smaller, I did not meet with so many instances of overcrowded sleeping-rooms, but the proportion of them, compared with the total



number of houses in the township, is larger than in New Accrington.

In the list for the township of Old Accrington I beg particularly to direct the attention of the Board to the following cases:—

In No. 5 there were seven brothers and sisters sleeping in a small room, having a window space to open, of 7 inches by 5 inches, the number of cubic feet to each person being 120. The parents and the youngest child slept in another room, the window of which was incapable of opening.

In Case No. 6, five people slept in a room without any ventilation, the space allowed to each person being 220 cubic feet.

In Cases Nos. 11, 13, and 14, from five to seven people were sleeping in rooms where the windows would not open.

Case No. 17 is particularly to be remarked, because it combined together many of the worst features of these habitations. The house is a cellar house, contiguous to the Baptists' burial-ground. It consists of two rooms, both damp, but the back room, the window of which was level with the surface of the ground in the burial-yard, was very damp and offensive to the smell. This room was not used. The family, consisting of seven people, slept in two beds in the front room, which served also as kitchen. The window of this room was not made to open. The number of cubic feet to each individual was 274. The parents had lived in this house 11 years.

In those rooms in Old Accrington, of which I took the dimensions, there were 74 persons sleeping, and the average allowance of space was 247 cubic feet to each person.

In order to be able to judge of the effect upon the health of this limited space, it must be borne in mind that, upon the average, each person by his respiration during the night, vitiates 300 cubic feet of air, which is nearly one-half more than the amount allowed in the above instances in New Accrington, and about one-quarter more than in those cases given in Old Accrington. Although some of the windows in the above cases are made to open, they are generally closed at night, and many of them are never opened, excepting perhaps, during the heat of the summer.

In the above cases then, the air, after it has been rendered unfit for respiration, must be breathed again and again, each time becoming more and more charged with carbonic acid, and having a less and less amount of the life-giving principle of oxygen. Nor is this all. Dr. Angus Smith of Manchester, has shown that organic matter is constantly given out from the lungs, and that this organic matter is very readily decomposable, and then emits poisonous gases, which are very deleterious when taken into the lungs; so that not only is the oxygen consumed, but poisonous gases are generated, where due attention is not paid to ventilation, and thus the inmates of close and confined chambers suffer in a twofold way.



Whilst the effects of this overcrowded state of the sleeping-rooms are so pernicious to the health, they are scarcely less so to the morals of the inmates. Upon running the eye down the above tables it will be seen that, in some cases, married people sleep in the same room as their grown-up sons and daughters, and in one case, the parents and a daughter of 18 slept in the same bed. In other cases it will be seen that brothers and sisters sleep together in the same small room. The natural consequence of this state of things is, that the children grow up without any sense of the common decencies of life, which deficiency gradually leads in too many cases at a more mature age to open profligacy, and to the burthening of the parish with illegitimate children.

**EXISTING DRAINAGE.**—I was informed that all the drains, sewers, or soughs as they are called, at Accrington are built of stone with flat bottoms and upright sides, and are covered with flags, and that they are laid dry without mortar. The following particulars were furnished to me by Mr. Dewhurst and Mr. Redman.

*New Accrington.*—The sewage from Chapel-street, Hargreaves-street, Mill-street, Plantation-street, and Elephant-street, runs down an open ditch at the back of the houses upon the N. E. side of Abbey-street, as far as the bottom of that street, where it enters a sewer, laid with dry stone, and supposed to be 2 feet square, which crosses Abbey-street, and runs down Heifers' Bank into the brook.

Down part of Abbey-street and Blackburn-street, there is a large drain 7 feet deep and about 2 feet by 1 foot 8 inches, which at Bridge-street enters into an old sewer. There is another sewer down that part of Blackburn-street which is upon the west side of the brook, but this sewer is stopped up at its lower end.

A sewer about 12 inches square runs down Oak-street to the brook.

There is a sewer, which goes down part of Bank-street and Warner-street, to the brook. At its lower end this sewer appears to pass below the flags of the areas of the cellar dwellings described at page 20; when I inspected that locality, the water in it was stagnant, the outlet being stopped up.

Wellington-street has large sewers made and repaired jointly by all the owners.

*Old Accrington.*—Mr. Dewhurst says:—

“Blackburn-road as far as the top of Union-street has very indifferent sewers. The overflow from the privies runs in small drains into the lower sewers, which convey the water away from the cellars; these sewers have been frequently choked up. The arrangements in the cross streets upon both sides are the same. The water-closets of the East Lancashire Railway Station, empty themselves into the above-named sewers, which for a length of 100 yards are very good, they then join an old sewer, which if not at present choked up, soon will be.



The air which is drawn from these sewers through the cellars into the houses is very bad."

Union-street has good sized sewers laid down at the backs of the houses upon both sides of the street; these sewers empty themselves into the brook below the weir.

The size of sewer in St. James-street, is about 12 inches by 14 inches, it leads into the sewer down Blackburn-road.

In all cases at Accrington where any house-drainage has been attempted, the sewers have been laid at the backs of the houses, to collect together the drainage from them, and their united drainage is led through alleys or entries, into the main sewer in the street. I did not observe any instance in which the drainage of a house was collected separately, and led below the house into the main street sewer, although it is possible that such cases may exist. As the advantages of back drainage appears to be so generally appreciated at Accrington, this being, in fact, the easiest and most obvious way of draining the back premises of a place, where the division between them consists only of low walls or wooden palings, I have not considered it necessary to give a plan illustrating the advantages of this mode of drainage.

**WATER-WORKS.**—The supplies of water for the water-works are collected from springs and surface water at different places about the North Rake, partly in the township of Old Accrington and partly in that of Huncoat. This water is led through dry stone drains into a reservoir, capable of holding about seven million gallons, which is situated near the Burnley-road, at about one mile from Accrington. From this reservoir a 6-inch cast-iron main has been laid down the Burnley-road and Abbey-street, up to the junction of Blackburn-street, after which the main is reduced to a 4½-inch, and finally a 3-inch pipe carries the water to the top of Abbey-street. A 5-inch main is laid down Blackburn-street, which is reduced to a 3-inch main after the junction of Union-street. Three inch and two inch service-pipes or mains have been laid down the branch streets. The water is kept constantly on at high pressure in all the pipes, excepting when turned off for the purpose of making repairs. Nine fire-plugs have been put down at different parts of the town, in order to obtain a supply of water for extinguishing fires. This number of fire-plugs is evidently quite insufficient for a place of the size of Accrington.

It having been found that the supply of water was not sufficient for the increasing wants of the town, a new reservoir has lately been made, capable of holding an additional supply of 23 million gallons, and it is in contemplation to lay down a new 12-inch main from this reservoir to the town, and to take up the old 6-inch main and lay it down Abbey-street, in order to bring an additional supply of water to the upper parts of the town. The water is not filtered before being delivered; it was very clear when I examined it, and I did not hear any complaints of its ever



being turbid. I found a specimen of it, taken from the tap of the Hargreave's Arms, to be very soft; when tried by the soap test it indicated  $2\cdot9^{\circ}$  of hardness. I tested it for magnesia, but none was perceptible in it.

The total cost of the water-works up to the present time, including the new reservoir and the additional drains laid down for collecting water, is 12,000*l.*, of which the new reservoir cost 5,000*l.* An annual rental of 72*l.* a year is paid for the value of the land and streams of water. The annual expense of maintaining the water-works is about 150*l.*

The Accrington Gas and Water-works pay a dividend of 5 per cent. All the surplus profits beyond this amount, have been laid out from time to time in improving the works.

The Company lay down the house service-pipes, and make the junctions with the mains, charging the owners for them.

In New Accrington, the total number of consumers of water is 912, three of whom do not use the water for domestic purposes, there remain therefore 909 houses supplied with water. As the total number of houses in this township is 1,527; there are 616 houses which are at present unsupplied.

In Old Accrington, the total number of consumers is 257, not for domestic purposes five, leaving 252 houses supplied. As the total number of houses in Old Accrington is 419, there are 162 houses without a water supply.

A few of the 778 houses which are not supplied from the water-works, have wells in their cellars, others of them pay a small rent for leave to draw water from a private well, but by far the largest number fetch their water from public wells or springs, of which there are several in different parts of the town.

I found that in about one-third of the houses where the water is supplied from the water-works, and where taps have been fixed in them, there were no sink stones, nor drains to lead off the waste water. In these cases it is usual to find a jug or a can put below the tap to receive the droppings. The taps in the houses are screw taps, and cost 2*s.* 1*d.* each. I observed that the majority of them leaked slightly. No cisterns or reservoirs are used in the houses, as the supply is upon the constant principle.

**LIGHTING.**—The town is lighted with gas by the Accrington Gas and Water-works Company. The gas works are situated in Allom-lane, a little to the north-east of the town. The total cost of the gas works has been about 6,799*l.*, of which 3,390*l.* have been expended in laying down pipes. The ends of the pipes are turned slightly conical, and the sockets bored, the pipes are then fixed by being driven one into the other with wooden mallets.

The gas works in their present condition are capable of producing 31,000 cubic feet of gas in the 24 hours; by the addition of another gasometer, and a very slight alteration of the present



arrangements, they might be made to produce 80,000 cubic feet in the same time. The annual expense of superintendence and managing the gas works is about 170*l*. The average amount of gas produced by one pound of coals is 4.44 cubic feet. The present average daily consumption for public and private lights, including both, is about 13,000 cubic feet. The loss of gas by escape is stated to be about one-eighth.

I am indebted to Mr. Charles, the manager of the gas and water-works, for the above details respecting them.

**HIGHWAYS.**—Generally speaking, the streets are well paved, have proper flagged foot-paths upon both sides of them, and are kept in good order. I observed that some of the new streets were in a very bad condition, and I may point out Chapel-street as an example of this state of things. I found that the upper portion of it up to a certain point was well made and in good order, and that the next portion was in a very bad condition, the road apparently never having been properly formed. Upon inquiry into the reason of this difference, I was told that the houses belonged to several proprietors, and that the owners of the houses at the upper end of the street, had made and repaired the road opposite to their houses, but that the proprietors of the next houses, had neglected to make their portion of the road, and that under the existing laws there was no means of forcing them to do so, thus the inhabitants of the whole street suffered a great inconvenience.

I also observed that Allom-lane, leading from Accrington to Church, was in a very bad state of repair. I was informed that this also was a private road.

The roads belonging to the townships are repaired by two separate road-surveyors, one for each township; the following has been the annual expenditure for the repairs of the roads during the last three years:—

| YEARS.                                          | Township of<br>New Accrington. |    |    | Township of<br>Old Accrington. |    |    |
|-------------------------------------------------|--------------------------------|----|----|--------------------------------|----|----|
|                                                 | £.                             | s. | d. | £.                             | s. | d. |
| For the year ending in the spring of 1848 . . . | 285                            | 10 | 8  | 109                            | 17 | 5  |
| "          "          1849 . . .                | 176                            | 17 | 11 | 77                             | 17 | 1  |
| "          "          1850 . . .                | 116                            | 9  | 9  | 69                             | 2  | 3  |

Should the two townships be united into one for the purposes of the Public Health Act, there would be considerable economy resulting from the consolidation of the repairs of the roads under one surveyor; whilst clauses 69 and 70 of that Act would provide a remedy for the inconveniences arising from the defective condition of the private streets.

**BURIAL GROUNDS.**—There are six burial grounds in Accrington, two belonging to the Established Church, and four belonging to Dissenting communities.



*St. James's Churchyard.*—This churchyard has been lately enlarged, in consequence of the older portion of it having been completely filled with graves. The area of the new portion of it, at present unoccupied, after deducting the footpaths, is about 15,000 square feet. If 25 square feet, which is rather under the space which is now considered advisable, be taken as the proper average allowance of space for each interment, this addition to the churchyard would allow of 600 interments taking place in it. The result of my inquiries of the sextons belonging to the different burial grounds at Accrington was, that it took about 20 years for a body to decay; but allowing that at the end of 10 years interments might take place again in the same graves, the utmost average number of interments, which this space of ground would properly allow of, would be 60 annually. A few interments have taken place in vaults below the church. These interments are particularly objectionable, because the flags which form the paving of the church have to be taken up, in order to bury in the vaults beneath them.

The following return of the number of interments in the churchyard and in the vaults, during the last 10 years, was furnished to me by the clerk:—

## INTERMENTS at ST. JAMES'S CHURCH.

| YEARS. | In the Church-yard. | In the Vaults below the Church. |
|--------|---------------------|---------------------------------|
| 1840   | 95                  | 3                               |
| 1841   | 87                  | 3                               |
| 1842   | 83                  | 3                               |
| 1843   | 106                 | 3                               |
| 1844   | 89                  | 2                               |
| 1845   | 89                  | 4                               |
| 1846   | 133                 | 4                               |
| 1847   | 107                 | 1                               |
| 1848   | 95                  | 1                               |
| 1849   | 133                 | ..                              |

The average number of interments during the last four years has been 117, at which rate the new burial ground would not afford burial accommodation for more than five years, after which it would require to lie fallow, so to speak, for five years more, before the proper requirements of decency and of health would permit it again to come into use. The old burial ground, which surrounds the church, and extends down to the houses in Higher Fold and Church-street, ought not to be allowed, upon sanitary grounds, to be again used for interments. There are at present, as far as I remember, only three houses in the immediate vicinity of the new portion of the churchyard.

*Christ Church-yard.*—This is a burial ground attached to a new church, where very few interments have, as yet, taken place.



There are no houses very near to it, as it is quite in the outskirts of the town.

*New Jerusalem Burial Ground* is a very small space of ground in Abbey-street, facing the chapel. It contains about 1,700 square feet, which would, upon the same calculation as before, admit of a total of 68 interments in 10 years. During the 21 years that this burial ground has been used, 248 interments have taken place in it, or nearly twice the number which proper sanitary regulations would allow of. Upon the average of the last six years, it appears that 15 interments take place annually. This burial ground faces the public street, and is in the midst of houses; I am, therefore, of opinion, upon the above considerations, that no more interments should be allowed to take place in it.

*Independent Burial Ground.*—This burial ground is attached to the Independent Chapel in Oak-street. It was begun to be used in 1842, and only 20 interments have taken place in it. It is, however, in a bad situation, as regards its proximity to houses. Below the chapel there is a large school-room, and below this again are vaults, which are arched over, and to which access is obtained from without the building. Three interments have taken place in these vaults. A portion of the burial ground is above the level of the school-room floor. I consider that all future interments in the vaults should be prohibited, and looking at the position of the school-room, surrounded upon three sides by burial ground, and the relative levels of the school-room floor and the burial ground, I think it very questionable whether the use of the room for a school, and of the ground about it for interments, should both be permitted to be continued. The fee for an interment in a grave is 7s., and that for interment in a vault 2l.

*Wesleyan Burial Ground.*—This is a small burial ground, in front of the Wesleyan Chapel in Union-street, and is surrounded by houses. The total available space in this burial ground I found to be about 4,700 square feet. The first burial in it took place in 1807. Upon the data given above, the total number of burials, which, under proper regulations, this space would have admitted of, during the 43 years that it has been open, would have been 808. The total number of interments which have actually taken place in it is 780, of which 27 took place last year.

Part of this burial ground, however, is occupied by vaults, of which there are five single ones, measuring three feet nine inches wide, by seven feet long, in which nine interments have taken place, and five double ones, eight feet six inches wide, and seven feet long, in which 18 interments have taken place. These vaults would materially take away from the space available for the 808 interments calculated as above. Taking the situation of the burial ground in the midst of habitations and its crowded state into consideration, it would decidedly be advisable that no future interments should be allowed to take place in it.



*Baptists' Burial Ground.*—This burial ground is situated in Allom-lane, near the gasworks, and is at a short distance from the town. There are, however, two houses, one upon each side of it. At page 28 will be seen an account of the way in which a cellar dwelling, below one of the houses, is affected by its nearness to this burial ground. I was not able to obtain the total number of burials which have taken place here, as one of the early register-books had been mislaid. It appeared that during the last 17 years there had been 527 interments. There still remains a considerable space of ground unoccupied. At the lower end of this burial ground is a small pool, walled round, with steps leading down into the water, used for baptismal purposes. The graves are very thick around this fount, and there can be no doubt but that it receives the drainage from a considerable portion of the burial ground, and the idea of being immersed in such water is by no means pleasant.

#### RECOMMENDATIONS AND REMEDIAL MEASURES.

I consider that the application of the Public Health Act would be extremely beneficial to the town of Accrington, as it would enable a proper system of sewerage to be laid down, and would give the Local Board of Health power to compel the owners of the 778 tenements, at present destitute of a proper water supply, to lay down service-pipes and fix taps and sinks in them. It would also enable the Local Board to enforce a proper system of ventilation in the wretchedly crowded bed-rooms of the poorer classes, whilst it would give powers to the small owners of house property to borrow money for effecting these and other sanitary improvements in their houses, the repayment of the same being spread over a series of years, thus lightening the charge upon them. It would enable the Local Board to cause all such private streets or roads as required it, to be properly paved and repaired by, or at the expense of, the owners of the property fronting them, and it would give additional powers for the removal of public nuisances in those cases where the Nuisances Removal Act has been found to be inoperative.

Whilst the Public Health Act would give so much facility in improving the present state of the town, it would be no less useful in ensuring a wholesome supervision of all new streets and buildings, and thus preventing a repetition in them of those great structural deficiencies, both as regards ventilation and cleanliness, which are so abundantly to be found in the older parts.

As the two townships of New and Old Accrington are so intimately connected together, as the boundaries between them are so interlaced, and as they form substantially part of the same drainage area, there can be no doubt, but that they should form part of the same district, and thus the expenses of two separate Boards,



with separate offices, would be dispensed with. I recommend, therefore, that the two townships of New and Old Accrington be incorporated together, for the purposes of the Public Health Act, into the new district of Accrington.

**SEWERAGE.**—For the efficient sewerage of the town a complete set of glazed stoneware pipes, circular in section, should be laid down in the back courts and alleys, leading into larger pipes laid down in the thoroughfares, and the sewage thus collected should be distributed for manure. In order to do this more effectually, I propose to divide the sewerage of the town into two systems. The upper one should comprise Wellington-street and the parts adjacent, Christchurch, Daisey-hill, Woolhurst Bank, and all that part of Accrington which would lie above a line drawn from Mr. Thompson's mill to the eastern end of Bank-street, together with that portion of it which lies to the north-east of Bank-street. The remainder of the town would be comprised in the lower system of sewerage.

To collect the sewage of the upper system, I propose to lay down a main sewer pipe, nine inches diameter at its commencement, near Mr. Thompson's mill. From thence it would take the direction of Bank-street, and increase as it proceeded to 18 inches diameter at its lower extremity, near Heifers' Bank, where it must turn into Abbey-street. This main sewer-pipe should now follow the direction of the Whalley-road, crossing over the Pleck Brook upon a small arch, and skirting the hill above the Lower Fold and Milnshaw, whence it might be continued in a direction parallel to the Hindburn Brook, towards Church. After passing Milnshaw its contents may be distributed for manure. From the position of the pipe skirting the side of the hill, with a tract of land about 170 yards in width, and three-quarters of a mile in length, sloping gradually away from it down to the brook; I conceive that the liquid manure might be very readily distributed by means of catch-water drains, upon the system adopted in catch-water irrigation. The residue of the sewage may be carried to the north of Church, and crossing the canal, by a syphon pipe, might be distributed over the meadows lying to the west of Dunkenhagh Park.

The level at which the main sewer should commence, near Mr. Thompson's mill, would be about 460 feet above the Ordnance datum; from thence to Warner-street it might have an average inclination of about 1 in 250, and from Warner-street to the Pleck Brook about 1 in 500. Thus at the Pleck Brook the level of the main sewer would be about 454 feet above the datum; from this point the main sewer might have an inclination of about 1 in 1,000 to Church.

I should propose to collect the sewage of the upper portion of the second system by means of two small pipes, laid one upon



each side of the Hindburn Brook, as far as its junction with the Wood Nook Water, where they should unite into a main sewer-pipe, to be laid in the bottom of the brook at about 3 feet below its bed. The main sewer may continue in the bottom of the brook until it arrives at the junction of the Pleck Brook. During this part of its course it must have the same inclination as the brook, which is about 1 in 60. After the junction of the Pleck Brook the inclination of the sewer may be reduced gradually to about 1 in 1,000, and, as the brook continues to fall rapidly, the sewer will naturally leave the bed of the brook, and may be carried along the northern bank, which it will follow to beyond Church, where, passing below the bed of the Leeds and Liverpool Canal, it may be continued to the meadows to the south and west of Dunkenhalth Park, where the sewage may be distributed for liquid manure. This sewer may be of 9 inches diameter at its upper end, and may gradually be increased to 18 inches diameter at the junction of the Pleck Brook.

From both of the above-mentioned main sewers small branch mains, of 6 inches and 9 inches diameter, must be laid to collect the sewage from the streets and back courts and alleys. As the main sewer in both systems would run in the direction of the length of the district, these branch sewers would necessarily be short, and a considerable inclination may be given to them in order to insure their effectual and rapid discharge. The house-drains themselves may for the most part be made of 4-inch glazed pipes.

All the entries into the sewers, whether from sinks or gratings, must be carefully trapped to prevent the possibility of any effluvia escaping from the sewers into the houses. All cesspools must be abolished, and the acquisition of the space which is at present occupied by them, most of it being in small back courts and alleys, will very much facilitate the other improvements. Water should be laid on to all the privies, and a syphon basin should be substituted for the present arrangement. Thus the privies being freed from disagreeable smells, the occupiers of the houses to which they belong will be encouraged to keep them clean and tidy; and, as the removal of the cesspools will allow of room for the erection of additional privies in those cases where they are wanted, and as the absence of smell from them will permit of their being built in situations which are at present ineligible upon account of contiguity to the houses, they may be so placed that the most delicate female may use them without her innate sense of modesty being shocked by the consciousness of public observation. Under such an arrangement it is to be hoped that a new and healthier tone of feeling will gradually spring up. Thus the sanitary Reformer, energetically sweeping away all that is detrimental to the physical health, will pave the way for the entrance of



that ray of light which will usher the Teacher and the Minister into those dark corners of our crowded towns, from which the atmosphere of miasma and the positive state of filth, has hitherto effectually barred them out,

**DISTRIBUTION OF THE SEWAGE FOR MANURE.**—As will have been seen above, I propose distributing the sewage of Accrington for liquid manure. The advantage of liquid manure to the agriculturist is now so generally acknowledged, and the successful application of sewage for this purpose at Edinburgh, where poor land worth only a few shillings has, by this means been brought to a value of 20*l.* an acre, is so well known, that it is scarcely necessary to dwell upon the advantages of such a mode of employing the refuse. There is, however, another very strong reason why it would be extremely unwise to lay down a new system of sewerage without arranging it from the first in such a manner as to provide for the use of the sewage for manure. As the knowledge of the conveniences to be derived from efficient systems of sewerage spreads through the country, large towns and populous villages will more and more adopt them; and if the sewage thus collected were turned into the watercourses and rivers, all the arteries of the kingdom would be effectually poisoned, and the courses of large rivers would be marked upon the sanitary map as streaming with disease and death. If then, the old system of turning the sewage of towns into the nearest rivers should be extensively acted upon throughout the country, the evil would become one of such magnitude that it is not impossible that the legislature would be called upon to interfere, when so pernicious and wasteful a practice would certainly be put a stop to by Act of Parliament. Under these circumstances, those places which had thoughtlessly allowed their whole system of sewerage to be arranged upon the old plan, would find themselves suddenly called upon to make a radical change in it, and to go to a great expense, which might have been saved by wisely acting upon judicious principles in the first instance.

**WATERWORKS.**—If the new 12-inch main be laid down, as proposed, this, together with the new reservoir, will supply the town of Accrington with an ample amount of water for all sanitary purposes; and it will only require to lay down an additional main in Abbey-street in order to give the upper part of the town the benefit of the increased supply of water.

I should recommend that a small filtering culvert be substituted for the present grating at the mouth of the 12-inch main in the new reservoir, in order to filter the water from any extraneous matter that may be suspended in it. From the general clearness of the water, it being for the most part derived from springs, it does not appear to be necessary to filter the water upon a large scale.



There are 778 houses in the two townships which are not at present supplied with water: of these there will probably be at least 500 within the town of Accrington, and in such situations as to be capable of being supplied from the waterworks. As they will probably be small houses, and as the rates actually charged by the company upon similar houses are less than 2*d.* per house per week, I should recommend, that in pursuance of the powers that will be vested in the Local Board by the Public Health Act, it be made compulsory on the owners and occupiers of these houses to take a supply of water. Sinks, with proper waste drains, will require to be fixed both in these houses and in those at present supplied with water, but which have not these conveniences.

The present number of fire-plugs is only nine; a considerable number of additional ones will require to be fixed at intervals along the streets, in order to afford a proper supply of water for extinguishing fires, as the present number is quite inadequate for such a purpose. The intervals between these plugs in the main streets should not exceed 50 yards.

**SLAUGHTER-HOUSES.**—As the present plan of slaughtering in the butchers' shops, or in small back sheds and outhouses, not only leads to great cruelty towards the animals, but also is likely to be detrimental to the public health, in consequence of the great want of drainage to be found there, I recommend that a public slaughterhouse be established by the town, where, for a small fee, the butchers may be provided with every accommodation necessary for their purpose. Upon the opening of such a building I should propose to prohibit the slaughtering of cattle in any other place.

**BURIAL GROUNDS.**—I recommend the following measures with respect to the burial grounds:—

That all future interments beneath any place of worship or other building be prohibited.

That no interments be allowed to be made henceforth in the old part of St. James's churchyard.

That the burial grounds attached to the New Jerusalem chapel and to the Wesleyan chapel be closed.

That as long as the lower part of the Independent chapel in Oak-street is used as a school, no interments be allowed to take place in the present burial ground.

Considering the great inconvenience to which the following up of the above recommendations would put many of the inhabitants of Accrington, I strongly advise the formation of a general cemetery for the use of the two townships, and the entire giving up of the barbarous practice of interring the dead in the midst of the living.

**CHARGES.**—I have appended to this Report an estimate of the



probable expense of laying down a complete system of sewerage upon the plan recommended in my report, including distributing pipes to beyond Church, with overflow pipes into the Hindburn Brook.

It will be seen that the sum required for the general sewerage of the town is 6,116*l*. In order to pay off this sum at the end of 30 years it would require an average weekly payment of 1*d*. for each house. Even this sum, small as it is, compared with the great comfort to be derived from the cleansing of the town, and the abolition of the stinking cesspools, will probably be very much reduced by the profits arising from the sale of the liquid manure. The expense of laying down service-pipes and house-drains, of putting up sinks in the kitchens, of converting the privies into water-closets, and of effecting the other house improvements which I have pointed out, would not exceed an average sum of 3*l*. per house. A weekly payment of  $\frac{3}{4}$ *d*. per house would suffice to pay the interest and liquidate the principal of this sum in the course of 20 years.

#### SUMMARY OF CONCLUSIONS arrived at in the preceding Report.

That the mortality of New Accrington is 22·1, and of Old Accrington, 22·7 in the thousand, and that this rate of mortality entails upon these townships very heavy pecuniary burthens both public and private.

That in New Accrington there are 575 open cesspits and refuse heaps, making a surface of upwards of one quarter of an acre, and in Old Accrington 103, making a surface of about one-twelfth of an acre of decomposing matter.

That the ventilation of many of the sleeping-rooms of the lower classes is very bad, and that they are overcrowded beyond what a due regard to health and decency would permit.

That the state of the burial grounds, excepting the new one belonging to Christ Church, is not satisfactory, and that at least two of them require to be immediately closed.

That new houses are continually being built, and new streets laid out, without due regard to improved structural arrangements, and that a proper supervision is required to prevent the continuance of this state of things.

That an efficient system of sewerage may be laid down at an expense of about 6,116*l*., and that this would require the small average weekly payment of 1*d*. per house.

That the cesspools may be removed, that a proper water supply, with a kitchen-sink and house-drain, may be brought into each house, and the privy be converted into a water-closet at an average cost per house of 3*l*., which would require a weekly payment of  $\frac{3}{4}$ *d*. continued for 20 years in order to pay off the principal and interest.



# SUMMARY OF THE RECOMMENDATIONS.

That the two townships of New and Old Accrington be united into one district, and that the Public Health Act, except the section numbered 50 in the copies of that Act printed by Her Majesty's printers, be applied to it, as being the only effectual way of remedying the existing evils.

That an efficient system of sewerage be laid down, and all cesspits be done away with.

That additional privies be built where necessary, that improved syphon basins be put to them, and that water be laid on to them.

That the water from the water-works be laid on to such of the houses as are not at present supplied, and that kitchen-sinks be put up and house-drains be laid down wherever they do not at present exist.

That a public slaughterhouse be established.

That a cemetery be made, at a convenient distance from the town, as a burial ground for the new district of Accrington.

I have the honour to be,

My Lords and Gentlemen,

Your obedient servant,

BENJAMIN HERSCHEL BABBAGE.

To the General Board of Health,

&c. &c. &c.

## TOWN OF ACCRINGTON.

ESTIMATE of SEWERAGE, including Distributing and overflow pipes to Church.

| —                                            | Yards. | Per Yard. | —         | —           |
|----------------------------------------------|--------|-----------|-----------|-------------|
|                                              |        | s. d.     | £. s. d.  | £. s. d.    |
| <i>Pipes of glazed stone-ware—</i>           |        |           |           |             |
| 6 inch diameter, 4 feet deep .               | 3,700  | 3 0       | 555 0 0   |             |
| 6       "      10       "      . .           | 2,000  | 4 6       | 450 0 0   |             |
| 9       "      4       "      . .            | 2,000  | 4 6       | 450 0 0   |             |
| 9       "      10       "      . .           | 2,500  | 6 0       | 750 0 0   |             |
| 12       "      4       "      . .           | 2,000  | 6 0       | 600 0 0   |             |
| 12       "      10       "      . .          | 1,000  | 7 6       | 375 0 0   |             |
| 18       "      4       "      . .           | 3,800  | 12 0      | 2,280 0 0 |             |
|                                              |        |           |           | 5,460 0 0   |
| Trapping gully-gratings, &c. .               | . .    | . .       | . .       | 100 0 0     |
|                                              |        |           |           | 5,560 0 0   |
| Add 10 per cent. for contingencies . . . . . |        |           |           | 556 0 0     |
|                                              |        |           |           | £ 6,116 0 0 |

In the first instance I should propose only to lay the lower main from Accrington to Church, and to make a communication



from the upper system of sewers into this main, so as to deliver all the sewage of Accrington into the Hindburn Brook below Church, until arrangements can be made for distributing it for manure. The upper main pipe can be laid down from time to time, in order to distribute the sewage as the demand for it arises. This will reduce the immediate outlay by about 660*l.*, and will leave the cost of the sewerage alone, without the distributing main, but including the overflow main, 5,456*l.*