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 town of Newton-Abbot / by George T. Clark, Superintending Inspector.

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PUBLIC HEALTH ACT

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

REPORT

TO THE

GENERAL BOARD OF HEALTH,

ON A

PRELIMINARY INQUIRY.

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

OF THE TOWN OF

NEWTON-ABBOT.

BY GEORGE T. CLARK,

SUPERINTENDING INSPECTOR.



LONDON:

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

NOTIFICATION.

The General Board of Health hereby give notice, in terms of section 9 of the Public Health Act, that on or before the 18th of April next 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 Town of Newton-Abbot; or with respect to any amendment to be proposed therein.

By order of the Board,

HENRY AUSTIN, Secretary.

Gwydyr House, Whitehall, 11th March, 1850.

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

Report to the General Board of Health on a Preliminary Inquiry into the Sewerage, Drainage, and Supply of Water, and the Sanitary Condition of the Inhabitants, of the Town of Newton-Abbot. By George T. Clark, Superintending Inspector.

London, 26th April, 1849.

MY LORDS AND GENTLEMEN,

In obedience to your instructions, I proceeded on the 9th of March last, after public notice duly given, to visit the petitioning town of Newton-Abbot, in the parish of Wolborough, in the county of Devon; a place not having a recognised boundary. I held public sittings there, in the Town Hall, on the 9th and 10th inst., and employed the remainder of those days, and a part of the 12th, in a public inspection of the town, and in collecting materials for this Report.

2. Mr. Abberley, surveyor, laid before me various surveys and levels of the town and its sewers, and in other respects materially

aided my inquiry.

3. I have to acknowledge the support of Mr. Cartwright, of Forde House, a principal ratepayer, and a magistrate for the county: also of the Rev. John Templer, curate of Highweek; of Lieut. Lethbridge, R.N.; of Messrs. Leslie and Gillard, surgeons; and of Mr. Flamank, solicitor. I was also accompanied throughout my inspection by Mr. Gaye, surgeon; and by Messrs. Chudleigh, Milward, Ford, Symons, Lamble, and

Rendell, engaged in trade in the town.

4. There was a considerable opposition to the application of the Act, and a counter-petition, numerously signed, has been laid before your Board. It was not, however, alleged that the proportion of ratepayers signing the original petition was within that required by the Act; or that there was any legal irregularity or omission whatever in the proceedings. The principal grounds of opposition were, that the application of the Act was objected to by a large majority of the ratepayers; that the mortality returns officially furnished were incomplete, and calculated to give an erroneous impression of the health of the town; and that the Nuisances Removal Act contained sufficient powers for all the requisite improvements in the town.

5. The first of these objections obviously did not affect the validity of the petition, or of the inquiry, and I therefore declined

[31.] B

entering into it, as into the propriety of a new census of the

inhabitants of the parish.

6. With respect to the correctness or completeness of any returns furnished officially by the Local or General Registrar, I also declined to allow a discussion; but I requested the objecting parties to state their objections in writing. Upon this Mr. Gaye put in a list of persons (I presume in the parish, for the document has no title) dying between March, 1843 and 1848. This list includes 74 persons by name, of whom there died at—

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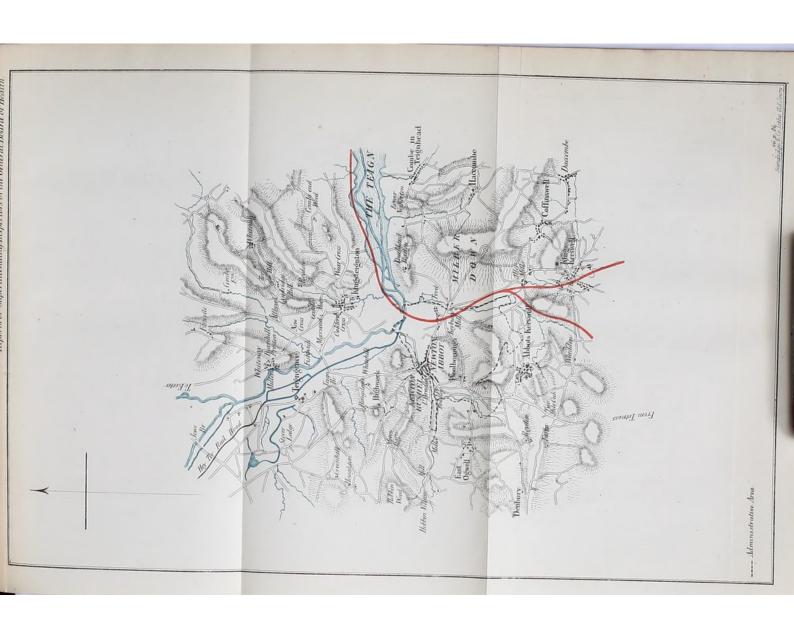
—a statement upon which Mr. Gaye has founded no argument, which is absolute only, and which therefore is quite consistent with the relative statement of mortality furnished by the Superintendent Registrar. These objections induced me to look closely into the returns furnished by this officer, and to visit his office, and I feel called upon to bear testimony to the care and attention which he has bestowed upon the sanitary statistics of the town. The opposers occupied a good deal of time in the attempt, directly or indirectly, to prove that the official rate of mortality gave an unjust impression concerning the unhealthiness of the place; and I have kept back this Report upwards of a month, in expectation of a statement upon this point which Mr. Gaye requested to be allowed to put in. This statement has, however, not arrived, nor can I in justice to the town keep back the Report any longer.

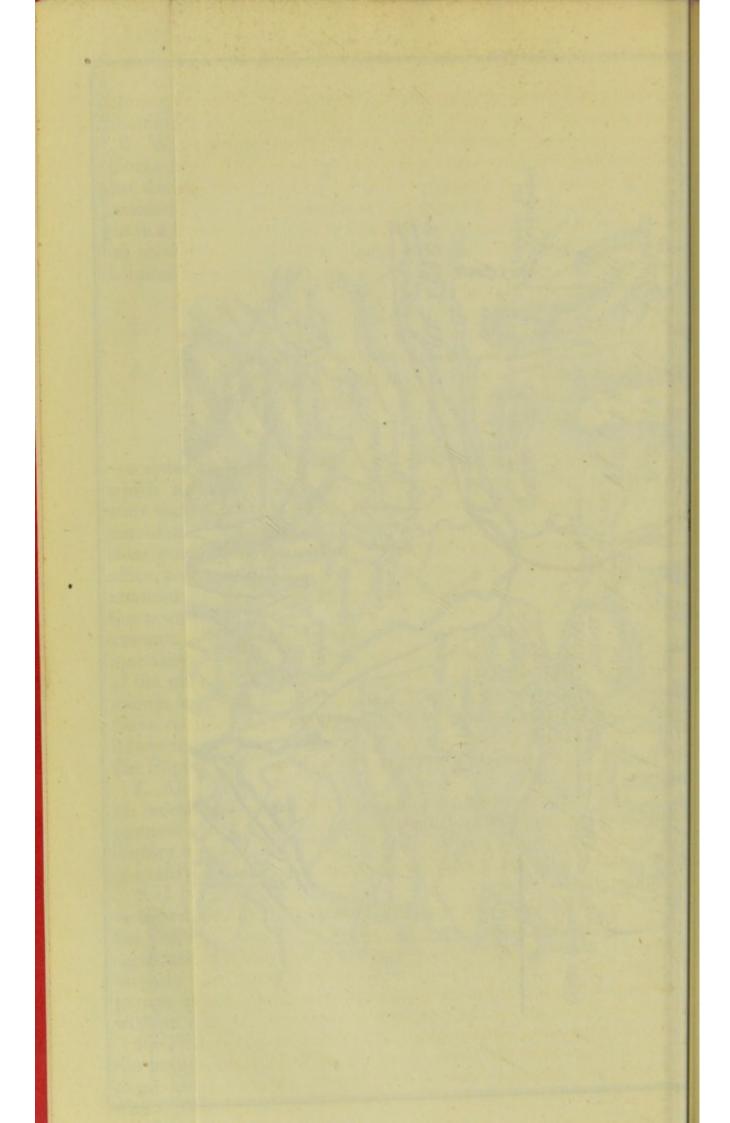
7. Also I have to observe, that although the official return of mortality is cited in this Report, its correctness or incorrectness does not affect the validity of the proceedings, since the inquiry was instituted upon petition, and not upon the rate of

mortality.

8. I observe, in the correspondence (23 Nov. 1848) herewith returned, a charge, repeated before me, against the promoters of the petition, that they sent it round by an illiterate person for signature. To this charge I felt that no weight was to be attached; on the contrary, it appears to me to be the duty of a person carrying round a petition for signature to present it without remark either of explanation or persuasion.

9. This opinion of the opposers, concerning the "having left the petition in the hands of an illiterate person," has explained to me how it is that I find, on comparison, that, of the 84 persons who signed the original petition for the application of the Act,





no less than 41 have signed the counter-petition, expressing diametrically opposite opinions; and I find during my inspection ample evidence of the misapprehension that prevailed among the poorer classes as to the expenses likely to be entailed upon them by the Act, while its manifold advantages had been kept out of sight. I presume, therefore, that the opposers did not commit what they impute as a fault to the promoters, and that those who took round the counter-petition for signature favoured the poorer ratepayers with their own views as to the provisions of the Act.

10. It appears also that on the lists of counter-petitioners appear the names of the chief cottage proprietors in the town, and of cottage tenements in a particularly disreputable condition.

11. I am induced to make these remarks, because the general course taken before me by the opposition, although very courteously conducted towards myself, showed that their object was of a party character.

12. General Description.—Newton-Abbot, so called from its ancient connection with the abbots of Tor, forms with Newton-Bushel one of the numerous small towns which are scattered along the southern margin of the county of Devon. The town stands at the head of the estuary of the Teign, barely above the reach of the tide, and upon the right bank of the Lemon river, a little above its confluence with the Teign. Newton-Bushel stands chiefly upon the left bank.

13. The position of the town is remarkably fine. It is built partly on the margin of the stream, partly on the rising ground on either side of it. Below it is the broad expanse of meadow that marks the conflux of the Lemon and the Teign; and above it a narrow and picturesque valley includes patches of meadow-land of high fertility, and gorges and cliffs capped and fringed with wood, and highly characteristic of the sylvan scenery of the

mountain limestone.

14. The hills about the town are high and steep, and between them the Lemon descends from the granite district of Haytor, and a short distance above the town a portion of its water is diverted and led to turn a mill for the manufacture of paper and

others for grinding corn.

15. The hills about Newton are chiefly carboniferous limestone, a projection from the great Devonian tract. The town appears to stand in great part upon gravel and sand, mixed up with alluvial soil and clay. The Lemon, during the winter months, is a considerable stream, though in summer it is scarcely more than sufficient for the purposes of the mills.

16. Newton town stands upon the junction of four main roads, of which those from the north combine to form a main street. Into this, on the right bank of the Lemon, enters the Totnes road on the west, and on the east the new street and road from

the South Devon Railway, which passes within half a mile of the town, and here has a station. About the junction of the last-named streets is built the Newton-Abbot portion of the town.

17. Newton-Abbot has greatly the advantage over its neighbour of Bushel. Courtenay-street and the road from the railway, now the principal entrance to the town, boast a considerable portion of new and handsome houses, including the town-hall, a chapel, several shops, and an hotel. The main streets also are on the whole wide, and the general appearance of the house-fronts, with some exceptions, neat and clean. The footways are flagged and in good order. These and various other improvements I understand to have been introduced of late years by private subscriptions. The portion of the town deserving of commendation is confined to the houses chiefly in view and belonging to the richer classes.

18. Government.—The parish of Wolborough contains the town of Newton-Abbot, a part of which forms what is called the Borough. The Lord of the Manor of Wolborough holds Manor Courts, as does the Lord of the Borough. The latter appoints a nominal officer, known as the portreeve. The northern half of the town, or Newton-Bushel, is in Highweek parish. The two form essentially one town. The distinction between them is purely artificial, and is the cause of some unnecessary expense to both.

19. The parish in vestry annually appoint the usual officers—including three surveyors of highways, and, under the 3rd and 4th William IV., cap. 90, nine inspectors for lighting. The rates annually levied are—a poor-rate, of 2s., producing about 632l.; and a lighting and watching rate which, during the last four years, has averaged 9d. upon houses and 6d. upon land, producing 150l. The highway-rate is 6d., producing 187l.: so that the total annual burdens of the town may be about 969l., upon a rental estimated for the poor-rate in 1847 at 6518l. The parish is freed from church-rate by an ancient charitable bequest, and

there are no seat or pew rents.

20. During my visit I heard a great deal and saw something concerning the manner and spirit with which, under the above government, the parish business and expenditure are carried on. I conceive it to be calculated to foster party spirit; and even where it does not, as it has not done here, prevent very considerable improvements in the place, it causes them to be carried out in an expensive manner. It is quite absurd to suppose that the roads of a district, capable at most of occupying a small fraction of the time of a competent professional surveyor; should be regulated economically by three persons, non-professional and changed annually. The system is radically vicious, and pervades every branch of the engineering expenditure of villages.

and small towns. A committee has recently been appointed by the parish to apply the 'Nuisances Removal Act.' In the whole course of my visit I found many cesspools emptied out, a few freshly filled up, here and there even a gutter-grate washed out, and numerous traces of recent activity. But even these purifications were very incomplete. A cesspool recently emptied exposes rather a larger area of foul surface than one filled to the brim. The nooks and corners in the courts, being the only places provided for dust and refuse, must rapidly be re-occupied, and no amount of surface-cleansing will keep clear an inefficient house or court drain. In very many cases in which the filth had been early removed, it had again begun to collect. If it had been, as it most certainly was not, the object of those who applied the 'Nuisances Act' to prove its utter inefficiency for the permanent improvement of the cleanliness of the town, they could not have adopted a better course.

21. Population.—The divisions of Newton-Abbot and Newton-Bushel are so intimately connected, topographically, that it will be convenient to give the population of both.

of Maddleton to the Lessen	1801.	1811.	1821.	1831.	1841.
Wolborough (Newton-Abbot)	1623	1627	1859	2194	2355
Highweek (Newton-Bushel) .	777	823	907	1109	1303

The census of 1841 for Newton-Abbot includes 254 persons, not parishioners of Newton and resident in the union work-house.

The number of births	s in Wolboro	ugh in t	he s	even	
years ending 30th	September,	1848, is		ino.I	591
The deaths (deducted))	o Descript	1 40	THE MANY	406

Leaving an excess of . . 185

to be added to the population of 1841, which therefore gives 2794 as a rough approximation to the present population. The figures in the above calculations are taken from the official returns.

22. Mortality.—I have been supplied by the Superintendent-Registrar, Mr. Alsop, with his official returns of the local mortality. From these it appears that the number of deaths in Wolborough parish, including parishioners dying in the union-house, in the seven years ending 30th September, 1848, was 406; which, according to the direction of the Act, taking

the population of 1841, gives a mortality of 24.6 in the 1000. The corresponding mortality for the whole registration district is 18.85 in the 1000. I have also received from Mr. Alsop an official and very complete classification of the causes of the above 391 deaths last cited. Of these I find about 90, or above 23 in the 1000 upon the total, to arise from diseases of the zymotic class, and known to be materially affected by damp and noxious odours.

23. Inspection.—I received from Messrs. Leslie and Gillard, surgeons—the latter to the union, and therefore intimately acquainted with the condition of the dwellings of the poor—a list of 50 nuisances in Wolborough and East Streets, together with

the following statements:-

"Andrew Leslie, of Newton-Abbot, in the county of Devon, surgeon, states: I have resided and practised in the said town for near 30 years, and have been in the daily habit of visiting my patients in the different streets and courts of the said parish, and consequently have had various opportunities of witnessing the state of the sewers, drainage, and cleanliness thereof. That in Major's Court (Wolborough Street), some years since, fever commenced at the bottom house thereof, and spread through the court, visiting each house, and which I attribute to the Lemon being perfectly dry. I have constantly viewed the town, and, where I have found cesspools and imperfect drainage, slow fever has generally prevailed, particularly in Balsom's Court, Snelling's Court, Rendell's Court, Hannaford's Court, in Wolborough Street; and in Penny Lane, Richard's Court, Bridewell Court, and Wansen Court, in East Street.

"That foul and noxious vapours are emitted from the town gutter during warm and changeable weather, which I consider are highly prejudicial to the health of the inhabitants of the town. I consider that the matter emitted from the sewers into the river Lemon, which during the greater part of the summer

months is dry, is a great cause of fever."

"Francis John Gillard, of Newton-Abbot, in the county of Devon, surgeon, states: I have resided and practised in the said town and have been surgeon to the Newton-Abbot union for about nine years. That I have viewed the streets and courts in the said town, and examined the cesspools and drainage therein with Mr. A. Leslie, also of the said town, surgeon, and found the drains very imperfect, and large cesspools, which I consider highly prejudicial to the health of the inhabitants, and have generally found that low fever prevails in those parts.

"That I consider the town gutter very injurious to the

health of the inhabitants of the town.

"That there are two lodging-houses in the town, kept by Elliott and White; that a great number of vagrants are in

the habit of sleeping there, in close and confined rooms, without proper ventilation and conveniences. That I have had several cases of fever in these houses from time to time, which I attribute to bad ventilation and sewerage. That the water from the streets of the town flows into the drains through open gratings, and during warm weather the effluvia arising from the same are very offensive and injurious to health. That during the summer months the effluvia arising from the Lemon (which during that season is nearly dry) are very prejudicial to health and highly offensive."

24. In this inspection I was accompanied throughout by the Reverend J. Templer, Messrs. Leslie and Gillard (surgeons to the union), Mr. Flamank, Messrs. Gaye, Ford, Milward, Rendell, and Mr. Abberley (who provided plans of the town and its drainage) and others, all residents in the town, including those who took an active part in the application of the Nuisances

Removal Act.

25. Of the specific nuisances visited, I may mention a few of the most remarkable. The courts about Wolborough Street, from the entrance of Back Lane to the Cross, contain almost the worst part of the town. On the southern half the land is high, and drains directly upon the houses. On the north the

ground falls from the street towards the Lemon.

26. Major's Court is in a good natural situation, with a good fall, but very badly paved, full of puddles, and having two privies under one roof for the whole of a large court. These are out of order, and the people throw their house-filth into the river. The paving and draining here are execrable, and the place has been a seat of fever. In the British-School Court is a school attended by 50 boys and 70 girls, in a close covered alley, with a privy close to the water. The place is thoroughly objectionable as a site for a school. It has no playground whatever.

27. Crossman's Court contains an open muck-heap, bad privies, and a slaughterhouse. The paving is peculiarly bad. Balsom's is a long, narrow court, with numerous houses, and a very large cesspool filled with nightsoil. Higher up the court were other similar but far less offensive nuisances. In this court, the worst in the whole town, I understand the cesspool had been recently cleansed, but at my visit it was nearly full, and no mere cleans-

ing of such a place can be more than temporary.

28. Snelling's Court has one privy to the whole court of four-teen houses. There fever has prevailed. Rendell's Court, near the Lemon, has a small open drain traversing several courts, and finally falling into the river. Sun Court contains about 20 houses. It is long, narrow, ill-paved, with a great deficiency of privies, but with a great many piggeries. This court has no back, the houses being built up close. White's Court has twelve houses and one privy. The Independent Chapel, in Back Lane, has a plot of ground

attached, which, it is said, it was in contemplation to employ as a general cemetery—a most objectionable spot for such a purpose. Mr. Gillard's Court is very clean, but he complains bitterly of the want of drainage to the privies. In Hannaford Court is a foul, open cesspool, long a very serious nuisance, but now, it was stated, about to be removed. In the rear of Mr. Hicks's premises is a foul open drain, one of the worst in the town, which receives the contents of several privies, and passes in an irregular course across gardens and under houses. It is partially choked up, and much complained of. The drainage of the houses in general about the angle of Wolborough and Bridge Streets is bad. This part of the town is low, and the houses are built in a very intricate fashion. Between Bridge Street and Back Lane are several crowded courts, close upon the river and in a very foul state.

29. The north-eastern quarter of the town is of later date and much less crowded. Here is the market, an open space, very ill paved, but not otherwise in bad condition: near and about it are, however, privies, cesspools, dungheaps, piggeries, a slaughterhouse, and a drain partially open, all in a bad state, though some appeared to have been recently cleaned out. Water is much wanted here. The courts about the angle formed by East Street and Wolborough Street are radically bad. Crewe's Court is narrow, and is crossed by a very offensive drain. Near, in another court, is a piggery, at the entrance of the court, opening upon a cesspool, and in a foul state. In White Hart Yard a court surface-drain, open, runs between two houses into the street. All these tenements are close to the centre and best

part of the town.

30. The houses on the south side of East Street are on a steep hill-side, the soil of which gives out a good deal of water; also, the cesspool being behind and above the houses, any percolation or overflow must descend upon them. The state of things here is perhaps worse, and certainly the dwellings are more damp, than in Wolborough Street. Chudleigh Court has two open cesspools at its upper end. The Baptist Chapel, though neat and tidy, has a burial-ground too small for its wants. Winser's is a very long and steep court, in a situation that is naturally one of the best for beauty and salubrity in the town, but is at present in a filthy condition, suffering from a privy at the highest part of the yard. Wootton's Court had a very objectionable cesspool recently emptied. All these courts are ill paved and ill drained, the grates, where present, being in a foul state.

31. The Union-house, in this street, is in very creditable order as regards drainage and water-supply, and appeared in all respects very clean and neat, with none of those marks of sudden and

suspicious cleanliness so apparent elsewhere.

32. The courts on the north or lower side of East Street are in a better position than those on the south, since the ground falls

from them: they are accordingly altogether in a better condition, though many of them are absolutely very bad. In J. Winser's Court the houses were neat and clean, as were the gardens and the paths; but the floors were damp, and a foul collection of piggeries was much complained of. The privies generally behind these houses have no drainage. The soil partly percolates into the fields, partly overflows into a number of half-stagnant ditches that terminate at last in the town ditch. The ground at the back of these houses is regularly sodden with filthy moisture, and is so blocked in with banks and hedges that little evaporation can take place there. Near the centre of the town the National School, a very neat new building, is placed in a bad situation; and the only privy in use for about 100 children of both sexes has the school pump within 3 feet of it, and against its wall.

33. The new lock-up cells are clean, and fitted each with a privy. They have stone floors. The plans have been approved of by the Home Office. The old lock-up cells, about to be abandoned, measured, one 11 ft. by 7 ft., and 6 ft. 6 in. high, and the other 8 ft. by 6 ft., and 6 ft. 6 in. high; both are in damp situations, and utterly discreditable to any bench that has sanctioned their use. It was stated that as many as 12 to 14 delinquents have

been allowed to enter these at once.

34. The traveller through the town, or the visitor who confined himself to its main streets, would form but little conception of the condition of the courts on both sides of Wolborough and on the south side of East Street; nor can I conceive anything, when known, to be more calculated to injure the reputation of this place, certainly not inferior in the breadth of its main thoroughfares, the aspect of its new buildings, or the beauty and salubrity of its surrounding scenery and country, to any town of its magnitude in the country of Devon.

35. Sewers and Drains.—Of the four main streets, three have covered drains throughout their length, and the fourth through a greater part of it. There are, besides, two other street-drains. The size of these varies from 14 inches to 2 feet diameter. They are constructed of stone, and lie between 1 and 5 feet below the surface. Their total length is about 1584 yards. They are very offensive, and are fitted with very large, open, and very offensive gutter-grates. The course of these drains is irregular, and there is a great want of arrangement in their general plan. That down East Street is returned along Courtenay Street, and that down Wolborough Street makes a bend into Bridge Street, and takes a circuitous course before it reaches a common outfall with the Courtenay Street drain in Hopkins's Fields. The Back Lane drain falls at once into the river.

36. Besides these, the watercourses in the town, especially the river, are used as main drains. These are three in number. First, the principal mill leat, wholly in Newton-Bushel. Secondly, a stream composed chiefly of a waste stream from the leat, which flows through a tannery, and falls into the left bank of the river within the town. This also, except at its outfall, is in Newton-The third is the Lemon, which passes completely through the lowest and most dense part of the town, and is a very serious nuisance. Its channel is deep, very rough and irregular, and in many places enclosed between houses, and receiving from them, directly and indirectly, the whole of their The effect of this in wet weather is to convert a clear stream into a very filthy watercourse; but in summer, when the water is wholly or in great part drawn off above the mill leat, the channel is described as becoming one long and foul cesspool.

37. The river, during the greater part of its course, forms the boundary between Wolborough and Highweek; nearly half a mile below the town it falls into the Teign, a little above the point at which the combined stream is crossed by the railway.

38. The Courtenay Street drain, after crossing from the street, crosses the fields as an open and very offensive ditch, having a circuitous course and nearly stagnant current, pressed back to fill catch-pits for manure, or to irrigate the land, for both of

which purposes it is much in request.

39. The existing drainage is objectionable in several points of view. It is intended for surface-waters only, and when housedrains are turned into it the smell rising through the guttergrates is offensive. The direction also of the drains is objectionable, not being combined upon one outfall.

40. House Drainage.—Stone drains have been led from several houses in the town into the street-sewer; and in the courts gutter-grates are here and there seen, though always in a dirty state, and most commonly connected with very inefficient drains. A considerable proportion of the houses appear to have no drains at all.

41. WATER SUPPLY.—The existing supply is derived from wells and pumps and rain-water. The latter, being collected in pans and butts by the poor, is seldom stored in large quantities, and consequently often fails. In such cases the people use soda

and an extra quantity of soap.

42. The wells are from 8 to 10 feet deep. A sample of the water from a pump in the Globe Hotel gives 30 degrees of hardness. The Union-house is well supplied with hard water from a natural spring let into a stone reservoir above the house, and with rain-water from a large cistern. A spring near it supplies a public cock in the street. Its hardness is 24 degrees. The river-water is now and then used for washing, the poor being tempted to put up with its filthy quality for the sake of its superior softness.

43. Highways, Paving, Scavenging, and Watering.—
The roads throughout the town and parish are maintained by the highway-rate. The parish contains 14 miles of road, highway and byeway, repaired by the three surveyors of roads, who are annually elected, are not surveyors by profession, and are not acquainted, except it be by accident, with the management of making and maintaining of roads. I cannot learn that the roads are ever scavenged. There is said to be no power whatever to execute this; street watering is effected and is paid for by voluntary contributions. At the time of my visit the roads were on the whole in bad order; material of a good quality is at hand and cheap.

44. The state of the public footways in Newton-Abbot is on the whole very creditable to the town. They are for the most part neatly flagged, with substantial stone kerbs. It is stated that the town has spent about 100*l*. per annum, for 10 years, in this paving. It is money well spent, but under the Public Health Act the work would have been completed at once, and the charge would have fallen upon the parish in a much more

convenient form.

- 45. As to the general management of this description of expenditure by numerous and non-professional persons, I have met with no one who does not consider it as inefficient and expensive. It is to be wished that the paving reform had extended to the numerous courts in the town. I only found one of them in which the paving, or rather pitching, was close, level, and good. Usually it is full of holes, very rough, difficult to clean, and unpleasant to walk upon. The repitching of the courts is a measure absolutely necessary, and the house-owners must be called upon to do this, or to allow the local board to do it by contract to the satisfaction of their officer.
- 46. Gas.—The town is lighted by a private company, with whom the inspectors contract on the part of the parish. There are 24 lamps, placed in the main streets only. They are lighted from Michaelmas (29 September) to Lady-day (25 March), from dark to midnight, excepting the 3 days before and after each full moon. These lamps are charged at 2l. 10s. per annum each. The charge per meter is 9s. 6d. to 10s. per 1000 cubic feet. The streets of Newton-Bushel are not lighted. The affairs of the Gas Company are at present embarrassed—a state of things scarcely to be wondered at with a price so calculated to check the demand.

47. Public Nuisances.—There are about 5 slaughter-houses in the town, some of them in a low and crowded part of it. Those I visited were for the most part dirty, ill paved, and unprovided with water. Even had they been in a better condition, they would still in such situations have been objectionable.

48. The low lodging-houses are 2 in number. In Market-place and Crossman Court they are complained of, as harbouring vagrants and disorderly persons. The accommodation afforded in each is wholly inadequate to the numbers occasionally lodged.

49. The large cesspit for the town manure in Hopkins's Fields is a nuisance to the new road, and with other similar places should be abolished.

50. The practice of emptying house cesspools through the courts or houses into carts in the main street, usually during the day, is a great cause of offence.

- 51. Suburban Surface and Deep Drainage.—The Lemonis liable to occasional floods, covering the margin in the town and occasionally ascending into the streets. Of the lands below, as few only are tile-drained. The meadows let at about 40s. The marshes on the Teign are very extensive, but have been much neglected, making much of the land on that river not worth above 10s. per acre.
- 52. Boundaries.—The administrative area recommended includes the whole parish of Wolborough, with the exception of as small detached parcel at Roydon. It includes also a small strip of land in Highweek parish for the main conduit, and a portion in East Ogwell for a reservoir.
- 53. Constitution of the Local Board.—Newton-Abbot forms no exception to the mass of small towns possessing only a village government. Unless the local board be composed of mem who will lay aside a factious spirit, it will be hopeless to attempt to carry out any system at all, and without a very strict system the works required will neither be efficiently nor cheaply executed.
- 54. The remedy is by no means obvious. It is absolutely necessary in the first place that the state of things now brought to light—a source of expense to one class, and not only of expense, but of discomfort, sickness, and death to the other—should not be allowed to continue. In the next place, it is certain that, if the remedies be attempted with a divided local board, they will prove expensive and but partially efficient; neither can I suppose that the General Board will feel justified in allowing under such circumstances that distribution of the charges over long periods of

time, which alone brings the necessary expenditure within the means of the town.

55. Remedies.—Water Supply.—There is only one source from whence Newton-Abbot can be supplied with water, but that

is a sufficient and very economical one.

56. The Lemon, for several miles above the town, flows with a rapid descent down a deep narrow valley. At a point rather above a mile from the town it will be expedient to throw an embankment across, and form a reservoir containing 120 days' supply, and which will receive its supply of water only when the leat of the mills below is full. The water will be led in a clay pipe along the valley-side to a point close above the town, from whence it will be distributed in iron mains through the various streets and courts. This main will necessarily pass across a part of Newton-Bushel.

57. The land required for the reservoir is of no great value, and, if necessary, by forming it higher up the valley, the altitude may be increased almost indefinitely. The original cost of such an arrangement will be moderate, and its working expenses very trifling indeed. It would be difficult to find a town better suited for a cheap and efficient water-supply. The quality of this

water is of 8° of hardness.

- 58. Sewers and Drains.—The sewerage arrangements required to meet the wants of the town of Newton-Abbot are few, simple, and inexpensive. The south side of Wolborough Street must drain into the Wolborough Street sewer, which must be continued along Courtenay Street, beyond the present outfall. East Street, North and South, should be drained direct down the hill towards the lower end of Courtenay Street, and the same outfall.
- 59. A sewer commencing near Back Lane, and running near but not close to the right bank of the Lemon, will receive all the drainage of the south side of Wolborough Street and Bridge Street and the houses upon the river; and, continuing its course along Bearne's Lane, will drain the north side of Courtenay Street and the houses towards the market, and finally join the main sewer in Hopkins's meadow. By this means the existing sewers will be turned to account, and the river on the Newton-Abbot side will be free from the contributions which at present render it in summer a source of annoyance and disease.

60. The Lemon thus purified will flow as at present into the Teign. The main sewer will drain to low-water level, and between tides will discharge into a sewage-well capacious enough to contain the refuse of the town between two tides, by which arrangement a proper drainage will be secured to the town even when

the whole of the sewage is not pumped up as manure.

61. Sewage Distribution.—The refuse of the town is at present in great request as manure, and is eagerly bought up. The catch-pit, or the town-drain, is let for 10l. per annum, and its contents sell for 3s. per load. A responsible person recently offered to drain the town efficiently at his own cost for the sake of the sewage. The town drain is led over the Earl of Devon's land, and, though roughly and wastefully applied, adds much to its value.

62. There is no doubt whatever, that if the town-drainage was concentrated upon one point, and distributed by machinery through pipes over the lands on each side of the Teign, the amount would at once pay its expenses and rapidly become a

source of profit.

63. I have not indeed chosen at the present time to take credit; for a revenue from this source, but I have thought it right to recommend the concentration of every drain upon one outfall, so that, when desired, machinery may be at once economically applied.

64. Charges.—Although until a proper survey of Newton-Abbot shall have been made, and proper sections taken, it will not be possible to prepare a detailed estimate, yet the existing particulars are sufficient to enable me to state very safely within

what limits the requisite remedies may be applied.

65. It is absolutely necessary that there should be laid down as complete system of main and house drainage, and water-supply: that is to say, that, beside the street sewers, a drain-tube should be laid into each house, court, and privy converted into a water-closet; and that a water-pipe, laid into each house and water-closet, should be charged with a constant supply of water. The courts must be properly paved, and a sufficient number of water-closets provided. To meet these expenses three rates will be required—one a water-rate, and another a sewer-rate, to be employed upon main sewers and the water reservoirs and mains. These will be levied, the water-rate upon houses, the sewer-rate upon houses and land—the latter in the proportion of one-fourth only of the former. The combined rate will not be above 9d. in the pound, and this is the whole charge that will fall upon the inhabitants at large. The third, or private improvement rate, will be borne by the owners of cottage-property, and will be proportioned according as each property needs the remedies. It is of course impossible at present to state how this charge will be actually distributed, but it will probably be about an average payment of one penny weekly on each house. Also, supposing the General Board to approve, the outlay may be distributed over a term of years. Thus, supposing a court of five cottages to require repairs equal to 201., or to 41. on each cottage, this outlay may be converted into a weekly payment of

1d. on each cottage, or an annual payment, interest being at 5 per cent., of 4s. 10d.

Newton-Abbot shows what is proved by experience elsewhere, that the wellbeing of the poor cannot safely be intrusted to the class of landlords of cottage-property in towns. These men, though not always the leaders, always form the passive strength of opposition to any improvement in the condition of the poor. For the most part they are deficient in that degree of foresight which would teach them that such improvements as water-supply and drainage, when offered at very low rates, will actually increase the value of their property; nor have they sufficient sympathy with the poor, nor a sufficient sense of their duty as landlords,

to risk even the small outlay required.

67. I found in Newton-Abbot considerable misapprehension prevailing concerning the operation of the Public Health Act. There was great fear that it would entail very heavy expense. No one of the common people to whom I talked on the subject had been made aware that the Act, by compelling all to pay, made the charge fall very lightly on each; that the effect would be not a multiplication, but a consolidation of offices; or that the payment of the costs of improvements effected under the Local Board, whether public or private, may be distributed over 20 or 30 years, as may appear equitable in respect to the class of works. Those provisions, which are especially calculated to make the expenses fall lightly on both the public and the house-owner, I found had been carefully kept out of sight in the communications to the poor on the part of the opposers of the measure.

68. Party feeling does not here, as in some other towns, enter into all the relations of the townsfolk, but, nevertheless, even here, if the Legislature, after having reduced the burden by judicious arrangements to the lowest possible amount, does not take upon itself to support the cause of the poor and shield the cottager from the indifference of the smaller landlord, I fear that nothing will be done to improve the condition of this important

class of the community.

69. The Legislature in framing the 'Public Health Act,' though conferring a considerable boon on all classes in towns, appears to have contemplated especially the wellbeing of the poor and the poorest, and the benefits offered are combined in a remarkable degree with a convenient adjustment of the burden. But unless the Legislature takes a further step and limits the power of the holders of cottage property to impede the carrying out of the remedial measures, there is a risk that the Act will in such cases as this be practically inoperative for good.

70. The case of Newton shows the advantages to be derived [31.]

from combination. Here the two halves of the town of Newton (Abbot and Bushel), though in distinct parishes, are in position closely united and built opposite to each other on the banks of a common stream. If one half of the town so manages its sewers as to avoid converting the stream into a nuisance, this improvement will be completely thrown away, unless the people on the

opposite side follow a similar plan.

71. It will cost nearly the same to provide a water-supply for the whole as for two-thirds of the town. The reservoir is ample. The main conduit for other reasons must be large, and must actually traverse Newton-Bushel; all that would be additional would be submains and house-service pipes in the town. The same thing is true, though in a less degree, with regard to drainage arrangements. In the execution and maintenance of the works, the survey, the preparation of contracts, the inspection, the keeping all in order, the saving introduced by combination would be considerable. All these items of expenditure would be very nearly the same for two-thirds of the town as for the whole. Newton-Bushel is, to say the least of it, in as filthy a state as Newton-Abbot, without its redeeming points of broad streets and new buildings: sooner or later it must come under the Act. If it stands alone, the remedies which it absolutely requires cannot be economically supplied; but if they are applied in conjunction with what is to proceed at Newton-Abbot, the rate in both parts of the town will be reduced. Both towns have a strong pecuniary interest in the combination, and the circumstances of both are such as to render it very important to them to study a rigid economy.

72. Summary. - With reference to the town of Newton-Abbot,

I have to report,—

1. That, being well situated, in the healthy part of a very healthy county, the mortality is excessive, or 23.5 in the 1000 annually; that of the registration district being 18.85 in the 1000, and that of the whole county, in 1841, 17.8 in the 1000.

2. That of these deaths nearly one-fourth are due to diseases known to be peculiarly affected by damp and noxious smells, and that the diseases prevalent in the town are most severe in those parts of it which are ill drained, damp, ill supplied with water, close and crowded; a description which applies to a large portion of the town.

3. That the poorer population are very insufficiently supplied with privies; that those existing are usually in a filthy state, and connected with open cesspools; and that of these places

none are set apart for the distinct sexes.

4. That these evils may be remedied—that is to say, a constant supply of water laid on in each street, and a proper main

sewerage provided—for a general rate of about 9d. in the pound. The house accommodations will be paid for by a private improvement rate levied upon owners of cottage property, in the degree in which each cottage may need the remedies.

5. That if Newton-Bushel be combined with Newton-Abbot,

the general rate will be materially reduced.

6. That the proposed improvements will be in reduction of

existing charges.

7. That, looking to its actual use at this time, and to the economy with which it may under the proposed arrangements be supplied, the sewage of the town, employed as fluid manure, may be regarded as a future source of revenue.

73. I have therefore to recommend the application of the Public Health Act to the parish of Wolborough, within which is

contained the petitioning town of Newton-Abbot.

I have the honour to be,
My Lords and Gentlemen,
Your most obedient servant,

GEO. T. CLARK.

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

POSTSCRIPT.

London, 24 January 1850.

In obedience to the further instructions of your Board, and after notice duly given as directed by the Public Health Act, I visited, on the 18th of December last, the parish of Wolborough, in the county of Devon, and held a public sitting in the town-hall in Newton-Abbot, within the above parish, at 10 o'clock in the forenoon.

2. The inquiry was directed upon the mortality of the parish, on the statement of the Registrar-General, and was necessary to render formal the Report of my previous inspection, made in March 1849, and laid before your Board on the 26th April 1849.

The Return of the Registrar-General was as follows :-

Table of the state	Population, 1841.	Deaths in the 7 years 1838 to 1844.	Annual Mortality to 1000 Living, 1838-44.	
Wolborough parish	2609	520	28	

(Signed)

George Graham, Registrar-General.

3. The meeting was well attended. Mr. Alsop, clerk to Newton-Abbot Poor-Law Union, put in the following statement of the mortality of the parish:—

"SIR, "Newton Abbot, January 10, 1850.
"Subjoined is an account of the births and deaths in the seven years ended Michaelmas 1849 (exclusive of persons born and who died in the union workhouse during that period).

"I am yours respectfully,
"J. Alsop,

"Clerk, and Superintendent-Registrar.

" G. T. Clark, Esq., Gwydyr House, Whitehall, London.

"' Population of Wolborough in 1841, exclusive of persons and paupers in the union workhouse belonging to other										
parishes "'Number of	birth:	s in	the	seven	vears	ended.	Miel	haelm	as.	2,355
1849										601
"'Number of 1849.						ended.				406

—whence it appears that the average annual mortality of the parish of Wolborough, estimated with reference to the population at the latest authentic census, that of 1841, is 24.6 in the 1000.

4. The following paper was put in evidence by Mr. Coward, and read at the meeting. I have therefore inserted it in this

Report :-

"At a meeting of the ratepayers of Wolborough, held this seventeenth day of December, 1849, in compliance with a requisition hereunto annexed, J. Toogood Coward in the chair,

"It was proposed by Mr. Gaye, and seconded by Mr. Lamble,-

"That the Act of Parliament passed in the 11th and 12th years of the reign of Her present Majesty Queen Victoria, intituled 'An Act for Promoting the Public Health,' is unnecessary for the parish of Wolborough and town of Newton-Abbot, inasmuch as the united efforts of the inhabitants and ratepayers of the parish, with the 'Nuisances Removal Act,' tend particularly to show that sufficient powers are at hand, without this cumbrous and expensive Act, to secure and promote the general comfort and health of the people;—as proof, nearly 400l. has been expended in the past summer in improving and cleansing the town.

"Carried unanimously.

"It was proposed by Mr. Milward, and seconded by Mr. Winser,-

"That the exercising of the powers contained in the Public Health Act would cause the establishment of a permanent paid local Board, under the directions of the Central Commissioners in London, which would lead to a heavy annual expenditure of the rates of the parish, without affording any corresponding benefit.

"It was proposed by Mr. S. Hicks, and seconded by Mr. T. Cowell,—
"That this meeting considers that the local Board, if established, would excite discord, contention, and strife, and be likely
to set at variance the quiet and peaceable inhabitants of the town,
who have so many years enjoyed harmony, concord, and peace.

"It was proposed by Mr. Buckland, and seconded by Mr. Symons,—
"That it is considered by this meeting that the conduct of a
small party from whom the petition to get the Public Health Act
put into force in the parish first emanated, in direct opposition
to the wishes of the great bulk of the ratepayers, calls loudly for
condemnation.

"Carried by a very large majority.

"Proposed by Mr. John Beazley, seconded by Mr. Gillard,—
"That the above resolution be withdrawn.

"Lost by a large majority, only four being in favour.

"Proposed by Mr. Crews, and seconded by Mr. J. Cull,-

"That a committee of the following persons, with power to add to their number, be appointed to watch proceedings, and to adopt such means as they may think proper in order to prevent the Public Health Act being put into operation in the parish of Wolborough:—

" Committee.

"Mr. C. Gaye, Mr. Buckland, Mr. A. Bearne, Mr. Symons, Mr. S. Hicks, Mr. J. Milward, Mr. W. Lamble, Mr. T. Cowell, Mr. W. Hearder, Mr. J. Winser, Mr. R. Rendell, Mr. J. Cull, Mr. J. Crews.

(Signed)

"J. T. COWARD, Chairman."

5. This paper deserves notice simply because it is a very fair specimen of the manner in which assertions are made by the local opponents of the Public Health Act, and the extent to which the public are misled.

6. The Report transmitted to your Board on the 26th of April, 1849, will show that the condition of the cottage property in the town is filthy in the extreme, and that the present powers are quite

inadequate to amend it.

7. The assertion in the second resolution, that the local Board will be a paid body, is without any foundation, as is the statement that it will be under the direction of the General Commissioners in London. On both these points it is only necessary to refer to the Public Health Act.

8. With reference to the third resolution, I can only say that, if there be peace in the town, it must be because the cottage tenants are so completely under the sway of their landlords as to be unable to complain of the dirt and damp, and want of drainage, privy accommodation, and ventilation, in which they exist.

9. The two latter resolutions show only the opinion of the meeting; and upon what sort of statements that opinion was

gained has already been made manifest.

10. I have to recommend the application of the Public Health Act to the whole of the parish of Wolborough.

I remain, my Lords and Gentlemen, Your obedient servant,

GEO. T. CLARK.

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