

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 Bridgend / by Geo. T. Clark, Superintending Inspector.

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PUBLIC HEALTH ACT

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

22

REPORTS

TO THE

GENERAL BOARD OF HEALTH

ON

PRELIMINARY INQUIRY

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

OF THE TOWN OF

BRIDGEN D.

By GEO. T. CLARK,

SUPERINTENDING INSPECTOR.



LONDON:

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

1850.

NOTIFICATION.

THE General Board of Health hereby give notice, in terms of section 9th of the Public Health Act, that on or before the 15th of May 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 Town of BRIDGEND, or with respect to any amendment to be proposed therein.

By order of the Board,

HENRY AUSTIN, *Secretary.*

Gwydyr House, Whitehall,

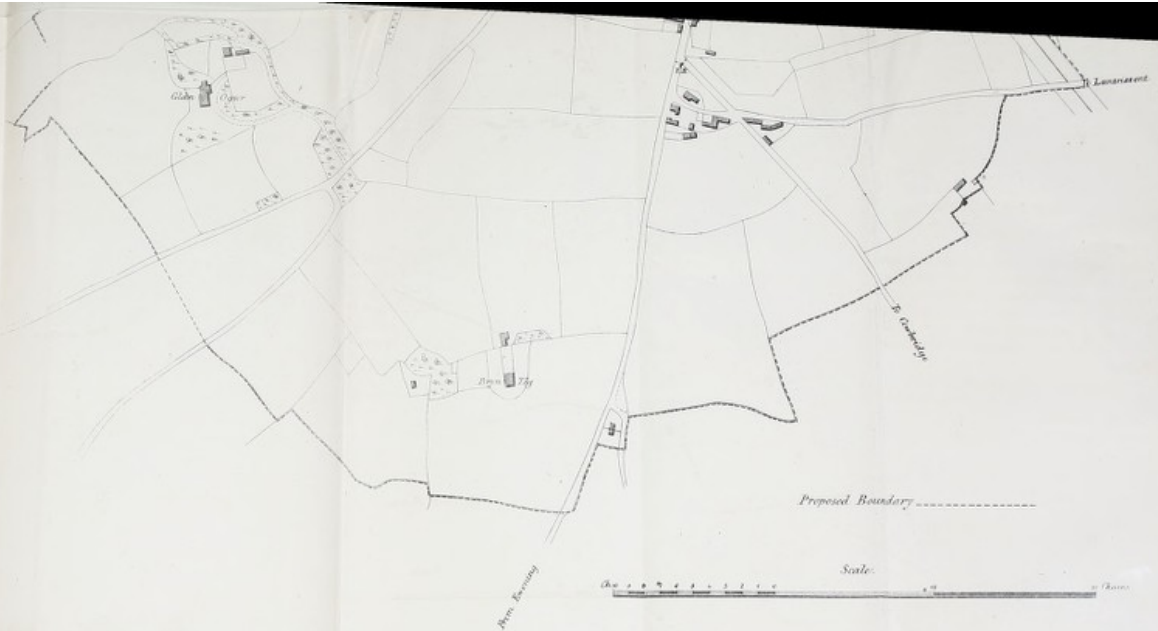
April 5, 1850.



BRIDGEND



From Northampton



Scale 1 inch = 1 mile

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

Report to the General Board of Health on a Preliminary Inquiry into the Sewerage, Drainage, and Supply of Water, and the Sanitary Condition of the Inhabitants of the Town of BRIDGEND, in the County of Glamorgan. By GEORGE THOMAS CLARK, Superintending Inspector.

MY LORDS AND GENTLEMEN,

London, 30th August, 1849.

IN obedience to your instructions, and after notice given as directed by the Public Health Act, I proceeded, on the 8th instant, to inspect the lower hamlet of the parish of Newcastle, and on the 11th instant, the lower hamlet of the parish of Coyty, called also "Oldcastle," both in the county of Glamorgan, and I employed the above days and the 10th instant in holding public sittings in the Town Hall of Bridgend, in the inspection of the two hamlets, and generally, in collecting the materials which I have now the honour to lay before you in the following

REPORT.

1. As the LOWER HAMLET OF NEWCASTLE and the LOWER HAMLET OF COYTY, though parochially distinct, enter into and wholly compose the town of Bridgend, and are placed under circumstances in many respects similar, I have included them in one Report, and have applied to them the same recommendations. The inquiry was, in fact, into the town of Bridgend, and one of the chief benefits of the application of the Act will be to confer upon that town a distinct legal existence and a responsible local government.

2. The inquiry took place upon two petitions, one from each of the hamlets above specified. I have to acknowledge the assistance of the Rev. John Harding, Rector of Coyty; the Rev. Robert Knight, of Tythegston, and Wm. Llewellyn, Esq., magistrates of the county; Captain C. F. Napier, Chief Constable of Glamorgan, resident at Bridgend; Mr. Thomas Stockwood, clerk to the magistrates; Mr. Lewis; Mr. Price; Mr. Edwards, and other residents in the town. I have also to acknowledge the support of the Rev. H. Lynch Blossie, Vicar of Newcastle, although absent at the time of the inquiry on account of ill health. The tythe maps of the two hamlets were

produced, and certain measurements prepared by Mr. Brooks, under the direction of the rector.

3. GENERAL DESCRIPTION.—The town of Bridgend is divided by the Ogmore river into two unequal parts, of which that on the right or west bank, called “Newcastle,” derives its name from a building of Norman origin, the ruin of which still remains, but yields in antiquity to Oldcastle, whence the name of the other portion of the town is derived, but of which all traces have now perished. The old bridge, near the eastern end of which the original town may be supposed to have been built, still spans the stream; it is, however, in great measure superseded by a modern structure, built a few yards higher up, and across which the turnpike road passes.

4. The Ogmore, or Ogwr river, rises as the Ogwr Proper and the Llyfnu, in the hill country, about ten miles to the north of Bridgend. The two streams traverse the southern outcrop of the seams of the Glamorgan coal-field, and uniting at St. Bride’s Minor, flow down a deep and rather narrow valley.

5. At Bridgend, four miles from the sea, the Ogmore makes a great bend, presenting a convexity to the eastward, and on its west or right bank, sweeping round a lofty promontory, along the base and up the steep sides of which, is built the hamlet of Newcastle, its parish church, and the shell of the old Norman fortress, which latter occupy a common platform near the summit, and upon the edge of the cliff, about 100 feet above the river.

6. The principal part of the town is included in Oldcastle, and stands on the left bank of the river. The ground, though elevated, rises much more gradually, and to a less considerable height, than on the right bank. A strip of land bordering the river is within reach of its floods, which occasionally overflow, and fill the cellars of several houses.

7. The sides of the valley are composed of lias, resting unconformably upon mountain limestone, which appears a short distance south of the town. The lower parts of the town are built upon drift-gravel and loam, partly covered up by alluvial soil. Below the town the valley expands for a short distance, and includes a tract of level land well suited for the distribution of the sewage as manure.

8. The town contains no manufactories of any importance, and derives its chief support from its position as a market town between the mineral and agricultural districts. Its general appearance is picturesque, and in its main street are several new buildings and handsome shops. The South Wales Railway passes close on the north, and will here have a station.

9. GOVERNMENT AND FINANCE.—Bridgend is a town with a parochial, or rather with two parochial governments. For Newcastle there are elected annually two churchwardens, two

overseers of the poor, and one surveyor of highways, all for the lower hamlet exclusively. For Oldcastle hamlet, exclusively are elected one chapel-warden, two overseers of the poor, and two surveyors of highways; there are also five gas inspectors appointed by the vestry.

10. The local taxes for Newcastle hamlet are the poor's rate, highway rate, and church rate. The gross annual rate is now 5s. in the pound, producing above 360*l.*; of this sum about 35*l.* is expended upon the highways, and about 12*l.* on the church. The poor rate includes the county rate, and the county police rate.

11. The taxes of Oldcastle hamlet are the poor rate, highway rate, gas rate, and church rate. The gross rate is about 3s. 9*d.* in the pound, which annually produces about 900*l.*; of this sum about 100*l.* is spent on highways, 80*l.* upon gas, and 40*l.* on the church. The poor rate includes the two county rates before mentioned.

12. The annual value of Newcastle is assessed at—

	£.	s.	d.
Houses	616	0	0
Land and tythes	800	0	0
Total	£1,416	0	0

That of Oldcastle is assessed at—

	£.	s.	d.
Houses	2,574	0	0
Land and tythes	2,920	0	0
Total	£5,494	0	0

The opinion seems to be that Newcastle is assessed at about two-thirds of its actual value, and Oldcastle at about four-fifths.

13. POPULATION.—According to the census returns, the population of the two hamlets comprising Bridgend, have been as follows:—

—	1811	1821	1831	1841	Houses— 1849
Newcastle	469	508	585	649	185
Oldcastle	1,448	364
Total	469	508	585	2,097	549

There are at present probably about 2,750 inhabitants in the town, which is rapidly increasing.

15. MORTALITY.—The mortality, according to the tables of the Health of Towns Association, of the whole registration district, including Cardiff and Neath, with a population of 86,536

persons, was in 1841, 20 in 1000. That of Newcastle hamlet, as stated by the Registrar-General, is only 13; and that of Coyty parish 19 in the 1000.

16. No medical evidence was brought forward during the inquiry; which I presume may be attributed to the presence of cholera in a very severe form in the adjacent districts, and to the apprehension of it at Bridgend, which caused a great demand upon the time of the medical men. I received, however, the following very valuable report made to the Local Sanitary Committee, which shows the local opinion of the effect of dirt and damp upon health, and may, therefore, be appropriately inserted here.

"To the Sanitary Committee, formed to carry out the Directions and Regulations of the General Board of Health.

"GENTLEMEN,

"ON commencing an inspection of Oldcastle, in the parish of Coity Lower, with a view to ascertain the causes of the great and constant prevalence in this district of fever and other diseases produced by malaria, I merely point out to you, first, those places in which fever is constantly prevalent; and, secondly, those in which it is altogether absent, or in which when an individual case breaks out it seldom or never spreads. I wrote the account of the places I am about to notice on the spot. I entered many of the houses, and examined their condition as to cleanliness, ventilation, &c., as well as the state of the people themselves. I notice the places about to be described in the order I visited them, and I give the account of the prevalence or absence of fever in the several localities.

"I record only the prevalence of fever, because the extent of the prevalence of this disease was readily ascertained, and may be taken as a sure indication of the presence and intensity of malaria.

"*Evan David Cooper's Court.*—No. 1 consists of 2 houses. Eleven persons live in four small rooms; they have *no privy except the dung-hill*, which faces each door, and accommodates a school of 18 children; the soil is carried by the rain water into the main street, and exposed to view, as there is no sewer. Fever in this court is often prevalent.

"*Phillips' Court.*—No. 1 consists of two rooms. Five persons sleep in two small beds. The walls are black with filth; the ground-floor is very damp; there is no drainage. No privy.

"No. 2 consists of two rooms. Three beds; ten persons sleeping in them. The house seems clean, and well whitewashed. They have no privy, nor yet drainage.

"No. 3. There are ten persons living in two rooms, and sleeping in two beds. The house is filthy; the ground-floor is extremely damp. They have no privy or drainage.

"No. 4 consists of two rooms. Three beds. Nine lodgers. This house is kept very clean; but the occupiers complain that there is no privy or drainage.

"No. 5 consists of three rooms. There are seven beds, in which 25 persons sleep; the ground floor is very damp; the house altogether is in

a filthy state. The walls are streaming with water. When entered, the stench is unbearable. They have no privy or drainage.

"Nos. 6, 7, 8, 9, are kept unusually clean, but the occupiers bitterly complain that they have no privy or drainage.

"No. 10 consists of two rooms, in which 16 men, women, and children are all huddled together. The ground-floor is extremely damp; the walls are never whitewashed; there is no privy or drainage.

"Fever in this court is often prevalent, and extends from house to house, and, in many cases, has proved fatal.

"In this court the houses and rooms are very small. The total number living in the court is 88. All the houses are dark, gloomy, and extremely filthy. The windows are very small; capable, if wide open, of ventilating the rooms but very imperfectly. Yet the windows are not only kept permanently closed, but are carefully and firmly pasted all round, so that not the slightest breath of air can enter. On remonstrating with one of the inhabitants (Irish)*, against this constant and total exclusion of air, I was told by the woman that her children and herself would starve with the cold, having no means of procuring fuel. And further, in this court they are in the habit of keeping a large pan within doors during the day (*having no privy*), and when night comes they deposit the whole upon the dung-hill near the entrance of the court, the effluvia from which is abominable, and the appearance disgusting to the eyesight.

"One of the respectable residents of whom I enquired respecting its condition in different states of the weather, assured me that in the summer especially, when suffering greatly from heat, he dare not open the door, much less the window of his house, on account of the intolerable stench from this dunghill.

"I remain, &c.,

"November 6th, 1848."

"ABRAHAM VERITY."

In consequence of Mr. Verity's statement, the local authorities have been actively engaged in the application of such temporary and palliative measures as the existing law places within their reach; but that these remedies have been palliative only, will be evident from the state of things described in the following section of this Report.

17. I have been favoured by Capt. Napier with the following statement.

"*Bridgend, August 10th, 1849.*

"As chief constable for the county of Glamorgan, and a resident in the town of Bridgend, I beg leave to address you on the sanitary state of the town, and the steps which have been taken by the Health Committee, of which I am a member, to remove nuisances, as far as the Act would permit.

"The great requisites of water supply and sewerage are throughout Bridgend extremely defective, as well, also, as properly constructed privies. There are but few pumps, and these are the property of private

* The other day my attention was called to a great nuisance, viz., a dunghill, which I perceived near the slaughter-house *presenting a mass of putrifying matter*, highly injurious and detrimental to health.

individuals, to which parties, as a special favour, sometimes have access. Some of them are dry for two or three months in the year.

"The inhabitants mainly depend on the river for water, and have to send or pay for fetching it from thence.

"The river itself, in its course by the town, receives the soil from many privies, and the garbage from private slaughter-houses, which must materially affect the purity of the water; many persons, to avoid going to the river, get water from the adjacent cattle pools.

"In floods, or rainy weather, the river water is not fit to use for hours after it is taken up.

"As regards sewerage, here are very few drains in the town which could be rendered available. There is a large culvert, the property of Lord Dunraven, and one constructed by a Mr. Perkins, of Bristol, for the purpose of supplying water to a tan-yard.

"The former runs through a portion of Oldcastle, the latter through the lower part of Newcastle; both empty themselves into the river.

"The houses, generally, are without covered drains, but have merely gutters leading from their privies and sinks, into the street, where the soil or other slops thrown from the houses remain till carried off by rain.

"Many houses have no privies, some few have one, but it is too often the case that either four or five houses have only one, or else none at all.

"In one locality in Oldcastle, where the Irish principally lodge, there is only one privy for nine houses.

"Many houses with no back outlet are obliged, when cleaning out their privies, to bring the soil through the dwellings.

"The pigsties within the town are a great nuisance, being built either close to the front doors, or in small and ill-ventilated back-yards, and kept in a dirty state.

"The low lodging-houses, till lately, have been overcrowded with tramps and navvies; in one room of 10 feet square, slept 12 or 14 navigators, in beds which were never suffered to cool, since by day they were occupied by women, and at night by men.

"The Sanitary Committee have used their utmost endeavours to remove nuisances, and some hundreds of summonses have been issued, and much filth removed; but, having no power to prevent a repetition, the evil, after a few days, becomes as great as before.

"The lodging-houses are a great source of expense to the rate-payers, by harbouring a number of tramps and Irish paupers, who make a practice of waiting during the day in the skirts of the town, and at dusk of applying to the relieving officer. They then retire to the lodging-houses, where they club the gatherings of the day, and make a substantial meal. In these houses, also, such parties receive instructions and routes for the next day's trade of begging.

"I remain, &c.,

"G. T. Clark,

"C. F. NAPIER,

"Chief-Constable for Glamorgan."

18. With reference to Newcastle, the official letter preceding the petition, states—

"The town, always dirty, has lately become much more so. The greater part of it has no underground drain, and the remainder is

drained very badly. There is a great want of privy accommodation, and much difficulty in obtaining a supply of water, there not being a public pump in the town."

19. The petitions from each division of the town, state—

"That the larger portion of the town is altogether undrained, and the remainder is drained imperfectly and insufficiently. That the greater number of the poorer class of houses are not provided with privies, and by many of the inhabitants water (and that often impure), can only be obtained from a river at a considerable distance."

20. I have received also from the vicar of Newcastle, who has paid much attention to the physical condition of the town, a letter, from which the following is an extract:—

"In the first place, very many (or rather nearly all) of the cottages are without privies, and where they do exist, they are used in common by several families. I believe the general habit of the people is either to make use of chamber vessels at home in their crowded and ill-ventilated rooms, or to resort to some secluded spots near their dwellings, where no provision is made for hiding or carrying off the nuisance thus caused.

"Ashes and other refuse from the house are kept on the premises, or on the sides of the streets, in heaps, until the potato planting season, when they are removed and used as manure. During the whole year these heaps are the receptacle of all the slops and filth of the house.

"Scarcely any house has a drain from it; open street-drains are the only channels for carrying off the rain-water from the roofs, as well as all liquid manure from the houses.

"The water used for all purposes is brought from the river, which is at a considerable distance from the upper part of the town, and is often not of the purest kind.

"With regard to burials in the churchyard, the average number for the last ten years amount to only 14. The ground is not crowded, and the depth tolerably good."

21. The following statement was made to me by the Superintendent of Police:—

"Newcastle Lower.

"Houses with privies . . .	133
Houses without privies . . .	52
	— 185

"Coity Lower.

"Houses with privies . . .	252
Houses without privies . . .	112
	— 364

Total . . . 549

"Water is in general supplied to the houses from the river by females, who are employed to carry it in pails, containing from six to eight gallons, and for which they are paid at the rate of $\frac{1}{2}d.$ per pail.

"Persons not provided with privies are in the habit of throwing the

whole of their refuse into the said river, or into open gutters on the road side.

“ R. SADLER, *Superintendent.*”

These privies, as will be shown below, are most unequally distributed.

22. It appears, therefore, that the opinion as to the deficiencies of the town is both uniform and general. The state of things which I proceed to describe will shew it to be well founded.

23. *INSPECTION OF THE TOWN.*—In this part of the inquiry I was accompanied by the Rev. J. Harding, the Rev. R. Knight, Captain Napier, Mr. J. Cox, Mr. P. Price, Mr. Wm. Edwards, and R. Sadler, superintendent of police.

24. The buildings between the Town Hall and the river are very badly drained. *Evan Morgan* occupies a house in High-street, rented at 20*l.*, which has no privy, the refuse being thrown into the road or the adjacent river. *John Morgan* rents a 10*l.* house in the same condition. There is no pump. The inhabitants are allowed to go to the Globe Inn pump. *Mr. Thomas*, tailor, rents a 5*l.* house, without privy or back premises. He obtains water from the Globe, and the house-filth is thrown into the river and the street gutter. The other houses are much in the same condition. The street is badly paved, the yards unpaved and filthy.

25. *David's-court* is unpaved, occasionally flooded, and in one corner there is a filthy ash-heap. There is no privy, and the refuse is thrown into the gutter. The inhabitants pay about 3*l.* per annum rental. They would willingly pay 2*d.* a-week for a water supply. *David John* keeps a public-house, and would gladly pay 6*d.* *Jenkin David* rents a 6*l.* house, without back premises. The refuse is thrown into the street. He thinks a water supply would be well worth 2*d.* or 3*d.* a-week.

26. *Henry Parry* lives near this. His house is without back premises or water, and the refuse is thrown into the gutter. *Wm. John* rents a 5*l.* 10*s.* house without privy or water supply. *John Taylor* pays 8*l.* for his house; has no back premises; no water; he would pay 2*d.* a-week for it. *Josiah Lewis* keeps a china-shop in High-street; rent 24*l.*; very badly off for water; he would willingly pay 3*d.* a-week for it.

27. *Adare-street*, much of which is new, is unpaved, and at the time of my visit was a pool of water and mud. The houses are let at from 15*l.* to 18*l.* per annum each, but are very deficient in privies, and without water. *Mr. Lewellyn* has two houses, which he purposes to supply with privies and water at a cost of about 7*l.* each. In the main street the landlord has laid a sewer, the fee for entering which is 3*l.* on each house.

28. *Elder-street* has a culvert, but the drainage from the houses does not enter it, but trickles by an open gutter down

the road. *Elizabeth Lewellyn* occupies one of a group of cottages at the top of this street. The rent is 4*l.* They are without privies, and obtain their water from the river or the market pump. She would much rather pay 3*d.* a-week for a proper supply at hand. In *Coal-yard-street*, John Thomas complained of the want of water. He considers that a payment of 2*d.* a-week for a proper water supply would be a saving to him. His house has no back premises. *Union-street*, on the Cowbridge road, contains nine houses, with only one privy, which is also public. The house-drains pass close beneath the floor, and discharge into the street gutter. The curtilage of those houses is badly paved. The cesspool is placed on ground higher than the houses, and the smell is much complained of.

29. *Paradise-road* is a cluster of six houses, with only one privy. Here the refuse is cast into an open pool. There is no supply of water. In *Whitehall*, Mr. Rees lives in a house rented at 6*l.* per annum, but without a proper water supply. He would pay 6*d.* a-week for it, as his wife takes in washing. *Davy Spencer* complains of want of water. The yard is ill-paved and damp. In the street is a public dung-pit and a very filthy pigsty. There is no privy, and the house filth is cast into the public road. Behind this are the premises of *Thomas Lewellyn*, unpaved, and without a privy or water supply. *Caroline Thomas* rents a tenement at 1*l.* a-year, and would gladly pay 6*d.* a-week for water.

30. *William David* rents a house at 5*l.*, without water, and the back premises are confined and smell offensively. The cesspool, in rainy weather, overflows into the house. The *Nolton Castle* public-house is without a privy or water. Behind is a yard occupied by Irish, in which the houses let at 1*s.* 6*d.* a-week, and are without water or a proper privy. In the garden, on the edge of a cliff, is a privy, in a very dangerous state, to which some of the tenants have access. Here are two low lodging-houses. Behind this quarter of the town is a very large and deep "swallet-hole," called "Pwll-y-ber-llan," the bottom of which might with advantage be cultivated with sewage manure.

31. *Philipps'-yard*, adjoining the turnpike road, is in a filthy condition, as also is the road itself, from the house-slops discharged into it from each side. Near the toll-bar is *Irish-court*, so called from its inhabitants. At its entry is an open and very offensive dung-heap. Here are eight houses with a crowded population, and without either water or privies. The court is unpaved, and the lodgers taken in are of a very bad description. The *Tennis-court* is also chiefly inhabited by Irish. Here are 17 houses without a privy, and the whole place, inside and outside, is in a filthy condition. In one house is a bone and rag depôt. The rents are from 1*s.* 6*d.* to 2*s.* a week. The court is unpaved, and contains dirty pigstyes. The alleys and

road sides and corners in this neighbourhood are much used instead of privies, and are in a filthy condition, and either badly paved or not paved at all.

32. Near Oldcastle Chapel, *Richard Dunn* occupies a house of 4l. rental, and complains of want of water, for a proper supply of which he would gladly pay 6d. a week. At present he purchases it at a halfpenny a bucket. His house has no privy.

33. *David Dunn*, carpenter, rents a 6l. house. Under his back window there is a filthy cesspool of which he and his family complain. His only water supply is from the river. He would willingly pay 2d. a week for a proper supply. West of the chapel are six cottages belonging to Lord Dunraven; they are neat and clean, and let at from 3l. 10s. to 5l. a year. Beyond these are several others without privies or water, in a filthy condition, and upon a muddy road.

34. The *Rue* contains 14 houses letting at from 1s. to 1s. 8d. a week. They are without water. In the street is an open gutter, and behind are very close and filthy yards, unpaved and wet, and draining upon the houses. At the lower part of this street is a tan-yard, and next it a fellmongery. The smell of the latter is complained of. Mr. Popkin also complains, and with great reason, of the smell of the adjacent public slaughterhouses. This quarter of the town is within the reach of the river floods. Behind the *Old Tennis-court public house* is a filthy yard with choked-up gutters. The lower part of *High-street*, near the new and old bridges, is occasionally flooded. At the back of the *White Hart* are some very offensive places. This is also the case at the back of the *Bear*, and close beside is a very narrow and ill-paved alley.

35. Below the new, and between it and the old bridge, several privies overhang the bank, and about 30 feet lower down the stream is a place where the people draw water from the river. The whole condition of the shingle bank of the river in dry weather, when the stream is low, is very offensive.

36. Bad as is the state of things in Oldcastle, it is as bad, perhaps in some parts worse, on the Newcastle side of the river. The cottages above and about the Castle and Church are absolutely without drains at all; and many of the people bring their water from the river, 100 feet or more below them. The streets are ill-paved and undrained, and damp, even though built on very steep ground.

37. Lower down, several of the houses are within reach of floods. Ten houses here have only one privy, and the want of water is universal. The people, to save the labour of going to the river, even take water from a stagnant and dirty horse-pond in Captain Napier's stable yard. *Catherine Cross*, near the bridge foot, complains of want of water, and her house has no privy, and is sometimes flooded. Near it are some very offensive pig-

styes, and the river bank, which is a general receptacle for filth. Also near this are premises in which dyeing is carried on. The urine stored here was complained of, and I found a tub of hog-wash in a dwelling-room, smelling dreadfully. *Mr. Bryant* complains of the smell of a disused tan-yard, the pits of which remain full of offensive fluids.

38. The market-place, built by the Earl of Dunraven, is well planned and executed, neatly paved, and at the time of my visit was in excellent order. Its only want is a proper water supply instead of the present pump. Behind the market, on the edge of the river, are the public slaughterhouses attached to the market. These also are well built and arranged, but I found the blood and dirt crusted upon the floors, and smelling most offensively. The water supply is derived from two pumps.

39. I observed everywhere marks of the recent activity of the local authorities; but their powers, as they truly stated, did not extend to directing permanent arrangements for the prevention of nuisances, and were rendered efficient only by a degree of activity which cannot be expected to be exercised except under the apprehension of a formidable epidemic. I have also to remark here, as at Swansea and elsewhere, that with some not very numerous exceptions, the *interior* of the cottages was neat and clean, proving, what I have usually found to be the case, that where the landlords do their duty, and render it *possible* to keep the courts and yards clean, they are usually well seconded by their tenants.

40. SEWERS AND DRAINS.—Bridgend has but very few sewers. In Newcastle there is but one main culvert, which is private property, and constructed solely to lead water from the river into a tan-yard now disused. Into this one short side-drain has lately been laid.

41. Oldcastle is traversed by a culvert, which passes under the market, and is scoured by a streamlet from the river. Various side-drains are led into this, and some of the houses, as has been mentioned, pay a fee of 3*l.* on entering it. A culvert is now in progress along the Cowbridge-road.

42. These drains are constructed of stone, and some of them are flat-bottomed. They are provided with large untrapped gutter-grates, and, with one exception, are in a very dirty state, and very inefficient. Where the cottages are provided with drains these commonly pass beneath the house-floor, and open into the road gutter in front of the footpath.

43. WATER SUPPLY.—The deficiency of water in Bridgend is one of the chief causes of complaint. Among the numerous cottage tenements into which I entered, I did not find one with either a pump or well. In most cases the river and the market pump, in one or two instances the pump of a public-house, or of a richer neighbour, were named as the sources of supply.

The river is distant, and considerably below a part of the town, and its waters, discoloured in floods by natural causes, are at other times, and especially in dry seasons, rendered filthy by the sewage of the town and the waste water of the works above it. .

44. In the Market-place is a pump, which, though private property, has very recently been opened for four hours daily to the public. This water is of 3·65° of hardness. A great part of the town is at present supplied from this pump. The other private pumps are but few, and several of them were dry at the time of my visit.

45. The supply thus obtained is hardly sufficient for ordinary domestic purposes, and contributes scarcely anything towards the cleansing out of the sewers or gutters. Several of the houses are provided with butts for rain water, but this source of supply is precarious, and the means of storage are beyond either the resources or the forethought of the lowest classes.

46. HIGHWAYS.—The roads in the town are no longer in the hands of the turnpike trustees, but are maintained by the two hamlets. They are ill-made, many of them have never been properly formed or drained, and at the time of my visit they stood much in need of thorough repair. The footway in the main street is in places flagged, at the charge of the owners of the several houses. In the bye-streets a paved footway is seldom found. The absence and want of one regulating authority is in nothing more evident than in the character of the footways in the main streets.

47. The stone used for the macadamizing the roads is chiefly *lias*, a stone of variable quality. The mountain limestone, an admirable material, is quarried within three miles.

48. GAS.—The Oldcastle section of the town is lighted with gas by a private Company; the parish contracts being made under the General Lighting Act, by Inspectors appointed in vestry. The sum annually paid is 82*l*. There are 27 public lights, the repairs of which are included in the above sum. Gas is not burned by meter; but there is a moderate private consumption in the shops and inns. The coal employed costs, delivered at the gas works, about 5*s*. a ton.

49. BURIAL-GROUNDS.—The burial-ground around Newcastle parish church, is sufficient for the present wants of the hamlet. The chapel of Oldcastle has lately been rebuilt. The burial-ground around it, though full, is very neatly kept; and the whole condition of the premises affords a striking contrast to the dwellings between it and the high road. There are three burial grounds attached to Dissenting chapels, all of which are nearly or quite full. The condition of the Unitarian burial-ground, in Newcastle, is much complained of by the neighbours, and was officially reported to me by the Superintendent of

Police. The rector has appropriated a sum of money towards the extension of the Oldcastle ground. It is on the verge of the town, and in a situation not liable to objection.

50. LOCAL ACTS.—The only local Act is 6 William IV. cap. 3, for removing and rebuilding the market-place. The tolls demanded under this Act by the owner of the market are much complained of, and the market is a close and very objectionable monopoly; power being given under the Act, to confiscate the goods of all persons selling in the open street. This Act also contains one or two clauses for certain arrangements of police in the public streets.

REMEDIES.

51. The one grand remedial measure, without which nothing can be economically or efficiently executed for the *general* internal improvement of the town, is a responsible local government, with power extending over the town and its immediate suburbs. This, under the name of a "Local Board," will be at once secured upon the application of the Public Health Act, and in it will be vested the management of the highways, sewers, and water supply of the town. It will possess a power of levying rates for these purposes, and of regulating their expenditure, and a proportion of its members will be elected annually by the rate-payers. The town of Bridgend will then have, what it has not at present, a distinct official existence, and power to manage its own affairs.

52. The provision of a proper water supply, sewerage, and the improvement of the house arrangements, ought to be among the first cares of the Board. All works for these purposes ought to be executed by contract, and no money can be borrowed under the Act without the sanction of the General Board, nor can the payment of the debt be distributed over a longer period than 30 years.

53. WATER SUPPLY.—Water is the grand deficiency of Bridgend; it is by no means easy to supply it economically, nor can it, by natural pressure, be conveniently supplied at all. Although, at no great distance from the town, there are ranges of high ground of considerable extent; yet being composed of limestone of an absorbent character, they, in consequence, give rise to but few rills of water, and those scanty and uncertain. The high ground west of the town, gives rise to only two rivulets; one of these, the Avornug, which descends from Cefn Cribwr, and falls into the Ogmores a little above Bridgend, was at the time of my visit quite dry, and had been so for some months. The other, a smaller but more constant stream, rises on the south of Cefn Glâs, and descending the Ystrad, falls into the Ogmores, a little below the town. This stream, though never absolutely dry, is scarcely equal to the wants of Bridgend; and besides, excepting

near its source, it lies at much too low a level for the purpose required. This latter objection applies also to the Ewenny river, which joins the left bank of the Ogmores below Bridgend, and to a small stream which falls into it, opposite to Merthyr-Mawr, and which rises near Colwinston.

54. Under these circumstances, it will be necessary to have recourse to the river Ogmores, and to lift its water by mechanical means. For this purpose a storage and filtering tank should be constructed near the river, and a small steam-engine set up, by means of which the water should be raised into a service reservoir containing two to four days' supply, and placed upon the summit of the hill above Newcastle.

55. The elevation of this tank, 150 feet above the river, will command the whole town and suburb of Bridgend, including the railway station, and give a pressure more than sufficient to throw a jet over the tops of the highest houses.

56. The water of the Ogmores appears from Dr. Playfair's analysis of a sample sent, to be of only 1.30° of hardness. Drawn through the medium of a filter bed, it will be at all times pure, and as the river is never absolutely dry, there will be no necessity for a storage reservoir of any considerable capacity.

57. The supply thus afforded will be at all times ready, and by means of main, branch, and service-pipes, may be distributed through the streets and into the houses of the town. It will also be sufficient for the wants of the railway station, nor do I think that the station can be more economically supplied from any other quarter.

58. SEWERAGE.—The sewerage arrangements required for Bridgend will be of a simple and inexpensive character. The area of the town is but moderate, and the fall of the greater part of it, very rapid.

59. There should be a main drain on each side of the river. It would, of course, be premature to enter, in this preliminary report, into details, but I may state that proper points for the outfall are found below the Mill-race and beneath the lias cliff, on the left bank, and a little lower down, below the tan-yard, on the opposite bank. Both these points are quite clear of the town, and at a higher level than the meadows below it, upon which any operations for the employment of sewage manure would naturally be conducted.

60. HOUSE IMPROVEMENTS.—It is principally with a view to these that the whole system of water supply and street sewerage should be laid down. At present, many streets, courts, and yards, though to all intents and purposes public, and used either as thoroughfares or as places of public resort, are private property, and quite beyond the control of the Surveyor of Highways, and are in consequence in a filthy condition, and many of them, like the upper end of Adare-street, are public nuisances.

The Local Board will have the power of calling upon the owners of such tenements to put them in order. The yards should be properly pitched, flagged, or metalled, and privies or water-closets erected, with a drain into the main sewer, and a water service-pipe from the street main. From the crowded condition of many of the cottages in Bridgend, it may not be practicable at present to provide every tenement with a privy, but one may be provided to every two, or at most, every three cottages, and at least one water tap to the same number. The existing cesspools should be filled up, and proper dust-bins for ashes and dry refuse provided. Once properly executed, these arrangements would not cost much in maintaining. These, and the periodical removal of the refuse, would be executed by contract under the supervision of the Local Board.

61. SEWAGE DISTRIBUTION.—The circumstances of Bridgend are on the whole very favourable to the employment of the sewage for agricultural purposes. Below the town, between it and the old Swansea-road, is a considerable tract of flat land, chiefly on the left bank of the river, well fitted for the application of fluid manure.

62. BOUNDARIES.—The proposed boundary, shown on the annexed map, includes the whole town of Bridgend and a portion of the suburban land, the rent of which is high, in consequence of its contiguity to the town. The boundary is wholly within the petitioning hamlets of Newcastle Lower and Coyty Lower, but is not coextensive with either of them.

63. CHARGES.—The data afforded are not such as will enable me to distinguish correctly between the assessed value of houses and lands in the proposed area, neither am I able, in the absence of a detailed survey, to state what will be the amount of the rate for private improvements in each case. I may, however, point out that the water supply, drainage, and house improvements can certainly be effected at a cost which, if borne by house property only, will amount, interest being at 5 per cent., and supposing the debt to be paid off in 30 years, to an average of $3\frac{1}{2}d.$ a-week, or, 15s. 2d. annually, upon each house rated at or under 5l. per annum.

64. Of this payment, about $1\frac{1}{2}d.$ would be levied as a water-rate upon houses only: 1d. as a sewer-rate upon houses and lands, the latter paying in the proportion of one-fourth of the former. And finally about 1d. would be levied as a private improvement rate, to be borne by the proprietors of houses, in the proportion in which each is benefited.

65. SUMMARY.—It appears from this inspection of Bridgend—

1. That the town is badly drained and very badly supplied with water, that the cottage tenements are in several parts wholly without privies, and nowhere even tolerably supplied in this respect, and that in consequence of the

damp and filth thus produced, there are parts of the town in which epidemic disease is frequent and severe.

2. That from these causes, and the want of an efficient local government, very heavy expenses are incurred by the townspeople, directly in the purchase of water, and indirectly in defraying the cost of sickness and pauperism, attributable in a large degree to the neglect of proper sanitary arrangements in the town.

3. That an efficient local government may be provided by the Public Health Act, and that a proper water supply and drainage, and house accommodations may be given for an annual payment of $3\frac{1}{2}d.$ a-week, or, interest being at 5 per cent., $15s. 2d.$ by the year, upon each house at or under $5l.$ rated rental.

4. That, taking into consideration the sums at present spent for water, &c., the proposed remedies will probably produce an ultimate saving in the expenditure of the town.

5. That the circumstances of Bridgend are favourable to the employment of the sewage in the form of fluid manure, and that a moderate revenue, to be employed in the reduction of the rates, may reasonably be expected from this source.

66. RECOMMENDATIONS.—I have therefore to recommend—

1. That the Public Health Act be applied to the district or town of Bridgend, in the county of Glamorgan, as shown in the annexed map.

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

3. That the 25th of November be the day on which one-third in number of the said Local Board shall go out of office in each year subsequently to that in which the said election takes place.

4. That every person shall, at the time of his election as a member of the said Local Board, and so long as he shall continue in office by virtue of such election, be seized or possessed of real or personal estate, or both, to the value or amount of not less than $800l.$, or shall be rated to the relief of the poor of some parish, township, or place, of which some part is within the said district, upon an annual value of not less than $20l.$

I have the honour to remain,

My Lords and Gentlemen,

Your obedient Servant,

GEO. T. CLARK.

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