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 Northallerton, in the county of York / by W. Ranger, Superintending Inspector.

Contributors

Ranger, William, 1800-1863. Great Britain. General Board of Health.

Publication/Creation

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

Persistent URL

https://wellcomecollection.org/works/cv4xsknv

License and attribution

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

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



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

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

NORTHALLERTON,

IN THE COUNTY OF YORK.

By W. RANGER, Esq.,

SUPERINTENDING INSPECTOR.



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

1850.

PUBLIC HEALTH ACT. (11 & 13 Viet, Cap 03.)

NOTIFICATION.

THE General Board of Health hereby give notice, in terms of section 9 of the Public Health Act, that on or before the 20th of June 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 NORTHALLERTON, in the County of York; or with respect to any amendment to be proposed therein. By order of the Board,

HENRY AUSTIN, Secretary.

Gwydyr House, Whitehall, 14th May, 1850.

PUBLIC HEALTH ACT (11 & 12 Viet., 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 NORTH-ALLERTON, in the County of York. By W. RANGER, Esq., Superintending Inspector.

London, December 28, 1849.

MY LORDS AND GENTLEMEN,

PURSUANT to your instructions, and in furtherance of the petition presented to the Board on behalf of the inhabitants of he town of Northallerton, in the county of York, duly signed by he inhabitants rated to the relief of the poor, as required by the Public Health Act, 11 & 12 Vict., cap. 63, as follows:—

"Now, therefore, we the undersigned inhabitants of the town of Northallertou, in the county of York, and rated to the relief of the poor of and within that town, and being one-tenth in number of the inhabitants rated to the relief of the poor of and within the same town, do nereby petition the General Board of Health to visit the said town, and to make inquiry and examination with respect thereto, with a view to the application of the said Act according to the provisions of the said Act in that behalf;"—

gave notice, in conformity with the said Act, and, after placing myself in communication with the promoters of the petition, proceeded to Northallerton on the 10th of October, 1849, and on the next and following days instituted an inquiry, at the 'Union Board Room," with respect to the following matters :--

The sewerage, drainage, and supply of water.

The number and sanitary condition of the inhabitants.

The natural drainage-areas.

The existing parochial or other boundaries.

The boundaries which may be most advantageously adopted for he purposes of the Act; and other matters, for enabling the Board o judge of the propriety of applying the said Act.

THE REPORT

I have now the honour of submitting for your consideration is founded upon the evidence of two of the medical men of the town, surveyors of highways, and other inhabitants, and a personal inspection of the various localities named in the communication from the

88.

в 2

clerk to the Guardians, as the seat of fever and other epidemic, endemic, and contagious diseases.

In conducting the inquiry, I received the support and assistance of John Hodgson, Esq., surgeon; J. S. Walton, Esq., surgeon and medical officer to the union; Thos. Clarke Atkinson, Esq.; W. Thrush Jefferson, Esq.; Thos. Fowle, Esq.; H. Hirst, Esq.; J. Whitney Smith, Esq.; Messrs. T. Hamilton, T. Watson, Metcalf, Reed, and others.

GEOGRAPHICAL POSITION, &c.—The town of Northallerton, Mr. Gale observes, "is so very ancient that its origin is totally unknown." It is seated in an extensive and fertile valley, stretching itself from north to south, and is bounded by

It forms the capital of the North-Riding of the county of York, and, from its situation on the great north road, was, until the introduction of the railway in the district, a place of considerable thoroughfare.

The principal street exceeds half a mile in length, and is about 86 feet in width, each side thereof, to the extent of 28 feet, being paved. The fronts of the houses in this street are well-proportioned and apparently very substantial.

At about a third of its length from the south end stands the tolbooth, an unsightly building, and there seems no good reason for its remaining, now that a new sessions-house has been erected: a little farther to the north stands the market-cross; and still farther to the northward are the shambles.

A small brook, running from east to west, called "Sun-bek," crosses the street about the middle of the town. This "bek " is noticed by Leland.

The soil on the east side of the town consists of gravel and clay that on the west decidedly of gravel.

Mr. Fowle stated-

4

"I have had two wells sunk, each about 21 feet deep: one was principally in clay, the other entirely in gravel, although the distance apart did not exceed 20 yards."

The vegetable soil is about two feet thick, and of an average quality.

There are no meteorological records kept in the town.

Mr. Hodgson stated --

"It is considered that the prevailing winds in spring are from the north-east; in summer west and south-west; but taking the entiryear, they prevail from the latter quarter, viz. south-west."

The area of the township is estimated at 3600 acres. In 183 the number of houses amounted to 656, viz.—

Inhabited	1.00	de.	TAKO	ban ,	in the second	628
Uninhabited	he.e.	t mi be	antein I	-	and and	28





1 in 18	841 tl	he number	had	been	incre	eased	to '	705,	viz
	Inhab Unin	habited .		• • •	•	•••	:		637 68
The po	opulat	tion in							
	1791	amounted to	0						1960
	1801	"		•					2138
	1811 1821	"		•	•				2234 2626
	1831	33 73				Bilings	16 1		3004
	1841	3)		. Lam	an su			0.859	3092

veraging 4.24 persons to each house.

The annual value of property rated to poor's-rate in 1815 was 552*l*., and in 1847, 10,183*l*., and in the latter year the sum xpended for relief of the poor amounted to 821*l*.

In 1841 the proportion of deaths to the population, taking the istrict, was 1 in 54 (but in the township, 1 in 39.5), and of irths 1 in 33; whilst the proportion of deaths from epidemics to he population was 1 in 391. The proportion of deaths of infants under 1 year to the births was 1 in 10; and per cent. of deaths at ach interval of death to the total deaths —

Under 1 year					16.3
" 5 years	molmi bare	, enlos,	doid av	ing , so	27.
,, 15 ,,	and deputs				34.5
" 20 "					38.1
Between 20 and	30 years		- abort	-	9.
" 30 "	40 "		. 1000		5.2
" 40 "	50 "		setfrail		5.5
" 50 "	60 ,,				7.3
" 60 "	70 "	· inder	T TITLE		9.1
" 70 "	80 "			. 01	12.7
" 80 "	90 "		-deline		10.6
" 90 and 1	upwards	ter fin	an appart		2.3

The average age of all who have died in the same district is 39 years.

The proportion of deaths to 1000 of the population, on an average of 7 years, amounts to 22, being 1 under the average stipulated in the Public Health Act.

The loss of life to every individual, taking the average age of the more healthy districts at 42 years, is 3 years. The money value of this loss each individual can readily estimate, a circumstance in tself sufficient to show that a large economy will ensue from welldirected sanitary means of prevention.

Number	and	Causes	of Death,	from September	1,	1847,	to
			October 11,	1849.		dal.	

All causes	184
Specified causes :	
1. Zymotic diseases	54
Sporadic diseases :	
2. Dropsy, cancer, and other diseases of uncertain or	10
variable seat	13
4. Diseases of the brain, spinal marrow, nerves, and	33
4. Diseases of the brain, spinar marrow, herves, and senses	22
5. Diseases of the heart and blood-vessels	5
6. Diseases of the lungs, and of other organs of re-	
spiration	7
7. Diseases of the stomach, liver, and other organs	
of digestion	10
8. Diseases of the kidneys, &c.	1
9. Childbirth, diseases of the uterus, &c.	2
10. Rheumatism, diseases of the bones, joints, &c 11. Diseases of the skin, cellular tissue, &c	1 1
12. Malformations	1.1.1.1.1
13, Premature birth and debility	9
14. Atrophy	3
15. Age	17
16. Sudden	
17. Violence, privation, cold, and intemperance .	6
	- 18
1. 20 11	
No. 1.—Cholera	2
Croup · · · · ·	I C
Diarrhœa · · · · ·	6
Fever	15
Fever Typhus · · · · · · · · · · · · · · · · · · ·	3
Measles	9
Purpura	1
Scarlatina	8
Small-pox · · · ·	3
No. 2.—Cancer · · · ·	4
Dropsy	6
Fistula · · · · ·	11 2 80
Hæmorrhage · · · · · · · · · · · · · · · · · · ·	dig i se
No. 3.—Consumption	17
Phthisis	10
Hydrothorax	1
Hydrocephalus	3
Scrofula	2
	100
Carried forward	100

Despekt forward		100
Brought forward .	man by den	3
No. 4.—Apoplexy · · · · · · · · · · · · · · · · · · ·	in Marine	ĩ
Convulsions		11
		1
Imbecility of mind		6
Paralysis	echage of the S	5
No. 5.—Disease of heart	norislik an	Rooth, No
No. 6.—Asthma · · ·	-	3
Bronchitis	CodT 527	2
Pneumonia	The Rev.	1
Stricture of the œsophagus	John Wh	1
No. 7Teething	William	1
Scirrhus of pylorus	Mark Hann	
Disease of liver	DIT. Then	3
Peritonitis	Mr. William	1 2
Enteritis	Martin Ster	2
Jaundice	and I all	1
Viscereal disease	and the	1
No. 8Diabetes	Carlos and an	1
No. 9.—Childbirth	ALT MULT	2
No. 10.—Disease of bones	(daine He 16 . b	tine Basi
No. 11.—Lichen	di ban ,0184	, visit na signi
No. 12 · · · ·	mels notice h	to zaigno-
No. 13.—Debility	· ·	7
Premature birth	and and a second	2
No. 14.—Atrophy	com aduo eb	3
No. 15.—Age	and the second	17
No. 16.—	Billion trainin pers	
No. 17Accidental death	werniger drain	te of 1
Burns	1 . 200	1
Fractures and contusions .	ralle .	1
Other violence		3
		- 18
Town Coursenant Wire	Summer	Dite

JOHN STAMFORD WALTON, Surgeon, Registrar.

The inhabitants, being sensible of the necessity of precautionary measures in anticipation of periodical epidemics, adopted measures of which the following constituted the manner of their proceeding.

At a meeting held at the Board-room on January 14, 1848,

It was resolved to divide the town into six sections, three on the east side and three on the west side :---

The first including the houses from South-end to Zetland-street.

The second from Zetland-street to Brompton-road.

The third from Brompton-road to North-end.

The fourth from North-end to the Grammar School.

The fifth from the Grammar School to Darlington District Bank.

The sixth from Darlington District Bank to South-end.

The first section was undertaken by Messrs. J. W. Smith and Henry Hirst.

The second by Messrs. T. Fowle and J. Metcalfe.

The third by Messrs. T. C. Atkinson and W. T. Jefferson.

7

The fourth by Messrs. J. Horner and J. Tutin. The fifth by Messrs. T. B. Stuart and G. M. Bell. The sixth by Messrs. W. Fowle and E. Hare.

(Signed) JOHN STAMFORD WALTON.

At a meeting of the Sanitary Committee, held in the Union Board Room, North Allerton, on the 4th October, 1849;-Present-

> Mr. Thomas Clarke Atkinson, in the chair; The Rev. John Campion, Curate; John Whitney Smith, Esq.; William Fowle, Esq., Barrister-at-Law; Mr. Henry Hirst, Solicitor; Mr. Thomas Fowle, Solicitor; Mr. William Thrush Jefferson, Solicitor; Mr. Thomas Hamilton, Currier; Mr. John Stamford Walton, Surgeon; Mr. John Metcalfe, Printer and bookbinder—

A letter from Mr. Alexander Bain (Assistant-Secretary to the Gerneral Board of Health) to Mr. Thomas Clarke Atkinson, dated 20th September, 1849, and the notice therein mentioned, having been react -copies of such notice having been affixed as requested-

Resolved,—That the following witnesses be offered to William Ranger, Esq., Superintending Inspector, for examination on the several matters following, mentioned in the said notice, on his visiting Northallerton on the 10th instant :—

The sewerage, drainage, and supply of water : Mr. John Whitney Smith, Mr. Thomas Hamilton.

The state of the burial-grounds :

Mr. Thomas Fowle,

Mr. John Stamford Walton.

The number and sanitary condition of the inhabitants : Mr. John Stamford Walton.

The local Acts of Parliament (if any) for paving, lighting, cleansing, watering, regulating, supplying with water, or improving, or having relation to the purposes of the said Act:

None.

The natural drainage-areas:

The North or Willow Bek;

The Sun-Bek;

The drain northwards from the house of correction;

The drains from Mrs. Blanchard's, Mr. John Tutin's, and Mr. Henry Harrison's yards, on the east side of the town of Northallerton;

The cesspools (there being no drainage) in Mr. F. Dighton's, Wm. T. Cade's, Mrs. Burdon's, the Darlington District

Bank, Wm. S. Robinson's yards, and from thence to the New Inn, on the west side of the town;

The drainage from the New Inn to the south end of the town:

Mr. John Whitney Smith, Mr. Thomas Hamilton.

The existing parochial or other local boundaries: Mr. Thomas Hamilton.

The boundaries which may be most advantageously adopted for the purposes of the said Act-

North, Willow Bek ;

East, Turker;

South, Greenhowsike, and the Crosby road;

West, Romanby township:

Mr. Thomas Hamilton,

Mr. John Metcalfe.

And other matters in respect whereof the General Board of Health is desirous of being informed, for the purpose of enabling them to judge of the propriety of reporting to her Majesty, or making a provisional order with a view to the application of the said Act, or any part thereof, to the said town—

The vagrant lodging-houses, The pigsties, The privies, Hunter's tanyard, Goose-croft and Quakers'-lane: Mr. Wm. Thrush Jefferson, Mr. Thomas Hamilton.

(Signed) T. C. ATKINSON, Chairman.

Mr. Hodgson, surgeon, stated-

"I have resided in the town about 40 years. The privy and cesspool system are exceedingly bad, and the situation of the privies prejudicial to health, as well as tending to preclude the people from acting upon principles of common decency. These privies with open soilpits are, in some cases, directly in front of the houses, and in others they are placed under the sleeping rooms. A privy well placed forms the exception rather than the rule."

Mr. Walton, surgeon, and medical officer to the Union, stated-

"The privy system is highly offensive; fluid excrement flows upon the surface and soaks into the ground as well as into the walls in several instances. In one instance the occupiers of a house are even without a privy; whilst the situations where privies do exist are very objectionable.

"It is the practice generally with the poorer class to keep pigs near their dwellings, and they continue to do so, notwithstanding typhus of a malignant type has prevailed amongst them, particularly in Atkinson's-yard, Smith's-yard, New-row, Pearson's-yard, Body's-yard, Hunter's-yard, Broad's-yard. Every effort has been made to remedy the existing state of things, but they have been unsuccessful."

In reply to the Board's letter, Mr. Harrison, Clerk of the Union, stated :— "Epidemic, endemic, and contagious diseases have of late been present in George Stockell's yard; New-row (Naisbitt's yard); Thomas Pearson's yard; Thomas Layfield's yard; Henry Pearson's yard; Rev. Mr. Green's yard, or Rymer's; Black Swan-yard; Ann Brown's lodging-house; Anthony Carr's lodging-house; James Metcalfe's dwelling-house, north end of the town; Hunter's yard; Isaac Thompson's yard; James Wheldon's yard; Mrs. Body's yard; Union-row; Temperance-hotel yard; Mrs. Broad's yard; Miss Peirse's cottages, at the south end of the town; house of correction."

Rymer's-yard consists of two portions, and contains 23 houses, 21 out of the number occupied by 93 persons, viz. 41 in the upper part and 52 in the lower. The entrance is by a covered passage about 7 feet high by 3 feet wide, paved with pebbles, and a surface-drain in front of the houses. There are 3 privies, with open soil-pits, to 23 houses. One of the open soil-pits and privy are under a living-room. The soil from a similar pit in an adjoining yard, and within about 4 yards of the doors and windows, the women said—

" Smells very offensive, notwithstanding it is emptied once a month,"-

the walls of an adjoining house being saturated with the fluid from the soil-pit adjoining. The sewage from this yard is discharged into the *Back-lane*.

Backhouse's-yard is merely a passage about 4 feet 6 inches wide, contains 20 houses, and occupied by 49 persons, exclusive of the school, consisting of 40 pupils. There are 4 privies to one soil-pit, open, and within a few feet of the houses. This pit (it was stated) is emptied about 6 times in the year—the tenants of the houses undertaking the work in turns. The soil is sold for 11. 18s. per annum. The surface of the yard is paved with York flag-stone, and the houses particularly clean.

Black Swan-yard contains 13 houses, 10 occupied by 43 persons. The fluid excrement flows over the surface of the yard from the 3 privies, open pit, and dungstead, and pigsties opposite the doors. The walls of houses generally damp for want of eaves-guttering and surface-drainage. The entrance to this yard is by a covered passage about 8 feet by 4 feet.

Warrior's-yard is entered by a covered passage 8 feet high by 2 feet 6 inches wide, contains 12 houses on one side, with a high blank wall opposite the doors and windows; occupied by 42 persons. The yard is laid with pebbles, and contains 2 privies and open soil-pit. The fluid excrement from adjoining yard flows into the open (surface) drain, and within about 10 feet of the doors and windows of the dwellings: pigsties are contiguous thereto.

Meetinghouse-yard, having a tunnel entrance at one end, 7 feet

by 3 feet, and a wall across the other, contains 11 houses and a population of 31 persons, exclusive of lodgers. Surface of the yard paved with pebbles, and generally damp. The sewage passes under one of the floors, discharging itself into the *Sunbek*. Privies are built against the walls of the houses, and pigsties near thereto.

Block of houses at the corner of road leading to Brompton, 9 in number, and occupied by 29 persons, exclusive of lodgers. The back yards to these houses, having a high wall on the opposite side, are only 2 feet 6 inches wide. There is but one privy for the use of the tenants and their lodgers, which stands on the edge of the public road—the excrement flowing upon the surface.

Chapman's-yard contains 7 houses on one side, with blank wall opposite, 5 occupied by 19 persons; the ingress by a covered passage, 7 feet by 3 feet. In this yard there are 2 privies and 2 pigsties. Surface-drains, but no eaves-guttering.

Smith's-yard, entered through a covered passage 7 feet by 3 feet, contains 8 houses on one side, no outlet at back. In this yard are several pigsties and one privy. The soil lies in a large open pit, and soaks into the walls of adjoining houses.

One of the tenants stated---

"Our rent is 3*l*. in addition to the taxes. The chamber-floors are not ceiled, and there is no place for depositing our tools."

Hunter's-yard contains 12 houses occupied by 34 persons: windows directly over an open soil-pit and pigsties. The drain for carrying off the surface foul water, &c., passes under one of the floors, and the fluid excrement flows over the surface of the yard.

In a second yard there are four houses occupied by 15 persons. In front of these houses is an open cesspool capable of containing 2500 gallons of soil (it was formerly used as a tank by a woolcomber).

Chapman's-yard.—Seven houses on one side, six out of the number occupied by 14 persons; surface not paved. Open soilpit, and double privy at one end.

Turnbull's-yard contains houses on two sides; foul water soaks into the ground as the only escape; privies and soil-pits close to the windows; ingress to this yard 8 feet high by 3 feet wide and covered over.

Atkinson's-yard about 5 feet wide, and contains 9 houses; seven of the number occupied by 50 persons. The privies and pigsties are placed under one of the rooms and stairs adjoining.

Pearson's-yard.—Ingress a covered passage 7 feet by 3 feet. Animals kept on the premises; privy-pit open; pigsties close to the windows.

" Fever generally prevails in this yard.'

Smith's-yard.—Six houses, 27 persons; with every description of filth thrown upon the surface.

New-row.—Twenty-six houses, without any outlets at back 20 out of the number occupied by 74 persons; surface of ground only in part paved. No eaves-guttering for discharge of roofagewater; pigsties and open soil-pits to four privies in front of the dwellings.

Stokell's-yard.—About 8 feet in width and entered by a covered passage; contains 9 houses occupied by 41 persons, with pigsties, poultry-house, privies, and open soil-pit in front.

Thompson's-yard contains 4 houses occupied by 12 persons. As privy, open soil and ash pit, and a stable, within about 9 feet of the doors and windows.

Hepton's-yard: about 8 feet wide; 9 houses on one side; 7 occupied by 24 persons. No outlets at back of these tenements; privy and ash-pit extending under one of the rooms; drains on the surface; and floors below the level of yard.

Union-passage contains 9 tenements (as shown by the plan annexed, marked A); 7 occupied by 45 persons; surface of passage is laid with pebbles.

In front of these tenements, and within a distance of about 7 feet, is the back wall of a similar row of dwellings, having dressing-eaves but no guttering. There are no outlets or yards at the back; the privies and open soil-pit are under one of the rooms. Some of the tenants complained of smells,, arising from putrid fish and soil-pit in the adjoining passage, the fluid excrement soaking through the brick-work. The entrance to this passage is under one of the front houses, and of the size of an ordinary door-way.

Ayre's-yard contains 7 tenements, 5 occupied by 23 persons, a large open soil-pit and dungstead; the surface is pitched with pebbles, and said to be generally damp.

Brown's-yard, 4 feet wide; containing 4 tenements on one side, with a blank wall (forming the back of houses in the adjoining; passage) in front of the windows and doors; privy, dungstead, and open soil-pit, with pigsties, close to the dwellings.

There are other courts, yards, and passages of a similar character to those already described—the houses in most cases on one side only, having high blank walls within a few feet of the doors and windows, and arranged according to the plan A in some instances, and in others according to the plan annexed and marked B.

OVERCROWDING IN SLEEPING-ROOMS .- Mr. Hodgson stated-

"There is not only much overcrowding amongst the poorer class, but they fasten up their windows and close the fireplaces, fortifying every crevice with paper and other substances, avowedly to exclude the air."









Mr. Walton stated-

"Typhus fever of a malignant type prevailed in a tenement in Newrard, where 5 persons occupied a small room for sleeping."

There were also overcrowded sleeping-rooms, amongst others, in the following places :—Rymer's-yard, Black-swan-yard, Meetinghouse-yard, Bakehouse-corner, Chapman's-yard, Wilkinson's-yard, Turnbull's-yard, Brown's-yard, Gain's-yard, Flower's house, and Hardman's house.

Instances of overcrowding in sleeping-rooms ascertained in my domiciliary inspection were

In *Rymer's-yard*, a man, wife, and 2 children, 11 and 8 years of age, sleep in one small bed. The air of the room foetid at the time of my inspection. In a second house a man, wife, and 6 children, occupied one room for sleeping.

In Black Swan-yard, a man, wife, and 7 children, eldest 16, youngest 2 years of age, sleep in one small room, occupying 3 beds nearly close to each other.

In Warrior's-yard, a man, wife, and 3 children, viz. a boy and 2 girls, 20, 17, and 15 years of age, sleep in one room, without a fireplace, and having but one bed.

In *Postoffice-yard*, a man and 3 children—a boy 16, a girl 13, and a boy 10—sleep together.

In a second tenement, consisting of two small rooms on the ground-floor, a man, wife, and 4 sons (live and sleep), 18, 15, 13, and 8 years of age.

Wilkinson's dwelling comprises two rooms. A donkey and a collection of bones are kept in the back room, whilst the front room contains two beds placed foot to foot, and occupied by a man, wife, and 5 children—the eldest a son 24; 3 girls, 22, 18, and 15; and 2 boys, 12 and 10 years of age.

In Atkinson's-yard, one tenement occupied by 4 orphan children—2 boys, 18 and 11; and 2 girls, 16 and 7 years of age. The boys sleep on the floor in one corner of the room, and the girls in a crib.

In New-row, a man, wife, and 6 children sleep in one small room.

Stokell's-yard.—In a small room, containing one bed and a little chaff, a man, wife, and 5 children sleep, the eldest a girl 12, and the youngest a baby one year old. Rent and taxes stated at 31. 10s. per annum,

South End.—In a tenement consisting of a single room, and used as a workshop, 5 people live and sleep.

PRESENT SOURCES OF WATER-SUPPLY.—The population of the numerous yards, and in other parts, generally procure their supply of water from one or more wells situated in each yard (but varying in distance from their houses), fitted with pumps, thus

entailing upon the inhabitants the necessity of fetching it in pail cans, or other vessels they may possess suitable for the purpos-But water retained in a sitting or any other room, becomin heated and absorbing vitiated air and other impurities to the exterit does, is rendered unfit for beverage.

The water in some of the wells, at the time of my inspection was polluted by the sewage. In several cases there was a evident anxiety on the part of the occupiers of small tenement as well as others, to secure all the soft water the present mean enables them to do from the roofs of their dwellings, although in numerous instances, no such facilities exist, to say nothing c the damage accruing to property in consequence of this omission on the part of owners.

SEWERAGE .- At the time of holding the inquiry I received : letter from the Rev. T. Burnett Stewart, M.A., Vicar, on the subject of drainage, as follows :----

" SIR,

" BEING unable to attend personally and give evidence with regard to the matters of your inquiry, I am anxious to draw your attention to two points among the rest, if it is permitted me to do so in writing.

" 1st. There is the open drain which runs from the east side of the town to the west, receiving into itself the sewers of many public and private buildings in its passage, and then winding sluggishly through the fields for a considerable distance, till it meets a larger stream, and is absorbed in it. This was originally the bed of a small stream from the hills on one side of the town, and still a little water trickles along it, while once or twice in a year a torrent rushes through it and overflows its banks. In general, especially during the summer months, its bottom consists of a filthy deposit of stinking mud, and its stream consists of discoloured, offensive liquid : all who pass up and down the public street, or cross it by the paths, perceive it. Those who live near it are the inmates of the union poor-house. The lower part of the vicarage garden is rendered useless through the exhalation from it, which often ascends even to the house itself and fills the rooms with its odour. I wish you not to be deceived as to its real state from examining it perhaps after a season of rain or snow. I beg the favour of your inspecting it from the beginning of its course at the east side of the town through the whole of it, by the side of the poor-house, between the gardens, under the wall of the vicarage garden, and then through the fields; and then say whether such a nuisance ought to continue. You will find that no power exists in any body to abate or remove this nuisance; to effect it by voluntary effort has been tried repeatedly, but always failed. It was this, in connexion with the generally defective drainage of the town, which caused myself and others to look forward with anxiety to the passing of the Public Health Act, and immediately to make application for it to come into force in our own case.

> " T. BURNETT STEWART. (Signed)





The 2nd point named in the letter relates to the burial-ground, and will be noticed under its proper head in a subsequent part of this Report.

Mr. Fowle stated-

"I find the noxious gases arising from the gullyholes in the streets so very offensive, that I am obliged to close the windows of my house. "The sewers in their present condition are nothing more than

cesspools."

Mr. Smith stated-

"At the south end of the town a sewer (about 400 yards in length, with 12-inch semicircular tiles) was made in 1832, with its outfall into an open ditch, and finally into the 'Willow-bek.' There are 20 gully untrapped holes communicating with this sewer, a considerable portion of which is laid level, and from being constantly choked the surface-waters and sewage flow back into the yards of the houses."

After a heavy shower of rain, the inhabitants residing in the lower parts of the town are for some time subjected to great annoyance.

Richard Nicholson, the assistant surveyor of highways, stated-

"I have filled the office for more than twenty years, and generally about once in two years have been obliged to open the sewers, when I have found them in some instances entirely full of solid deposit, and in others partially so."

Mr. Hamilton stated-

"In 1835 the sewer No. 1, marked A on the plan, 80 yards in length, was constructed, and consists of brick sides laid upon the clay and covered with flagstone, the house-drains in some instances communicating with it.

"The sewer No. 2, marked B, is of the same construction and length, viz. 9 inches square and about 80 yards in length; drains from some of the houses communicate therewith."

Sewer No. 3, at C on the plan, is 22 yards in length, and 12 inches square, with two gully-holes, and receives the sewerage from two houses by means of sub-drains, and from one house by surface drainage. The south sewer, marked D on the plan, is 88 yards in length, and 12 inches square. House-drains communicate with. this length of sewer.

No. 4 sewer, shown at E on the plan, is about 253 yards in length, and is in some parts 9 inches by 6 inches, and in others 12 inches square. House-drains communicate with this sewer.

Sewer No. 5, shown at F on plan, is 187 yards in length; and No.6, at G in continuation, is 132 yards long, with gully-holes over the latter. The drains from houses communicate with these sewers.

Sewer No. 7, marked H on the plan, is square as before, and 55 yards in length.

Sewer No. 8, at I on the plan, is 154 yards in length, with open

gully-holes over. House-drains communicate therewith by mean of small square drains.

Sewer No. 9, marked K, in Back-lane, is 286 yards in lengt with the outfall into the *bek*. There are two sewers in the Baclane—the one mentioned and another adjoining the houses, both which fall into the *bek*.

In addition to the 9 sewers shown upon the plan, all of whice were laid down by the surveyors of the highways, one oth sewer has recently been constructed, leading from the gaol to the *Willow-bek*, and was executed from the designs and under the direction of the county surveyor.

Richard Nicholson stated-

"That each of the sewers he had, from time to time, been oblige to open and clean out, occupied upon an average 7 men each about 3 days."

In other parts of the town there are no sewers. The four water is either thrown into the *bek* or on the surface, except from a block of houses on the west side of the main street, which are connected with a large cesspool, tank, or *settle* at P on plan From this cesspool an overflow-drain has been laid down, and extended into the adjoining pasture-fields, and finally into the *Sun-bek*.

BURIAL-GROUNDS.—'There are two burial-grounds in the town, viz. the churchyard of All Saints, obtained by immemorial occupation, and an unconsecrated ground, as shown by the annexed plan, marked C, belonging to the Independents. The area of the churchyard, including the site of the church, is 1 acre 1 rood 10 perches; it is from 3 to 5 feet above the level of the street, and enclosed by a wall. On the east side is the high road, from 50 to 60 feet wide, with houses fronting the churchyard and road. The grammar-school stands on the south side; and dwelling-housesat a distance of about 33 feet. On the west side there are also dwelling-houses, varying in distance from 50 to 150 feet.

The vicar, in the second paragraph of his letter, states-

"It has more than once been proposed to enlarge the churchyard, though, in comparison with many churchyards in towns, it cannot be called *crowded with graves*. The late sexton told me it was his practice never to disturb a grave [till 20 years had elapsed; and, I must say, though I have often seen *bones* thrown up in digging a grave, I have never seen any more recent indications of previous burial, rarely ever any remains of wood from coffins. I must leave it to those more able than myself to decide as to the expediency of sepulture in towns, even under the most favourable circumstances, and will only mention facts: that I have never heard any complaint made of offensive or injurious smells proceeding at any time from any part of the churchyard; that the coffins are ordinarily placed only four feet deep in the ground; that I have refused every application to bury in the interior

of the church since my incumbency, but it is uncertain whether my authority extends to the chancel, and two have taken place there since 1839. Upon the whole I shall gladly concur in any proposition for improvement in regard to burials, whether it be an order from the General Board of Health as to the mode of interment, or a recommendation to the parishioners to procure burying-grounds removed from the church and houses of the town. I earnestly hope the result of your visit of inspection will be the adoption of some measures for the sanitary improvement of the town.

> " T. BURNETT STEWART. (Signed)

" Mr. Ranger."

W. Firbank stated-

"I have assisted in digging graves for the last 10 years. The common depth is 4 feet, but in some instances have dug 5 feet. The late sexton frequently complained of the effluvium arising during the time of digging.

"The total number of burials from 1681 to 1837, both inclusive, amounted to 7490, and in the following years to 844, viz :---

Years.	Males.	Females.	Total.
1838	37	28	65
1839	53	44	97
1840	31	36	67
1841	45	33	78
1842	43	38	81
1843	28	27	55
1844	22	20	42
1845	20	30	50
1946	31	40	71
1847	57	49	106
1848	41	33	74
1849 up } to Oct. 11 }	29	29	58
w 2004: share w	437	407	844

Mounds 2 30 ANTINIZA DEL . 1544

"The sexton generally receives the orders for interments, and consults the friends of the deceased as to the site for the grave.

"The soil is in most parts black, and gravel underneath, but never gets down to the water; has no means of ascertaining if there is room for a grave except by digging down. The practice is now to dig between the old graves, but even here bones and remains of coffins are met with. The coffins are usually made of American fir; has in no instance lately made a grave without disturbing the remains of previous burials, and [88.]

removed as many as five skulls in getting down a single grave. Having once commenced a grave, he digs through everything he meet with."

The surface of the churchyard is from 18 inches to 2 feet inches above the floor of the church.

Mr. Fowle stated,-

"I have seen graves made, and looked into one dug at the south east corner of the ground close against the wall separating the church yard from the public road, and this grave terminated about one for above the level of the said road."

Burial fees are :--

and the point indentity and				s. d	
To the Incumber	it .	in.		0 9)
" Clerk .	2013001	1. Sand	1.	0 10)
" Sexton.	la isai	1.		2 2	2
				3 9	5
And for erecting	tombs	e the	i.bd	21 <i>s</i> . 5 <i>s</i> .	
The states and and					

Mr. Reed stated,-

"The burial-ground attached to the Independents' Chapel was firm used for burials in 1836, but the number is not known."

The labouring classes do not generally keep their dead longer than 3 or 4 days before burial.

SICK AND BENEFIT CLUBS.—1. The Amicable Society consists of about 63 members, each contributing 1s. per month with an additional sum of 2s. per annum for medical attendat and medicine. The allowance in case of sickness for the first year is 5s. 6d. per week, and after the first year 2s. 6d. per week. A death 4l is allowed from the *box*, and a special contribution case 6d. from each member, in addition to his subscription.

If a member buries his wife, 2l is allowed from the box, and special contribution of 3d. from each member.

The fund of this club is never reduced below 2007.

Its meetings are held monthly at a public-house, and the neglect to attend any two consecutive meetings subjects the absentee to a fine of 6d. The members attending are allowed one glass of ale at the expense of the fund.

Female Benefit Club.—The object of this society is to form fund for the relief of its general members in sickness, medica attendance, advice, and medicine.

"It is divided into two classes, viz., honorary members, who muscontribute 10s. 6d. a year towards the purposes of the institution, an general members, who shall be entitled to the assistance.

"The entrance money for persons in good health is 2s. 6d. for copy of the rules, and 2d. to the clerk; every member will be free, and entitled to receive benefit from the society, when she has paid 12 months from her entrance.

"Every general member must pay 10d. per month if admitted from the age of 18 to 25 years; 1s. from 25 to 30; 1s. 3d. from 30 to 35; but after 35 years of age they are not admitted as members.

"Every general member must pay a further sum of 2s. per annum for medical attendance. The salary of the clerk is in the proportion of 4d. per annum for each member. The number of members was not stated.

"That when any member shall die (being entitled to receive the benefit) the sum of 6l. is to be allowed for her funeral expenses, in addition to 6d. from every general member paid into the box.

"On the death of the husband of any member who at the time shall be free of the box, 5l. is to be paid for the funeral expenses, and 3d. from every general member added to the box.

"Every member to attend a sister's funeral, or forfeit 6d.

"" In case of sickness 5s. per week is allowed out of the box; but no member who has received 12 months' pay during 6 years, is entitled to receive full pay afterwards, when in case of further sickness 2s. 6d. per week only is to be allowed."

NEW FRIENDLY SOCIETY: consists of 43 members; its object that of raising a common fund for mutual relief and maintenance in seasons of sickness, old age, and infirmity. In addition to sundry rules for their government are regulations as to the fees, &c., which are as follows :---

		8.	<i>a</i> .
On entrance, for a copy of the rules		0	6
Entrance money	ilen	2	0
Subscription per month		1	0

but no benefit is to be claimed until the expiration of 18 months after the period of becoming a member, when the allowance in case of sickness, or rendered incapable of work, is 5s. per week for the first 6 months, and for the next 6 months 4s.; if necessary, for 6 months longer 2s. 6d. per week, and during the remainder of his illness 1s. 6d. per week.

The salaries paid are, to the clerk 2d. per annum for each member, and the additional sum of 2d. for every member on entrance. The surgeon is to examine all candidates for admission, give certificates for receiving money from the box, and attend and provide medicine for such as may require the same, receiving as compensation 3s. 6d. per annum out of the funds of the society for each member.

For preserving amity and proper decorum at their meetings certain fines are imposed, viz. :---

Property of the contract of the			8.	d.
For promoting profane conversation			0	3
For cursing or swearing	Col (LL	22.20	0	3
For casting personal reflections on any other member			0	3
For quarrelling with, or degrading, or using ill-language	towa	rds		
	C	2		

begann beige sig Ballente an Brien alter biet fer ernettigen Benete erningen berennen.	1	
a brother member (except it be for defrauding the society,		0
or for violating any of the rules)	0	123
For offering wagers or promoting gaming	0	
For voting fraudulently in any case whatever .	1	24
For upbraiding another member with being chargeable to the	14	128.2
club	1	10
For striking or attempting to use any violence to a member at		164
any meeting	2	10
For molesting the president, treasurer, steward, or clerk in the	-1233	2
execution of their offices	5	1.6
For disobeying the president's orders after silence is three times		100
called, or any member refusing to keep or retire to his seat,		1
for each offence	1	19
For introducing politics	1	11
The following return, kindly furnished by Mr. Harrison	. ch	erh
to the Union, shows the amount expended from the rates		
relief of the resident poor and tramps on account of sickness		
rener of the resident poor and tramps on account of sternes.		Ser. 1
	s	d.
In the quarter ending December, 1847, 27 persons re-	10	22
ceived	N 16 1 1	33
In the quarter ending March, 1848, 22 persons received 9	19	3
In the half-year ending September, 1848, 18 persons		
(some of whom are comprised in the last quarter) received	14	91
In the half-year ending March, 1849, 36 persons (some	14	-11
of whom are comprised in the last half-year) re-		1917
ceived	16	1
In the half-year ending September, 1849, 24 persons re-		
acimadal 6	5	91
And for casual paupers (properly tramps), nearly all of	-	1
whom were sick when they arrived at Northallerton,		
there were relieved on account of sickness in the		
quarter ending December, 1847, 27 persons received 11	1	0.)
In the quarter ending March, 1848, 15 persons received 21	10	1
In the half-year ending September 1848, 16 persons re-		
ceived	18 .	24
In the half-year ending March, 1849, 21 persons received 11	12	4
In the half-year ending September, 1849, 10 persons re-		
ceived	6	91

making a total of £130. 14s. 11d. for both classes.

HIGHWAYS.—The entire length of highways in the township under the jurisdiction of the highway surveyors is about 11 miles, including 1 mile of roads in the town.

The rate made is 6d. in the pound, and the sum realized 2402. for the township. From 7 to 8 men upon an average are constantly employed through the year, at wages from 1s. to 2s. per day. The foreman also attends to the cleansing of the streets, depositing the soil and refuse outside of the town, for which a

sum of 30s. only is obtained. But he does not extend the process of cleansing to any of the numerous courts, passages, or yards in front and close proximity of the houses occupied by the poorer and working classes, and where heaps of manure and refuse abound.

LIGHTING.—The town is supplied with gas by a private company. There are 42 public lights at a charge of 35s. per light, each lamp burning 1200 hours. To private consumers by meter the price charged is 8s. 4d. per 1000 feet. The rate made for defraying the cost of public lights is 3d. in the pound on houses and 1d. in the pound on lands, producing about 85l. per annum.

REMEDIES.

The subjects which will come more immediately within the province of the local Board of Health to conduct include the removal of noxious refuse from houses, streets, yards, courts, and roads, by sewerage; supplies of water, and repairing highways.

For the final designing of the works and preparation of estimates sufficiently exact for tenders, there will be required an accurate survey, &c., upon the scale proper for this class of works. This preliminary remark upon the present want of sufficient data and the cursory examination of the district will be borne in mind at the time of considering the conclusions arrived at as to the probable cost of the set of works.

WATER SUPPLY.—The necessity for an ample and constant supply of pure water for domestic use and for general cleansing is universally admitted.

"The interposition of the labour of going out and bringing home water from a distance acts as an obstacle to the formation of better habits."—Report by E. Chadwick, Esq., C.B.

The quantity of water necessary for the supply of the town for all purposes will amount to about 13,000 cubic feet per day.

The following report from Dr. Playfair shows the relative hardness of the waters in this district and at present in use :--

Mr. Jefferson's well, north end of the town, east sid	е.	58°
Mr. Hamilton's well, west side of the town		46°•86
Mr. Watson's well, west side, middle of the town		88°.44
Mr. Metcalf's well, east side of the town	217.77	74°.94

Hard water curdles soap, and to the same extent destroys its cleansing properties, and the poor, as a consequence, are left to the scanty and irregular supplies furnished by rain, which are insufficient for constant use.

In the cursory examination I made of the district, aided by Messrs. Hamilton, Watson, Walton, and Metcalfe, two sources

presented themselves: by Harrowgate farm, at about 11 mile from the town; and Bankclose farm, which is somewhat nearer. These waters have been examined by Dr. Playfair, and their hard ness is as follows:—

Harrowgate farm			
Bankclose farm	Duadox a anu	110	25°.90
Mankelose larm	Auchoritain a	at latera	280.54

Not having been supplied with levels of the line of country, and in the absence even of an Ordnance map, I can only state I am inclined to the belief that a sufficient head can be obtained at Harrowgate for a supply by gravitation, whilst the district is particularly well adapted for the formation of the necessary reservoirs, but I cannot speak equally confident as to the same result at Bankclose; and although the hardness does not amount to one half in degree to that at present in use, a further reduction even in the water from Harrowgate farm is highly desirable. By the terms of the Public Health Act, the supply of water must be "pure and wholesome," free from animal, vegetable, or minerall matter; and as one of the means consists in filtration, it is important to make the necessary provision.

The estimate of filtration by the Lancashire method (First Report of the Commissioners of Inquiry into the State of Large Towns, p. 170), a very efficient and economical system; and by its adoption every labourer's tenement, assuming his consumption at 40 gallons daily, could have the water perfectly clear and l filtered for 3d. additional to his annual rent.

The system best suited is one that has long been in successful use in various towns; viz., that which is called natural or constant supply, as contradistinguished from the common mode of an intermittent supply, which renders necessary an expensive apparatus of butts and tanks (subject to an annual cost for repair, in addition to the interest of capital embarked in the outlay), in which water stagnates until it is wanted, and, however pure at its source, becomes vapid and polluted; while experience shows that, if water be impure, the generation of animalcules and the decomposition of animal and vegetable matter are constantly taking place to an extent most injurious to the comforts of the people, if not to their health.

Experience further shows that the constant system is the most economical, a condition not to be overlooked.

SEWERAGE.—The effect obtainable by an efficient drainage and sewerage is no longer a question of doubt, its benefits extending even to rural districts, similar to the one under consideration, as exemplified in the gradual reduction in the rates of mortality, as well as in a better tone of health; the effects of drainage carried out, although not upon the improved system, have been to reduce the mortality from 1 in 67 to 1 in 71. At

the time of my inquiry there was no plan of the town showing the levels, consequently it is not possible to define, for the guidance of the local Board of Health, the exact position and depths of the main sewers. I am, however, of opinion that two lines of main sewers will suffice for the discharge of the sewage, and it will not require tubular pipes exceeding 15 inches in diameter; but the material should be impermeable, and in this instance kept independent of the drains and sewers already constructed.

HOUSE-DRAINAGE AND DISCHARGE OF ROOFAGE-WATERS.— It is of the first importance that efficient means should be provided for the complete removal, from the various tenements and adjacent premises, of all collections of foul and decomposing matters, whether found in a liquid or solid state. Hence the necessity for stopping up all cesspools, &c., and the adoption of impermeable house-drains in connexion with the main sewers; and in every case where the premises admit of these drains being laid down at back, in lieu of the front of the houses, preference should be given to the former, as being not only the least costly, but likewise the most efficient mode of drainage.

In no case will it be necessary to make use of tubular earthenware pipes exceeding 6 inches in diameter, and in most cases 4inch tubes will suffice. The cost for back-drainage to houses in the various courts, yards, and passages, including a sink in room, water-closet pan, syphon-traps, and pipes to each property connected with the sub-main, and a rain-water drop-pipe between every two houses for carrying off the roofage-water, and thus prevent dampness of walls arising from the omission of this precaution, is estimated at 21. 5s. per house; and if the work is done under the direction of the local Board and charged for by way of an improvement-rate, it will only amount to about three farthings per week.

PRIVY ACCOMMODATION, &c.—The few existing privies are placed either in exposed situations or so as to allow of the soil saturating the walls of adjoining houses. But the provisions of the Public Health Act empower the local Boards to remedy the evil; and when it is considered that closets may be constructed with a soil-pan and syphon-trap, having all the advantages of a water-closet, for a sum not exceeding 3l, or, if charged by way of an improvement-rate, not exceeding 3s. 6d. per annum, there can be no just ground, as regards cost, for not giving to the poorer and working-classes this addition, which is essential to their comforts, as well as to extricate them from being obliged to outrage the rules of modesty.

REMOVAL OF LIQUID REFUSE.-The value of sewage-water in

irrigation is no longer regarded by experienced agriculturists a a doubtful question, neither is its usefulness confined to larg towns, as some persons have supposed, for it is an ascertained fact that the composition of the sewage-waters of large and small towns is much more uniform than was at first anticipated. Liebi points out the advantage of dilution, and observes on the fertilizing powers of sewage. The evidence of the chemist and the skilfu irrigator goes to establish the fact that the addition of the saling and organic matters of sewage to the waters usually employed in the irrigation of grass-lands adds greatly to their fertilizing powers Mr. Smith, of Deanstone, in his evidence, puts the value of town sewage at 12. per head of the entire population, but the interesof the consumer must be considered, and if only a fourth of this sum be obtained, a considerable benefit will accrue to the town indeed, looking at its comparative immunity from wealthy residents or owners of lands, &c., it is of the greatest consequence to the inhabitants, in a pecuniary point of view alone, that the sewage should be rendered productive.

The following letter from one of the inhabitants shows to what extent the use of liquid manure has hitherto been adopted in this district :—

" Early in the year 1844 I determined to make an experiment in order to ascertain what an acre of grass-land would produce. In the beginning of March I turned six full-grown cattle into a paddock containing an acre, occasionally foddering them during the day, and housing them at night. At May-day I freed it, gathered the droppings, and cleaned it well up; it remained free about three weeks, when I put in three fat cattle, which continued till the beginning of July, when I again freed it, cleaned it up, and covered it with the produce of a tank attached to my cow-house. On the 14th of August I cut one of the largest crops of meadow in the parish, and the after-grass was equal to any of my neighbours.

"Since then I have frequently used the liquid manure, and with similar results.

"THOMAS HAMILTON."

REMOVAL OF SOLID REFUSE.—In connexion with every class of dwelling-houses there are collections of ashes and other solid refuse, that cannot be carried off by the sewers, but which ought not to be allowed to accumulate, as at present, in close proximity to human habitations, and it will therefore be necessary, pursuant to the terms of the Public Health Act, 1848, to provide in proper situations boxes, or other receptacles, for its cheap removal. The value of this refuse will be found, under judicious arrangements, equivalent to the cost of its removal.

PAVING OF COURTS AND YARDS.—Experience shows that a reduction in the amount of disease invariably has followed the

introduction of pavements. The charge, under proper management, for each of the smaller class of houses where there are at present no sufficient pavements, will not amount to $\frac{1}{2}d$. per week.

PLANS, ESTIMATES, &c.—For the final designing of the various works and for the preparation of estimates, as well as for determining the most advantageous distribution of the sewage manure, there will be required an accurate survey and a contoured plan of the town and its suburban districts, showing the relative levels of the entire area.

In the absence of the necessary engineering drawings, founded upon accurately made surveys, I can only state the amount for the public works approximately. But the local Board may safely rely on the sums so stated as the maximum. These are, for

Public Sewage	address and		£1800	0	0
Water Supply	in the set		2300	0	0

CONCLUSIONS.

I am of opinion, from the evidence given at the inquiry, and upon a personal inspection of the town and the habitations of the working and poorer classes, that a considerable amount of sickness and consequent expense may be materially alleviated, and additional comforts secured to all the inhabitants, by the application of the provisions of the Public Health Act, 1848, to the township of Northallerton.

In furtherance thereof it will not be necessary to enlarge the existing known boundary.

1. It is indispensably necessary to secure to the inhabitants an abundant supply of pure water, conveyed into every tenement upon the constant system, for domestic use, cleansing, and other household purposes.

2. That the entire area of the town, roofage and interior of all houses, be completely drained by means of covered tubular impermeable pipes.

3. That all cesspools, privy and other liquid soil-pits, be emptied and filled up.

4. That existing privies, where properly situated, be converted into water-closets, and where none exist, or the number is insufficient, proper closets should be constructed.

5. That provisions be made for a systematic removal of ashes and all other solid and noxious refuse from the vicinity of all dwelling-houses and tenements.

6. That all carriage and foot ways, dedicated and undedicated, be periodically cleansed, to prevent the least accumulation of mud and filth.

[88.]

7. That fire-plugs be placed at intervals not exceeding 50 yards throughout the town, and supplies of water be kept on night and day for the extinction of fires.

8. That all blind alleys, where practicable, be converted into thoroughfares, or be so opened that the noxious vapours may be dissipated by free currents of air.

9. That powers be taken for ventilating all parochial and other schools used for the children of the poor, also for preventing overcrowding in lodging-houses, and, as far as possible, stipulate the cubic contents of space for each person in the sleeping apartments of the lower-class tenements.

10. That powers be taken for providing a cemetery ground in lieu of enlarging the churchyard for future interments, also for closing the said churchyard and the burial-ground attached to Zion chapel, as shown by the annexed plan marked E, for purposes of interment.

Assuming the works eventually adopted to be of such a nature as in the opinion of the General Board shall warrant a distribution of charges over periods of time, I am of opinion this would be a case in which it is desirable to do so, and the Board to exercise its power to save the necessity of immediate outlays on the part of owners or occupiers, by recommending advances of loans from the Commissioners of Public Works, to be repaid by annual instalments.

From the best attention given to the several matters contained in this Report, I am of opinion that, by carrying out the several works as a whole, and having regard to existing charges and expenditure in labour, a positive saving may be secured to the inhabitants.

WHEREUPON I RECOMMEND-

- First—That the Public Health Act, 1848, except sections 50 and 96 in the copies of that Act, be applied to the township of Northallerton, in the county of York.
- Second—That the local Board of Health, to be elected under the Public Health Act, 1848, consist of 12 persons, and that the entire number be elected for the whole of the said district.
- Third—That one-third in number of the said local Board go out of office on the 25th day of March in each year subsequently to that in which the said election takes place.
- Fourth—That every person, at the time of his election as member of the local Board, and so long as he shall continue in office by virtue of such election, be resident, as in the said Public Health Act, 1848, is required, and rated to the relief of the poor of some parish, township, or place, of which part





is within the said district, upon an annual value of not less than 30*l*.

Fifth—That the 14 days' notice of qualification required by the Public Health Act, 1848, to be given by owners of property in order to entitle them to vote at the said first election, shall be given to the person or persons to be appointed for conducting the said election.

I have the honour to be,

My Lords and Gentlemen,

Your very obedient humble servant,

W. RANGER, Superintending Inspector.

The General Board of Health, §c. §c.

> London :- Printed by WILLIAM CLOWES and Sons, Stamford Street, For Her Majesty's Stationery Office.

is within the sold district, upon an annual value of not less

-"That the I4 days' notice of qualification required by the Public Health Act, 1848, to be given by owners of property in order to entitle them to vote at the said first election, shall be given to the person or persons to be appointed for conducting the said election.

I have the honour to be, My Lords and Gentlemen, Your very obedient humble servent, W. RANGER,

to a real shared has Win to a real Orlow on which from a financial theory of the second of a starting of a startin