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Contributors

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REPORT ON SANITARY CONDITION



OF EDINBURGH

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R E P O R T

ON THE

Sanitary Condition of the City of Edinburgh,

WITH

RELATIVE APPENDICES, &c.

BY

HENRY D. LITTLEJOHN, M.D.,

F.R.C.S.E.,

MEDICAL OFFICER OF HEALTH FOR THE CITY.



EDINBURGH:

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R E P O R T

ON THE

SANITARY CONDITION OF EDINBURGH.

—♦—

WHEN the Act for the Registration of Births, Deaths, and Marriages was extended to Scotland in 1855, it first became possible to ascertain with precision the mortality of our cities and towns, and to compare it with that of the surrounding country districts, in which, from the scantiness of the population, and the purity of the air, the mortality was believed to be at the most favourable standard. Edinburgh (the exact limits of which had been determined in 1832) was divided by Commissioners into seven districts, to each of which a Registrar was appointed. The principle of the division appears to have been determined by the ordinary Municipal Wards. The number of registration districts, however, having been found to be inconveniently large, were, in 1859, reduced to five. These embraced the whole Parliamentary area (which is identical with the Municipal) and also the landward part of the Parish of St Cuthbert's, which for registration purposes was included in the first district, or that of St George's. This district comprised also, on the north, the suburb of Stockbridge, the village of Water of Leith, the West End of the Town, the Lothian Road, and portions of Fountainbridge and of the Grassmarket. The New Town to the north, Canonmills, Broughton, Leith Walk, and the Calton Hill, with adjoining Terraces, were included in district No. 2, or that of St Andrew's. In the third, or Canongate district, were the Canongate, the Abbey, a portion of the Pleasance, and of the High Street, below the Tron Church. The fourth, or St Giles's district, contained the High Street, and the adjacent Closes and Wynds above the Tron Church, a portion of the Grassmarket, and all the south parts of the city, as far as the Meadows, bounded on the one side by Fountainbridge and on the other by Nicolson Street. The last district was named Newington, and, in addition to the suburb bearing that name, included a portion of the Pleasance, and the streets lying between it and Nicolson Street, the suburbs of Grange and

Morningside, and a portion of Fountainbridge. The following table shows the various portions of the City, and also the Municipal Wards, which are included in the registration districts, the population of which, as at 1861, is also given :—

Names of Registration Districts.	Population in 1861.	Portions of City included.	Municipal Wards.
1. St George's.....	42,068	Stockbridge, Water of Leith, West End, Lothian Road, Portions of Fountainbridge and Grassmarket, and the Landward part of the Parish of St Cuthbert.	3. St Bernard's. 4. St George's. 10. St Cuthbert's.
2. St Andrew's.....	38,731	New Town, Canonmills, Broughton, Leith Walk, Calton Hill.	1. Calton. 2. Broughton. 5. St Stephen's. 6. St Luke's. 7. St Andrew's.
3. Canongate.....	30,169	Canongate, Abbey, Portions of Pleasance and High Street, and Cowgate, Landward part of Parish of Canongate.	8. Canongate.
4. St Giles'.....	29,679	High Street and Cowgate above Tron Church, Portion of Grassmarket, and District to the north of Meadows.	9. St Giles'. 11. George Square.
5. Newington.....	29,797	Portion of Pleasance, Newington, Grange, Morningside, Portion of Fountainbridge.	12. St Leonard's. 13. Newington.
Total Population, ...	170,444		

But a reference to the accompanying map will show how faulty this division is. Two points of importance appear to have been entirely overlooked :—1st, The convenience of the public, who were called upon, under pains and penalties, to obey the enactments of a troublesome law, the benefits of which to the people at large, were not very manifest ; and, 2d, The obvious importance of making the registration divisions subservient to the purpose of testing the mortality of special districts, so that the authorities might have their attention directed to the parts of the city which stood most in need of sanitary improvement. No fewer than 43 streets are divided by the present registration districts, and the inhabitants are thus necessarily put to much inconvenience. Again, from the peculiar division adopted, it is a matter of difficulty to determine the exact registration district of a locality, and tabular guides have been provided for this purpose for the use of the medical profession and the Registrars themselves. The difficulties experienced by the public can easily be imagined. We have, for example, Princes Street in three registration districts, as also the Cowgate. A portion of Canonmills

is in St George's, and the Registrar's office is in the Lothian Road ; while another is in St Andrew's, the office of which is in North St Andrew Street, and comparatively near. Similar inconsistencies prevail in other parts of the city, and especially in the wide-spread district of Newington. Indeed, the almost daily instances of annoyance which have come under my notice, experienced especially by the poorer and more ignorant classes of the community from the present arrangements, have convinced me of the necessity of diminishing the number of the districts. Were they limited to two—one for the Old Town, south of the great line of Princes Street, and the other for the New—the division would be easily remembered, and as clearly understood. But, again, the statistical data furnished by two such districts would be more valuable than those gathered from the five districts of the present arrangement, which range in no definite direction, but divide in two important sub-divisions of the city, and include others which differ widely in character, site, and population. Indeed, I found that the statistics which I had prepared on the basis of the present division were valueless, as affording a test of the mortality of the various portions of the city. Even with regard to the weekly statements of the mortality which I submitted to the Town-Council, numerous enquiries were addressed to me as to the signification of the names of the districts, and what they represented. And I could not but consider the complaint a well-founded one, that, in the case of Newington, for example, only a small proportion of the mortality registered weekly in that district was drawn from the suburb of that name, while by far the greater part came from the village of Morningside, in which there are two large asylums, and also from the poor, badly-drained district of Fountainbridge, which is separated from Newington by at least a mile and a-half. It soon became apparent that a fresh arrangement must be made, and the question came to be, what plan should be adopted in a new division of the city into what might be called sanitary districts, which might be of use, not merely for such a temporary purpose as the publication of an Annual Report, but might serve as the basis of a scheme of sanitary improvements, by enabling the authorities to ascertain with precision the district mortality? The Municipal Wards, though sufficiently restricted in size for useful comparison, were faulty as regarded their eccentricity of outline and the distribution of the population. Similar disadvantages, along with great disproportion in relative extent, were found to weigh against the parochial division. The one finally adopted will be found figured in the accompanying map of the city, which represents the parliamentary area divided into 19 districts. In framing it, my first object was, by uniting portions of the registration districts of St George's and St Giles', to constitute a special district of Grassmarket and West Port—localities memorable in the medical history of Edinburgh. And again, by joining portions of the districts of St George's and Newington, to form a district of Fountainbridge, a well-marked locality, with special sanitary requirements. By following the stream of the Water of Leith from its entrance within the Parliamentary boundary at Coltbridge until it leaves it at Bonnington, the district of the Water of Leith was marked

out,—of importance, not only as bearing upon the recent discussions as to the purification of the stream, but also as indicating the plain which runs northward from the hilly range on which the New Town is built. This is well seen in the elevation section of the city at p. 44. The district is large, and a considerable population is grouped along the banks of the Water of Leith. It became advisable, therefore, to sub-divide it into an upper district, comprising the villages of Dean and Water of Leith, and the important suburb of Stockbridge, and a lower, which included Henderson Row, Canonmills, and Bonnington. The remaining districts were comparatively easily mapped out. The configuration of the New Town naturally resolved it into two sub-divisions, an Upper and a Lower New Town, the one consisting of the plateau on which Princes Street, George Street, and Queen Street stand; the other, the various streets sloping to the north. These were numbered first and second. The gap left between the district of Fountainbridge and the Upper Water of Leith formed the third district, and was named West End. The districts of the Water of Leith constituted Nos. 4 and 5; while that of Broughton, No. 6, ranged from the Beaverhall and Bonnington Roads to Leith Walk, in the one direction, and from Pilrig Street to Broughton Street on the other. The rest of the New Town to the east was thrown into a district, the seventh, called the Calton, comprehending the Calton Hill, Greenside Street, St James' Square, and also that portion of the city between Leith Walk and Lochend. The well-marked ridge of the Old Town (see plan, p. 77), was divided into four divisions of regular gradation in elevation, forming the eighth, ninth, tenth, and eleventh districts. The level surrounding the Abbey of Holyrood, and stretching eastwards as far as the Parliamentary boundary, was named the Abbey. From the Horse Wynd to St Mary's and Leith Wynds, and including on either side, north and south, the North and South Back of Canongate, we have the well-defined district of Canongate, properly so called. The Tron comprehended that block of closes and wynds between the Bridges, on the one hand, and the western boundary of Canongate, on the other, and stretching north and south from the Physic Gardens to Drummond Street. The highest elevation of the ridge was included in the district of St Giles, which was bounded on the north by the New Town, and on the south by the University and the Grassmarket, which constituted district No. 12. Fountainbridge was No. 13. Lauriston, including George Square and the park of the Meadows, formed district No. 14. The densely-peopled localities to the south of the University, and bordering on Nicolson Street, were named after that street, and composed district No. 15, while the range of streets sloping to the east from the Pleasance to Arthur's Seat, and stretching southwards from the Canongate, formed the well-defined district of the Pleasance and St Leonard, No. 16. The southern suburbs were divided into the three districts of Newington, Grange, and Morningside, respectively Nos. 17, 18, and 19. It only remained to indicate, as district No. 20, the landward or county portion of the parish of St Cuthbert, reaching from the sea shore far to the south of the city, the boundaries of which could not be shown in the map.

	Registration Districts.	Sanitary Districts.
NEW TOWN, North of Princes Street.	I. St George's, part of. II. St Andrew's.	1. Upper New Town. 2. Lower New Town. 3. West End. 4. Upper Water of Leith. 5. Lower Water of Leith. 6. Broughton. 7. Calton and Greenside.
OLD TOWN, South of Princes Street.	I. St George's, part of. III. Canongate. IV. St Giles'. V. Newington, part of.	8. Abbey. 9. Canongate. 10. Tron. 11. St Giles'. 12. Grassmarket. 13. Fountainbridge. 14. George Square and Lauriston. 15. Nicolson Street. 16. Pleasance and St Leonard's.
SOUTHERN SUBURBS.	V. Newington, part of.	17. Newington. 18. Grange. 19. Morningside.

The preceding table shows the distribution of the new districts in the Old and New Town, and also their relation to the present registration division.

Such an arrangement enables us to test, for the first time, by reference to the mortality, the sanitary condition of the portions of the city inhabited by the richer and poorer classes. As a preliminary step, a correct list of the streets, lanes, and closes, &c., had to be drawn up, a task of no little difficulty, as there was none in existence, the accuracy of which could be depended upon. This list had again to be sub-divided, so as to form miniature directories for each of the various sanitary districts. The exact amount of the population in each district had next to be ascertained. On turning to the Registrar-General's Report on the population of Scotland, the sole information available for my purpose was the gross population of the five registration districts, as given in Table (p. 2), and to my surprise, I ascertained that at the last census, 1861, the city had not provided itself with a copy of the returns for each street, court, and close,—a document not only essential for the furtherance of sanitary inquiries, but also of great municipal interest. The remedy was to make a copy from the census, which, as the property of Government, had been deposited in the New Register House; and I received the authority of the Magistrates and Council to solicit the permission of the Registrar-General for Scotland, to have a copy made. This was at once granted, and the population column in Table III. of the Appendix (Sanitary Districts and their Vital Statistics) gives the results of the inquiry, which was attended with no little difficulty, as the returns lay just as they had been originally sent in, and from the manner in which they had been made up, the population of main streets had been confused, in some instances, with that of their offshoots, such as closes, courts, and lanes. The mortality of the districts was

now ascertained by allocating the deaths, as furnished by the weekly returns of the five local Registrars of Births, Deaths, and Marriages, which had been placed at my disposal. In attempting this, however,—and in order to give a true statement of the mortality of Edinburgh, or of any of the sanitary sub-divisions, so as to admit of satisfactory comparison,—it was necessary, in the first place, to strike off the deaths of persons not belonging to Edinburgh, and who were merely resident in it for a short period, not sufficient to give them, so to speak, a right of domicile. As the seat of a medical school, and of a great hospital, presided over by men of the first eminence in their profession, this city has been the favourite resort of the sick and maimed—a class the mortality of which is well known. A record of such deaths could throw no light on the sanitary condition of Edinburgh, and it could not be maintained that the mortality in question was that of citizens. Secondly, the residences of all persons belonging to Edinburgh, dying in our hospitals, had to be ascertained, so as to permit of the deaths being carefully distributed over their proper districts. Thus it would be impossible to ascertain the mortality of any of our closes were we to restrict our attention to the deaths registered as occurring in the locality. The class of deaths which it is of most importance for a sanitary officer to be acquainted with would escape his notice, as, from their infectious nature, parties suffering from them (and this is especially true of the poor) are drafted at once to our Infirmary, and in the event of death would just increase the special mortality of the institution, and afford no information as to the locality whence they came. Both these points have been attended to, in drawing up the statistics in the Appendix to this Report; and to give some idea of their importance, it may be mentioned that, out of a total mortality during 1863 of 4592, the number of strangers who died within the Royal Infirmary, having come there soliciting medical and surgical advice, was 172, or 3.74 per cent, while the number of deaths of those who had been admitted to this institution from all parts of Edinburgh was 348, or 7.57 per cent.

The smaller the numbers that the statistician has to deal with, the greater the care necessary to insure accuracy; and in striking the mortality ratio of such places as our closes, with a limited population and a comparatively small mortality, we would continually be led into error were we to decide on their sanitary condition from such data. It is not merely necessary to know the exact number of deaths in such places, but also the *character* of the deaths, that is, the nature of the fatal diseases ought to be ascertained before any comparison is instituted. Accordingly, under each street, &c., will be found, not only the gross mortality, but also the deaths from various diseases, all of more or less interest in determining the place of any locality in the scale of salubrity. Special care was taken with regard to the important class of fevers, the deaths from which were carefully analyzed and classified under four leading types; also with regard to diphtheria, which, as a new scourge, has attracted of late so much attention. Another column was devoted to the number of paupers, and persons dependant on paupers, found scattered over the

city. No one can visit our poorer districts without being impressed with the poverty of their inhabitants, and it appeared to me that it would be interesting, as well as important, to be able to compare the mortality of any place with the number of inhabitants in the receipt of parochial relief. The residences of the paupers were obtained from the respective parishes, and to the numbers thus allocated were added,—1st, The dependants on each pauper; 2d, The parochial apprentices; and 3d, Those paupers domiciled in Edinburgh but in receipt of relief from other parishes. By this means the character of the population in our closes and wynds was in some measure ascertained, and aid was afforded in judging of the value of their gross mortality.

In such an inquiry as this, touching the sanitary condition of an ancient metropolis, it was felt that the area of investigation was continually extending in the desire to give as accurate an estimate as possible. Previous writers had not enjoyed the advantages conferred on me by my official position, and these in turn prompted to fresh inquiries. Thus, having availed myself of the population of the last census, and of the special mortality for 1863, I was impressed with the necessity of appealing to other data than those afforded by a single year of average sickness, and I thought it possible, by investigating the history of former epidemics, and ascertaining the localities where their ravages were greatest, to be able to give, as it were, the sanitary history of the new districts, during a long series of years, and at junctures when such localities were clearly put to the test. Our great epidemics of Cholera naturally presented themselves to my mind. But on making inquiry after the records of the first in 1832, I found, to my regret, that none were available, and that, with an efficient staff of medical men, all strenuously and gratuitously working for the public good, no local history of the epidemic had been written, and that the very records of the Cholera Hospitals had disappeared. With regard to the second epidemic in 1849, I was more fortunate, as, in the library of the Royal College of Physicians, I found two large volumes of cholera returns from the city and county. These, to the number of nearly 700, were found to be available; the exact residences of the patients, both in hospital and in private practice, with few exceptions, being specially mentioned.

Edinburgh is notorious for its epidemics of fever, and in the books of the Royal Infirmary careful records are kept of the number of cases in each year, and also of the residences of those admitted to the charity. This latter point has received special attention from the present excellent superintendent, Mr M'Dougal, who was appointed in 1847. The last great epidemic occurred in the years 1847 and 1848, when the patients belonging to the city treated in our Hospital amounted to 6181. These cases of fever will be found, in the tables, to be carefully allocated over the city. For the purpose of comparison, the total admissions of fever cases into the same institution during 1857-58, just ten years after, have been added in a separate column.

DESCRIPTION OF SANITARY DISTRICTS.

1. UPPER NEW TOWN.

Population—10,930.	Death-Rate—17·38.	Excess of Birth-Rate—3·2.
	Birth-Rate—20·58.	

THIS district comprises that portion of the New Town which was built first, and is now nearly 100 years old. The streets are wide, and the houses, which are of excellent dimensions, were a great improvement on the small confined dwellings of the Old Town. The main streets, viz., Princes Street, George Street, and Queen Street, are now gradually being filled with shops, and the population is thus diminishing. At the same time, the mortality of the district is increased from the number of lodging-houses, peopled by valetudinarians, attracted to the city for medical advice. The intermediate streets, Rose Street and Thistle Street, are inhabited by the better class of workmen; and the mortality of these streets rises to 20.49 per 1000. Were these removed from the district, the total mortality would be lowered by 2 per 1000, and would stand at 15.68. But what is remarkable, there would be no diminution in what may be termed the infantile mortality. It would rise from 68 per 1000 to 69.5. It was to be expected that the infantile mortality in these densely-peopled streets would be higher than that of the entire district. The following table shows that this is not the case:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Upper New Town	10,166	764	10,930	138	52	190	13·57	68·	17·38
Side Streets	3,464	390	3,854	53	26	79	15·30	66·66	20·49
Remainder	6,702	374	7,076	85	26	111	12·68	69·5	15·68

The density of the population is 90.3 persons to the acre, and if the vacant spaces of St Andrew Square and Charlotte Square be subtracted, we have 94.8 as the ratio to the inhabited acre. The whole district is thoroughly drained, but in the side streets there is still a great lack of conveniences. The construction of the houses is such as to admit of their easy introduction, and a peremptory order should be issued for this sanitary improvement. At the same time, the adjacent stable lanes should be properly levelled, and the surface drainage improved.

2. LOWER NEW TOWN.

Population—14,024.	Death-Rate—15.47.	Excess of Birth-Rate—7.77.
	Birth-Rate—23.24.	

The whole of this district lies on the slope of the ridge of the New Town. Although the exposure is northern, and the population is denser than that of the previous district, the mortality, both adult and infantile, is less. This is to be accounted for by the smaller number of invalids from a distance, who undoubtedly swell the mortality of the Upper New Town. Included in this district, to the eastward, is the ancient village of Broughton, now entirely surrounded by houses of the better classes. According to the original plan of this part of the City, a street, with houses for persons of humbler rank, was placed between the more fashionable streets; and in this district there are two which, along with the remains of Broughton village, demand special notice, viz., Jamaica Street and Cumberland Street. The following table shows their population and mortality, and the influence they have in increasing the death-rate of the district:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Lower New Town	12,936	1,088	14,024	155	62	217	11.98	56.98	15.47
Side Streets	3,307	420	3,727	54	28	82	16.32	66.66	22.
Remainder	9,629	668	10,297	101	34	135	10.49	50.9	13.11

3. WEST END.

Population—7,748.	Death-Rate—31·88.	Excess of Death-Rate—6·2.
	Birth-Rate—25·68.	

This district, stretching as it does to the Parliamentary boundary, comprises a large amount of unoccupied land. Of late years, a considerable amount of building has been going on, and the population must have increased in a marked ratio since 1861. Taking the last census returns, however, the density of the population was 22 to the acre, but in the inhabited portions of the district it rises to 44. The large mortality is accounted for by the presence of the St Cuthbert's Poorhouse or Union. If this be subtracted, the death-rate is at once diminished, as is shown in the following statement:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
West End	7,036	712	7,748	173	74	247	24·58	103·93	31·88
Poorhouse	469	34	503	81	28	109	172·7	823·53	216·7
Remainder	6,567	678	7,245	92	46	138	14·01	67·84	19·04

We have only one intermediate street, strictly so called, viz., William Street, between Melville Street and Coates Crescent. It also requires the same sanitary measure as the corresponding streets in the preceding districts. As to the drainage, the eastern portion is thoroughly drained, and the main lines of sewers being now completed, no difficulty will be experienced in supplying the wants of an extended inhabited area.

4. UPPER WATER OF LEITH.

Population—12,332.	Death-Rate—19·46.	Excess of Birth-Rate—14·35.
	Birth-Rate—33·81.	

The stream of the Water of Leith runs through the city for a distance of three miles, and a considerable population lines the banks for the greater portion of its

course. Above, we have the educational establishments of Donaldson's Hospital, Watson's Hospital, and the Orphan Hospital, and the old village of the Water of Leith; and below, we have the modern suburb of Stockbridge, with a mixed population of the poorer and the richer classes. In marking out the district, I anticipated some diversity of opinion as to its limits. In the present arrangement there are included several streets of the New Town, which are situated on the southern bank of the stream. So much notoriety has been acquired by this district of late years, that I judged it right, in estimating the effects of the Water of Leith on the public health, to include within it the houses on both banks, and I took care that only those streets were taken from the Lower New Town in which the effluvia from the stream had been felt and complained of. Portions of these streets are as close to the stream as streets lower down, such as India Place, which could not be excluded from any arrangement the basis of which was the Water of Leith; and higher up the stream, it was found impossible to divide the village of the Water of Leith into two parts. The district as a whole is thinly peopled, and the inhabited portion of the district forms but a third of the area: the density of the population varies, therefore, from 29 in the acre to 88. The village of the Water of Leith, occupying both banks, with an area of 10 acres, has a density of population of 151·8 to the acre, and a death-rate of 23·72 per 1000. The inhabitants are poor, and the houses are for the most part of imperfect construction, in bad repair, and deficient in sanitary appliances. It is exposed to the full influence of the emanations from the stream, and as the inhabitants are generally poor and imperfectly fed, they offer a good test of the insalubrity of the district. Lower down at Stockbridge we have a very dense population; indeed about India Street it rises to 516·7 in each acre, and a little farther off the average is 336·9 persons to the acre. The drainage goes directly to the Water of Leith—the natural outlet. In the neighbourhood of Dean Street the drainage is imperfect, but this will no doubt be remedied as the operations connected with the drainage scheme of the Water of Leith are advanced.

5. LOWER WATER OF LEITH.

Population—3,866.	Death-Rate—17·58.	Excess of Birth-Rate—8·28.
	Birth-Rate—25·86.	

This is mainly a rural district, with a limited population, chiefly confined to the southern bank of the stream. It contains the remains of the ancient village of Canonmills, in which many of the houses still preserve the wretched character of the poorer class of country dwellings of the last century.

The drainage is satisfactory, having a ready fall towards the Water of Leith. Huntly Street has been excavated, at some points, to such a low level, in the desire

manifested by the proprietors to increase the house accommodation, that the under flats are periodically flooded with sewage forced back by the stream. Such underground dwellings should be used simply as cellars. The influence of Canonmills on the mortality of the district is seen in the following Table:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Lower Water of Leith	3,504	362	3,866	42	26	68	11·98	71·82	17·58
Canonmills	764	120	884	9	13	22	11·78	108·34	24·88
Remainder	2,740	242	2,982	33	13	46	12·05	53·72	15·42

6. BROUGHTON.

Population—5,672.	Death-Rate—17·63.	Excess of Birth-Rate—7·22.
	Birth-Rate—24·85.	

This district partakes of a similar character to the last. The population is not dense; it is chiefly accumulated towards the municipal boundary in Leith Walk, and also at the opposite side, where the district abuts upon those of the Lower New Town and Calton. But even about Moray Street and Shrub Place, where the houses are inhabited by the poorer classes, the death-rate is only 19 per 1000, and that for children under five years, 26. The district is thoroughly drained.

7. CALTON AND GREENSIDE.

Population—10,984.	Death-Rate—22·12.	Excess of Birth-Rate—8·56.
	Birth-Rate—30·68.	

This district, which takes its name from the Calton Hill, and the ancient village of Greenside, has a large population. It is not, however, densely peopled, except at two points, viz., the sub-districts of Greenside and St James Square. In the one, the ratio is 361 to the acre, in the other it rises to 524.

The following table shows their respective mortality:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Whole District	9,739	1,245	10,984	156	87	243	16·	69·87	22·12
St James Square, &c.	2,163	292	2,455	36	23	59	16·64	78·77	24·03
Greenside	2,872	508	3,380	54	36	90	18·83	70·8	26·6

Some objection may be made to the apparently arbitrary separation of St James Square, and neighbouring streets, from the Upper New Town. What weighed with me, however, was the configuration of the ground, and the similarity of the population to that of Greenside. The drainage of both is connected, and is equally unsatisfactory. Until this be remedied, an important sanitary measure, viz., the introduction of conveniences, cannot be enforced. The localities are well suited for it, although some difficulty may be experienced in certain parts of the St James Square sub-district, on account of the excessive sub-division of the houses.

8. ABBEY.

Population—2,237.	Death-Rate—36·65.	Excess of Birth-Rate—17·44.
	Birth-Rate—54·09.	

We now come to four districts, each rising in elevation, by regular gradation. This is well seen in the section at p. 77. The large sewer, the Foul Burn, runs through it for a considerable distance, quite uncovered. Some explanation may thus be afforded of the large mortality, which is remarkable, when we take into account the limited population, its scattered character, and low density. Another fact, however, must not be forgotten, viz., that it is the first district with a poor population with which the miasmata from the celebrated irrigated meadows first come into contact. It is satisfactorily drained.

9. CANONGATE.

Population—12,200.	Death-Rate—31·23.	Excess of Birth-Rate—12·78.
	Birth-Rate—44·01.	

This is a well-defined district, comprising the Canongate, properly so called. It is densely inhabited by a poor population, who crowd the numerous closes. It

contains numerous public works (chiefly built on the garden ground of the older houses), including the City Gas Works. There is also an old churchyard, and the district workhouse. The drainage is complete.

10. TRON.

Population—11,636.	Death-Rate—34·55.	Excess of Birth-Rate—7·56.
	Birth-Rate—42·11.	

Here the population is most densely clustered, and the houses are most closely packed. As many of the closes are common to the High Street and Cowgate, portions of both these thoroughfares had to be included. To the north, the district has added to it the large vacant space of the railway station, although the buildings in the district stop abruptly at the Physic Gardens. This space might have been joined either to the Canongate or Calton districts, but as dwelling-houses will never be built upon it, it was considered preferable to secure an uniformity of outline. In estimating the inhabited area of the district, this space has, so to speak, been subtracted, and the density of the population rises to its maximum in Edinburgh, viz., 352·6 to the acre. The drainage is complete. The following is the mortality of its sub-divisions :—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Cowgate, from South Bridge } eastwards	1,236	211	1,447	21	32	53	17·	151·6	36·6
High Street do. do.	5,579	857	6,436	102	138	240	18·3	161·	37·3
Netherbow	668	121	789	4	14	18	6·	115·7	22·8
Leith Wynd and St Mary's } Wynd	1,271	216	1,487	17	32	49	13·4	148·1	32·9

11. ST GILES.

Population—15,967.	Death-Rate—28·8.	Excess of Birth-Rate—8·77.
	Birth-Rate—37·57.	

As the Castle had to be included in this district, its outline is somewhat irregular. It was formed, however, on the same plan as the Tron, viz., starting from the ridge

of the New Town, and running south as far as College Street. Its population is large, but from its containing numerous vacant spaces, such as the Castle rock and the railway valley in the Princes Street Gardens, the density of its population is much less than that of the two previous districts. But, if we allow for these vacant spaces, the density increases to 234.8 to the acre. The whole district is thoroughly drained. Its worst portion is undoubtedly the upper end of the Cowgate, while the closes in the higher district of the High Street, Lawnmarket, and Castle Hill, improve in character as they rise in elevation. Two sections of this district are given at pp. 44 and 77, the ridge of the High Street determining its centre. The following is the mortality of its sub-divisions :—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Castlehill.....	566	71	637	7	10	17	12.4	140.9	26.6
Lawnmarket	1,877	283	2,160	30	31	61	16.	109.5	28.2
High Street to Tron Church...	3,467	585	4,052	57	62	119	16.4	106.	29.3
Cowgate to South Bridge	4,415	761	5,176	83	88	171	18.8	115.6	33.

12. GRASSMARKET.

Population—5,227.	Death-Rate—32.52.	Excess of Birth-Rate—14.73.
	Birth-Rate—47.25.	

In this are comprised the West Port and the King's Stables, both outlets from the well-known Grassmarket or Market Place, which gives its name to the district. It is notorious in all our epidemics from the density and character of the population. The main street is wide, and the district is bounded north and south by vacant spaces. The West Port, although narrow, rises rapidly, and the tenements which line it have for the most part a free exposure. The drainage is complete.

The relative mortality is shown below :—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Grassmarket (proper).....	2,276	377	2,653	41	52	93	18.	137.9	35.
West Port	1,933	350	2,283	30	39	69	15.	111.4	30.

13. FOUNTAINBRIDGE.

Population—9,880.	Death-Rate—25·2.	Excess of Birth-Rate—20·34.
	Birth-Rate—45·54.	

This is a level district surrounding the canal, with an outline rather arbitrary. The population and the character of the large proportion of the houses, however, sufficiently mark it out. It is being rapidly built on by houses for the working-classes, and the population must have greatly increased since the last census. The situation, though good, has a most defective drainage; this is chiefly owing to the imperfect levels, and also to the fact that the district is intersected by the Union Canal, below which the chief sewer has to pass. The following is the mortality of its principal thoroughfares:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Fountainbridge Street	2,060	337	2,397	41	31	72	19·9	92·	30·
Cowfeeder Row & High Riggs	717	134	851	16	13	29	22·3	97·	34·

14. GEORGE SQUARE AND LAURISTON.

Population—6,593.	Death-Rate—37·46.	Excess of Death-Rate—11·68.
	Birth-Rate—25·78.	

The outline of this district was determined by the formation of the surrounding districts. It contains the ancient village of Portsburgh, and was a suburb of the old town. It is still thinly peopled. It includes the well-known educational establishments of George Heriot and George Watson, and also the City Poorhouse, Greyfriars Churchyard, and the large vacant space of the Meadows. It is thoroughly drained. The district mortality is of course largely increased by the pauper population. The following table shows the effect of deducting the population and mortality of the Poorhouse:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
George Square and Lauriston	5,959	634	6,593	180	68	248	30.2	107.25	37.61
City Poorhouse	569	52	621	111	19	130	195.08	365.4	209.34
Remainder	5,390	582	5,972	69	49	118	12.8	84.19	19.76

15. NICOLSON STREET.

Population—18,307.	Death-Rate—29.	Excess of Birth-Rate—26.55.
	Birth-Rate—55.55.	

This a well-defined, closely-built-on, and densely-peopled district. In this latter respect it stands second only to the Tron. The character of the population, however, is widely different, and the houses are more moderate in size. The large birth-rate is accounted for by the presence of the Maternity Hospital. Deducting the births in that institution, the district birth-rate would fall to 38.35, being only 9.35 in excess of the death-rate. The drainage is complete.

16. PLEASANCE AND ST LEONARD.

Population—11,104.	Death-Rate—26.65.	Excess of Birth-Rate—19.99.
	Birth-Rate—46.64.	

This district abuts upon the Queen's Park, and is very open. It has become of late years a favourite site for workmen's houses, and the population has undergone a proportionate increase. Many wretched tenements and courts line the main street, which is no longer the great thoroughfare to the south, and has, at many points, fallen into decay. The comparatively large mortality is thus accounted for.

17. NEWINGTON.

Population—4,955.	Death-Rate—21·79.	Excess of Birth-Rate—7·27.
	Birth-Rate—29·06.	

This is the oldest and the most densely-peopled of the suburban districts. The rate of mortality is high, from the presence of an old thoroughfare, Causewayside, now fallen into disuse, and which, like the Pleasance, has dragged its population along with it in its downward course. This is shown by the following table:—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Whole District	4,428	527	4,955	80	28	108	18·	53·13	21·79
Causewayside	1,652	247	1,899	35	16	51	21·19	64·78	26·85
Remainder	2,776	280	3,056	45	12	57	16·21	42·86	18·65

The slope of the district to the south, and its drainage facilities, render it admirably suited for building purposes.

18. GRANGE.

Population—1,886.	Death-Rate—13·78.	Excess of Birth-Rate—14·85.
	Birth-Rate—28·63.	

This district has been almost entirely formed during the last few years, and its population must have undergone a large increase since the last census in 1861. It presents similar features to the last named, and has now become a township of villas. It is still, however, thinly peopled, and shows a very favourable death-rate, although it contains in its north-eastern corner some houses of old date, and deficient in sanitary appliances. The drainage is satisfactory.

19. MORNINGSIDE.

Population—2,573.	Death-Rate—22·54.	Excess of Death-Rate—7·39.
	Birth-Rate—15·15.	

This suburb has an unusually high mortality, when we take into account its sparse population and favourable position. At first sight it might be supposed that a sufficient explanation was afforded by its containing a portion of the Royal Asylum for the insane, and also Gillespie's Hospital for the aged; but allowing for this special population and mortality, the death-rate still remains higher than that of the New Town, as is shown below :—

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Whole District	2,378	195	2,573	51	7	58	21·44	35·89	22·54
Asylums	134	...	134	9	...	9	67·16	...	67·16
Remainder	2,244	195	2,439	42	7	49	18·72	35·89	20·09

Nor is the fact accounted for by the presence in the district of such localities as the villages of Morningside, Wrightshouses, and Boroughmuirhead, in the latter of which the population is of the poorer class. By deducting the deaths in these places, the district death-rate is actually increased. The true solution of the difficulty is to be found in the number of invalids who resort to this quarter to escape the biting winds which are so keenly felt in the northern part of the city.

LANDWARD.

Population—2,323.	Death-Rate—41·32.	Excess of Death-Rate—21·52.
	Birth-Rate—19·8.	

This district contains that portion of the extensive Parish of St Cuthbert, which does not lie within the municipal boundary. It is of large extent, having an area of 3·127 acres. The Water of Leith flows through it, containing at this portion of its course little sewage, but a large amount of refuse from various manu-

factories. The mortality of the district is greatly increased by the presence of two lunatic asylums, viz., the large pauper one forming the west division of the Institution at Morningside, and that at Saughtonhall and Balgreen. Deducting this large amount of exceptional mortality, the death-rates fall to 16 per 1000.

	Population 1861.			Mortality 1863.			Death-Rate per 1000.		
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Whole District	2,130	193	2,323	85	11	96	39.9	57.	41.32
Asylums	812	5	817	71	...	71	87.44	...	86.9
Remainder	1,318	188	1,506	14	11	25	10.62	58.5	16.6

It is to be remembered that the population of this district, amounting to 2323, and the attendant mortality, are, in the Reports of the Registrar-General, included under that of Edinburgh, although for what purpose it is difficult to conceive.

DISTRICT MORTALITY FROM DISEASE.

IN the year 1863, which we have selected for illustration, there was no unusual mortality, except what was occasioned by Small-pox, which, during the previous year, had visited the city in an epidemic form. The force of the disease was now, however, spent, and it merely left its impress on mortality. This epidemic will be long remembered for the stimulus it gave to legislation on the subject of compulsory vaccination. It is gratifying to reflect that it was owing to the vigorous action taken by the Town Council of Edinburgh, that the attention of the Legislature was called to the subject, and that the Act at present in force was passed through Parliament.

The total number of deaths registered in Edinburgh was 4592. Of these, no fewer than 179 were strangers, who had come to obtain medical and surgical advice, and died in our hospitals, and one death was the result of an accident at our railway station. The remaining 4412 deaths have been classified in the Appendix according to the system of the Registrar-General, and will be found in the succeeding tables to be arranged according to age and sex. They are also distributed under certain leading divisions among the various Sanitary Districts. Some of the

diseases demand special notice, while others are of less importance, and it is interesting to observe how the mortality (the percentage of which to the population in 1861 is given) varies in the different districts.

DISEASES OF THE BRAIN.

George Square and Lauriston	·44	Nicolson Street.....	·25	Upper Water of Leith.....	·21
West End	·38	Calton and Greenside	·25	Grange	·21
Morningside	·35	Grassmarket.....	·24	Newington	·2
Lower Water of Leith.....	·31	Fountainbridge.....	·24	Abbey	·18
Landward	·3	St Giles.....	·22	Pleasance and St Leonard	·18
Tron	·29	Upper New Town	·22	Lower New Town	·15
Canongate.....	·28			Broughton.....	·15

In these are not included the deaths from Hydrocephalus or water in the head. The large proportion of paupers who die of diseases of the brain, at once explains why the districts containing our two large Poorhouses should stand highest; and in the Morningside and Landward Districts we have lunatic asylums. The high place of the Lower Water of Leith is quite exceptional.

DISEASES OF THE HEART.

George Square and Lauriston	·27	Calton and Greenside	·16	West End	·12
Morningside	·23	Fountainbridge.....	·16	Upper Water of Leith.....	·12
Upper New Town	·2	Nicolson Street	·16	Broughton.....	·1
Abbey	·18	Tron	·14	Lower New Town	·06
Canongate.....	·18	Newington	·14	Lower Water of Leith.....	·03
Pleasance and St Leonard	·18	St Giles.....	·13	Grange .....	...
Grassmarket.....	·17			Landward .....	...

It will be interesting, when we have larger data to go upon, to observe the influence exercised by the elevations which our citizens have to ascend before they reach their places of business in the Old and New Town, and such resorts as the University and Courts of Law. The heights are more considerable than is generally supposed, as a reference to the diagram at page 44 will show. The total mortality of the city from these diseases was ·14 per cent. Comparing this with that of other towns with fewer inequalities of position, we find that diseases of the heart caused a mortality in Glasgow of ·11, in Greenock ·11, in Perth ·1, in Leith ·09, and in Paisley ·08 per cent.

DISEASES OF THE CHEST.

Tron	·79	Calton and Greenside	·39	Upper New Town	·18
Abbey	·62	Fountainbridge.....	·38	Upper Water of Leith.....	·18
Grassmarket.....	·61	Nicolson Street.....	·38	Landward	·17
West End.....	·54	Pleasance and St Leonard	·36	Lower New Town	·15
George Square and Lauriston	·54	Newington	·28	Lower Water of Leith.....	·15
St Giles	·52	Broughton.....	·24	Morningside	·11
Canongate	·43			Grange	·05

Wherever there is poverty, there is generally manifested great inattention to the risk from exposure to cold. At almost all hours of the days or night, we see infants out of doors in our closes during the most inclement weather. This helps to account for the mortality from this class of diseases in the poorer districts, and also in the Poorhouses. St Giles, the highest district in point of elevation, comes next. The exposed situation of the Upper and Lower New Town Districts tells less upon their special mortality than might have been expected. The explanation is to be found in the character of the population. While the mortality of Edinburgh from diseases of the chest was ·38 per cent., it rose as high as ·57 in Glasgow, and ·39 in Greenock, while in the other towns the percentage was as follows:—Leith ·36, Paisley ·33, and Perth ·24 per cent.

PHTHISIS.

Morningside	·42	Canongate.....	·28	Grassmarket.....	·21
George Square and Lauriston	·37	Pleasance and St Leonard	·27	Upper New Town	·21
Abbey	·36	Calton and Greenside	·25	Lower Water of Leith.....	·2
St Giles.....	·3	Tron	·24	Lower New Town	·19
Nicolson Street.....	·3	Fountainbridge.....	·24	Upper Water of Leith.....	·14
West End.....	·29	Newington	·22	Landward	·08
Broughton.....	·28			Grange .....	...

The mortality from this disease has been separated from that of the class of tubercular diseases, in which it is included by the Registrar-General. The position of Morningside in the table is quite exceptional, depending on the number of invalids, who flock to that suburb during winter and spring. It will be observed that one-half of the districts show a smaller percentage of deaths than that of the whole city, which is ·25. The other towns range themselves in the following order, viz., Greenock ·47, Glasgow ·39, Paisley ·37, Perth ·23, and Leith ·19 per cent.

CROUP.

Grassmarket	·15	Lower Water of Leith ...	·08	Lower New Town	·02
Canongate	·13	Nicolson Street	·07	Broughton	·02
Tron	·13	West End	·05	Calton and Greenside ...	·02
George Square and Lauriston	·12	Pleasance and St Leonard	·04	Fountainbridge	·01
St Giles	·11	Morningside	·04	Newington .....	...
Abbey	·09	Upper New Town	·03	Grange .....	...
Upper Water of Leith	·08			Landward .....	...

DIPHTHERIA.

Upper Water of Leith	·21	Nicolson Street	·09	Fountainbridge	·05
Grange	·16	Lower New Town	·07	Upper New Town	·04
Calton and Greenside	·11	Canongate	·07	Grassmarket	·04
West End	·1	Newington	·06	Morningside	·04
Pleasance and St Leonard ...	·1	Tron	·05	Lower Water of Leith	·03
Abbey	·09	St Giles	·05	Broughton .....	...
George Square and Lauriston	·09			Landward! .....	...

These two tables are placed together for the purpose of comparison, as it has been supposed that wherever Croup is prevalent, there the mortality from Diphtheria will be found to be the largest. It will be observed, however, that the distribution of the fatal cases of Diphtheria is not affected either by poverty or density of population. With regard to the district of the Grange, it must be remembered that there has been a large increase in the population since 1861.

SCARLATINA.

Fountainbridge	·11	Nicolson Street	·09	Lower New Town	·05
West End	·1	Landward	·08	Tron	·05
George Square and Lauriston	·1	Upper Water of Leith	·06	Morningside	·04
Pleasance and St Leonard ...	·1	Calton and Greenside	·06	Upper New Town	·03
Grange	·1	St Giles	·06	Lower Water of Leith	·03
Broughton	·09	Grassmarket	·06	Newington	·02
Canongate	·09			Abbey .....	...

MEASLES.

Tron	·41	St Giles.....	·13	West End.....	·04
Grassmarket.....	·4	Fountainbridge.....	·09	Newington	·04
Abbey	·31	Upper Water of Leith.....	·07	Upper New Town	·03
Canongate.....	·2	Calton and Greenside	·06	Broughton.....	·02
Pleasance and St Leonard	·2	George Square and Lauriston	·05	Grange	·0
Nicolson Street.....	·15	Lower New Town	·04	Morningside	·0
Lower Water of Leith.....	·13			Landward	·0

The uncertain manner in which these diseases affect various localities, is well seen in these tables. It will be noticed that the three first districts in the table of Measles occupy a similar position in that of the Diseases of the Chest.

FEVERS.

Abbey	·22	Calton and Greenside	·11	Grassmarket.....	·08
Canongate.....	·16	Nicolson Street.....	·11	Upper Water of Leith.....	·06
Grange	·16	Morningside	·11	Pleasance and St Leonard ...	·06
Tron	·14	St Giles.....	·09	Upper New Town	·05
Landward	·13	Fountainbridge.....	·09	Lower Water of Leith.....	·05
West End	·12	Lower New Town	·08	Newington	·04
Broughton.....	·12			George Square and Lauriston	·03

The percentage in this table is calculated upon the total mortality from Fevers of all kinds. The poor districts of Abbey, Canongate, and Tron stand first in the list; and it is interesting to observe the gradation in the mortality of the districts in the line of the ridge of the High Street,—the mortality diminishing as the ground rises,—and the districts arrange themselves in the following order—Abbey, Canongate, Tron, St Giles. In the Appendix, Tables Nos. VI. and VIII., the deaths from Fevers have been classified under the four heads of Typhus, Typhoid, Gastric, and Infantile. The mortality from each of these forms of Fever in 1863 are, however, too small in the various sanitary districts, to admit of satisfactory comparison. The following table gives the mortality per cent from Fevers and Diarrhoea and Dysentery, in six Scottish towns:—

FEVER,			DIARRHOEA AND DYSENTERY.		
Leith, .	·24	Perth, .	·15	Perth, .	·1
Greenock, .	·22	Paisley, .	·11	Greenock, .	·08
Glasgow, .	·17	Edinburgh, .	·09	Glasgow, .	·07
				Paisley, .	·07
				Edinburgh, .	·07
				Leith, .	·06

DIARRHŒA AND DYSENTERY.

Tron	·11	Landward	·08	Upper New Town	·05
Grassmarket	·11	St Giles	·07	Lower New Town	·05
George Square and Lauriston ..	·1	Nicolson Street	·07	Upper Water of Leith	·05
Grange	·1	Calton and Greenside	·06	Lower Water of Leith	·05
West End	·09	Canongate	·06	Pleasance and St Leonard ..	·05
Abbey	·09	Newington	·06	Broughton	·04
Fountainbridge	·09			Morningside	·04

Abstracting, for the reasons already mentioned, the Districts of George Square and Lauriston, Grange, and West End, the mortality from these diseases is largest in the districts destitute of conveniences, the first nine in order being the worst in this respect in the whole city.

SCROFULOUS DISEASES.

Abbey	·36	St Giles	·19	West End	·11
Nicolson Street	·32	Fountainbridge	·16	Upper Water of Leith	·1
Pleasance and St Leonard ..	·24	Newington	·16	Upper New Town	·09
George Square and Lauriston ..	·23	Morningside	·16	Lower New Town	·09
Canongate	·22	Grassmarket	·15	Landward	·08
Calton and Greenside	·19	Lower Water of Leith	·13	Broughton	·05
Tron	·19			Grange	·05

These include Hydrocephalus or water in the head, but not Phthisis, which, on account of its importance, has received separate notice.

PREMATURE DEBILITY.

Grassmarket	·24	George Square and Lauriston ..	·18	Broughton	·09
Abbey	·22	Lower Water of Leith	·18	Calton and Greenside	·08
Grange	·21	Fountainbridge	·16	Upper New Town	·06
Nicolson Street	·2	Pleasance and St Leonard ..	·14	Newington	·06
Canongate	·19	West End	·1	Morningside	·04
Tron	·19	Upper Water of Leith	·1	Landward	·04
St Giles	·18			Lower New Town	·03

To the deaths from Premature Debility have been added all deaths under two years which were certified as due to Atrophy. This addition was made on account of the vague manner in which the terms were employed in the death certificates.

E P I D E M I C S.

THE statistics of a single year, in a city like Edinburgh, are open to the obvious objection that the mortality is too limited to afford accurate data for instituting comparison between such districts as those we have been commenting upon. But Epidemics, whose mission it seems to be to remind us of our sanitary short-comings, attack the population in such numbers, that the lessons they teach admit of being tabulated. The more extended the field of inquiry, the less are the risks of error; and when we deal, not with the deaths alone, but also with the number of persons affected with the special disease, we can look with some degree of confidence to the results. The two following tables illustrate the ravages of the Cholera epidemic of 1848, and the Fever epidemic of 1847-48, calculated on the census returns of 1861 :—

CHOLERA EPIDEMIC, 1848.

Grassmarket	1·95	Upper New Town	·18	Lower New Town	·04
St Giles	1·29	Calton and Greenside	·16	West End	·04
Tron	1·16	Nicolson Street	·16	Fountainbridge	·02
Canongate	·72	George Square and Lauriston	·14	Newington	·02
Abbey	·18	Lower Water of Leith	·13	Grange .....	...
Pleasance and St Leonard	·18	Broughton	·09	Morningside .....	...
		Upper Water of Leith	·09		

FEVER EPIDEMIC, 1847-48.

Grassmarket	23·91	Fountainbridge	1·2	Lower Water of Leith	·62
Tron	11·34	George Square and Lauriston	1·	Upper Water of Leith	·5
St Giles	11·12	Upper New Town	·8	Broughton	·37
Canongate	5·67	Landward	·78	Grange	·37
Pleasance and St Leonard	1·82	Abbey	·72	Morningside	·31
Calton and Greenside	1·46	West End	·7	Lower New Town	·3
Nicolson Street	1·32			Newington	·21

In both it will be observed that the Grassmarket stands first in order. This is not to be wondered at, when the condition of this district, even in the present day, is looked at; and what it was twenty years ago, when the population was denser, and when the lodging-houses with which this district abounds were imperfectly

superintended, can easily be imagined. It has always been the favourite resort of the Irish, and nowhere in the city is their faculty of crowding into small space more characteristically manifested. This explains the high percentage of Fever cases in the great epidemic—that disease being more contagious than Cholera, and spreading like wildfire among a dense population. A good illustration of this is afforded by the district of the Abbey, which is thinly peopled, but the sanitary condition of which is very imperfect. As might have been expected, it exhibits a much higher percentage of cases of Cholera than of Fever. The districts which follow next in order are those in which we have the greatest poverty and the densest population. Fever is never entirely absent from Edinburgh, and its presence would yearly be manifested in the epidemic form, did not the poor enjoy unusual facilities for the early treatment of the sick, and the removal of infected persons to our large Hospital. It is a well known fact—the experiment having again and again been tried in the Infirmary—that if the air become impregnated with fever poison beyond a certain limit, persons coming within its influence fall ready victims to the disease. The history of all our epidemics of Fever has been, that, on the outbreak of the disease, the Irish suffer in the first instance, and the first admissions into the Hospital consist almost entirely of that class. Congregated as they are in lodging-houses, the infection is communicated in all directions, and the disease becomes epidemic. The ordinary inhabitants of the town then begin to suffer, and the Fever having exhausted its victims among the class first attacked, the later admissions consist almost entirely of the Scotch.

Ten years after the Epidemic we have been speaking of, the admissions of persons affected with Fever into the Hospital amounted only to 139, and, for the purpose of comparison, the distribution of the cases throughout the city is here given, and the percentage calculated on the census of 1861. Abstracting the district of George Square and Lauriston, containing the City Poorhouse, which, in a slight epidemic like this, would send many sick applicants to the Hospital, the three districts of St Giles, Tron, and Grassmarket exhibit the highest percentage.

FEVER, 1857-58.

St Giles.....	·24	Nicolson Street.....	·04	Upper Water of Leith.....	·02
Tron	·21	Newington	·04	Canongate.....	·01
George Square and Lauriston	·14	Lower New Town	·03	West End.....	·01
Grassmarket.....	·13	Lower Water of Leith.....	·03	Abbey .....	...
Upper New Town	·13	Broughton.....	·02	Grange .....	...
Fountainbridge.....	·06	Calton and Greenside	·02	Morningside .....	...
Pleasance and St Leonard ...	·06			Landward.....	...

DENSITY OF THE POPULATION.

THE density of the population had never been ascertained until, with the assistance of my colleague Mr Macpherson, the area within the Parliamentary Boundary was carefully measured. This was found to contain 4191 acres, and taking the population as at 1861, to give a ratio of 40 persons to the acre. A reference to the map will show, that within the area in question, which was intended to allow for the expansion of the city in all directions, for many years to come, there are large unoccupied spaces, and that the Calton Hill and a large portion of Arthur's Seat are also included. This must be borne in mind, when comparing Edinburgh with other towns whose limits are more compact, and which do not admit of much increase in the number of the inhabitants. If the 243 acres of Arthur's Seat be deducted, the density of the population rises to 42.5. Few data exist for comparing this with other capitals; but the Registrar-General gives the following as the ratio of some of the principal cities of the empire, corrected to 1865:—

Liverpool (borough) ...	93.3	Birmingham (borough) ...	41.9
Glasgow (city)	83.7	London	38.7
Manchester (city)	79.1	Bristol (city)	34.5
Dublin (city)	66.9	Salford (borough)	21.4
Edinburgh	42.5	Leeds (borough)	10.4

Such a table at once shows us the caution necessary in instituting a comparison between towns as to their relative density of population. Believing, as we do, that the crowding together of human beings has a greater effect upon the rate of mortality than is generally supposed,—it is of importance to see that the data submitted for comparison have some points of similarity. Liverpool and Glasgow, for example, have of late years undergone rapid extension, and their area is now almost entirely covered with houses. Their density of population cannot be satisfactorily compared with that of Edinburgh, where the inhabitants are distributed, so to speak, over a widely-extended area, a large portion of which consists of hilly grounds and country fields. By abstracting these, the ratio of Edinburgh would rise as high as 60 persons to the acre. It is only by determining the area and population of special districts that a correct scale of density of population can be formed. The new sanitary districts of Edinburgh were accordingly carefully measured, and their population ascertained by allocating to each street, &c., its population as determined at the census of 1861. The results are given in the following table:—

Tron.....	314.5	Fountainbridge.....	95.	West End	22.1
Nicolson Street	286.	Upper New Town	90.3	Newington	21.2
Grassmarket	237.6	Calton and Greenside	39.	Abbey	20.3
Canongate	206.7	George Square and Lauriston	36.2	Grange	7.5
Pleasance and St Leonard	132.2	Upper Water of Leith.....	29.6	Lower Water of Leith	7.2
St Giles	121.8	Broughton.....	28.8	Morningside	4.1
Lower New Town	95.4			Landward .....	.7

Many of these districts include large unoccupied spaces. This is specially the case with those lying on the outskirts. And it was believed that a truer estimate of the relative density of population would be gained by omitting these in the measurement of the area, which, thus restricted, might be termed the inhabited area. In fact, the same measure was applied to these districts for the purpose of comparison among themselves, as was found to be necessary for ascertaining the true place of Edinburgh in a scale which included other large towns. The results will be found in a special column in Table VII., p. 56 of the Appendix.

In the 25th annual report of the Registrar-General, we have the area and population given of the registration sub-districts throughout England, with the exception of those of Liverpool, which is to be regretted, as Liverpool is the most densely-peopled city in the empire, and it would have been interesting to have known the ratio in its poorest localities. On looking over the list, the sub-districts which attract attention, by their density of population, are those of the Metropolis; and a few have been selected along with those which compose the area of the city of London proper. The rate of mortality and the birth-rate per 1000 of the population are calculated for 1862, and the districts are arranged in the order of their density of population.

DISTRICT.	Area in Statute Acres.	Population 1861.	Proportion of Population to each Acre.	Death-Rate.	Birth-Rate.	Birth-Rate in excess of Death-Rate.	Death-Rate in excess of Birth-Rate.
Whitecross Street (St Luke's)	33	14,778	447.8	26.59	31.8	5.21	...
Berwick Street (St James', Westminster)	25	10,607	424.3	20.55	36.47	15.92	...
St Andrew, Holborn W. (Holborn).....	33	12,947	392.3	35.07	34.6	...	.47
St Ann, Soho (Strand)	53	17,426	328.8	18.94	31.68	12.74	...
St Giles, South-West (St Giles)	63	19,483	309.2	38.34	39.21	.87	...
St Clement Danes (Strand)	52	15,207	292.4	31.17	32.55	1.38	...
London City, North-East.....	92	11,544	125.5	18.62	23.13	4.51	...
Do. do. North-West	72	9,020	125.3	12.75	15.74	2.99	...
Do. do. South-West.....	67	7,762	115.8	17.78	25.89	8.11	...
Do. do. South	100	8,570	85.7	18.2	25.8	7.6	...
Do. do. South-East	103	8,659	84.	15.	20.56	5.56	...
Total for London City	434	45,555	104.9	16.55	22.15	5.6	...

The first four in the list are much more densely peopled than any of the sanitary districts of Edinburgh; and, when the peculiar house accommodation in London is taken into account, it is evident that the small self-contained houses there must be very closely packed. It will be observed that the rate of mortality in these districts does not rise and fall with the density of population. Much of course depends on the poverty of the inhabitants, and where there is destitution along with overcrowding, as in St Giles', the death-rate is high. In other districts, as St Luke's and Westminster, there are public institutions, viz., lunatic asylums and prisons, which largely increase the population, but do not affect the mortality in a corresponding degree. In some of the sub-districts of Edinburgh, the density of population has been determined, and similar results are obtained on comparing their respective rates of mortality.

	Proportion of Population to each Acre.	Mortality.		
		Above 5 years.	Under 5 years.	Total.
Tron, between North Bridge and St Mary's Wynd ...	646	16·95	184·59	39·26
India Place, &c.....	553	13·7	106·25	26·33
Greenside	524	18·83	70·8	26·6
St James' Square, &c.	361	16·64	78·77	24·03
Dean Street, &c.....	336	17·78	69·07	25·02
Canongate, between St Mary's Wynd and St John St.	331	14·76	122·34	29·47
Village of Water of Leith.....	151	16·43	62·5	23·72

The districts in which there is the greatest amount of poverty, and where the houses are of a very imperfect description, are undoubtedly the first and the two last in the list. In the Tron sub-district, the density of the population and the rate of mortality are at their maximum. The district next in order, so far as the mortality is concerned, is that of the Canongate; but here the population is much less dense. The inhabitants most comfortably housed are to be found in India Place and Dean Street, but notwithstanding these advantages, the closeness with which the people are packed leads to unhealthiness, and raises the mortality. It has been plausibly urged that this high rate of mortality is produced by their proximity to the Water of Leith; but this explanation is seen to be erroneous when the sanitary condition of the Village of the Water of Leith is inquired into. There the population is of a poor class,—for the most part in miserable cottages, and constantly subjected to the effluvia from the stream, and from mill-lades which pass within a few feet of the dwellings; yet, the rate of mortality is lower than in either of the two districts last named, although there is no comparison in their sanitary condition. The true explanation will be found in the relative density of the population. And this also accounts for the singular fact that the infantile mortality is comparatively

low in the village of the Water of Leith, where the children under five years constitute one-sixth of the total population, while in the sub-district of India Place, where the infantile mortality is very high, the population of children under five years is one-seventh.

The only satisfactory method, however, of showing the remarkable manner in which the poorer inhabitants live crowded together in their lofty tenements is by taking a few examples from some of the sanitary districts. From St Giles' I have selected some well-known specimens. The first in the list, Gowanloch's Land, has just been demolished on account of its insecure condition. It occupied an airy situation in the High Street, and its rooms were spacious and well ventilated. The three next occur in one of the worst parts of the city, viz., the Cowgate. In all epidemics they were well known as furnishing to our Hospital a very large number of sick. No. 8 Cowgatehead is inhabited by a better class than that which swarms in the Mealmarket Stairs, which for filth, poverty, and overcrowding are not surpassed in the City.

GOWANLOCH'S LAND, High Street.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	9	7	7	21	28	1	...
Second Flat.....	7	5	3	15	18	...	...
Third Flat	7	4	3	12	15	...	1
Fourth Flat.....	8	5	...	12	12	1	...
Fifth Flat	9	6	4	15	19	...	1
Sixth Flat	9	7	6	19	25	1	...
Seventh Flat	9	4	2	12	14	...	1
Eighth Flat.....	2	1	...	3	3	...	...
Total.....	60	39	25	109	134	3	3

COWGATEHEAD, 8 Cowgate.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	12	2	...	31	31	2	1
Second Flat.....	13	8	4	31	35	...	...
Third Flat	12	8	4	32	36	...	...
Fourth Flat.....	16	14	11	39	50	...	...
Fifth Flat	7	6	5	22	27	...	...
Total.....	60	38	24	155	179	2	1

MIDDLE MEALMARKET STAIR.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	12	12	10	39	49	...	...
Second Flat.....	11	11	14	40	54	...	...
Third Flat	12	12	10	45	55	...	...
Fourth Flat.....	12	12	11	45	56	...	...
Fifth Flat	12	9	6	28	34	...	...
Total.....	59	56	51	197	248	...	...

OLD MEALMARKET STAIR.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	7	3	4	25	29	...	...
Second Flat.....	6	5	1	18	19	...	...
Third Flat	7	7	6	23	29	...	...
Fourth Flat.....	11	7	3	30	33	...	...
Total.....	31	22	14	96	110	...	...

The following houses are situated in the district of Tron, which contains the densest population in the city. Two are to be found in closes, and the third in the main street of the Cowgate. The tenements in Blackfriars Wynd and in the Cowgate are comparatively modern structures.

58 BLACKFRIARS WYND, High Street.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	12	7	5	28	33	1	...
Second Flat.....	13	7	10	20	30	1	...
Third Flat	12	7	4	27	31	1	...
Fourth Flat.....	12	7	8	28	36	...	...
Total.....	49	28	27	103	130	3	...

ELPHINSTON'S LAND, Carrubber's Close.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
Ground Flat	4	4	5	15	20	2	...
First Flat	6	2	4	9	13	...	...
Second Flat.....	...	...	...	...	...	...	...
Third Flat	8	7	4	20	24	1	1
Fourth Flat.....	10	8	7	21	28	2	2
Fifth Flat	10	8	4	23	27	2	2
Sixth Flat	7	6	4	19	23	2	2
Total.....	45	35	28	107	135	9	7

SCOT'S LAND, 341 Cowgate.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	9	8	8	25	33	...	...
Second Flat.....	11	8	4	22	26	...	...
Third Flat	11	8	10	24	34	...	...
Fourth Flat.....	10	7	8	26	34	...	...
Fifth Flat	7	6	6	16	22	...	...
Back Land	5	5	6	15	21	...	...
Total.....	53	42	42	128	170	...	...

The Canongate supplies us with four examples. Purves' Land was found, some years ago, to be in an insecure state, and the top storey was removed, and the walls were repaired. The population of Burns' Land is given, as the house is modern, and of small size, and its inhabitants belong to the working-classes. It has a free ventilation. In Birtley Buildings, and in the solitary instance taken from the district of Grassmarket—viz., Crombie's Land in West Port—we have marked specimens of what will become of our courts and closes, should proprietors be allowed to run up skeleton houses of the most rickety description and faulty sanitary construction. A minute description of these tenements would be tedious, from the sameness of the details. Both are inhabited by the very poor; but Birtley Buildings is a refuge for some of the worst characters in the town. Each room is small and overcrowded; the passages are dark and ill-ventilated. On all sides you have vice in its most repulsive forms. With an Inspector of Buildings, armed with sufficient powers, such monstrosities in dwellings for the poor would never have been permitted. Tried by any standard, they are faulty in the extreme. A similar plea cannot be urged in their behalf as may be put forth for older houses in the city,

that at first they were inhabited by a better class, and were not overcrowded, but have sunk gradually into their present condition. Birtley Buildings and Crombie's Land, on the other hand, are modern structures, built specially for the poor, and with an eye to a large rental; hence the small ill-ventilated rooms, and their great deficiency in sanitary comforts.

HOPE'S LAND, 268 Canongate.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	5	5	6	12	18	...	...
Second Flat.....	10	5	3	12	15	...	...
Third Flat	9	9	4	22	26	...	...
Fourth Flat.....	4	4	5	15	20	...	...
Fifth Flat	4	4	3	13	16	...	...
Sixth Flat	4	2	2	6	8	...	...
Total.....	36	29	23	80	103	...	...

PURVES' LAND, 327 Canongate.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	9	9	7	31	38	1	...
Second Flat.....	10	9	9	28	37	1	...
Third Flat	7	5	4	15	19	...	...
Fourth Flat.....	6	6	7	18	25	...	...
Total.....	32	29	27	92	119	2	...

BURNS' LAND, North Back of Canongate.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	7	3	3	15	18	...	...
Second Flat.....	9	5	8	18	26	...	...
Third Flat	9	5	3	21	24	...	...
Total.....	25	13	14	54	68	...	...

BIRTLEY BUILDINGS, Mid-common Close, Canongate.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	8	8	2	17	19	...	...
Second Flat.....	8	8	11	33	44	...	...
Third Flat	10	8	5	27	32	...	...
Fourth Flat.....	9	9	6	24	30	...	...
Total.....	35	33	24	101	125	...	...

DISTRICT OF GRASSMARKET.

CROMBIE'S LAND, 50 West Port.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
Street Flat	6	3	4	8	12	...	...
Second Flat.....	11	8	4	26	30	...	...
Third Flat	10	9	8	20	28	...	...
Total	27	20	16	54	70	...	...

The districts already named furnish the best examples of overcrowded tenements; but in all parts of the city, owing to the peculiar construction of the houses, we find, wherever we have a poor population, a great tendency to overcrowding. This is well exemplified in the two following examples:—

The first is taken from the district of Nicolson Street, to the south, and the second from that of Calton and Greenside, and is situated in the New Town. The latter is a modern erection, built on the slope of a hill, with rooms of good ventilating proportions; but the separate houses have undergone repeated subdivisions, until the present state of overcrowding has been attained.

No. 3 EAST RICHMOND STREET.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	10	7	5	30	35	...	...
Second Flat.....	12	10	10	31	41	...	...
Third Flat	13	8	6	29	35	...	...
Fourth Flat.....	12	11	7	35	42	...	...
Fifth Flat	9	7	1	23	24	...	...
Total.....	56	43	29	148	177	...	...

No. 23 ST JAMES STREET.

	Rooms.	Families.	Children under 5.	Adults.	Total.	Sinks.	Water Closets.
First Flat	13	10	11	38	49	2	1
Second Flat.....	12	9	18	36	54	2	...
Third Flat	12	10	2	24	26	2	...
Fourth Flat.....	13	11	9	27	36	2	...
Fifth Flat	13	10	8	27	35	2	...
Sixth Flat	7	6	4	16	20	1	...
Total.....	70	56	52	168	220	11	1

When any disease is epidemic, these houses speedily become infected ; and it is not until the special ailment slowly exhausts itself by attacking all the persons liable to suffer from it, that such tenements may be said to be free from sickness. This is a slow and uncertain process, and should it be going on at Whitsunday, when so many occupants change their houses, it may be indefinitely prolonged.

With reference to these statistics, it must be remembered that, with the exception of Burns' Land and Birtley Buildings, the lowest storey is occupied by shops, and is not included in the enumeration of the flats, which commences with the one above the ground-floor. We have already seen that in Edinburgh the rule is amply borne out that the greater the amount of overcrowding in population, the larger is the mortality ; and the same truth is taught by this analysis of special tenements. It becomes, therefore, an interesting question to determine the mortality of their inhabitants in such a year as 1863, characterised by no epidemic or the presence of unusual sickness. The following table supplies the requisite information, not merely as regards the gross mortality, but also as to the character of the various causes of death.

It is certainly remarkable that, of the 163 cases of death from Fever, not one occurred in these the poorest and most crowded houses in Edinburgh, and that only one death took place from diarrhoea, and this is specially noted as having been connected with dentition. Of course the overcrowded state of their population renders them hot-beds of disease in epidemic years, and when Cholera and Fever were raging, these houses attained an unenviable notoriety. Were not unusual facilities presented in Edinburgh—the seat of a medical school—for the speedy treatment of the sick, and the removal of cases of infectious disease to our noble charity, the Royal Infirmary, a single case of fever allowed to run its course unwatched in such tenements would spread contagion on all sides, and the district mortality would be greatly increased.

OVERCROWDED TENEMENTS, AND THEIR VITAL STATISTICS.

NAME.	Height in feet above the sea.	Area in Square Yards.	Population in 1864.			Mortality in 1863.			Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Measles.	Hooping-Cough.	Scrofulous Diseases.	Diarrhoea and Dysentery.	Old Age, above 60.	Premature Debility.	Other Causes.
			Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.														
Gowanloch's Land.....	287	292	109	25	134	2	2	4	...	...	1	...	1	...	...	...	...	1	...	...	...	1
8 Cowgatehead	211	365	155	24	179	4	2	6	1	1	1	2	1	...	...	...	...	...	...	...	...	...
Middle Meal Market Stair	216	400	197	51	248	3	5	8	...	...	1	...	...	1	...	2	...	2	...	...	...	2
Old Mealmarket Stair	216	300	96	14	110	4	3	7	...	...	2	...	3	...	...	...	2	...	...	...	...	...
56 Blackfriars' Wynd	200	250	103	27	130	1	1	2	...	...	1	...	...	...	...	...	...	...	...	...	...	1
23 Carrubber's Close	230	353	107	28	135	3	2	5	...	...	3	...	...	...	...	1	...	...	...	1	...	...
Scot's Land, Cowgate	189	250	128	42	170	6	3	9	...	...	2	2	1	...	...	2	...	...	...	...	1	1
Hope's Land, Canongate	210	230	80	23	103	2	1	3	...	...	...	...	1	...	...	...	...	1	...	...	...	1
Purves' Land, do.	212	352	92	27	119	...	4	4	...	...	1	1	...	...	...	...	...	1	...	...	1	...
Burns' Land, do.	133	176	54	14	68	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Birtley Buildings, do.	184	254	101	24	125	1	6	7	1	...	1	...	...	...	...	2	...	1	1	...	...	1
Crombie's Land, West Port	227	167	54	16	70	1	2	3	...	1	...	...	...	...	...	...	...	...	...	...	...	2
3 East Richmond Street	253	285	148	29	177	1	2	3	...	...	1	1	...	...	...	...	...	1	...	...	...	...
23 St James Street.....	205	438	168	52	220	3	3	6	1	...	...	1	1	...	...	1	...	1	1	...	...	...

LODGING-HOUSES.

Another circumstance must be noticed as aiding in preventing such disasters, viz., the existence of licensed Lodging-Houses, and their careful superintendence by the Police. In Table XII. of the Appendix, p. 61, I have given a statement of the number of these in the various sanitary districts. It will be observed that they exist in largest numbers in the very localities which call for their presence,—the poorest and most densely-crowded districts. The attention of the authorities was early directed to the important subject of regulating the number of the inmates of such houses, and of putting them under the surveillance of the Police. The Lodging-houses were registered and inspected. Their ventilation and cleanliness were attended to by special rules, as to when the windows were to be opened, and as to the sweeping and washing of the floors, and the whitewashing of the walls of the apartments. It was also specially provided, “that in case of fever, cholera, or any other contagious, infectious, or epidemic disease occurring in such Lodging-house, whether to any lodger or to any other person residing or being in such house, the keeper of such house who shall neglect or omit forthwith to give notice thereof to the Superintendent of Police, in order that the nature of the complaint of such person may be ascertained, shall, for every such neglect and omission, be liable in a penalty of not exceeding forty shillings.” Since 1848 these houses have been regularly visited by the Police, especially at night, to see that the number of lodgers allowed was not exceeded. At present, and for some years back, they have been under the special superintendence of the Senior Lieutenant of Police, and I cannot but ascribe much of the immunity from epidemic disease enjoyed by the poorer districts of the town to the admirable manner in which the regulations have been enforced.

HOUSES FOR THE WORKING-CLASSES.

The condition of the poor and their miserable dwellings also engaged the attention of the charitable in Edinburgh, and the movement which originated in London, that centre of all noble schemes, for erecting suitable houses for the working-classes, extended to this city. In 1851, the first block of houses was built, and named Ashley Buildings, after the nobleman who had taken such a prominent part in the operations of the Metropolitan Association. No better site could have been obtained for the structure in question. It was placed in the Tron district, in which overcrowding prevails to a great extent, and on all sides it was surrounded by decaying houses, tenanted by the poor. It not only afforded to the industrious workman a greatly improved habitation, but, from its situation, formed an example to surrounding proprietors and tenants of the manner in which such houses should be built and kept in a permanent state of cleanliness. To secure a site, old property had to be removed, and thus, while benefiting the working-classes, the Association directly ameliorated the condition of the Old Town by the erection of houses in its midst, built according to the most approved sanitary plans.

TABULAR STATEMENT OF HOUSES for the WORKING-CLASSES, ACCOMMODATION, &c., &c.

No.	NAMES OF HOUSES.	Where situated.	Date of Erection.	Total Cost.	Number of Families.	Lowest Rent.	Accommodation afforded for Lowest Rent.							
							Rooms.	Closets.	Kitchen.	Water-Closets.	Water.	Gas.	Green or Court.	
1	Ashley Buildings	Tron	1851	£5,100	70	£3 12 0	1	...	...	1	1	1	1	1
2	Pirrig do.	Broughton	1851	6,800	62	5 12 0	1	1	1	1	1	1	1	1
3	Chalmers' do.	Fountainbridge	1855	3,600	29	7 0 0	1	1	1	1	1	1	1	1
4	Dr Begg's do.	Abbey	1860	6,000	66	6 10 0	1	1	1	1	1	1	1	1
5	Milne's do.	Tron	1860	2,356	20	8 10 0	1	2	1	1	1	1	1	1
6	Rosemount do.	West End	1860	11,780	96	7 0 0	1	1	1	1	1	1	1	1
7	Croall's do.	Abbey	1860	3,600	30	5 5 0	1	...	1	1	1	1	1	1
8	Patriot hall do.	Upper Water of Leith	1861	4,800	42	9 15 0	2	...	1	1	1	1	1	1
9	View Craig do.	Pleasance and St Leonard	1861-2	15,000	110	7 5 0	1	1	1	1	1	1	1	...
10	Prince Albert do.	Do.	1863	19,200	132	9 10 0	1	1	1	1	1	1	1	1
11	Blackwood's do.	Abbey	1863	3,000	26	7 7 0	1	1	1	1	1	1	1	1
12	Prospectstreet do.	Pleasance and St Leonard	1863	3,600	74	3 0 0	1	...	...	1	1	1	1	1
13	Gillis' do.	Nicolson Street	1863	1,800	12	10 0 0	1	1	1	1	1	1	1	...
14	Clermiston do.	Canongate	1863	1,750	20	7 0 0	2	...	1	1	1	1	1	1
15	Rae's do.	Pleasance and St Leonard	1864	2,500	26	6 6 0	1	...	1	1	1	1	1	1
16	Gladstone do.	Canongate	1864	2,000	32	3 0 0	1	...	1	1	...	1	1	1

A reference to the preceding table will show that, since 1851, much has been done in all quarters of the city to improve the dwellings of the working-classes, and to relieve the overcrowded Old Town districts. The lowest rents of these houses are there given, and the accommodation afforded. It must be remembered that but few families in each of the buildings are accommodated at the lowest rent; and it may be stated generally that the average rent in the whole of these buildings is from £6, 10s. to £7. Such a sum is a good index of the class which has been benefited by such associations. It was that of the well-to-do industrious workman, who, how much soever he may have suffered from the imperfect houses in the Old Town, could not fail to be an acquisition to the neighbourhood in which he lived, from his notions of cleanliness and propriety. When attracted elsewhere for a dwelling, a vacuum was left, so to speak, in the Old Town, which was quickly filled up by the freemasonry of poverty; and without exaggeration it may be affirmed that the locality was left worse than it was before. Rents necessarily fell, and a poorer population crowded in to supply the places of the former inhabitants. That the working-classes, as a body, have been greatly benefited, there can be no doubt. A visit to almost any of the buildings in the list will convince the most sceptical on this point. But the question is forced upon us—Is a class, which can afford to pay such rents, not capable of being provided with suitable accommodation, on the ordinary principle of supply and demand. Their wants are soon known, and the enterprising builder will supply them fully as well as any association, the members of which, for the most part, look for an adequate return for the money they have expended. The poorer workmen cannot afford to pay the rents just named, and on all sides I have heard complaints that the houses are of a better class than they could afford to occupy. Again, there is the very poor, consisting of the day labourer and the out-worker on farms, &c. Such cannot help themselves, and are helpless in a city like Edinburgh. Had societies been formed to assist the poor, by improving their existing houses, erecting more suitable ones at such a rent as they could afford to pay, and, by various agencies, teaching them the plainest lessons of external cleanliness in their houses and stairs, and how to prepare their food in such a way as to secure economy, with the greatest amount of nourishment, they would have benefited at once the lowest classes of the community, and also the poorest districts of the city. A noble example was shown by Dr Foulis, years ago, of what was required, and the best method of helping the poor and the poorer localities. He took a close in the Grassmarket, gutted it, cleaned it thoroughly, and repaired it, in no expensive manner, but in such a way, as to afford comfortable housing for the poor. This close, the Warden's Close, No. 139, has thus been reclaimed. It is placed under such supervision, that the inhabitants are taught cleanliness, and should a new comer not be susceptible of the lesson, after patient trial, he quickly leaves. To this hour, the close in question stands out an oasis amidst the wretchedness and filth that is to be met with in the other closes of that well-known locality. Had this example been followed by our philanthropic citizens who have subscribed so handsomely to the

various building schemes, some of the worst localities in the Old Town might have been renovated, crime and pauperism rooted out from them, and the workmen comfortably housed in situations possessing a good exposure and a healthy site. A more admirable situation for such buildings than the district of the Canongate, can hardly be seen anywhere, whether altitude, exposure, or drainage facilities be taken into consideration. Again, by erecting suitable houses, intended for workmen, in good localities, within easy distance of the centre of the town, less time is spent in marketing, and fewer temptations are placed in the path of the workman who may have, on his way homeward, to run the gauntlet of a dozen gin-palaces, and be tempted to delay his return. Were he near his household, the attractions of his home might prove stronger than the call of pleasure. On a wet night, surrounded by companions, he may be unpleasantly reminded that before he reaches his fireside, he has to leave the lighted cheerful town behind. I have known of instances where such temptations proved too strong.

PAUPERISM.

One important element in our overcrowded population must not be overlooked, and that is the amount of pauperism which it contains. In addition to the large number of paupers dependent on the three city parishes, viz., the City Parish proper, St Cuthbert's, and Canongate, we have those belonging to other parishes, but resident in Edinburgh. At p. 60 of Appendix, Table XI., these have been distributed through the various sanitary districts, and the percentage of paupers to the population as at 1861, given in a separate column. It must be remembered, however, with reference to these tables, that three of the districts contain workhouses, viz., West End, St Cuthbert's Workhouse; Canongate, the Canongate Workhouse; and George Square and Lauriston, the City Workhouse; and of course the population of these houses swells the amount of pauperism in each of these districts. The St Cuthbert's Workhouse contains not only persons belonging to Edinburgh, a large portion of which is within the parish, but also persons from an extensive rural area. Neither in the case of St Cuthbert's nor in that of the City Poorhouse has it been possible to allocate the city paupers to their former residences before they became inmates of these institutions. As regards the Canongate, this was of inferior importance, as the sanitary district of that name pretty closely corresponds in extent and configuration to the parochial boundary. It will be observed how readily pauperism gravitates to the poorest districts, and where, as in Canongate, Tron, St Giles, and Grassmarket, we have the greatest overcrowding and the most deficient house accommodation, we have also superadded pauperism and its attendant evils, mental depression, imperfect nourishment, scanty clothing, and in too many instances, intemperance. The large mortality of these districts is amply accounted for, and it is not to be wondered at if in epidemics of cholera and fever, as shown by

the same table, the percentages of cases should be universally high. Were the poorest and most degraded of the class removed to better quarters, I am convinced that a great improvement would be effected in our Old Town. So long as there is a population with such a percentage of pauperism scattered through it, the best sanitary regulations are disregarded, and it is useless to enforce them by the strong arm of the law. The pittance that are given to paupers through the proverbial economy of boards, representing the ratepayers of our city, are only intended to allow of life being maintained at a legal flicker, and by no means at a steady flame. Pauperism must be made distasteful, and in the attempt to force applicants to work for their own support, injustice must be done to many. This is inevitable from the present working of the system in Edinburgh, and the limited accommodation afforded in our workhouses. But to speak to the pauper poor of the necessity of cleanliness and the dangers attendant on overcrowding, when they have hardly enough of support to keep soul and body together, is a mere waste of words. The parties truly responsible are the Parochial Boards, who are charged with the support of their poor, and who should take care, if they cannot afford space to accommodate them within their own premises, that the apartments occupied by these dependants be kept decent, clean, and wholesome. Were a large proportion of the poor drafted into a properly-constructed Poorhouse, outside the parliamentary boundary, a double benefit would be conferred at once on the densely-peopled districts of our city, and also on the paupers themselves. It is well known that in too many instances persons claiming parochial relief will submit to the greatest privations rather than allow themselves to be immured within those barrack-like buildings, where they find themselves in the midst of town life, yet debarred from enjoying it. The sounds they hear constantly remind them of their bondage, and the confined dismal spaces allowed to the sexes as airing-grounds help to deepen the feeling. To live huddled together in squalid apartments, and subsist on the poorest fare, is to them paradise in comparison. But had they free scope in fresh country air, and could they be engaged in healthy out-of-door exercise, surrounded with all the enlivening influences of a country life in the neighbourhood of a large town, I am convinced that residence in a workhouse would not be dreaded as it is at present, while the legitimate application of the labour-test would thin the ranks of pseudo-paupers, and secure for parochial relief its legitimate objects. The pauper population would also gain in health. As it is, whenever a pauper in ordinary health enters a workhouse, his chances of life are increased. This is accounted for by the regularity of hours, the dieting, and the careful discipline. But these important hygienic advantages would all be increased in value in a country situation. To effect this highly important change in our parochial administration, as speedily and thoroughly as possible, it would be highly desirable that our three local boards, laying aside all rivalry and jealousy, should combine, and thus not only effect a saving on the general rate, but, at the same time, inaugurate the sanitary improvement of Edinburgh, and increase the comfort and health of the paupers.

INFLUENCE OF ELEVATION ON HEALTH.

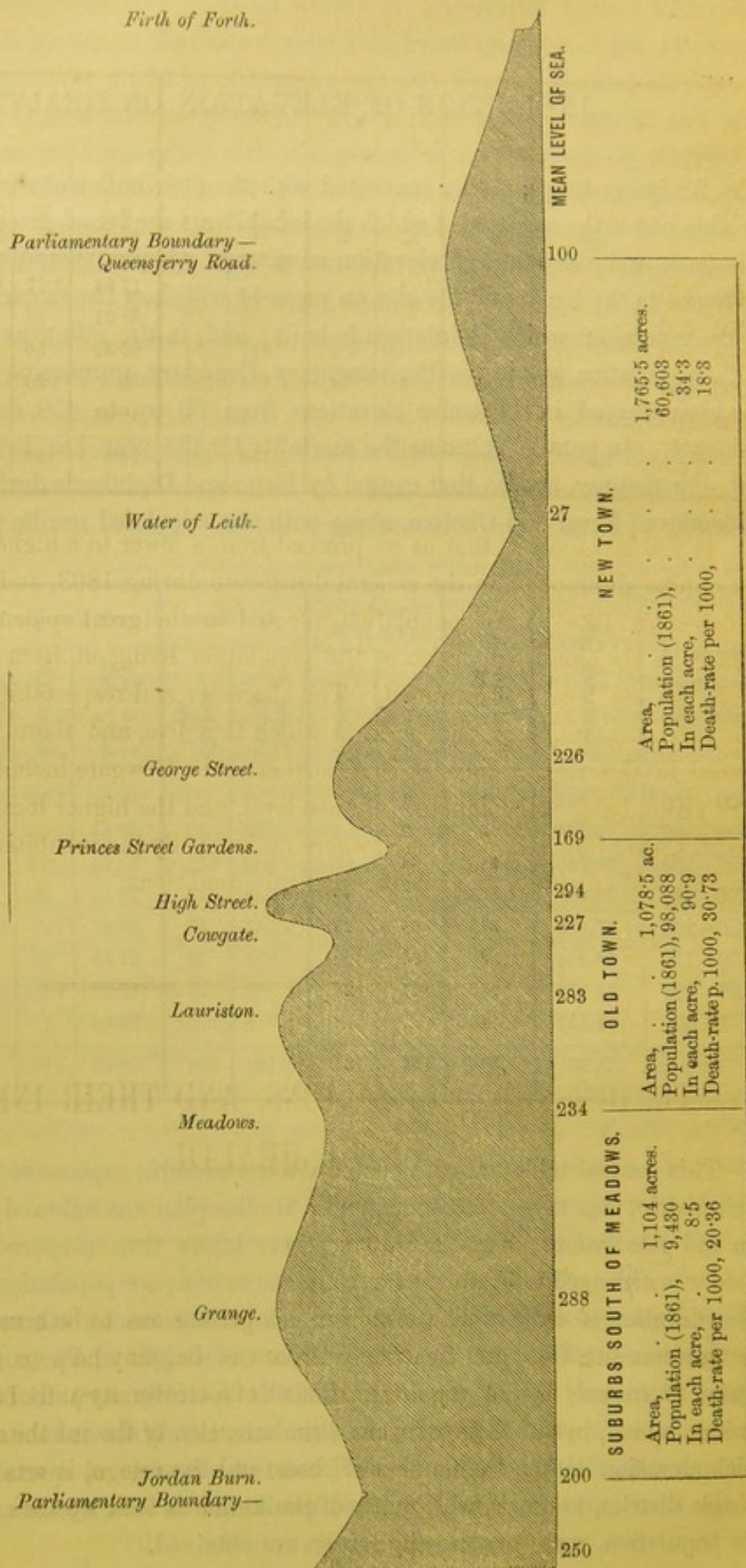
An interesting question connected with the distribution of the population is the heights above the sea-level at which the inhabitants are found grouped in the largest numbers, and the effect of elevation on disease, whether sporadic or epidemic. A reference to the section of the city on page 44 will show the remarkable inequalities of the ground on which Edinburgh is built; and, in the following table, the whole of the population within the Parliamentary Boundary, numbering 168,121 persons, has been arrayed in successive elevations from 50 up to 450, according to their residence. In parallel columns the mortality for the year has been distributed in a similar manner, as also that caused by Fever and Diphtheria during 1863, and two epidemics of Fever and Cholera, along with the calculated results per 1000.

Height in feet above the sea.	Population 1861.	Total Mortality 1863.	Special Mortality 1863.		Epidemics.		Death-Rate per 1000.			Rate of Cases per 1000.	
			Fever.	Diphtheria.	Fever 1847-8.	Cholera 1848.	Total Mortality 1863.	Fever 1863.	Diphtheria 1863.	Fever Epidemic 1847-8.	Cholera Epidemic 1848.
400—450	854	15	1	...	...	...	17·54	1·17	...	...	...
300—350	3,168	63	2	1	31	12	19·88	·63	·31	9·78	3·78
250—300	30,740	915	24	19	942	111	29·73	·78	·61	30·64	3·61
200—250	70,898	1,853	70	46	3,538	417	26·12	·98	·64	49·9	5·88
150—200	19,432	573	25	25	1,343	86	29·48	1·28	1·28	69·11	4·42
100—150	26,304	560	24	20	218	49	21·28	·91	·76	8·28	1·86
50—100	15,178	297	17	23	88	17	19·56	1·12	1·51	5·46	1·12
1—50	1,547	40	...	...	6	2	25·85	...	...	3·87	1·29
Total,	168,121	4,316	163	134	6,161	694	25·66	·96	·74	37·24	4·12

This general table was constructed at a considerable expense of time and trouble. Each district was taken separately, and a similar plan was followed in the enumeration and calculation. From the 19 separate tables thus prepared, the one given above was arranged. From the large accessions of a poor population prone to disease at an elevation of from 200 to 300 feet, comprising among others that occupying the Grassmarket, Cowgate, &c., the influence of height and exposure on the production of disease is not manifest. This is specially seen to be the case with Cholera, which, in the Metropolis and elsewhere, clearly showed the marked influence which elevation had on the number of cases, and the rate of mortality. On taking a single district, however, with marked graduation in its elevation, and a considerable population, more trustworthy results are obtained.

SECTION through the CITY of EDINBURGH from South to North, and extended to the Sea.

The figures denote the height above the sea; and the Vertical is nearly thirteen times greater than the Horizontal Scale.



DISTRICT OF ST GILES.

Height in feet above the sea.	Population 1861.	Total Mortality 1863.	Special Mortality 1863.		Epidemics.		Death-Rate per 1000.			Rate of Cases per 1000.	
			Fever.	Diphtheria.	Fever 1847-8.	Cholera 1848.	Total Mortality 1863.	Fever 1863.	Diphtheria 1863.	Fever Epidemic 1847-8.	Cholera Epidemic 1848.
400—450	854	15	1	...	...	...	17.54	1.17	...	...	...
300—350	1,783	38	1	...	31	12	21.31	.56	...	17.38	6.73
250—300	7,142	188	4	4	641	74	26.32	.56	.56	89.75	10.36
200—250	5,971	209	9	4	1,102	119	35.	1.50	.67	184.55	19.92
150—200	217	10	...	...	1	1	46.08	...	...	4.6	4.6
Total,	15,967	460	15	8	1,775	206	28.8	.93	.50	111.16	12.9

It will be observed that as we proceed from a lower to a higher elevation, there is a regular diminution in the general death-rate during 1863, and also in the rate of cases per 1000 of the population affected in the great epidemics of Fever and Cholera, if the small proportion of the population living at from 150 to 200 feet above the sea level be abstracted. The character and respectability of the population vary, however, with the height at which they live, and there is a marked difference in this respect between that portion of the Cowgate included in the district of St Giles, lying at a comparatively low level, and the higher localities of the High Street, Castle-hill, and the Castle, where undoubtedly the inhabitants live in greater comfort, and enjoy life under better hygienic conditions.

TRADES AND OCCUPATIONS, AND THEIR INFLUENCE UPON HEALTH.

Edinburgh, as is well known, has no pretensions to be a manufacturing city. Its peculiar situation, and its distance from the sea, may help to account for this; while, at an early period, the establishment of a University and of the highest Courts of judicature, appears to have diverted the attention of the inhabitants from mercantile pursuits. When Scotland could boast of a Sovereign, it was also the residence of the Court, and the chief Nobility of the kingdom took up their abode within its walls, attracting at the same time large numbers of the Gentry.

Even the stimulus given to trade throughout the country by the remarkable extension of the railways has but slightly affected Edinburgh, and the enterprise of manufactures has been turned to Leith on the one hand, and Glasgow on the other. So far as appearance and amenity are concerned, few cities could be more disfigured by large manufacturing works. Two which might be named have given rise to much annoyance. Our City Gas Works have unfortunately been placed at such a low level in the district of Canongate, that the fumes of the manufacture rendered almost uninhabitable the houses which skirt the Calton Hill. To remedy this nuisance a new chimney-stalk had to be erected, of such gigantic proportions as to form a landmark and eye-sore from what quarter soever the city is approached. Again, the amenity of the West End as a place of residence has been greatly interfered with by the erection of large premises as a Distillery, said to be the largest in the kingdom. Unfortunately, in this country, no supervision is exercised over the plans of buildings intended for the purposes of trade. Any manufacture, even though it be detrimental to health, can be commenced and got into full operation before it can be stopped by a tedious process of litigation. In France, on the other hand, where much more attention is paid to the hygiene of towns, no manufacture can be begun until the plans and nature of the operations have been referred to a scientific commission, who determine whether the site selected is suitable for the special manufacture, care being taken that none injurious to health are permitted near human dwellings. So early as 1810 all manufactories were there divided into three classes—1st, those that must be kept at a distance from habitations, but which are not prohibited from the outskirts of a town; 2nd, those which may be carried on near human dwellings, assurance in all cases being obtained that the operations of the proposed manufacture could not prove a source of nuisance to the neighbourhood; 3d, those which may remain near dwellings, but are still subject to the surveillance of the Police. Were such a system in operation in this country, Edinburgh would have been saved the infliction of the two evils just referred to. Our large Gas Works would have been removed to the outskirts, or even into the country itself, a tube of sufficient dimension supplying Edinburgh with gas, and the district of Canongate would have escaped the nuisance, and the city the great disfigurement. The site occupied by the Caledonian Distillery would also have been refused, and the interests of the West End would not only have been secured, but enquiry would have been made as to the manner in which it was proposed to carry away the refuse of so large a manufacture. As it is, the refuse finds its way westward for a distance of 300 yards, polluting the atmosphere of the western districts of the city, until it reaches the Water of Leith, flowing eastwards through the city for a distance of three miles, and thus the inhabitants are again subjected to the annoyance. I can see no hardship in the Magistrates having the power, on consultation with such authorities as Professors Christison, Playfair, and MacLagan, to prevent manufactories being established on sites that must lead to the annoyance of the inhabitants, and the impairment of the amenity of the city.

TABULAR STATEMENT of the Number and Distribution of MANUFACTORIES and TRADES.

No.	NAMES OF THE DISTRICTS.	Population 1861.	Printing Estab-lishments.	Breweries.	Distilleries.	Tanneries.	Cabinetmakers.	Coach Works.	Foundries.	Workers in Metals.	Workers in Glass.	Tobacco Manu-factories.	Hat Manufac-tories.	Pipe Manufac-tories.	Marble Cutters.	Flour Mills.	Oil Manufactories.	Dye Works.	Chemical Works.	Cat-gut Manufac-tories.	Gas Works.	Builders.	Saw-mills.	Gutta-Percha Works.
1	Upper New Town	10,930	17	...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	Lower New Town	14,024	...	...	...	...	2	2	...	4	...	...	...	...	...	...	...	...	1	...	...	1	...	...
3	West End	7,748	1	...	1	...	4	2	...	6	...	...	...	...	...	1	...	...	...	...	...	2	...	...
4	Upper Water of Leith	12,332	...	...	...	1	...	...	...	...	...	...	...	...	...	4	...	1	...	1	...	...	...	...
5	Lower Water of Leith	3,866	...	1	...	3	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	2	...	...
6	Broughton	5,672	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
7	Calton and Greenside	10,984	7	...	...	...	2	...	...	12	11	...	...	1	2	...	...	...	...	...	...	1	2	...
8	Abbey	2,237	...	3	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...
9	Canongate	12,200	...	8	...	3	...	...	2	7	2	...	1	1	...	...	...	...	...	...	1	...	...	...
10	Tron	11,636	4	1	...	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
11	St Giles	15,967	9	2	...	...	...	...	...	3	...	...	1	...	...	...	...	1	...	...	...	...	...	...
12	Grassmarket	5,227	...	1	...	3	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	2	...	2
13	Fountainbridge	9,880	...	2	...	...	...	1	1	6	...	...	...	...	...	1	2	...	...	...	...	...	...	...
14	George Square and Lauriston	6,593	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	Nicolson Street	18,307	...	1	...	...	...	...	1	7	...	1	1	1	...	...	1	...	...	...	...	1	...	...
16	Pleasance and St Leonard	11,104	...	3	...	...	...	2	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...
17	Newington	4,955	1	2	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1	...	...
18	Grange	1,886	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	Morningside	2,573	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total,	168,121	39	24	2	13	8	8	6	60	13	4	3	3	3	7	3	3	3	2	1	11	2	2

The preceding table will give some notion of the principal manufactures carried on in Edinburgh. Our chief trades are undoubtedly printing, brewing, and the manufacture of furniture. The printers are chiefly located in the New Town, while the great brewing establishments are found in the Cowgate and Canongate, around certain wells of great value for their peculiar properties. It is somewhat remarkable, that these are the only sunk wells in use throughout the city. One of the most efficient causes of the health of the poorer districts undoubtedly arises from the water supplied for domestic purposes coming from a distance, and being remarkably pure and uncontaminated. Of late years, a considerable trade has been done in the manufacture of furniture, the chief works of which have been removed to the outskirts. Applying the French classification to the trades mentioned in the table, we find that the great majority can be carried on in close proximity to human dwellings, without risk to health. The chief nuisance connected with them, is the amount of smoke they discharge into the atmosphere. For this there is a sufficient remedy in the Smoke Nuisance Abatement Act, which, however, appears to be a dead letter with us, because, at all hours of the day, we have our city breweries, located in poor overcrowded localities, and a large number of the printing establishments in the New Town, polluting the air with their smoke. From this state of matters, a double evil results, not only in the air being contaminated, and the appearance of the town disfigured, but an obstacle is placed in the way of the free ventilation of the houses in the neighbourhood. Householders will rather have their apartments ill-ventilated, than expose themselves and their furniture to contact with smoke. It is to be regretted that so many establishments are to be found in the Old Town, where the population is most dense. Many of them have been there for centuries, and occupy the same place they did when the city was crowded within the limits of the old fortifications; but now, with opportunities for removal to more suitable localities, it is highly objectionable to have such a trade as that of tanning carried on in close proximity to the High Street and St Mary's Wynd. The same might be said of our large breweries, but in their case, the character of the manufacture is not so offensive, and the wells are the great source of attraction. A more decided opinion can be expressed as to such trades as prepare cat-gut from the intestines of animals. Luckily, there are only two within the Parliamentary boundary, one in the West Port, in a most objectionable situation, and the other in a much less densely-peopled locality at Beaverhall. Both have been made the subject of repeated complaints, but without avail; seeing that a large amount of testimony, ordinary and scientific, was forthcoming, to speak as to the innocuous character of the manufacture. Now, with regard to this trade, the French legislation is very explicit. It is placed in the first class of insalubrious occupations, and is not permitted to be carried on near human habitations, and the reason given for the prohibition was the disagreeable and unwholesome character of the odours.

The keeping of bones and rags for sale has given rise to repeated complaints in the Old Town, where the trade is carried on in confined localities. It can be easily understood that the storing of these articles in an ill-ventilated atmosphere must give rise to unpleasant odours. The nuisance has long been known as a source of annoyance, and a special bye-law was passed in 1848, providing that "all persons dealing in bones and rags shall, at all times, keep their shops and cellars, and other premises, in a cleanly state, to the satisfaction of the Inspector of Cleaning." The next section determines the quantity of bones and rags that may be kept at one time. Unfortunately the rags are defined in it as "woollen;" and as in all such establishments there are rags of other materials besides wool, the bye-law has hitherto proved totally inoperative. The simple remedy is the omission of the word "woollen," or else the addition of the names of the other kinds of rags.

In the New Town the sale of meat, fish, game, &c., is, in many instances, carried on in an offensive manner. The premises are generally located in prominent positions at the corners of streets, and have not been specially constructed for the purposes of the trade. The ventilation and drainage are, in consequence, very defective, and a strong effluvium taints the air of the immediate neighbourhood, and the inhabitants who live above, and the passers by, are subjected to constant annoyance. The carcases of the animals are openly exposed to the heat and dust—a spectacle that may be witnessed in some of our fashionable streets. The Magistrates, in the interests of public decency, have ordered that all meat carried through the city in carts should be covered with a suitable cloth. The same order should apply to the exposure of carcases on the walls of shops, and the premises themselves should be visited from time to time.

Two trades have specially engaged my attention, *First*, That of the Dairyman, which is included in the third-class of the French code, and is of importance in a hygienic point of view, not so much as affecting the health of the workmen employed, as influencing the amenity of the neighbourhood by the odours coming from the refuse of the animals, and from the almost universal want of sanitary precautions, leading to a sickly condition of the cows, and the production of inferior milk. *Second*, Inquiry has been made into the state of the Bakehouses throughout the city. This trade does not figure among the establishments in the three classes,—the unhealthiness of the trade affecting those only who are employed in the production of the bread. Special regulations, however, are in force in France, regulating the use of leaden cisterns and of copper scales, so as to obviate the dangers that result from the action of water on the lead, and from the rusting of the copper. From the first of these dangers we are preserved by the excellence of the Edinburgh water; and from the second by the general use of tinned scales for weighing the flour and dough. The trade, however, has, in this country, been made the subject of a special Act, "The Bakehouses' Act 1863," which provides for the sanitary state of the workshops, and the comfort of the workmen.

SANITARY CONDITION OF THE BYRES.

WHEN inquiring into the Nuisances caused in the City by accumulations of manure, my attention was directed to the Byres,—to their position as influencing the amenity of certain localities, and to their condition as affecting the health of the cows.

I have inspected 171 Byres within the Parliamentary Boundary, and from the tabular statement in the Appendix, p. 69, it will be observed that Byres are situated in all parts of the city.

The number of cows within the municipal area may be estimated at 2085, and allowing £15 as the average price of each animal, we have a total of £31,275. If to this be added the sums expended in the purchase of food, straw, wages of servants, and rent of premises, we can form some idea of the importance of the trade. While care should be taken not to hamper with teasing restrictions a branch of industry which contributes so much to the general comfort, it should never be forgotten that the importance of the traffic, as shown by the amount of capital invested in it, is due to the patronage of the inhabitants, who have a right to demand that the milk they pay for should be clean and of good quality, and at the same time that the cows should not be so kept as to prove a source of public nuisance.

The points to which I paid special attention in examining the Byres, were—

1st, Their proximity to human dwellings.

2d, Their condition as to cleanliness.

3d, Their overcrowding and want of ventilation; and

4th, The state of the court where the manure is accumulated.

In the country, no doubt, the odour of a Byre may not be unpleasant, tempered as it is by the accessories of country life; but to be compelled, in a crowded district of a city, to inhale the effluvia of Byres from morning to night, is highly disagreeable,—to some constitutions positively hurtful: and I have no hesitation in saying that Byres under such circumstance are veritable nuisances. In some few instances the Byres were found to be placed actually *under* human dwellings, and proved a source of discomfort to the inhabitants above. But wherever situated, much depends upon the manner in which the Byre is cleaned, whether thoroughly or otherwise. A large proportion of the Dairymen in Edinburgh are persons whose experience has been gained at small farms in the country, where, from the

paucity of servants and other causes, strict cleanliness is not maintained. Their careless habits they bring with them to the large towns, where they take no pride in keeping their Byres in good order. It must, however, be confessed, that little is done by landlords in Edinburgh to assist their tenants in improving the condition of their Byres. In a very small proportion of cases are Byres built specially for the purpose. Generally an old stable or an outhouse is selected, without any preparation in the shape of flagging and the formation of proper drains. Whatever paving there may be soon falls into disrepair, and it would tax the energy of any one to keep such a place tidy or dry. Again, even in better localities, the stables no longer being required for horses, and no tradesman offering to occupy them as workshops, they are let as Byres, possibly at a diminished rent. Repairs are not executed, and the cows are kept in a constant state of damp and filth. The neighbourhood, too, is annoyed by the smell of the animals, the manure, and the effluvia arising from the preparation of the food.

In such places, properly enough constructed to accommodate a few horses, half of whose life is spent in the open air, we usually find double the number of cows doomed to spend their entire existence. But in addition to the overcrowding, we have in many cases the light excluded, and along with it most of the ventilation—on the principle, as it was stated to me again and again by respectable cowfeeders, that the darker and the warmer (that is, worse ventilated) the cows are kept, the more milk you are likely to obtain from them. Now, it is well known, that if an animal live in an ill-aired apartment, the more liable is it to be affected with cold on the slightest exposure or fall of temperature. I have often remarked how much better the horse is tended than the cow, which is the more delicate and sensitive animal. But the Dairyman, instead of invigorating his stock by dryness, cleanliness, and judicious ventilation, and thus warding off disease, flies to the opposite extreme, and actually creates the danger he is seeking to avoid.

The chief public complaints that arise as to Byres refer principally to the manure heaps, which are to be found, in the case of stable lanes, immediately in front, or, where the Byre is detached, in a vacant space or court. As regards cows, there is a large quantity of liquid refuse, and this, along with the washings of the Byres, speedily accumulates, and where the paving is imperfect and the drains not properly constructed, the whole area of the court becomes saturated, and cannot be kept in a cleanly state. In dry weather, the smell is offensive; but, at all times, we have the manure fermenting in receptacles, generally of a faulty construction, either too small for the requirements of the place, or with such defective fall that the drainage is inoperative. It is said that the quality of the manure is thereby improved, and I have been informed on good authority that Dairy-men have actually obstructed the drains, so as to prevent the escape of the liquid refuse. This may be quite allowable in the country, where the population is thinly scattered, but in densely-peopled localities it should not be tolerated. Here again, however, the landlord is not without blame; premises should not be let for the purposes of a

dairy, unless suitable provision be made for cleanliness in an abundant supply of water within easy reach—for where it has to be carried any distance as little will be brought as possible—and also in the formation of a suitable causeway. The drains should be carefully constructed, so as to carry off with facility the surface water. The connection of these drains with the main sewer should be so adjusted as to permit the free discharge of their contents; and the opening of the drains in the court should also be trapped. The most unsatisfactory and unwholesome feature connected with Byres is undoubtedly the condition of their courts or vicinage.

In the course of my inspection, I was much surprised to find that the variations in the number of the cows in the different Dairies was unusually great, indicating a very large mortality. In some cases, I found that Byres had been emptied in consequence of the prevalence of disease, and that the proprietor had either promptly supplied the losses, or, disheartened by a continuance of what is called “ill luck,” had relinquished the trade. I saw enough, however, to convince me that a considerable proportion of the mortality must have resulted from the causes to which I have alluded. The Dairymen are most unwilling to allow this, and attribute all their misfortunes to the existence of infectious diseases; and it must be admitted that the best regulated Dairies have been decimated by epidemics. But I believe that the analogy holds good with such diseases as are observed in man in the case of epidemics of cholera, fever, and small-pox, that the more crowded and ill ventilated a locality or a house is, the larger the number of infected individuals, and consequently the larger the mortality. To the Dairymen, many of whom, to do them justice, have made the most of the places they rent as Byres, I specially urged the importance of dryness, improved ventilation, and diminution in the number of the cows, but to little purpose. The invariable answer was, “This disease (pleuro-pneumonia) is very mysterious; when it enters a Byre little or nothing can be done to stop its ravages.” But common sense should long ere this have told these tradesmen that nothing is so efficacious in preventing the spread of an epidemic than the early and decided separation of the suspected, not to say the already infected, individual, and that to allow an infected animal to stand in a crowded Byre, crushed up against a wall, damp with its breath and that of its adjoining companions, was to be fulfilling every condition known to be necessary to favour the rapid communication of an infectious disorder. Yet in no Byre did I see a place specially set apart as a sick stall or infirmary, so to speak, where the suspected animal could be safely treated and watched, and by which, in the event of the disease ultimately manifesting itself, the other inmates of the Byre might thus be preserved from infection. No doubt, so long as the trade in question is in the hands of persons possessing little means, and who cannot afford to pay a rent for proper premises, we cannot expect to find such accommodation; and this is one reason among many for desiring to see persons with sufficient capital engaging in the trade, and who can afford to provide every requisite for the satisfactory and successful management of their business.

Indeed, it soon became apparent that graver questions than those of mere Nuisance were involved in this inquiry. There were questions connected with the deterioration of the milk, arising from the faulty construction of the Byres, and also from the prevalence of disease. I willingly acknowledge that, during the last ten years, few complaints have reached me of anything like symptoms of disease having been caused, or been supposed to have been caused, by milk; but when we remember what an important article of diet it is, especially for children, it can easily be understood that milk, when deteriorated in quality, may aggravate, if not actually produce, many infantile disorders, and lay the foundation of weakness and a susceptibility to disease, at a time of life when rapid healthy growth is necessary for proper development. In Edinburgh, and it is now believed to be the case even in London, there is little adulteration, with the exception of the addition of water,—foreign ingredients of a deleterious character never being introduced. A poverty of taste, suggestive of the addition of water, is often observed; but I am convinced that what is complained of as “poor milk,” is in reality the produce of cows placed in most unfavourable circumstances for living, and much less for the daily supply of a highly nutritious fluid.

In addition to all this, there is to be found in our markets the flesh of cows who have either died of disease, or have been killed to prevent them from so doing. When I became aware of the great mortality among the cows in Edinburgh, I was anxious to ascertain the rate of mortality of the respective Dairies. This I could hardly expect to obtain from the Dairymen themselves, and I turned to the books of the Slaughterhouses for the information. But I found the records there so far defective, inasmuch as while they mention the name of the butcher at whose instance the animal was killed, or the carcase prepared, they give no information as to the locality whence the animal was brought. The Dairymen are generally unwilling to allow that their Byres have been unhealthy, and this for the very obvious reason, that were it to become known that any unusual mortality existed in a particular Dairy, the public would naturally be chary in supplying themselves from it. A system of secrecy is thus established, and the only clue to be obtained as to the healthiness or otherwise of our Dairies, is to be found in the number of diseased animals brought to the Slaughterhouses by certain butchers. But dead meat can be brought into the city from all quarters, and at all hours. An affected animal has only to be killed, carted out of the Parliamentary Bounds, and the carcase dressed in some part of the county, and brought back in the evening and exposed in any shop, where, unless it chance to excite the suspicion of the Inspector, it is sold to the public at the price of sound marketable meat, and without a word of warning as to its history. Notwithstanding the many excellent changes inaugurated by the Market Committee, I can see no remedy for the present unsatisfactory state of matters, except by enforcing the wholesome rule, that no meat be sold in the city unless it have first been submitted to inspection at the Slaughterhouses, and that the carcasses of all cows be dressed in the presence of

one or other of the Inspectors. The daily number of such animals slaughtered cannot surely be so large as to prevent this being accomplished; and the duty, I submit, is as important as any official can well be called upon to discharge.

That the Byres or Cow-houses in Edinburgh require strict supervision by our local authorities, was abundantly proved to me during my inspection.

Of the 171 Byres examined, in 11 cases they were placed under human dwellings. As to cleanliness, I noted it as "passable" in 101; while in 70 the want of it was so apparent, as at once to call for remark. The ventilation was pretty good in 61 cases, and "imperfect" (generally the result of overcrowding) in 110, and the condition of the court or of the vicinage was very bad in 100 cases, and only in 71 Byres was it such as to merit the term "clean" being applied to it.

The only clauses in our local Police Act applicable to Cow-houses refer to the length of time manure can be kept in their neighbourhood, viz., for 14 days; but it is carefully specified that this applies solely to "Mews or Stable Lanes." Now, a large proportion of our Cow-houses are situated in courts, passages, and stray unoccupied stances, which can in no sense be termed "Mews or Stable Lanes." And while the efforts of the Inspector of Nuisances (Mr Paterson) and myself have mainly been directed to prevent any extension of the time during which accumulations of manure are allowed to remain, I am clearly of opinion that were this clause [the 194th of the Edinburgh Police Act 1848] enforced, it would enable us to remove many Cow-houses which are veritable nuisances, seriously affecting the health and destroying the amenity of the neighbourhood in which they are placed.

All Cow-houses in close proximity to human dwellings, for reasons I have already stated, should be suppressed, and only those should be permitted by the authorities which are situated in thinly-peopled localities. In France, since 1810, such establishments have been placed under the inspection of the Police, and they are inserted in the third class of insalubrious occupations on account of the bad smells which are occasioned by them. From time to time, in Paris, ordinances have been issued regulating the situation and sanitary condition of the Cow-houses—the last, which consolidated all former enactments, was put in force so long ago as the 27th February 1838. In this country, I regret to say, we have been much more dilatory, and a clause in the Metropolis Amendment Act 25-26 Vict. c. 102, only came into operation on the 1st of November 1862, providing for the due licensing of Cow-houses in London, and is at present enforced by the Medical Officers of Health. The General Police Act for Scotland (Lindsay's Act) passed in the same year, contains no special provision with reference to the registration, situation, size, or ventilation of Cow-houses, but in one clause [141] enforces cleanliness in "stables, byres, and areas connected therewith."

So far as Edinburgh is concerned, no one can compare the summary of the classified list of Byres within the Parliamentary Boundary appended to this report (p.69), with the accompanying map, representing the city divided into 19 Sanitary Districts

—the area and population of which have been carefully determined, without being impressed with the necessity of diminishing the number of our Cow-houses. During the last ten years, they have increased in number, or at least they have become so overcrowded, that instead of accommodating 1797 cows, as they did in 1857, (see Appendix, No. 6), the number of cows in our town Dairies is now 2085, an increase of 288, and this, be it remembered, notwithstanding the facilities afforded by the Railway Companies for the conveyance of milk. It will be seen, however, (see Appendix, No. 7), to what a small extent the Dairymen of Edinburgh have availed themselves of railway communication, and by removing to the pure air of the country, have secured for their cows an improved hygienic condition. No Byres should, in my opinion, be permitted in any part of the New Town, upper or lower—nor in the Canongate, in the Districts of the Tron, St Giles, or Grass-market, densely peopled as these localities are by the poorest of the inhabitants. I would urge a similar prohibition on those situated in the district of George Square and Lauriston, and of Nicolson Street, and on several Byres in each of the other districts.

Finally, those Cow-houses which are placed in suitable localities should, in my view, be placed under careful supervision, and their sanitary condition regulated by special enactment. No doubt an outcry would be raised by the Dairymen that an attempt is being made to ruin them, were regulations introduced here similar to those which have been in force for nearly 20 years in Paris, a copy of which is given in the Appendix to this Report (page 71). But year by year we find that trades and occupations which in any way influence the public health, whether by the character of the food they supply, or by the emanations with which they pollute the atmosphere, are brought within the reach of legislative enactments. The Bakers, for example, have been lately placed under stringent regulations as to the cleanliness and ventilation of their work-shops, and it cannot be expected that the Dairy trade, so intimately connected as it is with the production of food for the inhabitants in the shape of milk and butcher meat, can much longer be exempted from the operation of the law of progress. I feel sure that the time is not far distant when the Dairymen themselves will be the first to acknowledge the wisdom of any enactments which shall force them to seek purer air and healthier dwellings for their cows, and that the trade will reap the advantage in a greatly diminished mortality in their stock.

I BEG TO SUGGEST—

1stly, That all Byres within the Parliamentary Boundary should be registered, their dimensions ascertained, and the number of cows to be kept in them determined, not at the caprice of the Dairyman, but by the size of the building, as measured by the Inspector.

2dly, That all Byres should be inspected by the Superintendent of Streets and Buildings; and where the paving or drainage is defective, the proprietor should be

compelled to remedy the same, and specially to provide suitable receptacles for the manure.

3dly, That proprietors should be called upon to afford an adequate supply of water for cleansing purposes.

4thly, That the manure from Byres should, as in Paris, be removed weekly, instead of fortnightly.

5thly, That all cases of death among Dairy cows should be notified to the Inspector, whose duty it should be to inquire into the circumstances of the death, and as to the disposal of the carcase.

6thly, That the history of the carcase of every dead cow, brought to the Slaughterhouses, should be entered in a book to be kept for that purpose, and that the carcase itself should be dressed in the presence of the Inspector.

7thly, That no butcher meat should be exposed for sale within the Parliamentary Boundary until it has been examined at the Slaughterhouses by the Inspector.

SALE OF DISEASED MEAT.

IT has already been shown in our last inquiry, that an intimate connection exists between the traffic in diseased meat and the healthy or unhealthy condition of town Dairies. When an animal becomes sick, the first question which naturally presents itself to the owner is, "What can I do to cure it?" and the cow is at once put under treatment. By a wise provision of nature, should the illness be severe, the secretion of milk is at once arrested, and all chance of infection by that channel is prevented. If remedies appear to be unable to arrest disease, and should the animal be sinking, it then becomes the interest of the owner to have it killed as soon as possible, before it can be alleged that the animal had died of disease. The cow, such as it is, is then driven, or should it be too weak to walk, it is carted, to the Slaughterhouses, and there despatched. In many cases, however, it is killed in the Byre in which it became ill, and the carcase is taken to the Slaughterhouses to be dressed. So much for a case of ordinary disease. When the illness of the animal at once testifies to the presence of that most virulent infectious disease, which, on account of its attacking very generally the organs of the chest, has been termed "Pleuro-pneumonia," or vulgarly, "Pleura," the owner, knowing from the deadly

character of the illness, that remedial measures are of little avail, has the animal at once taken to the Slaughterhouses, or has it killed before removal. The eagerness displayed in bringing such animals to the public shambles is easily explained. It is to enable the carcase to be sold to the public as sound and wholesome meat, and thus secure to the owner an equivalent for the value of his animal. The only other course open to him, is to dispose of the remains to the knacker, the manufacturer of glue, &c., &c., and to suffer a heavy pecuniary loss—the sum received being but a small part of the original value of the animal. In these transactions two parties have been engaged—the Dairyman, on the one hand, and the Butcher, on the other. Generally speaking, the bargain is left open until the result of the official inspection becomes known, everything depending on the vigilance of the public officers. The trade, indeed, closely resembles in its exciting character the running of a blockade, with this exception, that in the case of the traffic in diseased meat, the general public is no gainer from a successful run. On all sides we have deception. The cow, unless its state betray its condition, is palmed off as a healthy animal, and as such it is brought to the public Slaughterhouses. The very fact of doing so, however, has an aspect of honesty. Should the disease be detected, it is at once said, “What could my client do? He had an animal which he suspected of being ill, and he brought it to the test of inspection by skilled officials.” The question, however, is, did he declare its condition when it was driven into the shambles? By a well-known class of Butchers, all such precautions are disregarded, and the most open fraud is committed. A cow too far gone to be safely submitted to official inspection is killed, carted secretly out of the city, dressed in some part of the county, and reconveyed into the city, either as an entire carcase, or piecemeal, and exposed for sale. The public often purchase, at the ordinary market price of good butcher meat, what is not fit even for the pig-stye, but only to be boiled down and destroyed.

For many years past, the Magistrates of this city have shown an earnest desire to secure the citizens against such mal-practices, and have, in various Police Acts, introduced stringent clauses, regulating the trade in butcher-meat, and attaching heavy penalties to the sale of diseased carcasses. These efforts were attended with little success, until the sweeping measure was passed prohibiting the existence of private shambles; and the trade was compelled to use the public abattoirs at Fountainbridge, which were opened in 1853, and are believed to be the finest in the country. The city was thus at once relieved from the nuisances caused by the numerous private killing-houses, which, from their very number, could not be adequately watched by the authorities; and the meat traffic was subjected to official inspection. Where, however, there is such a strong inducement to commit fraud, constant attempts are made to evade the police enactments. The traffic in the meat of diseased animals was regularly organized, and the traffickers became well known to the authorities and to the trade generally. Detections were made from time to time; convictions were obtained; and the heavy penalties of the Act were enforced.

But the traffic continued. It is, as we have remarked, like blockade-running — highly remunerative; and one successful run will cover the losses incurred in many unsuccessful ventures. When an offender of humble status was caught, he was left by the trade to his fate; but when an influential member of the craft was detected, a powerful defence was organized, and the case was conducted with the greatest possible ingenuity and determination, generally, I am happy to say, without success: the conduct of the officials who seized and condemned the suspected meat having generally been approved of by the Magistrates.

Within the last twelve months, public attention has been specially directed to the subject, in consequence of certain convictions having been obtained through the agency of a new set of officials, appointed to carry out the improved regulations for the management of the Slaughterhouses, and the inspection of our markets. The traffic in the flesh of diseased animals, and the proceedings in our Police Courts, have thus been eagerly discussed in the public prints. These recent cases have differed in no respect from those in which, for the last ten years, I have been in the habit of giving evidence, and in which I felt it to be my duty to corroborate the testimony of the market officials. As specimens of the flesh of diseased animals, nothing more characteristic could be adduced than those appealed to on the occasions in question. The presence of the infectious disease "pleura" was admitted in nearly all the cases, and the localized effects of the disorder were plainly visible on the carcasses; and yet evidence at great length was adduced for the defence by respectable physicians and butchers.

It has always, however, appeared to me that the testimony of medical men in such cases is of little weight, unless it can be shown that they have had special opportunities of acquiring a technical knowledge of the appearances presented by various specimens of butcher-meat from an experience more extensive than that gained by the inspection of cooked meat served up at their own tables. Medical knowledge cannot compete with the tact gained by the lengthened experience of the tradesman. As little can the microscope afford reliable aid in giving an opinion in such cases. The examination of muscular tissue by this instrument is never appealed to in similar diseases in the human subject, and no reliance would be placed on its evidence as to their presence. What microscopist could tell by the examination of the flesh of a person's leg whether he was killed by a musket shot, died rapidly of typhus, sank under an attack of cholera, or died worn out by a cancerous affection of some given organ of the body? And yet few would be found who would be hardy enough to advocate the sale of the flesh of animals affected with such diseases. The tradesman judges by what may be called his "*tactus eruditus*." The appearance of the cut section of the meat—the mere touching of it—will in many cases at once inform him of its true character, and if he have in addition an opportunity of seeing the state of the internal organs, he without hesitation expresses an opinion, which to the untrained observer may appear very unreasonable. Other tradesmen are guided by similar indications. The clothier by merely

passing his hand across a piece of cloth can tell you its quality and its market price. The shoemaker judges in a similar manner of the hides which he inspects; and the baker, by simply breaking a loaf across, looking at it, and smelling it, comes rapidly to a conclusion which it might take a chemist with his laborious analysis weeks to arrive at. For myself, after a varied experience of more than ten years, I am conscious of the imperfect character of professional knowledge when unaided by examination of the diseased organs, and it is only in flagrant cases, and where I can speak with decision, that I venture to give evidence.

The tradesmen who appeared for the defence in the cases alluded to, were careful to qualify their testimony by adding, that "while, in their opinion, the carcasses in question were sound and wholesome, they would not dispose of them to their own customers, as a better class of meat was required by them. It would do for the poor; it was not suitable for the rich." Now, I am quite convinced, from my experience of the traffic, that all classes of the community are liable to eat the flesh of diseased animals. The best tradesman cannot always provide, from his own stock, pieces of butcher meat desired by his customers—certain parts of the animal being generally preferred, and he has to supply them in some way or other. And this can only be done by obtaining what are termed "cow roasts" from tradesmen whose business consists in the obnoxious traffic. Such meat, after being duly trimmed, and having undergone the process of cooking, may present only an unsatisfactory appearance, not such as to attract the serious attention of the eater, while the effects produced by it are obscure—temporary depression—the consequence of the imperfect nutrition afforded by the meat. It is generally urged by the advocates for the traffic, that the flesh in question is not unwholesome, and that to deprive the poor of this as an article of diet would seriously diminish their means of subsistence. The question, however, of the wholesomeness and unwholesomeness of the meat of diseased animals can only be settled in two ways;—first, by the common sense of the public, and second, by a large induction carried on for a series of years, during which a general careful market inspection is maintained over the country.

It stands to reason that the flesh of an animal, the victim of an infectious disorder, and whose blood has become disorganised, and has deposited diseased masses in important organs, cannot be so wholesome as that of a healthy animal. The muscular languor induced by slight illness in our own frames must convince us of the serious impairment of the tissues during severe illness. In the case of the animal, it at last becomes unable to stand, and even when the disease is not so far advanced, its weakness is very marked, and at once attracts attention. To think of the flesh of such a carcass being sold without the slightest information to the public as to its previous history is disgusting.

No doubt we cannot appeal to cases of sudden disease caused by the eating of such flesh—cases of so-called poisoning. But we must remember that the stomach, when in a healthy state, can resist the action of animal poisons, and that it is

the continued use, day after day, of meat from diseased animals, that we should expect to be attended with marked results. By the very poor, butcher-meat is seldom partaken of; and among the better class of tradesmen, and the richer classes generally, I believe that, owing to the inspection maintained at the Slaughterhouses and in our Markets, the supply of such faulty meat is intermittent, and under the influence of rest, fresh air, and the invigorating effects of other aliments, the constitution quickly recovers. But I hold myself warranted in attributing to its use many of those instances of indigestion which come on so unexpectedly—characterized by dullness, lassitude, and inability for mental exertion, and which resist the usual remedial treatment.

It would be exceedingly difficult to settle any sanitary question, were we to suspend our action until it could be proved that the nuisance complained of was a cause of death—I mean such proof as would be satisfactory in a court of law. It is only by comparing the ratio of mortality in England now, with what it was before the recent sanitary movement was commenced, that we can judge of the efficacy of modern hygienic measures. No drain could be remedied—no cesspool cleaned—no midden removed, had we to delay our sanitary operations until we could *prove* that the existence of the special nuisances was detrimental to health. And so with regard to the traffic in diseased meat. Let it be so watched as greatly to diminish, if not entirely to stop it, and I am convinced that, like all other means tending to improve the health of the people, the good results will be apparent in a diminished mortality.

But will such strict supervision of the traffic result in a serious interference with the food-supply of the poorer classes? I have no hesitation in answering in the negative. This care for the poor has been a favourite cry when attempts have been made to secure them against fraud. When the legislature determined that the poor man, in purchasing coffee, should really purchase coffee, and not a spurious article compounded of coffee and chicory, similar arguments were employed—that the poor would, under the circumstances, take less coffee; and again, that the mixture was better for them. The evil complained of is the deception which is practised in all such cases. The meat is not ticketed as of inferior quality, and sold at a lower price. The mixture of coffee and chicory was labelled coffee, and sold as such at a largely remunerative profit.

In the case of coffee and other adulterations, a remedy was quickly found in stringent enactments. But, with regard to butcher-meat, it has been argued that diseased animals cannot be replaced by healthier, and that by enforcing the regulations of our local Acts, we stop the supply of an important article of food, and that this cannot be increased. The reverse has been proved by the history of all Acts against adulteration; the faulty producer has seen it to be his interest to furnish a purer article; a healthy competition has been induced, and adulteration has been banished from the trade. This has been the case with bread. Everywhere we find it, with the rarest exceptions, of excellent weight and sound quality. In the poorest

districts of our city, the bread, without any supervision being now exercised, is fully up to the standard. A similar result will follow in the case of butcher-meat. Notwithstanding the constant importation of stock from the Continent, we find it daily urged that large districts of our country should be more and more devoted to the rearing of cattle, and less to the production of poor crops,—and it may be expected that our supply of animal food will thus be greatly increased. It is a libel on the skill of our farmers to suppose that no more healthy cattle can be reared. What would be thought of the recruiting sergeant who, in times of peace and plenty, brought for enrolment squads of diseased recruits, and pled as his excuse that the species was degenerating? Again, how careful is the same individual to guard his recruits from infection, knowing well that the fewer he presents for inspection, the less will be his gain. He watches them carefully, and permits no communication with individuals under contagious disease.

Now, let the parties chiefly interested in the question of animal production be convinced that our chief towns are in earnest in insisting upon a sounder quality of beef, and the best results will follow. The rearer of stock will be more careful in selection and in upbringing as regards pasturing and exposure. The cattle dealer will protect his drove with increased caution against the admission of infected animals, and will exercise the sharpest scrutiny in approaching a crowded market, feeling assured that the contact of a single diseased animal may imperil his gains for many a season. He will be the first to call upon the authorities of the market to enforce a thorough inspection of all the cattle presented for sale. The continental agents, aware of the impossibility of attempting to evade the inspection at our ports by introducing unhealthy animals, will make a more careful selection, and will insist on a better class of cattle being forwarded to them for exportation. Lastly, our Dairymen will be still more careful in their choice of cows, while, as we have seen, there will be, year by year, fewer chances of mistake in their purchases. They will feel the necessity of improving the condition of their Dairies as to cleanliness, and ventilation, as well as providing suitable accommodation for any infected animal, thus securing the remainder of the stock from disease. By the public thus standing on their rights, they will not only be the gainers in an improved and increased supply of butcher-meat, but the landowner, the cattle-dealer, and the dairyman will have less disease among their stock, and will thus be equally benefited. The country at large, too, will be profited; for in this matter the smaller burghs are defenceless, as they cannot afford to pay for efficient inspection. They look for protection to the large towns, which have only to act with decision, and the evil will be remedied. It is upon these broad grounds that I respectfully venture to urge upon the Magistrates of this City the necessity of maintaining a thorough inspection at our Slaughter-houses and Markets, and of enforcing the suggestions which my visitation of the Byres of the City has led me to make.

SANITARY CONDITION OF THE BAKEHOUSES.

IN 1863, an Act was passed, placing Bakehouses under the supervision of the authorities. Its provisions had reference—1st, to the age at which persons could be employed in the trade; and, 2d, to the sanitary condition of the workshops. With the first of these, as sanitary officer, I had nothing to do; but on calling the attention of the Magistrates to the Act, I received instructions to see that the sanitary regulations were strictly enforced. For this purpose, I issued a circular to the trade throughout the city, of which the following is a copy:—

“I beg to call your attention to the following Sections of ‘The Bakehouse Regulation Act, 1863,’ which will now be strictly enforced:—

“IV. The inside walls and ceiling or top of every Bakehouse situated in any city, town, or place, containing, according to the last census, a population of more than five thousand persons, and the passages and staircases leading thereto, shall either be painted with oil or be lime-washed, or partly painted and partly lime-washed: where painted with oil, there shall be three coats of paint, and the painting shall be renewed once at least in every seven years, and shall be washed with hot water and soap once at least in every six months: where lime-washed, the lime-washing shall be renewed once at least in every six months. Every Bakehouse, wherever situated, shall be kept in a cleanly state, and shall be provided with proper means for effectual ventilation, and be free from effluvia arising from any drain, privy, or other nuisance. If the occupier of any Bakehouse fails to keep the same in conformity with this Section, he shall be deemed to be guilty of an offence against this Act, and to be subject, in respect of such offence, to a penalty not exceeding Five Pounds.

“V. No place on the same level with a Bakehouse situated in any city, town, or place containing, according to the last census, a population of more than five thousand persons, and forming part of the same building, shall be used as a sleeping place, unless it is constructed as follows; That is to say, unless it is effectually separated from the Bakehouse by a partition extending from the floor to the ceiling: unless there be an external glazed window of at least nine superficial feet in area, of which at the least four and a half superficial feet are made to open for ventilation: And any person who lets, occupies, or continues to let, or knowingly suffers to be occupied, any place contrary to this Act, shall be liable for the first offence to a penalty not exceeding Twenty Shillings, and for every subsequent offence to a penalty not exceeding Five Pounds.”

"I have also to state that your premises will be officially inspected, from time to time."

I was well aware, before commencing my inspection, that nothing had occurred in Edinburgh with regard to the manufacture of bread that called for legislation. Indeed, it was notorious that it was the condition of the Bakehouses in London which directed the attention of the legislature to the subject, and led to the adoption of the stringent measures of the Act. In Paris, the manufacture is carried on under still greater disadvantages, and it is somewhat remarkable that in both capitals the bread should be celebrated for its excellence. For, in Paris and London, where the ground is level, and where the building area is so costly, Bakehouses are generally mere excavations, and are, of course, sadly deficient in light and ventilation. The drainage, too, is inoperative; and the manufacture is carried on under the most disadvantageous circumstances: the health of the workmen suffers, and the bread is prepared in an unwholesome atmosphere. It is consistent with common sense, that all articles of food should be kept in as an untainted air as possible, and that bread—which forms such an important item in the dietary of all classes of society—should be prepared under the best possible conditions. These are, 1st, that the materials (including the water) should be pure and fresh; and 2d, that the dough should not be exposed either to the emanations from persons sleeping in the workshop, or from defective drainage. Owing to the competition which prevails among bakers, and to the improvements effected in the manufacture of flour, the bread now sold in all our large towns is of good quality, which must exercise an important influence on the health of the labouring classes. The present Act has special reference to the other points, not only as bearing upon the cleanliness of the manufacture, but also upon the health of the workmen. These are exposed for many hours continuously to a heated atmosphere, and should the ventilation be imperfect, they suffer at once from the exhaustion produced by the heat, and from the bad effects of vitiated air. The defining clause of the Act is as follows:—"‘Bakehouse’ shall mean any place in which are baked bread, biscuits, or confectionery, from the baking or selling of which a profit is derived." It is sufficiently comprehensive, and no fewer than 200 workshops were inspected as coming within its scope. These, as shown by the following table, were scattered throughout the Sanitary Districts in very unequal proportions, and it will be observed that their position, cleanliness, ventilation, and general sanitary condition engaged my attention. The results of my inspection are given in a tabular form. I may state that every facility was given to me, both by the masters and men. They felt that the new regulations affecting their trade were designed for their common good; and, with very few exceptions, I found that the masters had anticipated the requirements of the Act, and were willing to adopt any suggestions that would tend to the comfort of their men, and to greater cleanliness in the manufacture.

TABULAR STATEMENT of the NUMBER and CONDITION of the BAKEHOUSES.

No.	NAMES OF THE DISTRICTS.	Population in 1861.	Number of Bakehouses.	Under Dwellings.		Cleanliness.		Ventilation.		Water-Closets.		
				Under.	Apart.	Clean.	Dirty.	Good.	Imperfect.	In house.	Apart.	Absent.
1	Upper New Town	10,930.	25	21	4	18	7	24	1	12	6	7
2	Lower New Town	14,024	22	20	2	22	...	18	4	10	11	1
3	West End	7,748	7	4	3	6	1	6	1	5	2	...
4	Upper Water of Leith	12,332	9	6	3	9	...	6	3	5	2	2
5	Lower Water of Leith	3,866	3	2	1	3	...	3	...	1	2	...
6	Broughton	5,672	9	9	...	8	1	7	2	5	2	2
7	Calton and Greenside	10,984	13	8	5	12	1	12	1	6	4	3
8	Abbey	2,237	1	1	...	...	1	...	1	...	...	1
9	Canongate	12,200	9	2	7	9	...	5	4	1	3	5
10	Tron	11,636	6	6	...	5	1	6	...	...	1	5
11	St Giles	15,967	13	10	3	10	3	9	4	6	1	6
12	Grassmarket	5,227	4	3	1	4	...	3	1	...	1	3
13	Fountainbridge	9,880	16	12	4	12	4	12	4	3	5	8
14	George Square and Lauriston	6,593	4	4	...	2	2	4	...	4	...	...
15	Nicolson Street	18,307	40	29	11	36	4	34	6	11	11	18
16	Pleasance and St Leonard	11,104	13	10	3	11	2	10	3	3	4	6
17	Newington	4,955	5	4	1	3	2	4	1	5	...	...
18	Grange	1,886	1	1	...	1	...	1	...	1	...	...
19	Morningside	2,573	1	...	1	1	...	1	...	1	...	...
Totals,		168,121	201	152	49	172	29	165	36	79	55	67

In Edinburgh, owing to the hilly character of its situation, we have no Bakehouses underground, in the proper sense of the term: that is to say, they are not wholly excavated. To the front they may be under the level of the soil, but to the back they are fully above the level, as the land shelves rapidly; so that, while the front apartments may be imperfectly lighted from gratings in the street, they are fully lighted and airy to the back. Of the 200 inspected, 151 were under-dwellings on the ground-floor, and only 49 were apart. There can be no doubt, however, that wherever it is possible, a Bakehouse should be built apart from other dwellings, so as to admit of free light and ventilation. As in this trade cleanliness is of essential importance, the lighter the workshops the more satisfactory will the manufacture be. But where the Bakehouses were lighted dimly from the street, I always found, in my inspection, that the ventilation was imperfect. Large quantities of dust accumulate at the gratings, and whenever the small windows are opened, this dust falls in large quantities, and damages the flour. Again, with such small apertures, powerful draughts are occasioned, which the workmen cannot stand, overheated as they are; and, in many instances, I was told by the men that they had voluntarily closed the windows, so as to avoid risk from cold. Indeed, the subject of the ventilation of these workshops is a matter of some nicety; because, for the due production of good bread, a certain elevation of temperature is required; and were the workshop too airy, it would be unsuitable for the purpose of the trade. Now, where, as in Edinburgh, the Bakehouses are situated in the ground-floors, it is exceedingly difficult so to regulate the ventilation as to avoid extremes. But there are other disadvantages. In very few instances have I found that the Bakehouses have been built for the purpose. They are merely the kitchen or cellar flats of shops or houses, without any special arrangements for the trade. The oven is placed in a cellar under the street pavement, and the furnace communicates disadvantageously with the nearest chimney, which has not been constructed to carry a large body of flame and smoke. Again, where the draught is defective, the sulphur from the coals is driven back into the Bakehouse, and the men suffer from the emanations. With regard to this, many complaints have been received.

There is certainly an advantage connected with the situation of Bakehouses in the ground-floor, and that is, the tenement above is kept warm and free from damp. One danger, however, which naturally suggests itself, viz., that of fire, is scarcely known in Edinburgh. Mr Mitchell, the Fire-master, informs me that in his experience, which extends over a period of 38 years, he remembers of only two or three occasions of fires taking place in Bakehouses, and these were in consequence of wood igniting which had been left out to dry.

It can be easily understood that, as the drainage of the house above has to pass through the ground-floor, one of the most important points to be attended to in an inspection of Bakehouses is the state of the drain. In many instances this was found to be defective, and proprietors had to be called upon to remedy it. This was

usually most effectually done by substituting the earthenware tubular one for the old built drain, which had been laid down when the tenement had been erected.

On the score of cleanliness there was little to complain of. I had seldom to note any lack of it, and I generally found that masters were in the habit of white-washing their premises regularly, and that the Bakehouses of the city were clean and tidy. Out of the total number inspected, 172 merited the title of "very clean;" the title "dirty," as applied to the remaining 29, has reference to the state of the walls of the workshop, and not to the utensils or materials employed. Some of the larger establishments in the New Town are included in this latter class. It was urged by the proprietors that their workshops were kept in such constant employment that the walls quickly became discoloured, and that no time could be set apart for more frequent white-washing. As to this, however, the Act is explicit: "the lime-washing shall be renewed once at least in every six months." The larger the trade, the greater the necessity for cleanliness, and the better able are proprietors to incur extra expense; and there is nothing to prevent the cleansing of the walls being effected during the night.

One circumstance connected with the comfort of the men and the salubrity of the trade came not unfrequently under my notice, viz., the presence and position of conveniences, or their absence. In 67 cases none were provided, in 79 they were situated in the workshop, and in the smaller number of cases—viz., 55—they were placed outside, and with a free ventilation. Now, where a convenience is not properly constructed, or kept clean, it is better for the men and the trade that it should be removed, and that the men should betake themselves to those erected at the public cost. The air becomes tainted, and, from the close proximity to the drain, there is a constant escape of effluvia. When placed outside the premises, these evils are avoided; and there can be no doubt that this is the preferable position. With regard to those situated in the house, I have always insisted on the utmost cleanliness, and in future inspections this will be strictly attended to. Where no conveniences were provided, and where they could be suitably placed, proprietors have at once been called upon to put them in.

In my visits to the various workshops, no evidence was found of unhealthiness in the men, although the trade is one necessarily attended with danger to the organs of respiration. It will be observed, by referring to the table given at p. 67, that the mortality per cent for 1863 was 1.06, (the number of Bakers in Edinburgh at the last census being 1131), and that diseases of the chest constituted a fourth of the total mortality of the class. This is easily accounted for, when we remember how often the men have to leave a heated atmosphere to deliver the bread, not to speak of the constant risk of inhaling particles of flour to which they are exposed. It is to be regretted that Bakers indulge so much in smoking while engaged in the operations of the trade, and this remark applies both to masters and men. It is utterly impossible that perfect cleanliness can, under such circumstances, be maintained; and it is not to be wondered at that Bakers are apt to suffer from delicacy of the chest when,

to the special dangers incident to the trade, there is superadded the habitual use of tobacco by even the youngest apprentices. Of course, much depends on the masters, who should insist on the wholesome regulation, that there be no smoking in the workshop. Some excuse might be pled for the men when they were compelled to work for hours at a harassing trade in a debilitating atmosphere. But now, things have changed greatly for the better,—the apprentices and the men no longer sleep on the premises, huddled together in corners; and greater attention is paid to the sanitary condition of the workmen. Within the last few years some new workshops have been built in Edinburgh, and many others have been remodelled on plans of the best description, combining space, ample ventilation, and every convenience which the comfort of the men might require.

AMOUNT OF POPULATION ENGAGED IN TRADES AND OCCUPATIONS, AND THE MORTALITY IN 1863.

IN taking the census, special attention has been paid to the occupations of the inhabitants. It is of importance, in estimating the sanitary condition of any city, narrowly to watch the mortality of the large and important class engaged in the various trades and occupations, generally found living in those districts which most urgently demand the supervision of a sanitary officer. During 1863, nearly 1000 persons died whose occupations could be determined satisfactorily. Before, however, the ratio of this mortality to the population could be determined, it was necessary to obtain from the census returns the numbers of those engaged in trades and occupations in Edinburgh at the time of the last census in 1861. These could only be arrived at by the laborious process of going over the returns seriatim. The results were tabulated, not according to the divisions adopted by the Registrar-General, which are too minute for such a purpose as the present, but on a plan which included the principal occupations in which both males and females were engaged throughout the city. A glance at the following tables will explain the arrangement finally adopted. The population and total mortality of each subdivision having been ascertained, the ages at death and the principal special diseases which proved fatal are also noted. Under the head of "Other Causes" were included such causes as accidents, &c., which could not be classed under the other headings. The last column in the tables gives the ratio per cent of the mortality to the numbers employed in the given trade or occupation. An endeavour was made, in constructing these tables, to localise the mortality in the various registra-

tion districts, but the inequality of these, as regards outline and character of population, was such as to render the tables of little value. Some more definite plan had to be selected, and the natural division of the city into an Old and New Town was finally adopted as one which promised the most reliable comparison. The boundary line being Princes Street, prolonged eastwards by the terraces on the Calton Hill, and westwards by Shandwick Place and Haymarket, all north of that line was considered the New Town, and the Old Town included all to the south. It would have been interesting to have ascertained the mortality and population of the trades, &c., in the 19 Sanitary Districts; but the smallness of the numbers in each district, and the expense attendant upon the investigation, deterred me from making it. The present arrangement groups larger numbers together, and the value of the results is thus increased, while, at the same time, the effect of the different exposure of the New and Old Town upon the classes in question can be more easily studied. It will be observed that the mortality from diseases of the chest is given in both divisions of the city, but this does not include the deaths from phthisis, which, on account of the importance of the disease, have been classed separately. The total mortality of the working-classes (both sexes) from chest diseases and phthisis was 96 per cent., while in the New Town this rose to 117, and in the Old Town it was only 89. The deaths from fever, again, are separated from those caused by the other diseases of the zymotic class, and are stated in a special column. The mortality from fever in the working-classes (both sexes) throughout the city was 19 per cent. In the New Town the same percentage occurs, viz., 19. This is higher than might have been expected, as in the Old Town, with all its special sanitary disadvantages, the mortality only rises to 21 per cent. As a general rule, in Edinburgh, the working-classes live in an overcrowded state, and this evil prevails largely in the New Town. To it must be attributed the high rate of mortality from fever in the northern part of the city. With reference to these Tables, however, it must be remembered that where there is, as in Edinburgh, a comparatively limited labouring population, the numbers afforded by the mortality tables of a single year are so small as to demand great caution in drawing conclusions, and that it will be only at the expiration of say five years that the mortality will be such as to afford reliable results. At the same time, the Tables are interesting, as affording a specimen of the causes of death in an important class of the community in a year of ordinary sickness. The first includes the whole city, while the others have reference to the city as divided into an Old and a New Town.

GENERAL TABLE for the whole CITY.

TRADES, &c.	Total Population.	Total Mortality.	AGE.				DISEASES.							Other Causes.	Mortality, per cent.
			Under 20.	Under 40.	Under 60.	Above 60.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Zymotic Diseases.	Fever.		
Baker	1,131	12	...	2	5	5	4	2	2	2	1	...	...	1	1.06
Blacksmith	2,071	36	3	14	7	12	4	2	4	9	7	3	2	5	1.73
Bookbinder	1,290	14	3	4	3	4	4	1	2	...	5	...	...	2	1.09
Boot and Shoe maker	2,182	40	2	9	18	11	8	7	5	3	8	...	2	7	1.83
Brassfounder	733	15	1	7	3	4	1	2	1	2	7	1	...	1	2.04
Brewer	194	16	2	5	3	6	1	1	5	2	1	1	2	3	8.25
Bricklayer	46	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brushmaker	115	2	...	...	1	1	...	1	...	...	...	...	...	1	1.74
Butcher	536	12	1	6	4	1	2	2	...	3	2	...	1	2	2.24
Cabinetmaker	3,323	72	2	20	24	26	12	13	14	6	17	1	3	6	2.16
Carter	698	22	4	4	11	3	2	5	2	3	2	1	2	5	3.15
Cattle dealer	87	2	...	2	...	...	...	...	...	...	1	...	...	1	2.3
Chimney sweep	57	3	1	1	1	...	...	1	...	...	1	...	...	1	5.26
Clerk (all kinds)	2,819	42	4	20	8	10	11	7	3	5	10	...	3	3	1.49
Coachmaker	238	4	1	2	...	1	...	2	...	1	...	...	1	...	1.68
Coachman	740	18	...	7	8	3	3	2	3	1	3	...	2	4	2.43
Cooper	167	12	...	1	2	9	...	1	5	2	1	...	...	3	7.18
Coppersmith	29	1	...	...	...	1	...	...	1	...	...	...	...	...	3.54
Dairyman	413	3	...	...	2	1	...	1	...	...	...	2	...	...	.72
Domestic servant (male)	724	15	1	3	5	6	2	...	2	3	1	...	1	6	2.07
Engraver	273	8	3	1	4	...	1	1	...	...	4	...	...	2	2.93
Fishmonger	83	2	...	...	...	2	...	...	1	...	...	...	...	1	2.41
Gardener	563	17	...	3	5	9	5	3	1	2	2	...	2	2	3.02
Glass-cutter and blower	218	7	2	3	...	2	1	...	2	...	3	...	...	1	3.2
Grocer	987	19	1	6	5	7	1	5	2	2	2	2	1	4	1.92
Groom	234	4	...	1	2	1	2	...	1	...	1	...	...	...	1.71
Hatter	127	3	...	...	2	1	...	1	1	...	1	...	...	...	2.36
Hawker (all kinds)	611	9	...	1	6	2	4	1	1	1	2	...	...	...	1.47
Jeweller	382	11	3	1	4	3	2	1	...	1	6	1	...	...	2.88
Labourer (all kinds)	3,657	89	3	19	34	33	13	14	18	12	7	...	4	21	2.43
Mason	1,238	38	2	9	13	14	3	4	7	5	11	...	2	6	3.07
Miller	107	3	...	...	2	1	2	...	...	...	...	...	...	1	2.8
Painter, House	904	15	...	8	2	5	3	1	1	1	5	...	...	4	1.66
Plasterer	357	8	...	1	1	6	1	...	2	2	1	...	...	2	2.24
Plumber	698	5	1	3	1	...	...	...	...	2	2	1	...	...	.72
Printer	1,809	35	6	10	7	12	4	7	1	7	14	...	1	1	1.93
Porter (all kinds)	1,159	46	1	18	6	21	5	4	7	8	2	1	2	17	3.97
Sawyer	157	8	...	1	2	5	...	2	2	...	1	...	1	2	5.1
Shopkeeper (all kinds)	3,111	34	3	17	10	4	6	2	4	3	10	...	3	6	1.09
Slater	195	3	1	1	...	1	...	...	...	1	...	...	...	2	1.54
Tailor	1,692	38	3	12	14	9	5	3	4	7	8	1	2	8	2.24
Tanner	400	9	...	1	4	4	1	...	2	2	2	...	...	2	2.25
Teacher (male)	488	10	1	4	3	2	3	...	1	1	4	...	...	1	2.05
Tobacco & Snuff manufacturer	225	2	1	1	...	...	...	...	...	...	1	...	1	...	.89
Typefounder	374	5	...	1	2	2	1	...	1	...	1	1	1	...	1.34
Watchmaker	209	8	2	2	2	2	...	2	1	...	3	...	...	2	3.82
Wine and Spirit merchant	552	24	1	12	7	4	9	1	2	5	3	...	1	3	4.35
Total,	38,408	891	59	243	243	256	126	101	112	104	163	16	40	139	2.08
Percentage to Population .....			.15	.63	.63	.66	.33	.26	.29	.27	.42	.04	.1	.36	...
Females.															
Domestic servant	13,948	86	21	26	20	19	7	4	10	17	14	3	13	18	.62
Milliner, Dressmaker, & } Seamstress	5,388	41	3	24	9	5	7	2	3	4	15	...	3	7	.76
Shop Girl (all kinds)	1,202	9	3	6	...	...	...	...	2	...	4	1	2	...	.75
Teacher	816	4	2	2	...	...	...	...	...	...	4	...	...	...	.49
Washerwoman	1,611	18	1	5	7	5	1	2	4	1	2	...	4	4	1.12
Total,	22,965	158	30	63	36	29	15	8	19	22	39	4	22	29	.68
Percentage to Population .....			.13	.27	.15	.13	.06	.03	.08	.09	.17	.02	.09	.13	...

NEW TOWN.

TRADES, &c.	Total Population.	Total Mortality.	AGE.				DISEASES.							Other Causes.	Mortality, per cent.
			Under 20.	Under 40.	Under 60.	Above 60.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Zymotic Diseases.	Fever.		
Baker	372	4	...	...	3	1	2	1	...	...	...	...	...	1	1.07
Blacksmith	590	16	1	7	3	5	1	2	2	2	4	2	...	3	2.71
Bookbinder	111	2	...	1	1	...	1	1	...	...	...	...	...	...	1.8
Boot and Shoe maker	539	11	...	3	5	3	1	2	2	1	3	...	1	1	2.04
Brassfounder	142	4	...	2	1	1	...	1	1	1	...	1	...	...	2.82
Brewer	20	3	...	1	1	1	...	...	1	...	1	...	1	...	15.
Bricklayer	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brushmaker	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Butcher	108	2	...	...	1	1	1	...	...	...	...	...	...	1	1.85
Cabinetmaker	1,151	31	2	9	9	11	4	3	6	3	9	...	3	3	2.69
Carter	143	7	...	1	4	2	...	3	1	1	...	1	...	1	4.89
Cattle dealer	16	2	...	2	...	...	...	...	...	...	1	...	...	1	12.5
Chimney sweep	22	3	1	1	1	...	...	...	1	...	1	...	...	1	13.64
Clerk (all kinds).....	1,493	24	4	9	6	5	6	6	1	3	4	...	1	3	1.61
Coachmaker	122	3	...	2	...	1	...	1	...	1	...	...	1	...	2.46
Coachman	473	11	...	4	4	3	3	1	1	1	1	...	1	3	2.32
Cooper.....	40	5	...	...	2	3	...	...	2	1	1	...	...	1	12.5
Coppersmith	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dairyman	169	1	...	...	1	...	...	...	...	...	...	1	...	...	.6
Domestic servant (male)	528	12	1	3	5	3	2	...	2	2	1	...	1	4	2.27
Engraver.....	109	5	3	...	2	...	1	...	...	...	4	...	...	...	4.6
Fishmonger.....	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gardener.....	292	7	...	...	1	6	3	3	...	...	...	...	...	1	2.4
Glass-cutter and blower.....	67	3	...	2	...	1	1	...	...	...	1	...	...	1	4.47
Grocer	382	6	1	1	2	2	...	1	...	1	1	2	...	1	1.57
Groom.....	117	2	...	1	1	...	1	...	...	...	1	...	...	...	1.71
Hatter.....	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hawker (all kinds)	2	3	...	...	2	1	3	...	...	...	...	...	...	...	...
Jeweller	139	6	1	1	3	1	2	...	...	...	4	...	...	...	4.31
Labourer (all kinds)	376	19	1	8	8	2	3	2	4	2	5	...	...	3	5.05
Mason	350	18	1	7	5	5	...	...	2	3	7	...	1	5	5.14
Miller	84	3	...	...	2	1	2	...	...	...	...	...	...	1	3.57
Painter, House	305	9	...	6	...	3	2	1	1	...	3	...	...	2	2.95
Plasterer	80	3	...	...	...	3	1	...	1	1	...	...	...	...	3.75
Plumber	220	2	...	1	1	...	...	...	...	...	1	1	...	...	.91
Printer	368	11	1	3	4	3	3	1	...	4	3	...	...	...	2.99
Porter (all kinds)	301	17	1	5	3	8	1	4	3	3	1	1	1	3	5.64
Sawyer.....	48	2	...	1	...	1	...	...	1	...	1	...	...	...	4.16
Shopkeeper (all kinds)	908	16	...	10	3	3	3	1	4	1	4	...	1	2	1.76
Slater	34	1	1	...	...	...	...	...	...	...	...	...	...	1	2.94
Tailor	382	14	...	4	7	3	2	1	1	4	2	...	1	3	3.66
Tanner.....	154	5	...	...	4	1	...	...	1	1	1	...	...	2	3.25
Teacher (male)	245	8	...	3	3	2	3	...	1	...	3	...	...	1	3.26
Tobacco & Snuff manufacturer	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typefounder	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Watchmaker	67	5	2	2	...	1	...	1	...	...	2	...	...	2	7.46
Wine and Spirit merchant.....	193	8	...	4	3	1	5	...	...	1	...	...	1	1	4.14
Total,	11,381	314	21	104	101	88	57	36	39	37	70	9	14	52	2.76
Percentage to Population...	.....	.....	.18	.91	.88	.77	.5	.31	.34	.32	.61	.08	.12	.45	...
Females.															
Domestic servant	8,647	49	13	15	11	10	4	2	2	10	9	2	7	13	.56
Milliner, Dressmaker, & } Seamstress	1,798	18	...	10	6	2	5	2	1	2	6	...	...	2	1.
Shop Girl (all kinds)	305	1	...	1	...	...	...	...	...	...	1	...	...	...	.33
Teacher	462	3	1	2	...	...	...	...	...	...	3	...	...	...	.65
Washerwoman	429	9	1	2	4	2	...	1	2	1	2	...	1	2	2.1
Total,	11,641	80	15	30	21	14	9	5	5	13	21	2	8	17	.69
Percentage to Population...	.....	.....	.12	.25	.18	.12	.08	.04	.04	.11	.18	.02	.07	.14	...

OLD TOWN.

TRADES, &c.	Total Population.	Total Mortality.	AGE.				DISEASES.							Other Causes.	Mortality, per cent.
			Under 20.	Under 40.	Under 60.	Above 60.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Zymotic Diseases.	Fever.		
Baker	759	8	...	2	2	4	2	1	2	2	1	...	...	...	1.05
Blacksmith	1,481	20	2	7	4	7	3	...	2	7	3	1	2	2	1.35
Bookbinder	1,179	12	3	3	2	4	3	...	2	...	5	...	...	2	1.02
Boot and Shoe maker	1,643	29	2	6	13	8	7	5	3	2	5	...	1	6	1.77
Brassfounder	591	11	1	5	2	3	1	1	...	1	7	...	...	1	1.86
Brewer	174	13	2	4	2	5	1	1	4	2	...	1	1	3	7.47
Bricklayer	31	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brushmaker	98	2	...	...	1	1	...	1	...	...	...	...	...	1	2.04
Butcher	428	10	1	6	3	...	1	2	...	3	2	...	1	1	2.34
Cabinetmaker	2,177	41	...	11	15	15	8	10	8	3	8	1	...	3	1.88
Carter	555	15	4	3	7	1	2	2	1	2	2	...	2	4	2.7
Cattle dealer	71	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chimney sweep	35	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Clerk (all kinds)	1,326	18	...	11	2	5	5	1	2	2	6	...	2	...	1.36
Coachmaker	116	1	1	...	...	...	...	1	...	...	...	...	...	...	.86
Coachman	267	7	...	3	4	...	...	1	2	...	2	...	1	1	2.62
Cooper	127	7	...	1	...	6	...	1	3	1	...	...	...	2	5.51
Coppersmith	16	1	...	...	...	1	...	...	1	...	...	...	...	...	6.25
Dairyman	244	2	...	...	1	1	...	1	...	...	...	1	...	...	.82
Domestic servant (male)	196	3	...	...	...	3	...	...	...	1	...	...	...	2	1.53
Engraver	164	3	...	1	2	...	...	1	...	...	...	...	...	2	1.83
Fishmonger	62	2	...	...	...	2	...	...	1	...	...	...	...	1	3.22
Gardener	271	10	...	3	4	3	2	...	1	2	2	...	2	1	3.69
Glass-cutter and blower	151	4	2	1	...	1	...	...	2	...	2	...	...	...	2.65
Grocer	605	13	...	5	3	5	1	4	2	1	1	...	1	3	2.15
Groom	117	2	...	...	1	1	1	...	1	...	...	...	...	...	1.71
Hatter	112	3	...	...	2	1	...	1	1	...	1	...	...	...	2.68
Hawker (all kinds)	609	6	...	1	4	1	1	1	1	1	2	...	...	...	.98
Jeweller	243	5	2	...	1	2	...	1	...	1	2	1	...	...	2.06
Labourer (all kinds)	3,281	70	2	11	26	31	10	12	14	10	2	...	4	18	2.13
Mason	888	20	1	2	8	9	3	4	5	2	4	...	1	1	2.25
Miller	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Painter, House	599	6	...	2	2	2	1	...	...	1	2	...	...	2	1.
Plasterer	277	5	...	1	1	3	...	...	1	1	1	...	...	2	1.8
Plumber	478	3	1	2	...	...	...	...	...	2	1	...	...	...	.63
Printer	1,441	24	5	7	3	9	1	6	1	3	11	...	1	1	1.66
Porter (all kinds)	858	29	...	13	3	13	4	...	4	5	1	...	1	14	3.38
Sawyer	109	6	...	...	2	4	...	2	1	...	...	...	1	2	5.5
Shopkeeper (all kinds)	2,203	18	3	7	7	1	3	1	...	2	6	...	2	4	.81
Slater	161	2	...	1	...	1	...	...	...	1	...	...	...	1	1.24
Tailor	1,310	24	3	8	7	6	3	2	3	3	6	1	1	5	1.83
Tanner	246	4	...	1	...	3	1	...	1	1	1	...	...	...	1.62
Teacher (male)	243	2	1	1	...	...	...	...	...	1	1	...	...	...	.82
Tobacco & Snuff manufacturer	200	2	1	1	...	...	...	...	...	...	1	...	1	...	1.
Typefounder	361	5	...	1	2	2	1	...	1	...	1	1	1	...	1.38
Watchmaker	142	3	...	...	2	1	...	1	1	...	1	...	...	...	2.11
Wine and Spirit merchant	859	16	1	8	4	3	4	1	2	4	3	...	...	2	4.46
Total	27,027	487	38	139	142	168	69	65	73	67	93	7	26	87	1.8
Percentage to Population ..	...	...	.14	.51	.52	.62	.25	.24	.27	.25	.34	.026	.09	.32	...
Females.															
Domestic servant	5,301	37	8	11	9	9	3	2	8	7	5	1	6	5	.69
Milliner, Dressmaker, and } Seamstress	3,590	23	3	14	3	3	2	...	2	2	9	...	3	5	.64
Shop Girl (all kinds)	897	8	3	5	...	...	...	...	2	...	3	1	2	...	.89
Teacher	354	1	1	...	...	...	...	...	...	...	1	...	...	...	.28
Washerwoman	1,182	9	...	3	3	3	1	1	2	...	...	...	3	2	.76
Total	11,324	78	15	33	15	15	6	3	14	9	18	2	14	12	.69
Percentage to Population...	...	...	.13	.29	.13	.13	.05	.026	.12	.08	.16	.02	.12	.1	...

PUBLIC INSTITUTIONS.

NAME.	Height in feet above the sea.	SANITARY DISTRICT.	Population 1861.			Mortality 1863.		
			Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.
Castle	437	St Giles,	816	38	854	11	4	15
Prison	239	Calton and Greenside,	343	5	348	4	3	7
Police Office	278	St Giles,	63	7	70	...	...	...
Royal Infirmary.....	226—239	Tron,	470	8	478	4	1	5
Maternity Hospital ...	264	Nicolson Street,	24	6	30	...	...	...
Sick Children's Hosp.	246	George Square & Lauriston,	22	5	27	1	...	1
Lunatic Asylum.....	260	Morningside,	87	...	87	7	...	7
Deaf & Dumb Institn.	73	...	59	...	59	...	...	...
City Poorhouse	281	George Square & Lauriston,	569	52	621	111	19	130
St Cuthbert's Poorhouse	196	West End,	469	34	503	81	28	109
Canongate Poorhouse...	138	Canongate,	67	4	71	13	1	14
Gillespie's Hospital ...	274	Morningside,	47	...	47	2	...	2
House of Refuge.....	138	Canongate,	405	10	415	14	1	15
Magdalen Asylum	174	Do.	66	...	66	...	...	...
Deanbank Institution	71	Upper Water of Leith,	22	...	22	...	...	...
Original Ragged School	320	St Giles,	85	...	85	...	...	...
Donaldson's Hospital...	200	Upper Water of Leith,	206	1	207	...	...	...
Heriot's do....	290	George Square & Lauriston,	203	1	204	...	...	...
Merchant Maiden do. ..	250	Do.	101	...	101	...	...	...
Orphan do....	185	Upper Water of Leith,	139	...	139	...	...	...
Stewart's do....	162	Do.	83	...	83	1	...	1
Trades' Maiden do....	260	Grange,	53	...	53	...	...	...
Watson's (George) do.	260	George Square & Lauriston,	110	4	114	...	...	...
Watson's (John) do.	264	Upper Water of Leith,	115	1	116	...	...	...

In the above list are included the principal public Institutions of Edinburgh, which have a considerable population of both sexes. An attempt at classification has been made, commencing with the Garrison and our Prisons, and ending with the various charitable educational establishments, which form such an archi-

tectural display in and around the city. The Medical Institutions stand second in the list, followed by three Unions or Workhouses. To Gillespie's Hospital, a separate place had to be assigned: for, although it is a charitable institution, it is strictly limited to the aliment and maintenance of old men and women above the age of 55 years. Next in the list are various Reformatories. The House of Refuge accommodates cases of incurable disease, and nightly affords shelter to numbers of the wandering poor. The last sub-divisions comprise the charitable educational institutions. These are maintained in the highest state of efficiency, so far as medical and hygienic superintendence is concerned; and the small amount of their mortality is the best proof of the admirable manner in which so many young people are accommodated and cared for. During the last few years, questions have been raised as to the desirability of the sites of the Castle and Royal Infirmary, for the purposes of a garrison and a general hospital. The exposed situation of the Castle has been considered detrimental to the health of the soldiers; but it is forgotten that our soldiers are picked men, in the prime of life, who ought, in times of peace, to be inured to hardness in a bracing atmosphere. It may safely be affirmed that if a strong man, with all the comforts of a garrison, cannot stand the exposure of the Castle rock, he cannot be expected to camp out at a moment's notice, in the most trying weather, as he may at any time be called upon to do. Such a site affords unusual facilities for drainage, and were greater care manifested in housing the soldiers, and in selecting regiments which had not come directly from the tropics, to occupy this elevated position, the mortality from chest disease, which has occasionally been noted as high, would be greatly diminished. As to the Royal Infirmary, the greater portion is of considerable age, and was erected at a time when sanitary notions were sadly defective. Hence the old or medical part of the house cannot be said to offer a good example of hospital accommodation. The managers of the Charity had plans prepared years ago, on an extensive scale, for a new hospital, a considerable portion of which, intended for the Surgical Department, has already been erected; and the completion of the original design languishes for want of funds. It remains with the public to aid the managers in placing this justly celebrated Charity on a level, so far as accommodation is concerned, with the most recently-planned hospitals of the country. An important question has been raised as to its present site. It has been urged that it is very defective in a sanitary point of view, and that a bold effort should be made to remove the hospital to a freer and less-crowded situation. The present site, however, is less faulty than is generally supposed. It is high, and has a very free exposure, although it is in the close neighbourhood of the densely-peopled districts of the Old Town. When its proximity to the Medical School is considered, and the large amount of new buildings that have already been erected are taken into consideration, the difficulties of removal become insurmountable. No new site can be proposed which offers the advantages of the present one, with the addition of what, in a new situation, would be looked on as indispensable, viz., large airing-grounds for the patients. A strenuous effort should

be made to secure the erection of a new medical hospital on the present site, according to the plans of the managers, who are all gentlemen of experience, and have the best interest of the Charity and of the Medical School at heart. In the meantime, its sanitary condition should be put on a more satisfactory footing, by the abolition of cesspools and the careful trapping of every gully,—the site presenting unusual facilities for efficient drainage. The atmosphere of the neighbourhood would be greatly improved by the enforcement of the Smoke Prevention Act. On all sides we have the air tainted by the smoke from breweries. But it must not be forgotten that in this respect the hospital itself is a great offender. The large chimney, most disadvantageously placed between the surgical and medical departments, gives out a large volume of smoke, which is a nuisance to the neighbourhood, and which ought to be consumed, were it only for the amenity of the institution, to say nothing of the importance of not adding to the already vitiated condition of the atmosphere.

Again, the present vacant grounds of the Infirmary are never to be encroached upon by buildings, either of a temporary or permanent character. During epidemics of fever, in which the house accommodation proved too limited for the enormous number of cases, temporary provision was made in the emergency by erecting wooden sheds. There was necessarily great overcrowding, and demands were made upon the resources of the institution for nursing and superintendence, which taxed them severely. It is now understood, however, that the managers have determined never to allow the grounds of the hospital to be occupied by such temporary erections, or to admit more cases of infectious disease than the hospital can reasonably accommodate. This has been intimated to the parties on whom the *onus* lies of providing for the sick poor during the prevalence of epidemic disease, viz., the various Parochial Boards. Accordingly, during the late epidemic of small-pox, the City and St Cuthbert's parishes provided two small hospitals. The danger, however, passed away, and these hospitals have been applied to other uses. It is of importance that a suitable building should be set apart in some central locality as an hospital, which might be useful in any epidemic. The best time for securing such, is when we have good warning of our danger. It is too late when disease breaks out; for, in our crowded closes, any infectious disorder spreads with great rapidity, and the epidemic would have done its worst before a suitable hospital could be improvised. The three Parochial Boards should combine for the purpose indicated, and were no better locality and building to be suggested, the present Canongate Workhouse, standing apart from other houses, and within easy distance of the worst districts of the city, might be looked to, as, sooner or later, an amalgamation of the City and Canongate parishes must take place, and the building would not be required for its present purpose. Were such an hospital provided, our Infirmary would, at all times, be fully able to meet the wants of the city and neighbourhood, and the severity of epidemics would be greatly lessened.

No one can visit the sick poor of Edinburgh without becoming aware of certain deficiencies in our charitable institutions. While great difficulties present them-

selves in the way of removing the Royal Infirmary to a more salubrious situation, this invaluable institution would be greatly aided by the establishment on an efficient scale of a Convalescent House, which might be placed in the outskirts, and would relieve the Infirmary of the class of cases which suffer most from its present confined situation, viz., those recovering from acute and chronic disease. With such a building might be combined a few wards for the reception and maintenance of incurables, a class of cases whose sufferings might be greatly alleviated by medical treatment and judicious nursing. The miserable houses of the poorer description of the labouring population render the Maternity Hospital an urgent necessity for the preservation of maternal and infantile life, not to speak of the common decencies of life. At present this hospital neither represents faithfully the necessities of a large medical school nor the clamant wants of our poor population. In no institutions has the value of hygienic and sanitary measures been more incontestably shown than in Maternity Hospitals. The building at present devoted to this purpose is, from its age, situation, and internal arrangement, unsuitable, and a new building on an improved plan should be provided. The medical charities of Edinburgh cannot be regarded as on a satisfactory footing, until our Infirmary is completed and there are provided the important adjuncts of a Convalescent Hospital with wards for Incurables, and an enlarged Maternity Hospital.

The sites occupied by our three Workhouses are of an excellent description. Nothing could be more advantageous, in a sanitary point of view, than the position of the City Workhouse, and that of St Cuthbert,—the one occupying an airy and commanding situation immediately to the south of the oldest parts of the city, while the other, in the district of the West End, is only now being surrounded by buildings. No one can visit these institutions, without seeing that they are antiquated structures, their original design having been encroached upon by subsequent additions, and by the introduction of sanitary improvements. The expense attendant upon repeated alterations is proverbial; and there can be but little doubt that, in the case of St Cuthbert, the removal of the Workhouse, and its reconstruction on some other site within its widely-extended parish, would, even on the score of economy, have been a boon to the rate-payers, while it would have secured for the present inmates a freer and healthier exposure in a rural district. It is to be hoped that the Managers of this Charity will follow the example set them by the City Parish, and escape from a position which, though salubrious, is not fitted for the requirements of a Workhouse in the present day.

The Magdalen Asylum, the position of which was in many respects objectionable, has been removed to an admirable site beyond the city. The other institutions call for no remark.*

* It may be proper to mention that, in the Table prefixed to the above Chapter, only those Institutions are included whose population was found to exceed 20. The Night Asylum, on account of the migratory character of its inmates, has not been specially referred to, but will be found noticed in the Appendix, St Giles' District, pp. 36, 37.

DRAINAGE AND WATER SUPPLY.

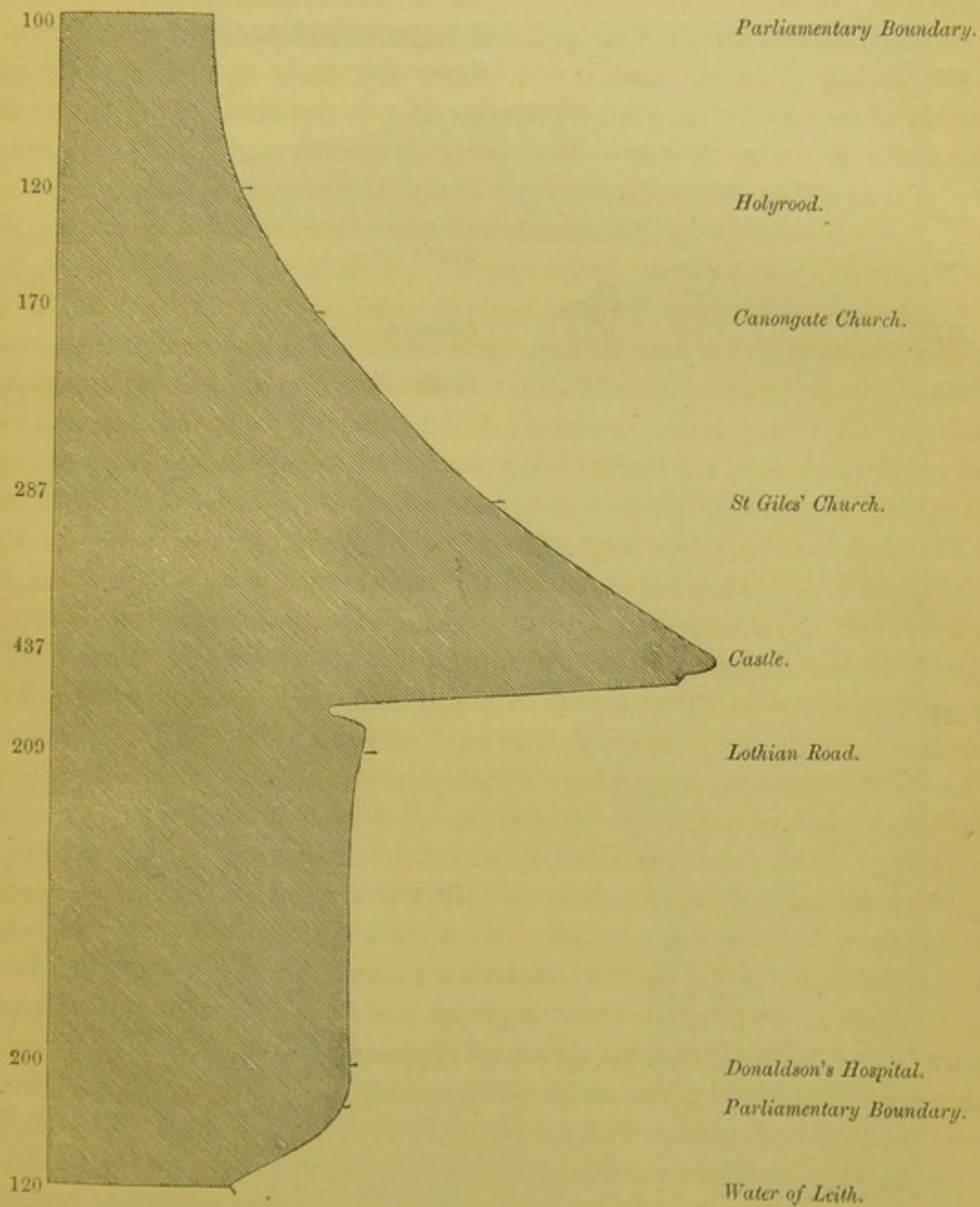
FEW cities are more favourably situated for efficient drainage than Edinburgh. A reference to the section of the Parliamentary area from north to south, at p. 44, will show that there is a succession of valleys running parallel to each other, which naturally drain the adjoining heights. The Water of Leith receives the drainage of the New Town, while the Jordan Burn to the south performs the same office for the Southern Suburbs. The intermediate valleys fall rapidly eastwards, and converging towards the Queen's Park, empty their sewage into the Foul Burn, which, on its way to the sea, supplies the well-known irrigated Meadows. The two following sections from east to west, on pp. 77 and 78, show the inclination of the western portion of the City. In the former of these, the ridge of the Old Town, draining naturally to the east, ends abruptly with the Castle Rock; and to the westward the land inclines to the Water of Leith. In the latter, from the summit of the ridge of Lauriston, at Heriot's Hospital, the same inclination is seen, and the drainage passes beyond the Parliamentary Boundary to empty itself into the Water of Leith, as it approaches Edinburgh at Coltbridge. Immediately to the westward of the Castle rock there is a deep and narrow cleft, which communicates directly with the valley of Princes Street Gardens. Through this chasm the drainage of the West Port and Grassmarket passes round the Castle to its natural outlet between the Old and New Towns, and joins the Foul Burn.

For many years past great drainage works have been carried on in the city, and it may now be regarded as satisfactorily drained. In the poorest districts we have large sewers of the best construction. These, of course, fulfil the important sanitary purposes of carrying off the rain-fall, and the drainage of more elevated districts; but so far as the closes are concerned, these drains, for any sewage they convey from such poor localities, might never have existed. This depends at once upon the manner in which the poor live together, and on the system of cleansing which experience has determined as the best adapted for Edinburgh.

Centuries ago, when drains were unknown, and when the inhabitants, to keep themselves within the protection of the city walls, were compelled to add to the height of their houses so as to provide for the increasing population, the only way in which filth could be disposed of, was either by allowing it to accumulate within the houses, or by summarily getting rid of it by bringing it to the street or close. The dangers attending the first of these plans, soon became apparent in the presence of disease, and the recurrence of epidemics; while the second rendered Edinburgh notorious for its odours, especially at night. The great sanitary movement in

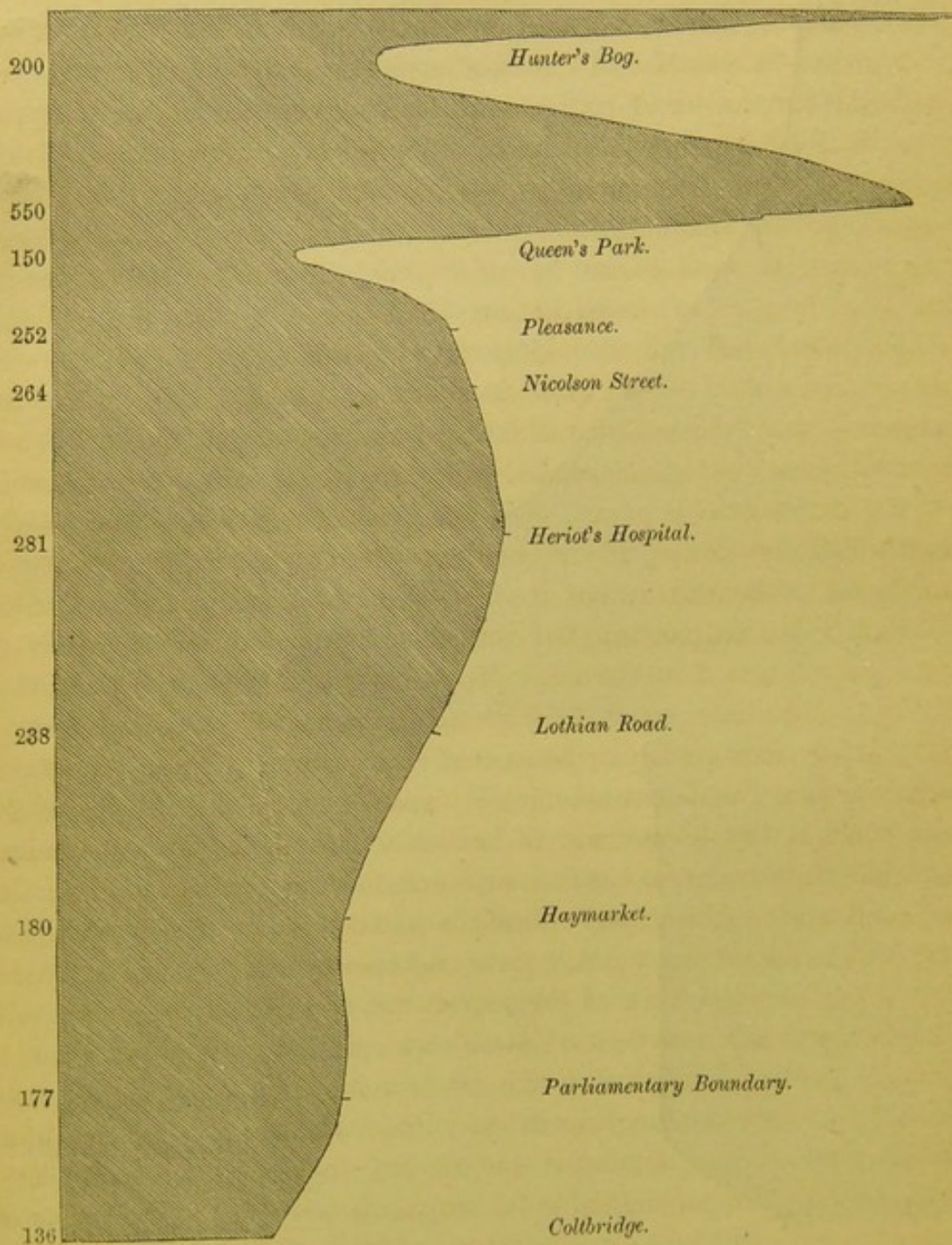
SECTION of the CITY along the ridge of the High Street, westwards to the
Water of Leith.

*The figures denote the height above the sea ; and the Vertical is nearly thirteen times
greater than the Horizontal Scale.*



SECTION of the CITY along the ridge of Lauriston, westwards to the Water
of Leith at Coltbridge.

*The figures denote the height above the sea ; and the Vertical is nearly thirteen times
greater than the Horizontal Scale.*



England, which the successive epidemics of cholera were so instrumental in stimulating, was intimately connected with the perfecting of the drainage systems of large towns. This consisted in placing each dwelling-house in communication with the public sewers, and thus permitting the rapid escape of all offensive material. There can be no doubt that this was a sanitary measure of great importance, and as applied to English towns, effected the best results. The necessity of improved drainage was also felt in Scotland, and our chief towns were speedily drained, that is to say, the main sewers were formed. When it was attempted, however, to bring each house in our large tenements or "lands," as they are called, into communication with the sewers, the difficulties arising from our system of house accommodation at once became apparent. A reference to the table at p. 80 will show the difficulties connected with the introduction of conveniences into our crowded houses. Our poor inhabit the dwellings of the wealthy classes of former days, necessarily sub-divided into single rooms, which are occupied by separate families. There the inhabitants live crowded together, without distinction of sex, and in many instances we have the rooms, generally opening one into the other, still further sub-divided by partitions, so as to allow of closer packing. The houses, too, are old, and in a state of decay; and their construction is very imperfect, so far as sanitary requirements are concerned. Under these circumstances, to enforce the introduction of conveniences, would be attended with the worst results. In England, where the poorest houses are self-contained, and necessarily small, with a court behind, in which the convenience is placed, the system works admirably. Any sewage emanations which may escape, at once pass into the atmosphere, and the air in the house is not contaminated; but the houses in the densely peopled districts of our Scottish towns are not supplied with such courts, and were conveniences placed outside the houses, from the large population which would use them, they would closely resemble those which are scattered throughout the City for the use of the public. Where such are largely frequented, it is a matter of great difficulty to preserve any anything like decent cleanliness; the air becomes tainted; what is intended as a public benefit is very apt to become a nuisance to the surrounding neighbourhood. If, however, as has been proposed, they were placed on each flat of our tall lands, all the evils already referred to would exist in a confined atmosphere, and close to the sleeping apartments of our crowded poor. It must be remembered that the simplest form of the convenience, as supplied for houses, is a piece of mechanism which must be handled with some degree of care, otherwise it is apt to get out of order—it becomes no longer air tight, and a leakage of foul gas takes place. This occurs to a notorious extent in the best parts of the New Town, and although productive of discomfort and disease, these evils are greatly modified by the freer ventilation, and the less dense population. But in the houses of the poor this leakage would be constantly occurring in an already vitiated atmosphere, where the inhabitants are overcrowded, and prone to disease. The consequences can easily be imagined. Those forms of illness which are generally

considered to be intimately connected with effluvia from drains would soon show themselves, and in such localities would quickly spread in an epidemic form; and it must be remembered that such debilitating diseases as fever and dysentery tell heavily upon the labouring population, and entail a large expense upon the community in the shape of increased poor-rates. The experiment has been tried again and again in our city, and always with similar results,—the production of much annoyance, and, ultimately, the removal of what was considered a sanitary improvement. A few months ago, an excellent opportunity was afforded of putting the matter to a practical test, not in an old house, but in one specially built for the purpose, in Dickson's Close, High Street; and the experiment is at present going on. I subjoin a statement of the population of the tenement. Of the two conveniences on each flat, one was intended for males, and the other for females and children. I have given the number of children under twelve years, as those most likely to accompany the females.

	Rooms.	Families.	Children under 12.	Adults.		Total.	Sinks.	Water Closets.
				Females.	Males.			
First Flat	8	7	14	13	8	35	1	2
Second Flat.....	12	6	11	13	7	31	1	2
Third Flat	14	9	13	13	13	39	1	2
Fourth Flat.....	15	8	15	13	7	35	1	2
Total.....	49	30	53	52	35	140	4	8

No sooner were the rooms tenanted, than a large pool of sewage, both solid and liquid, collected at the foot of the main passage, in consequence of the choking of the pipes. Day after day was this sewage removed, but as constantly was it renewed. At length, after the authorities had repeatedly interfered, several of the conveniences were closed, and the number of parties frequenting the remainder curtailed; but in spite of these precautions, a state of matters is produced, by overflow and leakage, of the most nauseous description. No doubt the tenants were for the most part Irish, paying rents from £2, 8s. to £7, 10s., but it must be remembered that this is precisely the class who were supposed to receive most benefit from this sanitary measure. My experience of the poor of this city, and of their house accommodation, has led me to the conclusion that they are not as yet prepared to make a proper use of conveniences. The poor require preliminary education in keeping their houses and stairs clean, before they can be trusted in the manner proposed. Of this they themselves are well aware; and I have been informed that, in some instances, apprehensive of their neighbours, they have requested their landlord to withhold from the tenement the benefit of the so-called boon. One dirty neighbour disgusts another, and the sequel can easily be pictured. The houses, too, in the great majority of cases, were never intended for this sanitary improvement. They are of great age, many of them as strong as fortresses, and others

so old as already to be falling to pieces, with walls hardly able to maintain themselves erect, much less to stand the operations of the sanitary engineer. With a population inhabiting such tenements innumerable difficulties must arise. There can be no hesitation in the case of the respectable artisan, who can afford to pay a suitable rent, and secure a house furnished with modern comforts. The great movement to which we have already alluded, in speaking of the density of population—viz., that of supplying suitable houses for the working-classes—has practically determined this. To provide a suitable house for an artisan and his family, with a separate convenience, a rent of at least £6 is required, and this, be it remembered, has only been accomplished with the assistance rendered by philanthropic societies. Of course the class thus benefited is far above that of the ordinary labourer, who, in the time of sickness, becomes chargeable, with his family, upon the parish, and who, in the time of his greatest vigour and best wages, cannot be expected to pay such a rent. Up to the present time, no houses have been built for his requirements, and to this fact the attention of philanthropists and architects is invited. The kind of tenement required is one so constructed that on each landing there should not be more than two families, who shall be provided with a mutual convenience. With such a limited population, there is less risk of derangement of the mechanism, and a greater certainty of fixing upon the offender. If a state of matters be produced which can be described as a nuisance, then, by our local Act the offender is liable to punishment, which exercises a most salutary influence upon the habits of the poor. It is only by constant supervision that such can be taught the important lessons of cleanliness, and the process is a slow one. But where, as in the tenement in Dickson's Close already referred to, we have a large population, it becomes difficult in the extreme to decide upon the culprits; and there is no resource but to charge all the inhabitants in the stair as concerned in the production of the nuisance, which may in reality be the work of some indolent sloven. But, putting our closes out of the question, there is abundant scope for the compulsory introduction of conveniences. We have, first of all, those streets in the New Town which are destitute of them. I refer particularly to the side streets, such as Rose Street, Thistle Street, Jamaica Street, and Cumberland Street. It has been already shown that, even in the New Town, great overcrowding exists; and where there are large sub-divided tenements, as in St James Street, (see p. 36) and at the same time imperfect sewers, it would be most injudicious to enforce the regulation. Then, there is the large and populous district of Nicolson Street, in which the houses are generally of low altitude, and well suited for modern improvements. Of course there are exceptions, as in certain tenements in East Richmond Street; but these demand special consideration. The districts, too, of Broughton, Calton, and Water of Leith afford ample scope for improvement in this respect. Let such localities be attended to at once, where the change can be effected to the manifest improvement of the dwellings, and the health of the inhabitants; and, in the meantime, enforce greater cleanliness in the closes, and supply them with a

greater number of public conveniences. At p. 60 of the Appendix I have given the number of these, with their accommodation, and it will be seen that where the destitution is greatest, the wants of the poor are more fully supplied. But there can be no doubt that, were these erections multiplied, the comfort of the poor would be greatly increased, and the salubrity of the poorest districts of the city markedly improved. The same remark applies to the Urinals, the number of which might be doubled, without fully supplying the wants of the public. The present number of these, and their distribution throughout the city, are stated in the same table.

HOUSE CESSPOOLS.

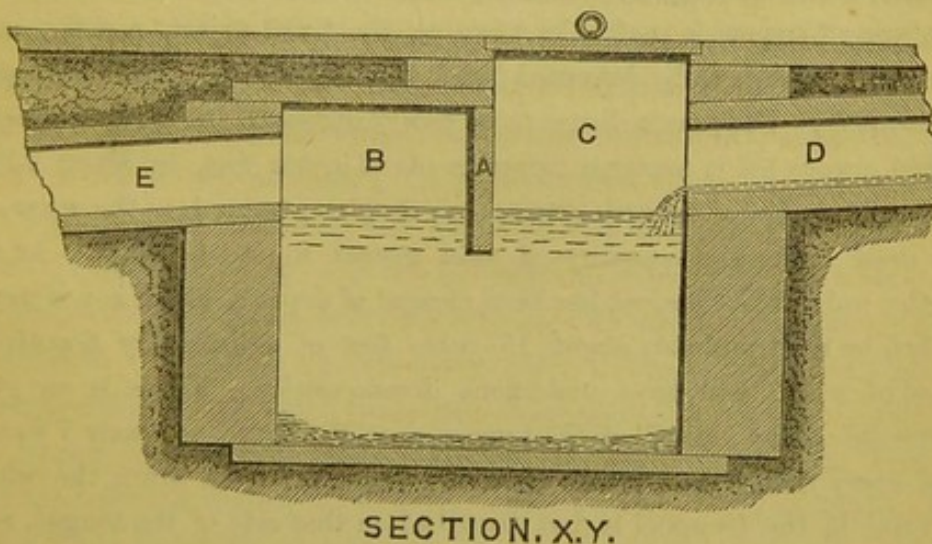
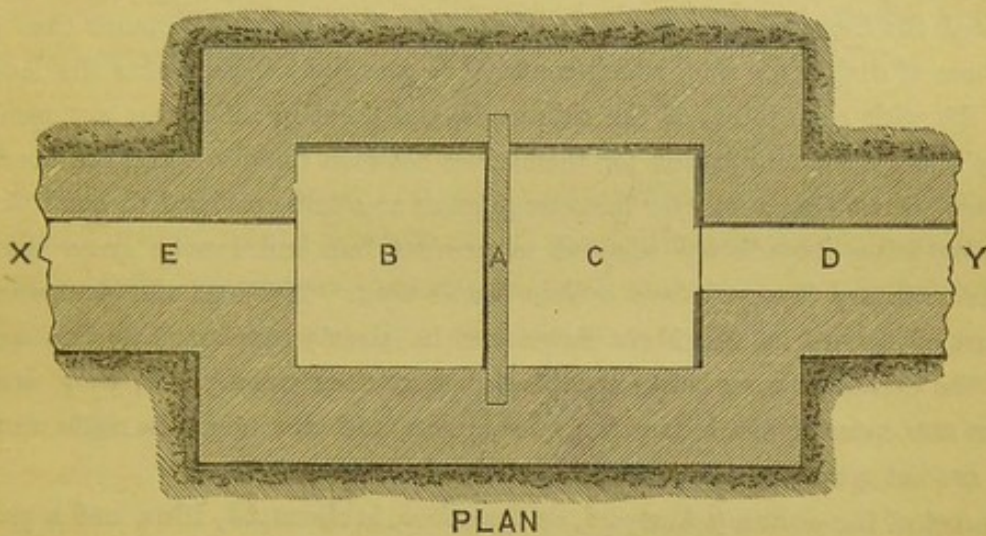
Where house drains exist, it is customary to connect them with a cesspool, the over-flow of which escapes into the nearest sewer. Where there are no main sewers, as in country districts, or as in our own southern suburbs, where villa residences were built before the general drainage was begun, the least offensive method of getting rid of waste water, &c., is by constructing a receptacle at some little distance from the house which shall receive such matters, until it is so full of the sediment deposited that it requires to be emptied. The cesspool is then cleaned out, and the process of filling goes on as before. Of course, where the cesspool is carelessly built, and not properly cemented, it will leak and infiltrate the neighbouring soil; and when, as often happens in towns where there is a divided responsibility, the cesspool is not regularly emptied, and the overflow-drain becomes choked, the sewage escapes either into the soil, or is forced upwards into the foundations of the house. The evil effects of this upon the health are comparatively rarely seen in the country districts, owing to the freedom of the surrounding ventilation, and the out-door life of the inhabitants. But in towns it is otherwise, and this cesspool nuisance in Edinburgh has become so clamant as to demand a thorough remedy. From one of its worst effects—viz., the contamination of water for domestic use, from the soaking of the soil—we are luckily preserved. We have no private wells into which the drainage from our defective cesspools can escape, to contaminate, in the most insidious manner, the water,—even communicating to it an attractive sparkle, but at the same time poisoning the system, which never becomes habituated to its use. This, in a great measure, explains the unusual mortality at times observable in epidemics in our country districts and small towns.

Builders and architects, however, still uphold the necessity of cesspools, even in crowded cities; but their reasoning is, in my opinion, fallacious. That the system should find favour among smaller tradesmen is not to be wondered at. The cesspool demands planning and material, in addition to the skilled labour required for its construction. The laying of a few tubular drains, with a *direct* communication with the main sewer, is comparatively a cheap operation. Indeed, I was so

impressed with the importance of the subject, and with the necessity of meeting the arguments of practical men with stronger facts than I could urge, that I requested my colleague, Mr Macpherson, Superintendent of Streets and Buildings, to give me a short description of a cesspool and its connections, with a statement of the disadvantages of the system, and he has kindly furnished the following:—

The greater number of houses of the better class in the City of Edinburgh have each a Cesspool in connection with the branch drain leading from the house to the sewer. It may be taken for granted that all the houses built before the year 1854, as well as many built since that time, have each a Cesspool; and consequently, to all these houses the following remarks will apply in a greater or less degree.

The form of Cesspool which is usually employed is that shown upon the plan.



A pit, about 5 feet deep by 5 feet wide, and 7 feet 4 inches long, is dug in the course of the branch drain—generally in the front area of the house. The bottom of this pit is laid with pavement, and a wall of common rough masonry about 14 inches thick is built round its sides. Across the line of the drain a piece of pavement, or tongue A, is set on edge, resting on the side walls, and leaving a space of about 2 feet 5 inches from the

lower edge to the surface of the pavement at the bottom of the Cesspool. The Cesspool is then completed by having an opening carried up at C, by which it can be inspected. When the Cesspool thus finished becomes full of water, the air on the side B of the tongue, which is next the main sewer in the street, is separated from the air on the side C, which is next the house.

The objects proposed to be attained by having these Cesspools are—

1st, To prevent rats passing from the sewers to the houses ;

2d, To provide against any foul air from the sewers entering the houses ; and

3d, To cause the solid matter contained in the sewage to be deposited, with the view of providing against the sewers being silted up by it.

There can only be one opinion as to the desirableness of attaining, in a perfect way, the first two of these objects ; but owing to the kind of building of which the side walls of the Cesspools are generally composed, it is frequently found that they are rather places of shelter for rats, which contrive to pass the tongue above the level of the water by the wide open joints of the side walls, and then, by enlarging any opening they find, they make a communication for themselves between the drain and the house,—thus at the same time making a way for the sewage gases also to be diffused through the house.

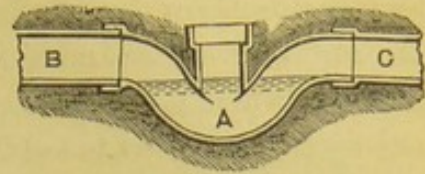
Besides being imperfectly adapted to prevent rats and sewage gases entering the house, the ordinary Cesspools are seldom water-tight. Much of the dampness in the lower floors of houses in the New Town can be clearly attributed to this cause. No doubt, if the Cesspools were better constructed than they usually are, they would tend to prevent rats entering the houses from the sewers, and they might be made water-tight ; but they are not generally either well constructed or water-tight.

The cost of the ordinary Cesspool, as described, is about £3, 10s. ; and a proper one, of the same size, made water-tight, would cost about £5, 10s.

The ordinary Cesspool is perfect in attaining the third object, namely, causing the solid matter in the sewage to be deposited ; and this object, when attained, appears to be highly objectionable. Suppose a house to be newly occupied, the Cesspool gradually fills up with liquid sewage till it contains upwards of 40 cubic feet, or about 250 gallons : which quantity it always afterwards retains, any surplus passing into the sewer,—leaving, however, a daily increasing quantity of solid matter in the Cesspool. At the end of twelve months, unless the Cesspool has been cleared of deposit, which is not usually done, there will then be most probably about 15 cubic feet of sedimentary deposit from the sewage, most of which will have undergone decomposition. There is an evaporating surface of sewage on the side C of the tongue, next the house, of nearly 7 square feet in extent ; and every time water passes from the house into the drain the whole of the putrifying mass in the Cesspool is first disturbed on that side of the tongue, so that any noxious gases contained in it are most likely to be evolved on the side of the tongue nearest the house. By this operation, frequently repeated, the drain becomes charged with noxious gases ; and the more air-tight the drain is, the more highly will it be charged with them.

It thus appears that the present Cesspool is imperfect for the attainment of desirable objects, and perfect in fulfilling the objectionable one.

Fortunately there is a very simple substitute, namely, a Syphon Pipe, of glazed stoneware, as shown on the sketch, which costs only about 4s. Suppose the case of a newly occupied house, with a pipe drain of 6 inches in diameter, and having one of these



syphon pipes in connection with it. The water gradually fills up the space A until it reaches the level of the outlet at C, which is usually about 2 or 3 inches lower than the inlet B. The quantity of water retained will be rather less than 3 cubic feet, instead of 37, as in the present Cesspool, but there is sufficient, however, to form a perfectly secure trap for gases or rats passing to the house from the sewer.

The advantages of such a trap are, that the whole water can be renewed by allowing a flow for but a few minutes,—thus thoroughly preventing smell; its being perfectly water-tight; its preventing rats passing into the house; and its non-retention of the sedimentary deposit of the sewage, from which, while undergoing the process of decomposition, it is believed that the most deadly sewage emanations are evolved.

The foregoing statement supports entirely the views I have long held as to the disadvantage, in a sanitary point of view, under which the New Town of Edinburgh labours, owing to the prevalence of cesspools. As the main drainage lines are now completed, cesspools are useless, inasmuch as communication can be directly made with the street sewer, and they should, in my opinion, be disused or entirely removed.

STREET CESSPOOLS.

Along the sides of our streets are to be seen gratings for the reception of rain water, &c. These, under the names of street cesspools, and street gullies, are well-known sources of nuisance. Communicating directly with the main sewer, the foul gases generated along its course are, on a change of wind, forced upwards, and taint the air for some distance around. To remedy this, these openings require to be properly trapped. The necessity for this precaution was not recognised when the streets were originally formed, and as the expense attending the alteration is considerable, there has been great delay in carrying out this simple, but very important, sanitary measure. My attention was early called to the subject, and a pretty correct list of these gratings is appended under the head of each street, in Table VI. of the Appendix, specifying their condition, whether trapped or untrapped. Unfortunately, our streets are under a variety of separate management. There is the City Road Trust, the County Road Trust, and also a number of private streets, some of which have been placed under the care of the City Road Trust, while others are managed by the house proprietors in the street. On the other hand, the municipal authorities, wherever they have been effecting improvements in the closes and poorer districts, attend to the surface drainage. In this way, a large number of fully trapped cesspools have been placed in the worst parts of the town, which thus con-

trast favourably with those inhabited by the wealthier classes. This is well seen in the summary of the number of these cesspools in the various sanitary districts, at p. 56, where the proportion in each district of untrapped to trapped cesspools is also specified. Next to our Town Council, who have allowed no untrapped cesspools within their jurisdiction, during the last 15 or 20 years, the City Road Trust deserves most honourable mention. Fully convinced of the necessity of having every cesspool trapped, they have energetically set themselves to the work, and during the past year they have altered no fewer than 107 cesspools, 83 of which are situated in the New Town north of Princes Street, and 24 in the Old Town to the south. In an improvement like this, contributing so much to the amenity and health of the town, they deserve every encouragement. The changes entail considerable expense, and it is to be hoped that the inhabitants will cheerfully submit to increased rates for a short time, until every street belonging to the Trust is put in a satisfactory state. Many of the streets in the suburbs are under the care of the County Trust, who, as might be expected, display some apathy on the subject. The avenues to the city are often rendered unwholesome, from the amount of sewage emanations which taint the air; and nothing can be more annoying than for the citizen, on leaving the city for a walk in the country to find himself, as he reaches the green fields, assailed by the most forbidding odours. A familiar example of this may be experienced any summer day along Inverleith Row, and the intensity of the nuisance diminishes and increases as you approach or pass one of these street cesspools. Again and again, in my experience, such offensive smells have been attributed most erroneously to the neighbouring water of Leith. The agitation connected with its purification tended to throw into the shade what appeared to be a minor form of nuisance, but now that the stream bids fair to be greatly deodorized, it is to be hoped that the County Trust will render all their streets and roads near to the city as wholesome as possible.

WATER OF LEITH.

We have already seen that the Water of Leith not only drains the whole of the New Town north of George Street, but also receives the sewage of a large district of the City lying to the west, which joins it at Coltbridge. The stream thus polluted enters the Parliamentary area, and in its passage through the city is still further contaminated by the drainage of the New Town. It was to remedy this anomalous state of matters that the bill of last session was passed, which provided for the prevention of further contamination of the river by the construction of large pipes, to collect the sewage and pass it directly to the sea. There can be no doubt that this will be a sanitary improvement. At present the Water of Leith, in its passage through Edinburgh, is a great open sewer, subject to considerable fluctuation in the volume of its waters; and in hot weather, during the prevalence of certain winds, it emits offensive odours. These have, of late years, been much complained of, especially since the formation of the Caledonian Distillery, which, as already

stated, has been most unfortunately situated. It was impossible to pass the refuse of this large establishment into any of the large built sewers draining directly to the east. All the strongly offensive material was discharged into the Lochrin Burn, an open drain running westward, and conveying a large amount of sewage into the Water of Leith, which in its turn entered the City, and passed through the village of the Water of Leith, Stockbridge, and Canonmills, on its way to the sea. The inhabitants were thus subjected to a double annoyance. During westerly winds, the odour of the refuse before it reached Coltbridge was carried over the town, and in its further progress infested all the districts along both banks of the Water of Leith. What added to the nuisance was the great diminution effected in the Water of Leith itself by the supply granted to mills along its course. In summer these mill-lades left the main stream dry, and conveyed not pure water, but sewage through densely-peopled localities. This state of matters was not to be tolerated in these days of sanitary progress, more especially when it was found that the rental of the district was being lowered, and when it was believed that the most disastrous results were produced on the health of the inhabitants. My attention was early directed to the subject, and to my surprise I found that the district was a healthy one, and presented no unusual percentage of cases of preventible disease. The two districts of Upper and Lower Water of Leith were mapped out; their area, and their population at the census in 1861, were determined, and all deaths occurring during 1863 were allocated to the various streets. In such an enquiry, it is not only necessary to determine the gross mortality, but as the question at issue was the effect of a nuisance (which, in the scientific language of chemists, assumed a most formidable character), the nature of the diseases producing the mortality was also of importance, and was specially noted. The test thus applied was a fair one. The population was clustered along the banks of a stream, proved by analysis to be fraught with the most noxious compounds; and were the views commonly held by sanitary reformers correct, we should not only have had the presence of this pestiferous stream indicated by a largely increased death-rate, but also by a mortality depending upon the presence of such diseases as fevers, diarrhoea, and dysentery, generally allowed to be the product of sewage exhalations. The death-rates of the districts of Upper and Lower Water of Leith for 1863 were, as we have seen, respectively 19 and 17 per 1000. Now, when we remember the large number of inhabitants in these districts belonging to the working-classes, and also that since the census in 1861 the population has been increased by the addition of several new streets, these figures must be regarded as highly satisfactory. In summer, when the condition of the stream was much worse than in winter, there was no corresponding increase in the number of deaths; and, if we turn to the tables of special mortality, we find that neither fever of any kind, nor such diseases as diarrhoea and dysentery are at all prevalent. One locality in the district of the Upper Water of Leith presents a very dense population, and has a correspondingly high mortality. I refer to that triangular area bounded by India Place, Saunders Street, and Kerr Street. One of the sides is bounded by the stream

of the water of Leith, while it is intersected by an open mill lade, notorious for its impurities. The distance of the nearest houses in this locality from the Water of Leith is only 12 yards, while that of the most distant is 93 yards. Here the inhabitants are densely crowded in the proportion of 516·7 to the acre, the death-rate is 26·86, while that of children under 5 years rises to 106·67. But on examining the nature of the mortality, we find such diseases as are the product of a dense population, and not those generally attributed to sewage exhalations. To the north we have another densely-peopled district, of a triangular shape, bounded by Dean Street on the one hand, and Mary Place on the other, and containing such streets as Allan Street, Cheyne Street, Bedford Street, and Hermitage Street, &c., &c. The nearest point of this district to the Water of Leith is 120 yards, and the most distant 283 yards. The density of the population is, however, considerably less, being only 336·9 to the acre, and the total death-rate is 25·02, while that of children under 5 years is as high as 69·07. But here again, we fail to find any indication in the nature of the mortality that the high death-rate is due to any other cause than overcrowding. In the district of the Lower Water of Leith, at only one point, viz., at Canonmills, have we a poor population collected in any number. The death-rate for 1863 is 24·88, while that of children above 5 years is 108·34. There, however, we have a large poor population, and in many instances, wretchedly housed.

With reference, however, to one disease which has of late years attracted much public attention, viz., Diphtheria, the Upper Water of Leith showed a very marked mortality. This is well seen in the tabular statement of the district mortality from Diphtheria, Appendix, p. 57. The sanitary condition of any district could not be accounted satisfactory with such a mortality; and although, in examining into the mortality of the other city districts from this disease, no marked connection could be proved between it and sewage emanations, yet, where uncertainty prevails as to the precise cause of any unusual sickness, it is clearly the duty of a community to remove all possible sources of disease, and among these must be reckoned the existence of open drains in crowded town districts. In this light, the measure for the purification of the Water of Leith must be looked upon as an important sanitary measure, to be followed, at no late period, it is to be hoped, by the removal or improvement of the mills, which at present divert the run of the water, leaving the channel of the stream for the most part dry, and which are a source of nuisance, besides necessitating the continued preservation of the mill lades. The latter were perfectly innocuous, when the district was a strictly rural one and some miles from the city, but they are now quite an anomaly in the midst of a large population, and ought, sooner or later, to be removed. My object in alluding to this subject, has been to warn the public against supposing, that the sanitary measure in question will have any material influence in diminishing the rate of mortality, although it may render the district more agreeable as a place of residence. Lower than it is at present, we can hardly expect it to be. More reliance is to be placed in the general introduction of conveniences, for which the houses in the district are admirably suited, and in the enforcement of greater cleanliness in stairs and courts.

IRRIGATED MEADOWS.

The volume of the water of Leith, and its peculiar course and termination at a sea-port, led to its being largely employed as a motive power, and it has been stated that there is no stream of equal length in the empire upon which so many mills are situated. At several points, it might have been employed in irrigation, but for other uses it was more valuable. With the other drainage outlets of Edinburgh the case was different. The Foul Burn, draining eastwards to the sea, between Leith and Portobello, irrigated 250 acres of meadow-land, which have acquired a wide celebrity. To the south, the Jordan Burn has been put to similar uses, though to a smaller extent; at present there being only 11 acres under irrigation. To the west, the Lochrin Burn irrigates 90 acres; and close to the Parliamentary Boundary in the district of Broughton, 5 acres are irrigated with the sewage of the Broughton Burn, which is a tributary of the Water of Leith; while a few years ago an attempt was made to irrigate some fields in front of Claremont Crescent. Edinburgh may thus be said to be surrounded by these artificial swamps, which at all times emit odours of not the most agreeable description. Under the influence of the improved agriculture of the present century, extensive swampy tracts which existed to the west of Edinburgh, in the neighbourhood of Corstorphine, have been reclaimed; and it is to be regretted that the sewage of the inhabitants should now be employed to create an evil from which we have so recently been delivered. It cannot but be regarded as an unfortunate circumstance for the sanitary condition of Edinburgh and its neighbourhood, that proprietors have vested rights in the fluids that give value to these irrigated lands, and can compel the inhabitants to send the sewage of the city in a particular direction. Were it ever expedient to intercept the drainage of the city which passes westwards, and direct it either by a more expeditious course into the Water of Leith, or into some of the large conduits which pursue an easterly course, such a measure could at once be put a stop to by proprietors who are directly benefited by the sewage, and yet pay none of the civic burdens. The irrigated meadows have increased the value of the estates ten-fold, and enormous compensation would now be demanded for depriving the land of such rich material for manure. Indeed, whatever interferes with the quality of the sewage, becomes a subject of complaint, and the inhabitants are actually deprived of one of the most obvious uses of a sewer, viz., to pass into it the products of manufactures which ought at once to be removed from the sight and smell. Thus lately at Fountainbridge a paraffin manufactory poured its refuse into the public drains, and this, on being allowed to flow over the surface of the grass of the Roseburn Meadows, adhered to it, and rendered it unfit for food. At once the tenant of the meadows was up in arms, and the paraffin works had to be removed. A similar occurrence took place

many years ago with regard to the City Gas Works, the refuse from which destroyed the value of the well-known Craigentenny Meadows to the east of the city. In the litigation which ensued, the Town Council joined with the proprietor of the Craigentenny estate in compelling the Gas Works to adopt some other method of getting rid of the noxious compounds, and the result was the erection of the hideous chimney-stalk to carry them off in a state of vapour. The gas company was thus put to great expense, and the principle was established that the proprietor of the irrigated meadows can prescribe the nature of the sewage which is furnished to him by the town. It would, I think, have been sounder policy on the part of the Corporation to have refused to acknowledge this principle, and rather to have insisted upon the removal of the gas works from their objectionable site in one of our poorest localities to some distance in the country, where neither the smoke nor the emanations could give any annoyance. Such a site would have been obtained at a comparatively small cost, and the gas could have been conveyed into the gasometers for the city in large pipes. At present there is no control over this irrigation. No one can inspect it in operation, without seeing that it is carried on in the cheapest and most slovenly way, and that the smells complained of arise chiefly from the foul state of the larger canals. Their sides are kept in a decaying condition from the alterations in the fall and rise of the stream, as the irrigation is increased or diminished. No attempt is made by proper edging with wood to confine the sewage within proper limits, and to prevent the vegetable decay along the sides of the principal channels. When spread over the land, the sewage quickly disappears; and this part of the process, unless the weather be warm, is attended with little inconvenience. But if the privilege be claimed of monopolising the sewage of a city like Edinburgh, it is surely incumbent upon proprietors to diminish, by every means in their power, the evils attendant upon irrigation, especially when carried on in the immediate neighbourhood of a dense population; for Edinburgh, from its situation, is peculiarly exposed to suffer from the effects of the emanations from these meadows. The easterly are our most prevailing winds, which pass across these meadows before they sweep over the New and the more elevated portions of the Old Town. And it has been plausibly conjectured that the insalubrity of these winds depend largely on this contamination. But, at any rate, a city surrounded by swamps cannot be regarded as in a sound sanitary condition; and it is highly probable that a great part of the mortality of the Abbey, and some of the poorer districts of the Old Town is in a great measure owing to the unhealthy character of these breezes which blow so continuously during many months. It is difficult otherwise to account for the high death-rate of the district of the Abbey, in which there is little overcrowding, and where only a small proportion of the population can be said to belong to the poorest class.

WATER SUPPLY.

One of the most satisfactory circumstances connected with the sanitary condition of Edinburgh is undoubtedly its water supply. At one time the inhabitants had to rely entirely on private wells; but the supply from this source was small and precarious, and so early as 1681, the Magistrates, to meet the necessities of an increasing population, began to introduce supplies from without, and various springs in the immediate neighbourhood were from time to time brought into the city. The amount thus provided for the inhabitants was never large. The supply could in no sense be called abundant, and in dry seasons the poor suffered greatly from the want of water. Indeed, considering the great importance of water as a sanitary agent, and the scarcity that prevailed in the early part of the century, the marvel is that the mortality did not reach an unusually high standard. It must be remembered, however, that the water, scanty though it was in quantity, was comparatively pure, was much more wholesome than that obtained from sunk wells, which, had they been continued to be used, would have been contaminated by the sewage of the adjoining heights, and must have proved a fruitful source of disease. Luckily, before the approach of Cholera, the necessities of the inhabitants became so clamant that, in 1819, the present Water Company was formed, and, the large supply of water afforded by the Crawley springs relieved, for a series of years, the city of all apprehensions. As the population increased, powers have been obtained from Parliament to introduce larger quantities; and so lately as 1863 a new Act was passed, by which the Company was empowered to acquire new springs. It has been calculated that when these have been added to our present resources, a daily supply will be afforded of 39 gallons for each inhabitant. During 1863 it amounted to 31.12 gallons per day. It will be observed, by reference to Table XII. in the Appendix (page 61), that throughout the poorer districts of the city, there are a number of public wells. These at one time were the only sources of supply for the inhabitants; but as water began to be introduced into private houses, and their cisterns had to be maintained, these wells became the property (so to speak) of the poorer classes. In the various Acts of Parliament regulating the introduction of water into Edinburgh, the rights of the poor have always been reserved; these public wells being expressly mentioned as to be maintained and increased in number. The importance of this can hardly be over-estimated, when we consider the very dense population of our Old Town. The houses of our poor are totally unprovided with water, and it was not till the General Police and Improvement (Scotland) Act was passed in 1862, that powers were granted, compelling proprietors to introduce water into houses. These clauses also referred to the providing of conveniences, and, of course, where these are introduced a full supply of water must be obtained. But we have endeavoured to show that, among a certain population, and in a limited class of houses, conveniences can only be introduced to the great risk of the inhabitants. To the supply of water to each house no such objection applies. Not only would

the comfort of the poor be increased, but their time would be economized. In certain tenements the water could be placed on each landing, while, in the older and more dilapidated, a convenient situation would be at the foot of each stair. In addition to the greater cleanliness in the dwellings of the poor that would follow the free use of water, it would then be possible to enforce the clause in our Local Act referring to the cleansing of the common stairs, and the surface drains in these crowded closes would be in a more wholesome state than they are at present, from the waste attending the drawing of the water, and also from the discharge of water which had been put to use. Mr Ramsay, the manager of the Water Company, has drawn attention to the enormous waste of water that takes place in consequence of the faulty construction of the ordinary water-cocks. Since the publication of his pamphlet, my attention has been drawn to this subject, and I can corroborate his statement that the waste in Edinburgh from leakage and faulty apparatus is enormous. In almost every house and court in the poorer districts supplied with water, this leakage is to be found; and as, from the constant service maintained by the Water Company, it is continuous, the amount of water thus lost to the public is very great. The officers of the Company undertake the task of examining the apparatus in each house; but the evil is so general and widespread, that the present staff of the Company is quite inadequate to keep the waste in check. To Mr Ramsay we are also indebted for a very forcible description of the nuisances caused by the faulty construction of water cisterns, and their connection with the drains. Such receptacles require the utmost cleanliness, but it is no uncommon state of matters to find a house occupied by a succession of families, and the cistern to remain uncleaned during a series of years. It is now well known that there is no more certain method of inducing ill health than by the habitual use of tainted water. The water of a cistern can be rendered unwholesome by its dirty condition, and also by its being impregnated with emanations from the sewers. These reach the water from the overflow pipe, which directly communicates with the drain, and which therefore requires to be carefully trapped to prevent the contamination. The air in the house finally becomes tainted, and, in a short time, the inmates suffer from illness. No more frequent cause of nuisance than this has come under my notice in the upper stories of large tenements, which, from their elevation, appeared to be far removed from all possible effluvia from drainage.

In Table XII., at p. 61 of the Appendix, there is also a list of the drinking fountains throughout the city. These have been erected during the last few years. None appear in the poorer districts of the city, with the exception of St Giles, which has two fountains; but these are situated at the Railway Station, on the very outskirts of the district. It must be remembered, however, with regard to the Abbey, Canongate, Tron, St Giles, and Grassmarket, that the public wells, the greater number of which are to be found in these localities, also serve as drinking fountains. A reference to the distribution of the drinking fountains throughout the city shows that they might be largely increased to the manifest comfort of the inhabitants.

INTRAMURAL INTERMENT.

AMONG other lessons taught us by the Cholera was the danger arising from Intramural Interment, and the necessity of providing, where the Churchyards were overcrowded, suitable Cemeteries at some distance from human habitations. When the first epidemic had passed away, and with it the alarm caused by the pestilence, our crowded Churchyards were allowed to remain in *statu quo*. Here and there, throughout the country, slight additions were made to existing burial-grounds; but no decided movement was made in the formation of public cemeteries. An exception, however, must be noticed in the case of the Metropolis, which was provided, in 1832, with the well-known Cemetery of Kensal Green, extending to 53 acres; while in the course of a few years, six more Cemeteries were opened to the public. Even in London, however, little was done in the way of shutting up existing graveyards and church-vaults until the second visitation of Cholera in 1848 came to remind us of our sanitary shortcomings. The Metropolis now set to work in earnest. Commissioners were appointed to inspect and report to Parliament on the subject; and, as the result of these inquiries, most of the existing City Churchyards were closed under a special Act of Parliament—the Metropolitan Interment Act, which was passed in 1850, and received various amendments in 1852-55 and -57. In 1853, the attention of the Legislature was directed to the condition of the Churchyards beyond the Metropolis, and a special Act was framed to meet their requirements. Scotland was not dealt with till 1855, when the “Burial Grounds (Scotland) Act” was issued, giving power to Parochial Boards to shut up overcrowded Churchyards, and to acquire land to form Cemeteries. It is to be regretted that we had not the benefit of such a measure long before, and that our Parishes had not combined with one accord to shut the existing City Churchyards, and establish suitable Cemeteries. In this way our Parochial Boards would have been amply remunerated for any pecuniary sacrifice they made to the public health and convenience.

As it was, public enterprise opened the Warriston Cemetery to the inhabitants in 1843; and during the next few years, the state of the money-market was such as to favour enterprises of the kind. In 1846, no fewer than five Cemeteries, with an area of 38 acres, were formed. These varied in extent from 5 to 10 acres, and were placed around the City in various directions. One only, viz., that at Echo Bank, was situated outside the Parliamentary boundary, the area of which was fixed in 1832. It is unfortunate that so many Cemeteries were laid out within the

municipal limits. Several of them are already encroached upon by habitations, and if the City continue to extend, as it has been doing for the last few years, our Cemeteries will become similar to the City Churchyards, by being surrounded on all sides.

The accompanying table clearly shows, however, the amount of good which these Cemeteries must have conferred upon the inhabitants, by relieving our crowded burial-grounds. They were hardly formed, when the second epidemic of Cholera came, and found us, so to speak, prepared; and little was said as to intramural interment. Had there been no Cemeteries in existence, when this visitation of the pestilence came upon us, I have no doubt that, through the overwhelming force of public opinion, every one of our City Churchyards would have been closed. The Cholera, however, passed away, and they remain to this day. I have no hesitation in saying that every one of them should be closed. Many of them, as may be gathered from the accompanying table, are of great age. They are all small and overcrowded. The rivalry excited by the various Cemeteries has no doubt led to the Churchyards being more decently kept. But so far as amenity is concerned, in Scotland we are far behind our southern neighbours. Our country Churchyards are generally in a slovenly state, and the same might have been said, a few years ago, as to those in our towns. Much of this, was owing to the age of the tombs, and the manner in which even recent graves were encased in iron rods to prevent any attempt at desecration. This was specially to be feared in and around any town which was the seat of a medical school. But, with the passing of the Anatomy Act in 1832, the graves have remained undisturbed; and I do not know of any case occurring in Edinburgh, since that date, in which bodies have been removed for the purpose of dissection. Graves so covered in could not be kept tidy; they became receptacles for dirt and weeds. As families, too, became extinct, their resting-places were forgotten, and left to decay. My attention was particularly called to this point when examining the Greyfriars Churchyard. This is the largest of our city Churchyards, and was formed in 1561. From its position, it was much used by the inhabitants, and for a long series of years must have been overcrowded. I drew the attention of the Kirk-Session and Town Council to its state, and the Municipality, as superiors, at once, on my representation, gave instructions that no interments should be permitted except in the case of persons possessing private tombs. These were comparatively few in number, and are rapidly diminishing. All burials in the common ground were thus stopped, and there was the prospect that in the course of a few years the Churchyard would be entirely closed. This was a sanitary measure of no small importance. The surrounding district was a most necessitous one, densely peopled, and inhabited by persons of the poorest class. The interments, which had averaged, since the Cemeteries were established, 240 per annum (the Town Council having previously discouraged burials in this ground) have fallen, as will be observed from the table, to 73.

CHURCHYARDS.

No.	NAME.	Date of Formation.	Present Area in Acres.	Total Number of Interments in 1868.	Number of Interments from within the Parliamentary Boundary.	Number of Interments from without the Parliamentary Boundary.	Number of Interments at Lowest Rate.	Number of Interments at Higher Rates.	Sanitary District where situated.	Population in 1861.	Proportion of Population to each Inhabited Acre.
1	West Church or St Cuthbert's	?	4.4	822	795	27	673	122	St Giles,	15,967	234.8
2	Greyfriars	1561	5.	73	73	...	28	45	Do.	15,967	234.8
3	Pleasance (Quakers)	1665	125	...	...	...	...	...	Pleasance and St Leonard,	11,104	150.
4	Canongate	1688	1.8	152	152	...	140	12	Canongate,	12,200	219.8
5	Calton, Old	1718	1.	119	119	...	98	21	Calton and Greenside,	10,984	120.7
6	Buccleuch	1763	0.5	17	17	...	...	17	Nicolson Street,	18,307	286.
7	Calton, New	1817	3.	866	866	...	825	41	Calton and Greenside,	10,984	120.7
8	Newington	1820	2.4	536	522	14	478	44	Newington,	4,955	39.9
9	Causewayside (Jews)	1820	.41	2	2	...	...	2	Do.	4,955	39.9
10	St John's	1820	1.8	8	6	2	...	6	Upper New Town,	10,930	94.8
11	Trinity, Dean Bridge	1838	0.2	1	...	1	...	...	Upper Water of Leith,	12,332	88.
Total,			20.635	2,596	2,552	44	2,242	310			

CEMENTERIES.

1	Warriston	1843	15.	583	474	109	108	366	Lower Water of Leith,	3,866	31.1
2	Dalry	1846	5.	276	242	34	79	163	West End,	7,748	44.2
3	Echo Bank	1846	8.	542	513	29	388	125	Landward,	2,323	.7
4	Dean	1846	8.	300	290	10	120	170	Upper Water of Leith,	12,332	88.
5	Grange	1846	10.	443	426	17	236	190	Grange,	1,886	15.9
6	Rosebank	1846	7.	680	155	525	104	51	Broughton,	5,672	48.9
Total,			53.	2,824	2,100	724	1,035	1,065			

This number should, however, have been only 45, as 28 of those interred at the lowest rate should not have been permitted. The sanctioning of these was quite against the spirit of the resolution of the Town Council, and it is to be hoped that the church authorities will see it to be their duty to resist all such interments.

I was proceeding to deal with the other Churchyards, when a difficulty presented itself for which I was not prepared. The Greyfriars being virtually closed to the poorer classes by whom it was much used, these had to go elsewhere to bury their dead, and naturally betook themselves to the nearest place of interment. The rest of the Churchyards, in order to prevent this influx of the poorest burials, raised their charges. The public Cemeteries, which were intended to supply the wants of the wealthier classes, followed the example ; and I found that, while I benefited the immediate neighbourhood by the shutting up of Greyfriars, I had increased the funeral expenses of the poor. In a few months, the charges in and around Edinburgh would have become prohibitory, and the greatest difficulty would have been experienced in the disposal of the dead. No greater sanitary evil could have been experienced. I therefore determined to consider the subject carefully, and ascertain where the burials took place during one year, selecting 1863 as a year of average mortality, in which there had been no epidemic. The results are recorded in the preceding table.

The oldest of our City Churchyards is believed to be that of the West Church, or St Cuthbert's. Its antiquity is such that no precise date can be given for the period of its formation ; the earliest reliable date is 1487, but it is evident, that at that time, the church had been long in existence. Indeed, it is stated in the "History of the West Church," published in 1829, that the old Church of St Cuthbert, which was taken down in 1774, had stood for 1000 years. The early parochial records, too, have unfortunately been destroyed. The parish for which the burial-ground served as the only place of interment, was the largest and the most populous in Scotland, comprising as it did nearly the whole of Edinburgh and a large portion of the county. And it is not to be wondered at that, as the population increased, additions were from time to time made to it. At present, however, it has only an area of $4\frac{1}{2}$ acres. We read of its being enlarged in 1701, "the Cemetery having been found to be too small for the increasing population, and the consequent number of interments." Additions were again made to it in 1787 ; and in 1809, "the Cemetery around the West Church becoming too small for the number of interments," efforts were made, and successfully, to obtain from the City of Edinburgh a piece of ground lying immediately to the north. This was of small extent, measuring only 1 rood, 17 ells. "It was enclosed in 1814, and in a few years afterwards, it was completely filled with tombs." Another small portion of ground to the south was added in 1824. The present extent of this burial-ground was completed in 1831 by its being enlarged to the south. This addition was just made in time, as the epidemic of Cholera came and proved very destructive in the parish. Small in extent as this Churchyard is, it has now for many years back

gone on filling and enlarging till it reached its present dimensions 34 years ago. And yet, notwithstanding the relief afforded by the Cemeteries, no fewer than 822 interments took place in 1863. Of these 795 belonged to Edinburgh, *i.e.*, came from within the Parliamentary Boundary, which is now co-extensive with the municipal limits; and 27 are supposed to have come from the landward part of the parish. It would appear that 149 have taken place at the highest rates, and presumably therefore in ground already purchased; but the large number 673 remains as representing those interred at the lowest rates. More complaints have reached me with reference to this burying-ground than to any other, probably for the reason that it is only lately that houses have been built so as to overlook it. That the inhabitants have sufficient ground for remonstrance there cannot be any doubt, and no one can read its previous history in the light of its present statistics without being convinced that its condition is that of an overcrowded Churchyard.

In order to relieve the West Church Burying-Ground, a small piece of land, in 1763, was opened in the southern district of the city, adjoining Buccleuch Church. This was of small extent, measuring only half an acre; and it soon became "so excessively crowded, that it was dangerous to dig a grave in any part of the open ground." It was accordingly shut by orders of the Session in 1819, having been in use for 56 years. The situation and soil of this burying-ground were very faulty, and in my opinion it should never have been formed. It is certainly surprising to find that in 1863, 17 burials were allowed in this over-crowded ground. It was closed, as we have seen, in 1819, and, to supply the urgent necessities of the parish, the Newington Burying-Ground was acquired in 1820. This, too, was of small extent, and, as will be observed from the table, is still largely used, and for a poor class of interments. Indeed, it is well known that the West Church Parish inter their paupers in this ground. It is not to be wondered at that it has become over-crowded, more especially in that portion which is allotted as common ground.

The next in point of age is the Greyfriars, of which we have already spoken.

The Canongate was formed in 1688, in the midst of a crowded population. It was of small size, being only about 2 acres in extent, and it rapidly filled. The inhabitants became alarmed in 1848, and applied to the Sheriff, during the epidemic of cholera, to have it shut up. The attempt was unsuccessful, on account of the conflicting nature of the evidence. The Churchyard was however levelled, relaid with earth, and the interments went on as before. Considerable relief had been afforded to it by the formation of the Old Calton Burying-Ground in 1718. The situation on a rocky eminence was, however, most unsuitable; its size, too, was small, and the new city approach to the east cut it in two. Houses, including public offices and prisons, sprang up in its immediate neighbourhood, and years ago it ought to have been entirely closed. Yet, in 1863, 119 interments took place in this over-crowded spot. So inadequate was the accommodation at an early period, that in 1817, just 100 years after it had been in constant requisition, a larger piece of ground to the east, amounting to 3 acres, was set apart as the New Calton Burying-Ground. The

table shows that this continues to the present day to be largely frequented. Indeed, more interments take place in it than in any other Churchyard, or in any of our large Cemeteries. It presents an over-crowded appearance, and its position, favourable in some respects as that was, is now unsuitable, and the interments should, in my opinion, be strictly limited.

In all Acts of Parliament relating to burials, we find special provision made for the burial-grounds of the Quakers and the Jews. That of the Quakers in the Pleasance is supposed to have existed from 1665. It is of very limited extent, and from the small number of the community in question, it is not likely to be over-crowded, though it must now be pretty well filled, having been in use for the last 200 years. At the date of its formation, the locality was not unobjectionable, but now it is overlooked by houses nearly on all sides, and a large and a daily-increasing population is found clustering around it. The Jews were permitted for sometime to inter their dead in a cave or grotto on the Calton Hill, but in 1820 they acquired, in Causewayside, a portion of a field amounting to the 1/24th of an acre. This, in the course of years, has become over-crowded. The position is most unfavourable, being confined and surrounded by a poor population.

In 1863, no fewer than 5420 interments took place in our Churchyards and Cemeteries, and of that number 4878 were buried within the municipal limits. In the table the area of the various Churchyards and Cemeteries is given, and it appears that during 1863, while there were 53 interments to the acre in the Cemeteries, 125 took place in each acre of the overcrowded city Churchyards, although the Greyfriars is now comparatively disused. It would naturally be supposed that the Cemeteries would have relieved the town entirely of what was felt to be an increasing burden, viz., the poorer burials. But we find that the poor have to a large extent continued to use our crowded City Churchyards, while the wealthier classes have betaken themselves to the Cemeteries. Thus, of the 4878 burials, 2596 were interred in the Churchyards, and 2282 in our Cemeteries,—the interments in Echo Bank Cemetery, situated beyond the Parliamentary boundary, being deducted. Of the 2552 in the Churchyards from within the Parliamentary boundary, 2242 were at the lowest rates, and only 310 at the higher; while, in the Cemeteries, of the 2100 from within the same area, there were 1035 at the lowest rates, and 1065 at the highest.

In the City Churchyards, 44 persons were interred from without the municipal limits. It will be observed that 41 of these burials took place in the ground belonging to the West Church, which, as we have seen, is a parish of large extent, and yet its burial-grounds are all situated *within* the city. In the Cemeteries within the municipality, in which that of Echo Bank is not included, a reference to the table will show that there were 695 interments from without. Of these 525 came from Leith and its neighbourhood.

Looking to the position of our City Churchyards, their age, and limited size, and also taking into consideration the increase of the population, it is impossible to

resist the conclusion that they are overcrowded, and that they should be closed. The immediate effect of such a measure, would undoubtedly be to place ourselves at the mercy of the various Cemetery companies, whose sole object being to secure a handsome dividend for their shareholders, a rapid rise would take place in the rate of interments. This would seriously affect the poor, who, quite unable to pay the increased expenses, would be compelled to apply for aid to the parishes, and thus the public would, in the long run, be heavily taxed in the shape of poor-rates. Year by year, the Cemetery tariff would be raised for this class of burials, and our poor would only be buried with the greatest difficulty.

It is high time that this subject should be carefully considered, and that the Town-Council, as acting for the public, should advise with the Parochial Boards as to the best course to be pursued. Sooner or later we will be forced to come to a decision, and possibly under circumstances not admitting of the deliberation that the present juncture affords. The health of the city is satisfactory, and no epidemic is in our midst. Should we be threatened with any pestilence, I feel convinced that Government would not hesitate for a moment in peremptorily preventing all intramural interment.

As the remedy can hardly be supplied by private or joint stock enterprise, I would propose that our City Parishes should combine to provide—which by the Burial Act they are empowered to do—a public Cemetery of large extent at some distance in the country, and of easy access, where the land would be cheap, and in which the rate of interment could be made as reasonable as possible, so as to meet the necessities of the poorest inhabitants. This is, in my opinion, a more crying want than a public park for any district of the city, and it is to be hoped that the scheme will meet with ready approval in these enlightened days of sanitary improvement, when even our Poorhouses are removed outside the city boundary.

If this were determined upon, then our various city burying-grounds could be closed. A similar measure should be extended to them as has been so advantageously employed in the case of the Greyfriars. All interments in the common ground, at the low rates, should be completely stopped; and only for a limited period, say for ten years, should the public be allowed to make use of private enclosures.

Since these remarks were penned, the estate of Craiglockhart has been purchased by the City Parish for the purpose of erecting a suitable Workhouse, to which will be attached such an amount of farm land as the paupers will be able to cultivate. A large portion of the estate is left untouched, and several admirable situations for a public cemetery are to be found on it. Among the advantages that these sites present, may be mentioned proximity to Edinburgh and great seclusion. They will never be encroached upon in any extension of the city. It is rare that such an opportunity as the present occurs, and as the difficulty of securing land in the immediate neighbourhood is daily increasing, the importance of taking advantage of the present opportunity need not be insisted upon.

SANITARY REQUIREMENTS OF THE CITY.

EDINBURGH has never been regarded as an unhealthy city. Its death-rate, although subject to considerable annual variations, will bear favourable comparison with that of other large towns, which do not labour under its special disadvantages. It is, however, peculiarly exposed to the ravages of epidemic disease of all kinds, on account of its dense and badly-housed population; and whether the epidemic be cholera or fever, the poorer inhabitants living in the crowded districts of the Old Town suffer in a marked degree. During the last five years, the health of the community has been good, and among the working-classes food and work have been unusually plentiful. The following table shows that the average death-rate for that period has been only 24 per 1000. It will be observed that the population has been calculated for each year, and that certain deductions have been made from the number of deaths—viz., those of persons who died in the Royal Infirmary, and who belonged to the neighbouring sea-port (which since 1837 has not formed a part of the city), or to various counties of Scotland. By this means a correct estimate can be formed of the death-rate of the city, which would otherwise be burdened with a large amount of mortality, for which it is solely indebted to the celebrity of its Hospital and Medical School.

Year.	Population within the Parliamentary Boundary.	Total Deaths Registered within the Parliamentary Boundary.	Deduct Deaths belonging to		Remain- ing Mor- tality.	Births.	Death- Rate per 1000.	Birth- Rate per 1000.	Excess of Birth- Rate over Death- Rate.
			Leith.	County					
1859	166,380	3,619	23	86	3,510	5,446	21·09	32·73	11·64
1860	167,248	4,149	22	97	4,030	5,380	24·09	32·16	8·07
1861	168,121	4,077	23	108	3,946	5,694	23·47	33·87	10·4
1862	168,989	4,661	19	137	4,505	5,722	26·65	33·86	7·21
1863	169,857	4,496	31	149	4,316	6,123	25·4	36·05	10·65
Average.....							24·15	33·74	9·59

In inquiring into the sanitary requirements of the city, and in attempting to point out how the death-rate may be lowered, it may be useful to generalize our remarks. A glance at the map of Edinburgh shows that the city naturally divides itself into three great divisions, viz., an Old and a New Town, separated by the rail-

way valley, or that of Princes Street Gardens; while, to the south, the Meadows constitute a distinct line of demarcation between the older portions of the city and the suburbs of Newington, Grange, and Morningside. In our inquiry into the sanitary requirements of the city, we shall consider the most urgent necessities of these three divisions, embracing as they do various of the sanitary districts, which naturally group themselves together. In the table below are given the population of the three divisions as at the census of 1861—their respective mortality during 1863—their acreage, and the density of the population.

	Population 1861.			Mortality 1863.			Death-Rate p. 1000.			Area in Imperial Acres.	Proportion of Population to each Acre.
	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.		
NEW TOWN	55,084	5,519	60,603	741	368	1,109	13·27	66·67	18·3	1,765·5	34·3
OLD TOWN	85,187	12,901	98,088	1,618	1,397	3,015	18·99	108·29	30·73	1,078·5	90·9
SOUTHERN SUBURBS ...	8,513	917	9,430	146	46	192	17·15	50·16	20·36	1,104·	8·5
Total for Parliamentary Area, }	148,784	19,337	168,121	2,505	1,811	4,316	16·83	93·65	25·67	3,948·	42·5
LANDWARD	2,130	193	2,323	85	11	96	39·9	57·	41·32	3,127·	7
Total	150,914	19,530	170,444	2,590	1,822	4,412	17·16	93·29	25·88	7,075·	24·1

NEW TOWN.

THE New Town was laid down on a regular plan. When the extension of the city to the south did not meet the requirements of a rapidly-increasing population, the heights to the north, separated from the Old Town by the North Loch, and now by the railway valley, were surveyed, and streets were mapped out, possessing a width and a regularity which at the time could not be equalled in Europe. The New Town was built, therefore, under the best sanitary notions prevalent at the time. The houses first built were situated at the east end of Princes Street and its immediate neighbourhood, and the three leading streets of the Upper New Town were gradually finished. A great impetus was given to the extension of this part of the city by the building mania of 1825. At that time the Lower New Town may be said to have been entirely built; new streets sprang up with great rapidity; the plans of city extension were felt to be inadequate for the extravagant dreams of speculating builders, and the districts of Calton and Broughton to the eastward were covered with proposed streets and squares. The commercial crisis which ensued not only stopped the building that was going on, but arrested for the long period of thirty years the extension of

the city. Many of the streets exhibited unsightly gaps of stances partially built-on, and as a general rule, the corner of the street, the most prominent, and possibly the most expensive tenement to build, was left unoccupied. Within the last few years, however, these have been finished, and the city has extended to the west; but the plans for the enlargement of the city to the north and east still remain unused.

At the time of the building of the New Town, both at its commencement and at its subsequent rapid enlargement in 1825, imperfect notions prevailed as to the internal and external drainage of houses. The domestic use of baths was apparently unknown, and the conveniences were few in number and awkwardly placed, either so as to deprive a principal room of its amenity, or in such a confined space as to be entirely without ventilation. Princes Street, George Street, Queen Street, York Place, and Heriot Row, can still furnish specimens of such faulty arrangement. When unhealthy competition prevails in the building trade, and houses are erected with undue haste, many points of essential importance to their sanitary condition are very apt to be overlooked, while others which bulk largely on the eye of intending purchasers, such as external decoration, receive an undue amount of attention. This, I have no doubt, was the case during our building mania in 1825. Stately houses were erected of the finest freestone, with rooms of excellent ventilating proportions, but the sanitary arrangements were invariably defective. Besides this, no definite drainage plan for such a large town had been prepared, and where street drains were constructed they were imperfectly built, and their communicating branches with the houses, being hastily put together with the chips coming from the stones in the process of being shaped, were of the most faulty description. These, under the name of "shivers," formed an irregular passage for the waste water from the house, and being loosely put together, and coarsely cemented, instead of affording an easy discharge for their contents, presented an uneven surface, full of crevices, and as porous as a sieve. The drainage escaped in all directions, infiltrating the neighbouring soil, undermining it everywhere, and aiding the operations of those persevering tunnellers, the rats. Such drains have become notorious for their instability, and their expense in the shape of repairs: they are fast disappearing before the tubular or pipe drains.

I have witnessed the devastations caused in houses by such imperfect drains, and where a similar principle of construction has been followed in the public sewer, the street, gradually undermined by the constant leakage and the armies of rats, has given way, to the great risk of passers-by. That such a system is detrimental to the health of the inhabitants need not be insisted on; and there can be no doubt that a town would be healthier without drains, than with such apologies for them. Even where greater care was exercised in their construction, and where the stones in the bed and sides of the drain, were more accurately cemented, the surface over which the drainage passed was uneven, and arrested the onward flow; in process of time it became imperfect, gave way, and allowed of escape on all sides. In many parts of the New Town, such drains are to be seen, especially wherever we

have a joint-proprietary, as in houses with successive flats or storeys. The main communications with the sewer in the street, being common property, and the parties chiefly suffering being the inhabitants of the ground-floor, complaints leading to repairs involving outlay are not attended to. The proper remedy is, the substitution of the tubular drains, with a smooth interior, allowing of an easy discharge, and presenting-joints at the distance of every three feet, which, if properly cemented, are impervious to water. The progress of sanitary improvement in Edinburgh has always been slow, and even in the present day I have heard experienced builders insisting on the superiority of the old-fashioned built drain, and declaiming against the use of the glazed pipes. We generally find such persons advocates of another arrangement, which has been in use in the New Town from its commencement, and which, as already shown, are equally faulty, and utterly unsuited for the requirements of the present day: I refer to the cesspools in connection with the houses.

Where the house is self-contained, and the proprietor is aware of the necessity of the measure, the cesspool is cleaned out from time to time, with marked benefit to the sanitary condition of the house. In the case of a tenement with several proprietors, and as many separate houses, the drainage of which passes into a common cesspool, there is generally long delay. It is well known that in Edinburgh tenants are peculiarly restless, and frequently change their places of abode. Hence houses may be tenanted for many years before the common cesspool is cleaned out. Even then, this is not accomplished without unusual difficulty. In a tenement in the New Town, consisting of three stories and a main-door flat, there are generally 12 proprietors, each of whom, either personally or through a factor, who is usually chary of responsibility, must give his consent. A thorough cleansing is at last effected; but not until a numerous body of tenants have been subjected to great inconvenience. Each house has been filled with emanations from the sewers. The windows have been kept open in order to dilute the nauseous smell; and although this object is partially effected, the sewage gases are sucked into the house in greater volume, on account of the draught which has been occasioned. It is not to be wondered at, if, under such circumstances, ill-health, in varying degrees of intensity, should be the result,—requiring, it may be, little medical attendance, but causing great discomfort. Should epidemic disease of any kind affect the inmates, the illness is intensified, and the ailment may assume a character of malignancy, which can only be accounted for by the faulty sanitary state of the house. But it must be remembered that the air in the street also becomes tainted. A cesspool filled to overflowing, and leaking, can be recognised in the street by its odour. It is placed in the area, and of course the emanations escape in all directions. The simple remedy for such a nuisance, is to have a survey made of all the cesspools in the city. Let a register be kept of them, and let the City Engineer be instructed to have them inspected from time to time. When their state is once ascertained, it will be easy to enforce the wholesome regulation that every cesspool within the municipal boundary be cleaned out at least once a-year. Not only will the

sanitary condition of the better parts of the city be greatly improved, but the inhabitants will have a guarantee that they are secured from one great source of discomfort and ill-health.*

In the plan of the New Town, provision was made for streets of houses of humble pretensions and moderate rent, suitable for the better class of artisans. Such streets had no drain, and the houses of course had no sanitary convenience. This state of matters will appear highly dangerous to persons who are not acquainted with our mode of cleansing the city, and with the stringent regulations in force prohibiting the accumulation of refuse of all kinds in the shape of middens, &c., compelling the inhabitants to bring such to the street, to be collected by the dust-carts. Looking to the imperfect nature of the drains used at the time of the building of the New Town, and the prevalence of cesspools, it will not be denied that such streets as Rose Street, Clyde Street, and Thistle Street, in the Upper, and Jamaica Street and Cumberland Street in the Lower New Town, being destitute of such appliances, were, in respect of drainage, in a healthier condition than those which were inhabited by the rich. In the advance, however, of sanitary improvement, main drains of the best construction have, at great expense, been carried along these streets, so as to permit of the introduction of conveniences into each dwelling-house; and under the compulsory clauses adopted by the Town-Council, water-closets can now be ordered at the instance of the Superintendent of Streets and Buildings. The streets in question loudly call for the change. The sewer is ready for the reception of the discharge, and the houses, from their size and the character of the tenants, are well suited for the enforcement of the measure. But, in addition, these streets, lying between the lines of thoroughfare occupied by the wealthier inhabitants, upon whom the burden of municipal taxation chiefly falls, are, from their dense population and other causes, the seat of great mortality, and in the case of epidemics always afford a large proportion of those inmates of our hospital who come from the New Town. Such hot-beds of infection, inserted like a wedge between the dwellings of the rich, demand from the Sanitary Officer constant surveillance. Epidemic diseases spread with great facility; and in the event of their breaking out in these localities, the inhabitants of the adjoining streets are apt to suffer. Ratepayers, in my opinion, are entitled to protection under such circumstances, and the introduction of conveniences should at once be enforced in the streets I have mentioned. I know of no more clamant cases, and a reference to the tabular statement of the mortality of these streets will show the amount of benefit that may be expected to follow in their case, while, as a necessary consequence, the general mortality of the whole district will undergo a marked diminution.

Among other points to which my attention has been directed in the course of

* These cesspools must not be confounded with the cesspool common in England, i.e., a covered receptacle for sewage, without any connection with a drain; or an uncovered receptacle for ashes, having a privy in connection with it.

my sanitary inspection, was the dampness of the ground-floors of all the houses in this quarter, which are built against the slope either to the north or south of the ridge on the summit of the New Town. This arises from the back-green not being properly drained. It is generally supposed that such a step is not necessary; but where earth, whether covered with grass or not, is freely exposed to the rainfall, the soil becomes a perfect sponge, relieving itself by draining towards the lowest level, which is the foundation of the adjoining house. A constant state of dampness exists, which lowers the salubrity of the residence, besides directly rendering the apartments of the servants unhealthy in a marked degree. Cases have come under my notice of domestics being crippled for life with inveterate rheumatism contracted under such circumstances. And when we remember that to the present hour these under-flats are employed by lawyers—a numerous class of the inhabitants—for the accommodation of their clerks, who are universally acknowledged to be the hardest worked (so far as mere time is concerned) of the labouring class—it is not to be wondered at that these young men suffer in health, and labour under the special diseases incident to long continued work in a damp and close atmosphere. The houses, too, have often a well-marked musty smell, the result of the decay of the joists and flooring, together with the putrefaction of the shavings and other debris which have remained among the foundation since it was laid. Instances of this have come under my notice in Princes Street, on the one hand, and Queen Street, Heriot Row, Northumberland Street, Great King Street, Cumberland Street, and Brunswick Street, on the other. The remedy consists in the laying down of tile drains, similar to what we see used in any farm, or the paving of the whole area. By such means the rainfall is collected, and may be advantageously utilised by conducting it into the leading drain of the house, and thus securing, by an almost continuous flow of pure water, a wholesome condition of the drains, and the perfect dryness of the house.

All street-cesspools, and gullies, as already explained (see p. 85), should at once be properly trapped so as to secure the air of our streets from constant contamination.

I have already adverted to the faulty planning of the better class of houses, so far as the situation of the convenience was concerned. In those houses, however, with rentals varying from £15 to £60, according to the locality, and arranged in our Scotch system of flats or storeys, piled one above another, the plan of the internal arrangements was still more objectionable. The water-closets ventilated into the common stair. The effect of this was, that the air in this, the common entrance to possibly six houses, was seriously contaminated, and whenever a draught was occasioned by the front or street door being opened, this fetid air was forced backwards into the dwellings. The upper flats suffered most, and I have been applied to in instances where parties could not inhale the air at their house door without nausea and sickness. That architects should have been allowed to plan such houses manifests the want of some controlling authority to protect the inhabi-

tants from so flagrant an infringement of the most ordinary sanitary laws. To this hour the evil exists in every part of the New Town, and is perpetrated in the most recently-built houses of the class in question. Few common stairs, I regret to say, are properly ventilated—each proprietor acting on the well known principle that what is everybody's business is nobody's. The natural course of the offensive air is towards the skylight, which in all cases should be fitted with a proper air-hole, and the windows should be regularly opened, so as to secure the free passage of fresh air.

Indeed, I have been impressed with the contrast presented by a street in the best parts of Edinburgh with one in any of our English towns. Owing, I suppose, to the greater uncertainty of our climate, and the rigour and continuance of our biting easterly winds, to which, from its elevated position, Edinburgh is so much exposed, we apparently dread the effects of free ventilation, and as a rule the windows of our houses are rarely opened so freely and frequently as to permit of this taking place. In an English town, on the other hand, even in winter weather, the windows are generally opened. Pass along our principal streets, at any time of the day, and as a general rule the windows will be found obstinately closed. This helps to explain the disagreeable odour perceptible in so many of our lodging-houses; in which, from the occasional stay of invalids, who demand a warm atmosphere, and also no doubt from the ignorance of the masters and servants, the air, from its being seldom renewed, is never sweet and wholesome. The fact does not appear to be known, that thorough ventilation secures the person against cold, and that the invalid requires a wholesome atmosphere, as much as the strongest man. In some parts of the New Town one excuse for this apparent dread of ventilation can be fairly pled. It is only by shutting the windows that the interior of the houses can be protected from the smoke which, in utter defiance of the Act of Parliament, is permitted to be discharged from such establishments as printing-offices, coach manufactories, and others, where furnaces are employed.

Notwithstanding the unusual capacity of the houses, I am convinced that, in the dwellings of the wealthier classes, overcrowding frequently exists; and this helps to explain the otherwise anomalous occurrence of cases of fever, &c., in the airiest districts of the New Town. Our largest houses are too small for the demands of an ordinary family, when we find the dining and drawing-room floors devoted to purposes of social meals and receptions. The remaining flats are barely sufficient for the bedroom, nursery, and bath-room accommodation of the family, to say nothing of the entertainment of guests. The ground-floors are amply occupied with the kitchen, laundry, and store-rooms, while the servants (in such houses by no means few in number) are crowded together in small rooms and closets, and the man-servant may be found huddled under the staircase. Should the under-flat be damp, or in an unhealthy state from imperfect drainage, fever breaks out, and this may spread to the members of the family. Again, this unhealthy mode of living predisposes the servants to fall an easy prey to the contagion of fever and other disorders in their visits to friends in the Old Town, where fever may be said to be endemic.

It is remarkable how very little restores the equilibrium in house accommodation. A single room taken from reception uses on the drawing-room floor, sets free another room on every flat, and the domestics are placed in circumstances of comfort; or, as I have had occasion to notice, an apartment of proper dimensions is set apart for the uses of the laundry—a point of some importance, although it is frequently neglected, that the linen of the establishment should be cleaned and dressed in an airy room.

In the course of the many calls for assistance and advice, I have been struck at once with the numerous avenues by which disease may enter the best built houses, and how a very slight cause may operate most prejudicially on the health of a household. The comforts by which an inhabitant of the present day are surrounded, can be enjoyed only under the penalty of unceasing watchfulness and care. Are we no longer annoyed by the constant eavesdrop from our roofs, the rhones and pipes conveying the rainfall at once to the drain? The delivery pipe must be carefully trapped, else it acts as an admirably contrived shaft for the conveyance of the sewage gases to the top storeys of the house. Cases of typhoid fever have occurred under circumstances in which at first sight it appeared impossible to trace the connection with bad drains. Such cases have been quoted to me as indubitable instances of typhoid fever, having no connection with drainage effluvia, and I have been asked to explain the immunity enjoyed by those living in the ground-floors, immediately above the sewers. An intermittent odour, however, suggestive of offensive matters, and apparent whenever the windows are open to air the apartment, will lead any one to the true cause of the insalubrity of the house. Again, have we water conveyed to every flat? If this be done through the medium of cisterns, these must be carefully covered so as to protect them from the dust and the inroads of the mice and rats, and in addition, they must be regularly cleaned out at stated intervals, otherwise the water in daily use for domestic purposes may become so contaminated as to induce a constant tendency to illness in the household. Have we in our bedrooms discharge pipes from the bason stands? They too, as well as the conveniences, must be carefully trapped, else the sewage gases quickly pollute the air of our sleeping apartments. Have we on every landing pipes for the purpose of enabling the domestics to get rid of the water that has been used for cleansing? These too must be trapped, else the complicated and expensive system of pipes is but an ingenious and effectual method of vitiating the air of the house. Lastly, not to dwell on the obvious dangers resulting from an escape of ordinary lighting gas, the larder may be so placed within the house, that the apartment is rendered unwholesome from the escape of sewage gases, in which the meat and other viands hang suspended. In one or two instances of deadly sickness in the young, I could ascribe the fatality of the illness to no other cause than that to which I have just alluded. It can easily be understood that, in the case of children, the continued use of such tainted meat must act most prejudicially, lowering the general vitality, and inducing languor and a feebleness of constitution, which must render them an easy prey to disease.

O L D T O W N .

It might have been expected that when the citizens availed themselves of the advantages presented by the New Town, the faulty sanitary condition of the older part of the city, which they had left, should have engaged public attention. But this was not the case. The exodus took place gradually, the relief afforded to the more densely-peopled districts of the Old Town was partial and scarcely felt, and at the period in question the subject of sanitary reform was unknown. The population, instead of diminishing, actually increased in density; and the houses, which had been raised to a great height, to afford an increasing population the protection of a fortified town, under the influence of the times fell in value, and were sub-divided into smaller houses consisting of single apartments. The population was thus quadrupled by a class notorious for its neglect of the most ordinary sanitary precautions; and Edinburgh, at the present hour, is placed in more disadvantageous circumstances, so far as the health of its inhabitants is concerned, than it could possibly have been 200 or 300 years ago, were it to have stood a siege, after the inhabitants of the surrounding districts had been swept into it, and absorbed in its population. Now, districts, the seat of a dense population, if only approached by narrow lanes such as our closes, present great difficulties in the way of sanitary improvement, and if those very closes, by their faulty construction, offer fresh obstacles, the case becomes almost hopeless. As the feus in Scotland are perpetual, there is no hope of the closes being removed, unless by such a calamity as a general conflagration. Looking upon them, therefore, as a permanent evil, our endeavours should be directed to remove from them those disadvantages which their faulty construction has entailed. The first circumstance which attracts the notice of any one who visits our closes and wynds is the imperfect condition of the paving. Now, as the system of cleansing pursued in Edinburgh (which I am prepared to prove is not only the best adapted for Edinburgh, but for other large towns) consists in the removal of all refuse and filth, which, if not passed into water-closets, is ordered to be laid upon the streets, it necessarily follows that where the surface of a close is imperfect and uneven, the filth cannot be satisfactorily removed; and thus the efforts of our cleansing staff are frustrated, and the poorer districts of the city, where the ventilation is most imperfect, and where there exists the greatest demand for pure air, suffer from the effluvia which contaminate the atmosphere. The broom of the scavenger requires to be assisted in its operations; and it stands to reason that the smoother and less uneven the surface to be cleansed, the more thorough will the cleansing be. The closes, therefore, should, one and all of them, be suitably repaved with flat stones or flags. Some of the closes—such as Borthwick's Close—are so already, and contrast most favourably with others—such as Bailie Fyfe's Close, where the paving is most imperfect. All causewaying and hornising should be removed, and the flat pavement substituted. This is an expensive operation, but it

is, in my opinion, the first step in the sanitary improvement of what has long been a reproach to Edinburgh. I am well aware that this subject has again and again engaged the attention of the Council, and that the delay which has occurred is attributable, in the first instance, to the desire of the Council to avail themselves of the 210th clause of Provost Lindsay's Act, which gives power to enforce the introduction of water-closets into the houses of the poor, which clause was finally adopted by the Council on the 28th October 1864. Since then, I find that only a few closes have been ordered to be proceeded with, and I must express my gratification that more has not been attempted; for I cannot imagine a more disastrous condition of matters for the poorer districts of our city than the general introduction of water-closets, so long as the present system of house accommodation obtains.

It is to be hoped that this evil will, in course of time, be remedied, and that any new buildings in the poorer districts will be so arranged as to admit of conveniences being provided for every two families. The closes, therefore, ought to be thoroughly drained. This can be satisfactorily accomplished, as the main drainage lines have been completed; and it is easy, under these circumstances, to run a communication into each close, so as to provide for the due discharge of offensive matters. Meanwhile, the public conveniences ought to be increased in number, to supply the necessities of those closes which, in their present condition, are unsuitable for the introduction of conveniences into the densely-crowded tenements.

Of the older houses in the districts of Abbey, Canongate, Tron, St Giles, and Grassmarket, a thorough survey should be made. In the first place, all wooden additions to the fronts or sides of these houses should be peremptorily removed. These not only in many instances narrow the closes, but also interfere with the light and ventilation of the houses to the back. They no longer serve the purpose for which they were permitted to be erected; and whenever the extension of the city beyond the old walls took place, these temporary structures should have been removed. Secondly, all ruinous houses should be taken down, and care should be taken that the new structures are built in accordance with the sanitary requirements of the present day.

We have powers in our Police Act to compel the daily cleansing of common stairs. Now, where the common entrance to houses is kept in a filthy condition, we cannot expect to find clean interiors. I have personally examined the stairs in the High Street and Old Town generally, and found them almost universally in a disgraceful state. A single family wanting in habits of propriety interferes with the cleanliness of a whole stair by thwarting the efforts of their tidier neighbours. The remedy for this state of matters is the enforcement of the clauses referring to the cleansing of common stairs. But, without lighting such stairs, it will be found impossible to enforce cleanliness—a few jets of gas would give the people pleasure in keeping their stairs in good order, and would prevent the nightly deposits of filth which paralyse the efforts of the industrious householder. I submit that were these three measures—viz., the paving and drainage of our closes, the erection of a greater

number of public conveniences, and the cleaning and lighting of the common stairs—thoroughly carried out, which require no special enactments, and for enforcing which we already possess ample powers, the sanitary condition of the Old Town of Edinburgh would be greatly improved.

Another evil of great magnitude remains, viz., overcrowding of the population—a necessary result of the size of the houses and the sub-division they have undergone. Over this the authorities have no control, except in the case of common lodging-houses, which are under the surveillance of the police. The Glasgow Police Act, at present on trial in that city, contains the following clauses, which permit the authorities, under certain circumstances, to regulate the number of inhabitants in the poorer tenements:—

“387. It shall be lawful for any person appointed by the Board from time to time to enter any dwelling-house which consists of not more than three apartments for the purpose of measuring in cubic feet the space contained therein, exclusive of lobbies, closets, or presses, and to mark on or over the outside of the door of any such dwelling-house, if the cubic contents thereof do not exceed two thousand feet, or to affix thereto a ticket, on which are marked, in such position and style as the Board see fit, the number of such cubic feet and the number of persons exceeding the age of eight years who, without a breach of the provision next herein contained, may sleep therein; and any person who obliterates, defaces, removes or alters such marking or ticket shall be liable to a penalty not exceeding ten shillings.

“388. If after the 28th day of May 1863 any dwelling-house which consists of not more than three apartments is used for the purpose of sleeping in by a greater number of persons than in the proportion of one person of the age of eight years or upwards for every three hundred cubic feet of space, or of one person of an age less than eight years for every one hundred and fifty cubic feet of space contained therein, exclusive of lobbies, closets, and presses, or by a greater number of persons than is marked therein, in pursuance of the provisions herein-before contained, every person so using, or suffering it to be used, shall be liable to a penalty not exceeding five shillings for every day, or part of a day, during which it is so used, or suffered to be used, by him.”

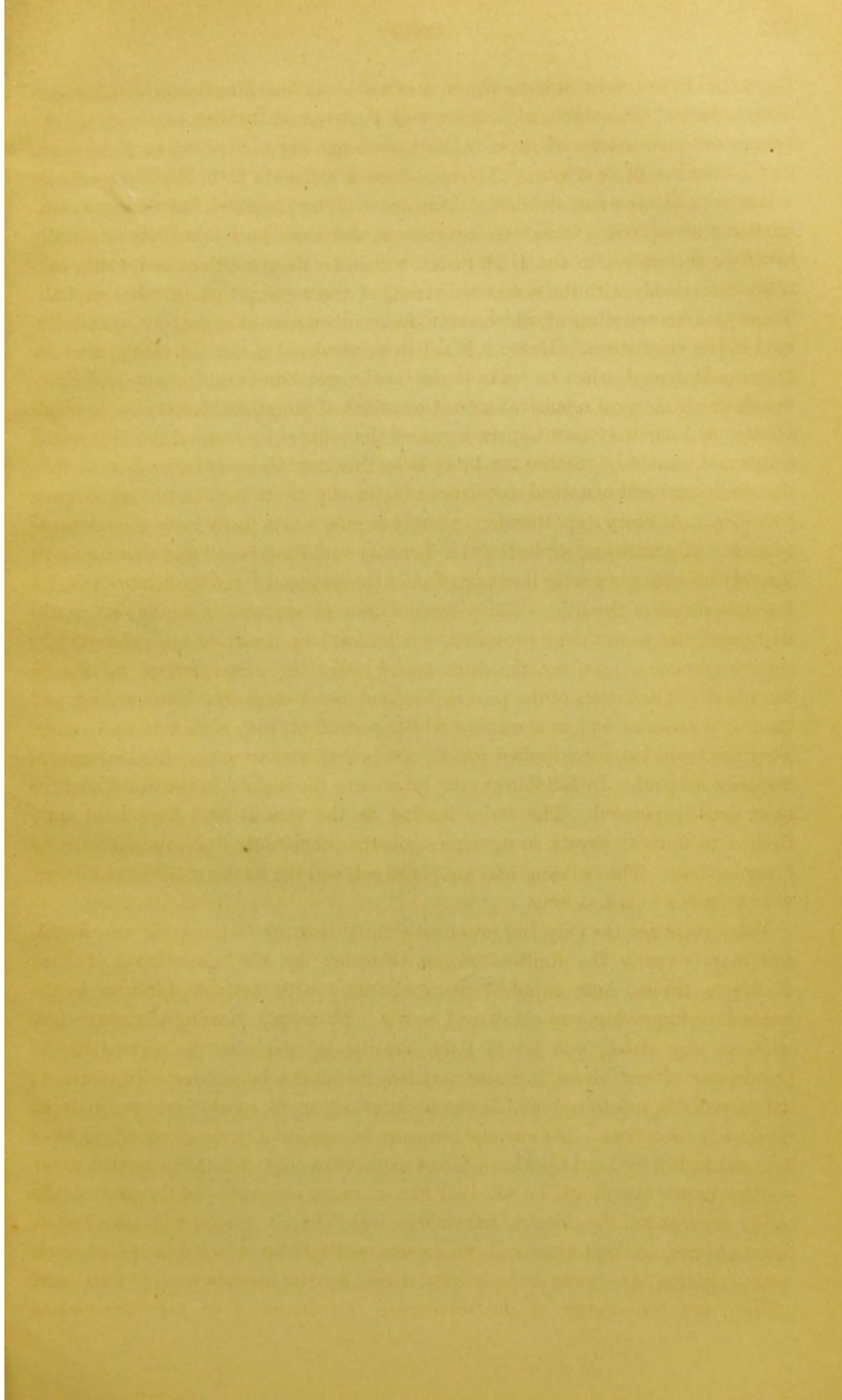
Were such powers available in Edinburgh, a check would be provided to the increasing density of the population, and a large amount of mortality would be prevented. The rapid spread of infectious disorders in our closes is at once accounted for by the manner in which our poor live huddled together, and whenever disease spreads thus rapidly by contagion amid poverty and want, the rate of mortality is always high. Great benefit would also result from limiting the height of the houses. The necessity no longer exists for such castles as form the most picturesque portion of our Old Town. What was permitted centuries ago, in consequence of the contracted area of the city, should not be tolerated in the present day, when the condition of our Old Town is a by-word and reproach. All houses above a certain age, whose condition is not such as to demand instant demo-

lition, should be lowered in height, as was done with so much advantage in the case of Purves' Land in the Canongate, to which allusion has already been made, *see* p. 34. No houses should be allowed to be built of more than four storeys in height. If they are higher than this, they become so unwieldy, and the population so large, that ordinary sanitary rules cannot be enforced. The tenement resembles a rabbit warren in the number of its inhabitants, and it becomes impossible to trace the offenders against police regulations. A similar rule as to height should apply to all old tenements which stand in need of repair. No higher standard should be permitted in the Old Town than the height of the new tenement which replaced the house which fell in the High Street some years ago. This consists of four storeys, three being for dwelling-houses above the range of the shops. No doubt such a limitation would interfere somewhat with the noble outline of the High Street, but this may willingly be sacrificed to improve the sanitary condition of the poor and their dwellings. We have already seen how little that portion of the town, whose necessities we are considering, has been benefited by those philanthropic associations which have done so much to improve the condition of the working-classes by providing them with suitable habitations. Respectable workmen have left the better class of houses in the most densely-peopled parts of the Old Town, and have been succeeded by a poorer and a more ignorant class, which, in its turn, may, through the kindness of charitable persons, be rooted out, and transplanted to the outskirts, only, however, to be followed by the more degraded population of the district.

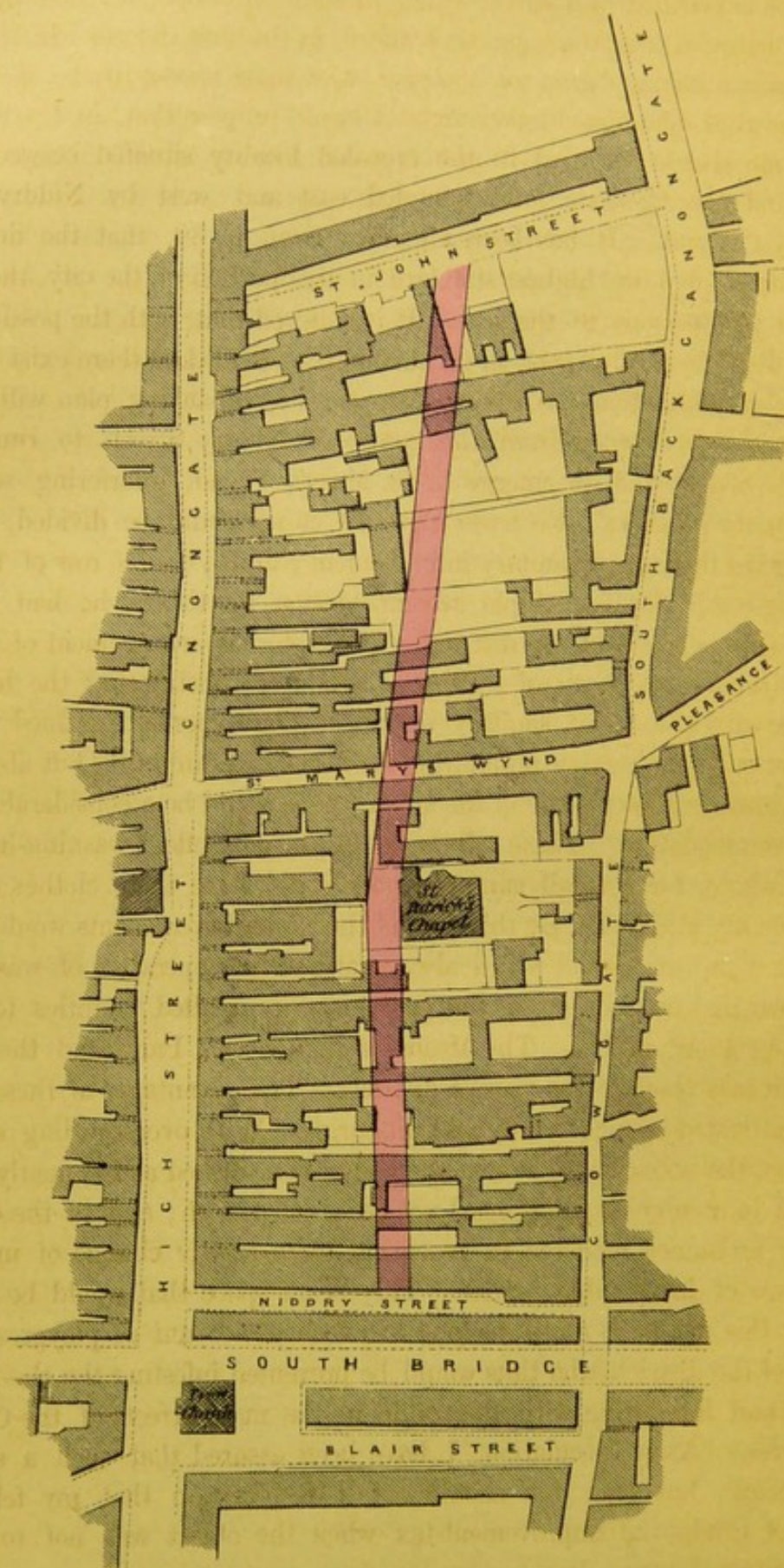
The peculiar structure of the ridge of the Old Town, consisting of a central street of great length—with narrow closes or passages between elevated dwellings passing off from it in great numbers—helps to account for many peculiarities which have excited the astonishment of strangers. The appearance presented by our chief street has been the favourite subject of comment by travellers; and the shortcomings of Edinburgh, as presented in the Old Town, are almost better known than those of any other capital. At this we have no reason to complain, although some measure of injustice attends the vivid descriptions of travellers. A city cannot have its social and sanitary disadvantages too narrowly exposed; for the greater the amount of public attention that is directed to them, the more likely are the citizens to be roused to remedy or remove them. It must be remembered, however, that there are few cities in the empire which are subjected to a more searching examination by tourists, and there are still fewer in which the objects of chief interest lie in the dirtiest and most squalid districts. Our closes are objects of historical interest, and every year are closely inspected by thousands of strangers; but, wherever you have a dense population of the poorest class, it is impossible, under the best sanitary regulations, to effect a great amount of cleanliness. Squalor and filth meet you at every step. This is as true of London, Dublin, and Glasgow as of the rest of the large towns in the empire. No one can visit the poorest districts of these cities without becoming convinced that were they as regularly visited as Edinburgh by holiday tourists, equally salutary lessons might be taught to the inhabitants. But

the track of the tourist in these places does not lie in the direction of poverty and wretchedness. The sights of London and Paris are daily witnessed without the pauperism and misery of these capitals obtruding themselves, as in Edinburgh, on the attention of the visitor. The same remark applies to ports like Liverpool and Glasgow. The spacious streets and docks are carefully inspected, but the poorer districts are never seen. Our closes are narrow, and their poor inhabitants naturally ventilate themselves in the High Street, which, for its proportions and width, contrasts remarkably with the contracted streets of the same period in other capitals. Those places of refreshment, which are too frequently the resort of the poor, are all situated in the chief street. Hence it is not to be wondered at that the visitor, after inspecting Holyrood, when he walks to the Castle, sees Edinburgh poverty and Edinburgh vice in its most repulsive form. Our principal educational institution, the University, and our busy Law Courts, in which the judicial business of the kingdom is transacted, cannot be reached but by crossing this great thoroughfare. Besides this, the traditional and historical associations of our city are to be found in the meanest localities. At every step, therefore, poverty is met, and is justly made the subject of remark. A parallel might be found in London, were Fleet Street and Charing Cross the only breathing-room for the pauperism of the metropolis, and the favourite site for the gin-palaces of the poor. The poverty of other great towns lies hid in obscure districts, and the scenes there presented, which have been described and delineated by the draughtsman, have not the same apology that the worst parts of Edinburgh can plead. The houses of the poor in England are of small size, self-contained, and built of a material and in a manner which permit of easy alteration and repair. They are built, too, for a limited period, and in their very structure afford evidence of a speedy removal. In Edinburgh, the houses are the highest in the world, and the most densely peopled. The stairs leading to the various flats have been aptly likened to upright streets, so numerous are the inhabitants that are met with on every landing. The building feus are perpetual, and the houses are made as if they were intended to last as long.

Many years ago the City Improvement Commission, by forming Victoria Street, and more recently the Railway Access Company, by the construction of Lord Cockburn Street, have supplied the community with valuable hints as to the method of improving our closes and wynds. By simply piercing the closes best with an airy street, you let in light, ventilation, and also the scavenger. At present one of our closes, from its very length, cannot be satisfactorily cleansed; but once divide it into two, and it can be attacked, so to speak, from two ends in addition to its outlets. Let any one compare the condition of the closes which have been cut in two by Lord Cockburn Street with what they were prior to that great sanitary improvement, and he will bear me out in my remarks. In the case of the earlier experiment, the closes which emerge into Victoria Street, and are used as thoroughfares, are kept clean and wholesome, while those which possess no such communication are mere *cul de sacs*, have become receptacles of filth, and severely tax the energy of the scavenger. Of course, I do not contemplate



PROPOSED STREET TO OPEN UP THE CLOSES IN THE TRON AND CANONGATE DISTRICTS.



the formation of expensive streets, or the erection of houses with any architectural display. All that is required is, that our most densely-peopled districts should be penetrated by a street, which, in addition to opening them up to sanitary improvements, will at the same time afford, in the new houses which will line its sides, house accommodation for the poor, who must necessarily be dispossessed by the removal of dilapidated tenements. I would propose that, in the first instance, the scheme should be tried in the crowded locality situated between the High Street and the Cowgate, and bounded east and west by Niddry Street and St Mary's Wynd. It has been already shown, p. 30, that the density of the population reaches its highest standard in this portion of the city, there being no less than 646 persons to the acre. It is believed that, with the possible exception of some districts of Liverpool, in no part of the world does there exist greater overcrowding of population. A reference to the accompanying plan will show that a street might be formed from the centre of Niddry Street, to run parallel to the High Street, and to emerge in St Mary's Wynd, interfering with but few houses in its progress. No fewer than 14 closes would be divided, which would contribute to their great sanitary improvement; and a double row of houses might line the street, affording ample accommodation for those who had to leave the condemned tenements in the district. The internal arrangement of these houses might exhibit a specimen of the best method of constructing the habitations of the poor with the latest sanitary reforms. The experience gained might prove useful not only in directing philanthropic efforts in Edinburgh, but also in all our Scottish towns. On one side of the street, there would be a considerable amount of cellar accommodation. These cellars would prove excellent washing-houses for the district, where, for a small sum, the poor could have their clothes satisfactorily and frequently cleansed. By this means their small apartments would be relieved from the damp and smell which always attend the operation of washing. It is well known that in Edinburgh the poor enjoy unrivalled facilities for bleaching and drying their clothes. The Meadows, the Queen's Park, and the Calton Hill are within easy reach of the poorest districts. The advantages of these can hardly be over-estimated in such a city as Edinburgh. With overcrowding and deficient ventilation, the necessity of having the body-linen washed as frequently as possible, and dried in an airy situation, need not be insisted upon; and in the case of sickness, any assistance rendered in procuring more speedy change of underclothing must prove of inestimable service. The vacant space that would be left in constructing this approach might be put to excellent account as playgrounds for the children of the district, who thus would be prevented infesting the closes with their presence, and interfering with the traffic in the main streets of the Cowgate and High Street. As a speculation, I have been assured that such a street would be a success; but even if it should not, I feel certain that my fellow-citizens would not grudge an improvement-tax when the object was not to beautify a superbly-situated town, but to remove from us a stain and a reproach, which

we have allowed to rest upon us too long, arising from the misery and wretchedness of the dwellings of our poor. I purposely selected the locality in question for illustration, not only because its wants are clamant and its inhabitants among the most indigent of the city, but also because the engineering difficulties are slight, and the levels are of the most satisfactory description. In the plan, the street proposed has been extended to St John Street, and passes through a necessitous district. The density of the population is, however, not so great as in the Tron Sub-district, there being only 331 persons to the acre; but the closes at the top of the Canongate, and St Mary's Wynd itself, stand much in need of sanitary improvement. It can easily be seen that similar streets, conferring similar advantages, could be constructed between Leith Wynd and New Street, and also between Blair Street and the Old Fishmarket Close.

It may be urged that greater advantages would be gained by the formation of a street which should run diagonally from the corner of the South Bridge, and emerge at the Pleasance, and thus divert more completely the traffic from the north to that point. There can be no doubt that the greater thoroughfare there is in a street, the greater chance is there of its being thoroughly inspected and cleansed;—side streets, where there is little traffic, being proverbial for their dullness and dirt. But I fear the expense attending the opening into the High Street of the new street, and its formation along a downward slope, would be so great as effectually to put a stop to a great sanitary improvement. It must be remembered, too, that the traffic by the Pleasance is of very limited extent. The question, however, of the site of the street, can be safely left to architects to determine. I am convinced that the only method of permanently benefiting these poor localities is by some such measure. The removal of such sanitary evils as are to be met with in them strongly resembles the operations of actual warfare. Before a country can be thoroughly conquered, military roads must be made in all directions, to permit of the operations of the soldier and engineer. In like manner, before such densely-peopled districts as are figured on the plan can be brought satisfactorily and permanently under proper sanitary control, they must be opened up, so as to admit of ready access to every nook and cranny. The services of the cleansing staff would at once become doubly valuable. At present they are paralysed by the very length and tortuosity of the closes and their off-shoots; and when it is known that from some of the closes upwards of a ton of refuse is daily removed, some idea may be formed of the more thorough cleansing that could be effected under more advantageous circumstances. The general introduction of water and gas would speedily follow, and with such a street as is proposed near at hand, the poor would not encumber the High Street and Canongate as they do at present. Provided with better houses, and a freer ventilation, the temptation to drunkenness would also be lessened.

S O U T H E R N S U B U R B S .

THIS portion of the city includes the three sanitary districts of Newington, Grange, and Morningside, each of which may be said to contain localities inhabited by the poorer classes, and demanding sanitary improvement. These are Causewayside, in Newington; Sciennes, in Grange; and Morningside Village and Wrightshouses, in Morningside. Undoubtedly the most necessitous is Causewayside, the courts of which should receive a similar treatment to that proposed for the closes and courts of the Old Town. The Byres should also be removed, and public conveniences erected. The houses of the poor are for the most part of little elevation, and are therefore more amenable to sanitary improvement than the high "lands" of the High Street and Cowgate. Morningside Village and Wrightshouses are in much better condition, and with more efficient drainage, and the introduction of conveniences, would exhibit a marked improvement—rendering them still more acceptable as resorts for the invalid sick of the middle classes.

The rest of the Southern Suburbs consists of a town of villa residences admirably placed, so far as exposure and general amenity are concerned, but labouring under certain disadvantages. The drainage is only now being completed after a considerable population has flocked to the district. This has led to the general formation of cesspools, the only method of partial drainage available under the circumstances. The dangers attending these structures have already been insisted upon, but it is to be feared that they will be allowed to remain after the main drains are completed, and communications led into the houses. They ought to be removed or shut up, thus preventing the accumulation of offensive matters in close proximity to the houses; or, if allowed to remain, they should be cleaned out regularly at least once a-year—an expensive and annoying process. Until the general drainage is completed, and the cesspool nuisance abated, the district cannot be regarded as in a satisfactory state. No doubt, portions of it, as the Grange, with its rapidly-increasing population, exhibit a low rate of mortality, and the high rate of other parts may admit of explanation by the number of invalids who come to it for change of air; but, at the same time, it must be remembered that the death-rate of the Southern Suburbs, after deducting the mortality of such inhabitants in the east division of Morningside Asylum and Gillespie's Hospital, is 19·68 per 1000, which is higher than it ought to be, and necessitates careful superintendence, and the removal of all causes likely to affect the health of the inhabitants. I would urge that full advantage be taken of the system of drainage; and it is to be hoped that the mortality will, in future years, more closely resemble that of a rural locality—more especially when the character of the population is taken into account, which is far superior to that of ordinary country districts.

CONCLUSION.

Such are the suggestions which I venture to offer for the sanitary improvement of Edinburgh. It will be observed that they range themselves under two great divisions, viz., those which it is the duty of the authorities to carry into execution; and *2dly*, those which should be adopted by the inhabitants themselves. The measures proposed differ much as to their relative urgency; but I have no hesitation in stating, that the sanitary condition of the Old Town, and particularly that portion of it comprising the districts covering the central ridge, with the Abbey and Grassmarket at either extremity, is a subject that can only be properly dealt with by the municipality, and should be taken up without delay. It includes the following points:—

1st, The satisfactory paving and draining of the closes.

2d, The improvement of the house accommodation of the poor, by insisting on the introduction of water and gas, the cleansing of common stairs, and the performance of necessary repairs.

3d, The diminution of overcrowding of the population, by limiting the number of persons in each apartment, by lowering the houses in height, and by removing all tenements in a ruinous condition.

4th, The opening up of the worst localities by the widening of such contracted thoroughfares as the Cowgate and St Mary's Wynd, and by the formation of new streets, which should pass at right angles to the long and unwieldy closes, and give increased facilities for their thorough cleansing. Such new communications would also afford sites for improved dwellings for the poor where they are most required, and would form an era in the sanitary history of Edinburgh.

In the modern part of the City, there is less call for interference on the part of the authorities. Their duty is limited to the general introduction of conveniences, to the improvement of the surface drainage, and to the enforcement of the Smoke Prevention Act. To the inhabitants we look for the removal of cesspools connected with houses. These measures can hardly be expected to improve the very satisfactory death-rate of the New Town, but they will add greatly to the comfort of the inhabitants.

In the Old Town, more may be looked for. Its mortality, though high, might have been expected to have attained an unusual magnitude, considering the density of the population, and the peculiar house accommodation of the poorer classes. It must be remembered, however, that several important sanitary agencies have for many years been in operation, and have powerfully contributed to the improvement of the

health of this portion of the city. Among these may be mentioned, 1st, the quality of the water supplied, and the disuse of private wells; 2d, the perfecting of the system of cleansing, by which all accumulations of filth and refuse in houses and courts are prevented; 3d, the periodical lime-washing of our closes, and the thorough cleansing of their surface drains; 4th, the establishment of a public abattoir of such an extent as to enable the Magistrates to abolish all private killing-booths throughout the city; and 5th, the unusual facilities for immediate medical attendance which are afforded by our Hospital and numerous Public Dispensaries.

It would be very desirable that the death-rate of the following districts should be at least reduced to 25 per 1000:—

Abbey,	-	-	37.1	|	Grassmarket,	-	32.52
Tron,	-	-	34.46	|	Canongate,	-	31.15
			St Giles,	-	-		28.8.

The effect of this would be the annual saving of 312 lives—the lowering of the death-rate of the Old Town from 30.73 to 25.28 per 1000, and that of the City generally from 25.4 to 23.82. I believe the suggestions offered will materially tend to this result. In the present day, there are two hopeful signs that its accomplishment may be looked upon as certain. *First*, the evident desire for sanitary improvement manifested by such a measure as the purification of the Water of Leith, costing the city upwards of £40,000, and which will doubtless improve the amenity of the district through which the stream flows. The death-rate of this locality of the city, even after the allocation of the deaths in our public hospitals, is only 19 per 1000; and for the last 30 years, during which, of course, the stream has been becoming daily more polluted, successive epidemics of fever and cholera have visited the city, only to leave the district apparently unscathed. The whole force of these pestilences was spent on those portions of the Old Town whose cause we are pleading. The subject of the Water of Leith excited much discussion among the inhabitants in the view of more pressing questions, but now that that is settled, the condition of the Old Town, and the necessity of remedying it, about which there cannot be any diversity of opinion, should be taken up in earnest. The prospect held out in its improvement is of the most tangible character; and it is a trite remark that, in improving the sanitary condition of the poorer localities of great towns, and lowering their death-rate, every district benefits, and that, in a pecuniary point of view, a saving is effected annually in the taxation for the poor. The *second* point of encouragement is the unexpected but very important determination of the City Parochial Board to remove the Poorhouse to the country, and to employ their paupers in rural occupation. One of the great obstacles to the improvement of the Old Town has undoubtedly been the large pauper population it contains. Wherever you have pauperism, you have its attendant depression, bodily and mental—its apathy and its misery: And where you have these rooted firmly, in the midst of a

dense population, and imperfect house accommodation, all the elements are present to ensure a high rate of mortality in ordinary years; and when epidemics are abroad, an amount of sickness and death that is appalling. The greater proportion of the worst class of paupers will now be drafted to the country, and employed there in healthful occupation. This great sanitary measure comes, too, at a most opportune time. One of the obvious difficulties attendant on any measure for diminishing the population in a district is as to how the expelled tenants are to find shelter; and this may be urged where the depopulation is carried on in the most favourable circumstances during the summer weather. The difficulty is, however, greatly lessened, when such assistance is afforded by the Parochial authorities, and a strenuous effort should be made to take advantage of the movement. The citizens should insist that it be extended to the other two parishes of St Cuthbert and Canongate, and that the city should be wholly relieved of their paupers. The present favourable juncture should not be allowed to pass. These three Boards should amalgamate, and thus, not only contribute materially to the sanitary improvement of the city, but also to the interests of all the inhabitants by the diminution of the local rates. The boards in question may be jealous of each other, and possibly hampered by their large staff of officials; but it is for the citizens to speak out decidedly on this question, the solution of which by the City Parish is fraught with so many advantages to the pauper, as well as to the city at large. A better example of the benefit to be derived from centralization and union can hardly be given. The principle has been admirably urged by the *Scotsman* newspaper, in reference to the subject of our Poorhouses, as well as our local charities. The sanitary reformer observes in Edinburgh several instances in which it could be beneficially applied. I need do no more than allude to the City and County Road Trusts, and the proprietary of private streets, all with separate interests, in the struggle for which, the general good is not subserved. I would extend the principle still further, and hold that, in many matters, private rights should succumb to the efficient control of a central authority. This admits of illustration by reference to drainage and house accommodation. The communications with the main sewers may be of the most faulty description, no one can interfere *in limine*, and it is not until the house becomes uninhabitable that the authorities can interfere. But whole districts may be drained without any reference to the drainage plans of other parts of the city, which have been adopted by the Magistrates and Council. Thus the Grange has only been lately drained, but on inquiry I find that over this drainage, although situated within the municipal boundary, the city has no control, and the official who has the superintendence of the rest of the sewers—the City Engineer—was not consulted as to the size or direction of the drains which are made, and his services will not be put into requisition until some defect is ascertained, and an appeal is made to him as the special drainage officer of the city. No district should be built upon, and no house should be erected, until a drainage plan has been prepared and submitted for approval to the Magistrates, in whom all sewers should be vested. Again, in the case of houses intended

to be let below a certain rent, there should be some supervision of the general arrangements. Cases have come under my notice where, to avoid the expense of conducting the drain along the outside of the house, they have been carried under sleeping apartments, and where the convenience was so arranged, as to ventilate into a bedroom. These instances have occurred even in newly-built tenements. The city officials could not interfere until the houses became tenanted, when the inhabitants made a special complaint. The ultimate remedy lies in the law courts, a tedious and exasperating process, which might be entirely avoided were the common-sense regulation adopted, that such matters should be determined by the officer appointed by the authorities. It would be for the benefit of the inhabitants were the principle even further extended, and all feuing plans submitted to the Magistrates. Such anomalies as have been perpetrated in Macnab Street, for example, would never be tolerated—where, from the formation of a *cul de sac*, the ventilation of future tenements must be seriously interfered with, not to speak of the disfigurement of the locality. *Lastly*, the leading thoroughfares should be carefully watched over, so that, whenever circumstances permit, they may be widened, or altered to accommodate the traffic of the City. No one can pass Earl Grey Street without seeing how inadequate it is as a means of communication between the wide thoroughfares of Home Street on the one hand, and Lothian Road on the other. The district is a populous one; the traffic is daily increasing; and the passage of vehicles along this part of the route is attended with no little danger. Advantage should also have been taken of the erection of new buildings in the Cowgate, at the east of Geo. IV. Bridge, to have widened that very contracted thoroughfare. A few feet have been added to it at the point in question; but, when we take the height of the new buildings on either side into consideration, we cannot fail to see that, had the Cowgate been doubled in width, such an addition would not have been beyond the necessities of that low-lying locality. The Crown superintends the erection of the new buildings to the north, and it would have been easy for the Magistrates, on the representation of the proper officer, to have claimed the assistance of Government in commencing an important sanitary improvement. Not to multiply instances, the lane which connects Doune Terrace with Heriot Row, and is so much frequented as a means of communication with Stockbridge, should, long ere this, have been improved, so as to make it an agreeable approach to the best districts of the New Town.

The object of this Report has been to deal with those obstacles to the well-being of society which lie on the surface, and which are connected with the manner of living of the inhabitants. We have determined the unhealthiness of the city, and of its various districts. We have made inquiry into the influence exercised on the rate of mortality by various agencies, which have been considered in detail—such as, overcrowding of the population, trades and occupation, drainage and water supply, &c., &c. No one, however, can visit the poorer districts of the city without

being impressed with the close connection which exists between outward filth and inward depravity, and with the facilities presented for the germination and rapid growth of vice in all its forms, by the wretched habitations and confined alleys of the Old Town. The division of the city adopted in this Report, and the determination of the area and population of the Sanitary Districts, will, it is conceived, aid philanthropists with their enquiries into the social condition of our poor. In Table No. XIII., p. 62 of the Appendix, an attempt has been made to show the manner in which the arrangement might be made serviceable. It is cheering to reflect, that all measures which have for their object the improvement of the sanitary state of communities, have a corresponding influence in raising their moral and social condition. On all sides, in the most degraded localities, physically and morally, we find ourselves surrounded by religious agencies busying themselves in attending to the higher interests of the masses in the most devoted manner, and at great outlay. Bitter complaints have been made as to the poverty of the results obtained by such multifarious and strenuous endeavours. This need be no wonder, when we reflect on the overwhelming disadvantages against which the missionary and philanthropist have to contend. Our poor are so lodged, that to inhale the atmosphere in their houses is enough to produce a lethargic depression, to escape from which is but to be exposed to the temptations of the High Street and Cowgate. With no comfort at home, the poor labourer is forced to go elsewhere for enjoyment. To his sleeping-place he returns, to find himself in a crowded apartment, where there is no attempt to maintain the ordinary decencies of life. With so many and varied proclivities to vice in all its forms, it is a heartless task to talk to such an one of righteousness, temperance, and judgment to come. The agencies employed ought, in my opinion, to be more varied; and Woman might be enlisted in the cause with great advantage. I have found the Missionaries of all denominations nobly discharging duties to the poor of Edinburgh, which would be more fitly rendered by the other sex. By means of Female assistance, the houses of the poor would be rendered more comfortable, and the food of the working-classes would be more economically and better prepared. There would be less temptation to seek the pleasures of the alehouse, and lessons of thrift would be imparted in the management of the household, that would pave the way for the higher ministrations of the minister of religion. In attempting to raise the poor in our towns from their degraded position, we must attack that which lies on the surface. Until the dwellings of the poor are rendered more habitable, and the poor themselves are taught the wholesome lesson of outward cleanliness, it is not to be expected that their deeper nature can be effectually stirred.

Reported by,

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Medical Officer of Health.

A P P E N D I X.

TABLE No. I.—CAUSES OF DEATH IN THE CITY OF EDINBURGH,
at different Periods of Life, in 1863.—BOTH SEXES.

DISEASES.	ALL AGES.	AGE UNDER											
		MONTHS.			2	3	4	5	10	15	20	25	30
		3	6	12									
ALL CAUSES	4412	433	154	295	465	224	157	94	188	68	101	150	144
SPECIFIED CAUSES	4397	429	153	293	465	224	157	94	188	68	100	149	143
1 Zymotic Diseases	1059	58	44	96	224	141	98	59	97	20	22	29	23
2 Diseases of Uncertain Seat	177	3	2	1	1	1	1	2	4	2	...	1	2
3 Tubercular Diseases	735	18	25	70	84	39	26	12	39	27	54	73	56
4 Diseases of the Brain, &c.	485	31	8	24	16	2	1	1	7	3	6	7	10
5 Diseases of the Heart, &c.	253	1	...	...	1	2	1	1	8	3	4	4	12
6 Diseases of the Lungs, &c.	650	38	43	76	98	29	21	13	14	2	3	14	3
7 Diseases of the Stomach, &c.	226	28	8	11	16	2	4	1	8	3	2	4	10
8 Diseases of the Kidney.....	63	...	...	...	2	...	2	1	4	1	4	1	2
9 Diseases of the Uterus, &c.	38	...	...	...	...	...	...	...	...	...	1	3	11
10 Diseases of the Joints, &c.	22	1	1	1	...	...	...	1	1	2	...	2	1
11 Diseases of the Skin, &c. ...	10	1	1	...	1	...	...	...	...	...	...	...	...
12 Malformation	8	5	1	...	1	...	...	...	...	...	...	...	...
13 Premature Debility	195	189	5	1	...	...	...	...	...	...	...	...	...
14 Atrophy	69	23	11	7	15	5	...	...	2	...	...	2	...
15 Age	227	...	...	...	...	...	...	...	...	...	...	...	...
16 Sudden	12	2	...	...	1	...	...	...	...	...	...	1	...
17 External Causes.....	168	31	4	6	5	3	3	3	4	5	4	8	13
I.													
Small Pox.....	48	6	1	2	7	8	4	1	6	1	...	1	4
Measles	220	3	4	26	102	41	22	7	11	...	2	1	...
Scarlatina	121	1	...	5	17	22	14	18	34	4	1	2	1
Diphtheria.....	134	7	3	12	20	23	24	13	20	3	2	...	2
Whooping-Cough	53	1	7	12	15	8	5	2	3	...	...	...	...
Croup.....	114	3	1	15	35	32	13	8	7	...	...	...	...
Pyæmia	16	...	1	...	...	...	...	...	1	...	4	4	...
Diarrhœa	97	23	11	14	14	...	...	1	1	1	...	...	1
Dysentery	11	...	...	...	1	1	...	...	...	...	...	...	1
Cholera	11	1	2	1	3	...	...	...	1	...	...	...	...
Influenza	5	...	1	...	...	...	...	...	...	...	...	...	...
Purpura.....	2	1	...	...	...	...	...	...	1	...	...	...	...
Cancrum Oris	1	...	...	...	...	...	...	...	1	...	...	...	...
Worms	5	1	...	1	3	...	...	...	...	...	...	...	...
Typhus Fever	57	...	...	...	1	...	...	...	1	1	5	9	5
Typhoid „	46	...	...	...	...	1	5	3	4	4	9	7	1
Gastric „	41	...	1	1	...	5	2	3	2	5	2	2	3
Infantile „	22	...	2	1	3	...	9	2	5	...	...	...	...
Metria	12	...	...	...	...	...	...	...	...	...	1	3	1
Rheumatic Fever.....	2	...	...	...	...	...	...	1	...	...	...	...	...
Erysipelas	18	5	4	2	...	...	...	...	...	...	...	...	...
Syphilis	23	6	6	4	3	...	...	...	...	...	...	...	...
	1059	58	44	96	224	141	98	59	97	20	22	29	23

TABLE No. I.—CAUSES OF DEATH IN THE CITY OF EDINBURGH,
at different Periods of Life, in 1863.—BOTH SEXES.—*Continued.*

DISEASES.	AGE UNDER															
	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	
ALL CAUSES	155	155	132	157	172	179	236	168	244	175	114	39	10	2	1	
SPECIFIED CAUSES	155	154	132	157	172	177	236	167	244	174	114	39	10	2	1	
Zymotic Diseases	22	24	9	9	18	12	16	11	14	9	2	1	1	...	...
Diseases of Uncertain Seat	6	9	10	12	26	18	27	14	17	13	3	2	...	...	...
Tubercular Diseases	52	39	30	39	25	15	10	2	...	...	...	...	...	...	...
Diseases of the Brain, &c....	16	20	20	24	31	38	51	39	71	35	18	6	...	...	...
Diseases of the Heart, &c....	13	14	24	20	16	22	36	28	18	17	6	1	1	...	...
Diseases of the Lungs, &c....	12	11	12	22	25	36	44	38	48	24	15	5	3	1	...	
Diseases of the Stomach, &c..	11	11	11	13	9	19	18	8	18	7	3	...	1	...	...
Diseases of the Kidneys.....	4	5	3	2	4	4	9	3	4	6	2	...	...	...	...
Diseases of the Uterus, &c..	6	3	4	3	3	1	2	...	...	1	...	...	...	...	...
Diseases of the Joints, &c..	4	1	1	...	2	1	1	2	...	...	...	...	...	...	...
Diseases of the Skin, &c. ...	...	2	...	1	...	...	...	1	2	...	...	1	...	...	...
Malformation .....	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Premature Debility .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy .....	...	1	...	...	2	1	...	...	...	...	...	...	...	...	...
Age .....	...	...	...	...	1	2	14	14	47	58	63	22	4	1	1
Sudden	1	2	1	2	1	1	...	...	...	...	...	...	...	...	...
External Causes.....	8	12	7	9	9	7	8	7	5	4	2	1	...	...	...
I.																
Small Pox	2	1	1	...	1	1	...	..	1	...	...	...	...	...	...
Measles	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlatina	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria .....	...	1	1	1	...	...	1	...	1	...	...	...	...	...	...
Hooping-Cough .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyæmia	1	3	...	1	...	1	...	...	...	...	...	...	...	...	...
Diarrhoea	1	1	1	1	6	1	3	4	5	5	1	1	1	...	...
Dysentery .....	...	1	2	...	...	...	3	...	1	1	...	...	...	...	...
Cholera .....	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...
Influenza .....	...	...	...	...	...	...	...	...	1	2	1	...	...	...	...
Purpura .....	...	...	...	...	...	...	...	...	1	2	1	...	...	...	...
Ague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Worms .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever.....	9	4	2	4	6	3	4	2	...	1	...	...	...	...	...
Typhoid „ .....	...	2	1	...	3	1	2	2	1	...	...	...	...	...	...
Gastric „	2	2	1	1	1	4	2	1	1	...	...	...	...	...	...
Infantile „ .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Metria	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatic Fever .....	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	2	1	...	...	...	...	...	2	2	...	...	...	...	...	...
Syphilis .....	...	3	...	...	...	1	...	...	...	...	...	...	...	...	...
	22	24	9	9	18	12	16	11	14	9	2	1	1	...	...

TABLE No. I.—CAUSES OF DEATH IN THE CITY OF EDINBURGH,
at different Periods of Life, in 1863.—BOTH SEXES.—*Continued.*

DISEASES.	ALL AGES.	AGE UNDER											
		MONTHS.			2	3	4	5	10	15	20	25	30
		3	6	12									
II.													
Hæmorrhage.....	9	2	...	...	...	...	1	...	...	...	...	1	...
Dropsy	24	...	...	...	...	...	...	1	3	2	...	...	...
Abscess	15	1	1	1	...	1	...	...	...	...	...	...	...
Ulcer	7	...	1	...	...	...	...	...	1	...	...	...	1
Fistula .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Mortification.....	11	...	...	...	1	...	...	...	...	...	...	...	...
Cancer	111	...	...	...	...	...	...	1	...	...	...	...	1
Gout .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	177	3	2	1	1	1	1	2	4	2	...	1	2
III.													
Scrofula.....	34	1	3	2	6	8	3	...	4	3	1	1	...
Tabes Mesenterica	77	6	8	18	21	9	5	...	5	1	2	1	...
Phthisis	433	...	1	1	4	4	1	2	15	18	51	71	56
Hydrocephalus	191	11	13	49	53	18	17	10	15	5	...	...	...
	735	18	25	70	84	39	26	12	39	27	54	73	56
IV.													
Cephalitis	18	...	...	...	...	...	...	...	...	...	3	3	1
Apoplexy	73	...	...	1	...	...	...	...	...	...	...	...	1
Paralysis	151	...	...	...	...	...	...	...	...	...	...	...	2
Delirium Tremens	11	...	...	...	...	...	...	...	...	...	...	...	...
Trismus Nascentium	1	1	...	...	...	...	...	...	...	...	...	...	...
Epilepsy	16	...	...	...	...	...	...	...	2	1	1	2	...
Tetanus	2	...	...	...	...	...	...	...	...	...	...	...	...
Insanity.....	67	...	...	...	...	...	...	...	...	...	...	1	3
Convulsions	75	29	8	19	14	1	1	...	2	...	...	...	...
Brain	71	1	...	4	2	1	...	1	3	2	2	1	3
	485	31	8	24	16	2	1	1	7	3	6	7	10
V.													
Pericarditis	9	...	...	...	1	...	...	...	2	...	1	...	2
Aneurism	8	...	...	...	...	...	...	...	...	...	...	...	...
Heart.....	236	1	...	...	...	2	1	1	6	2	3	4	10
	253	1	...	...	1	2	1	1	8	3	4	4	12
VI.													
Laryngitis.....	12	...	1	2	6	...	1	1	...	...	...	...	...
Bronchitis	461	34	34	65	77	23	16	10	10	...	1	6	2
Pleurisy.....	18	...	...	1	...	...	...	...	...	...	1	2	1
Pneumonia	77	3	8	6	12	3	3	1	2	...	...	3	...
Asthma.....	41	...	...	...	...	...	...	...	...	...	...	...	...
Lungs	41	1	...	2	3	3	1	1	2	2	1	3	...
	650	38	43	76	98	29	21	13	14	2	3	14	3
VII.													
Teething	18	...	2	6	10	...	...	...	...	...	...	...	...
Quinsey.....	8	2	...	...	1	2	1	...	1	...	...	...	...
Gastritis	2	...	...	...	...	...	...	...	1	...	...	...	...
Enteritis	40	14	2	4	5	...	2	1	3	...	...	...	...
Peritonitis.....	24	3	2	...	...	...	...	...	1	1	2	2	...
Ascites	4	...	...	...	...	...	...	...	...	...	...	...	...
Ulceration of Intestines	9	...	...	...	...	...	...	...	...	...	...	1	2
Hernia	6	...	...	...	...	...	...	...	...	...	...	...	...
Ileus	8	1	1	...	...	...	...	...	...	...	...	...	1
Intussusception.....	2	...	1	...	...	...	...	...	...	...	...	...	...
Stricture of Intestines.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Stomach	39	...	...	...	...	...	...	...	...	...	...	...	3
Pancreas .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Hepatitis	5	...	...	...	...	...	...	...	...	...	...	...	...
Jaundice	12	7	...	...	...	...	1	...	...	...	...	...	...
Liver.....	46	1	...	1	...	...	...	...	2	2	...	...	4
Spleen	3	...	...	...	...	...	...	...	...	...	...	1	...
	226	28	8	11	16	2	4	1	8	3	2	4	10

TABLE No. I.—CAUSES OF DEATH IN THE CITY OF EDINBURGH,
at different Periods of Life, in 1863.—BOTH SEXES.—*Continued.*

DISEASES.	AGE UNDER														
	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105
II.															
Hæmorrhage .....	...	...	1	1	1	...	...	...	1	1	...	...	...	...	...
Dropsy .....	...	2	1	...	1	1	5	1	4	2	1	...	...	...	...
Abscess	1	...	2	1	...	4	1	...	2	...	...	...	...	...	...
Ulcer	1	...	...	...	...	...	...	...	1	2	...	...	...	...	...
Fistula .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mortification .....	...	...	...	1	...	...	1	1	2	2	2	1	...	...	...
Cancer	4	7	6	9	24	13	20	12	7	6	...	1	...	...	...
Gout .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	6	9	10	12	26	18	27	14	17	13	3	2	...	...	...
III.															
Scrofula .....	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica .....	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Phthisis	52	38	30	38	24	15	10	2	...	...	...	...	...	...	...
Hydrocephalus .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	52	39	30	39	25	15	10	2	...	...	...	...	...	...	...
IV.															
Cephalitis	3	2	2	...	...	2	...	1	1	...	...	...	...	...	...
Apoplexy	2	3	3	6	4	10	12	13	9	5	4	...	...	...	...
Paralysis .....	...	1	3	6	10	13	21	13	46	21	11	4	...	...	...
Delirium Tremens	1	6	1	1	...	1	...	...	...	...	...	...	...	...	...
Chorea .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy .....	...	1	3	2	1	...	...	1	2	...	...	...	...	...	...
Tetanus .....	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Insanity	8	4	5	8	8	4	9	8	5	2	2	1	...	...	...
Convulsions	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brain	1	3	3	...	8	7	9	3	8	7	1	1	...	...	...
	16	20	20	24	31	38	51	39	71	35	18	6	...	...	...
V.															
Pericarditis .....	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...
Aneurism .....	...	3	2	1	...	1	...	1	...	...	...	...	...	...	...
Heart	13	11	22	19	16	20	34	27	18	17	6	1	1	...	...
	13	14	24	20	16	22	36	28	18	17	6	1	1	...	...
VI.															
Laryngitis .....	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	5	5	8	11	13	19	28	26	34	14	14	3	2	1	...
Pleurisy	2	...	1	...	1	1	1	2	2	3	...	...	...	...	...
Pneumonia	2	2	1	3	6	10	...	3	5	2	1	1	...	...	...
Asthma	1	1	1	5	1	5	11	5	5	4	...	1	1	...	...
Lungs	2	3	...	3	4	1	4	2	2	1	...	...	...	...	...
	12	11	12	22	25	36	44	38	48	24	15	5	3	1	...
VII.															
Teething .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quinsey .....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastritis .....	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Enteritis .....	...	1	2	2	1	...	1	1	1	...	...	...	...	...	...
Peritonitis	4	3	...	...	1	2	1	...	2	...	...	...	...	...	...
Ascites .....	...	...	...	...	1	...	1	...	...	1	1	...	...	...	...
Ulceration of Intestines	1	...	...	1	1	2	...	...	1	...	...	...	...	...	...
Hernia .....	...	...	...	2	1	...	2	...	...	1	...	...	...	...	...
Ileus	1	...	...	1	...	...	...	...	1	1	1	...	...	...	...
Intussusception .....	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Stricture of Intestines .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stomach	2	3	3	3	3	6	8	4	3	1	...	...	...	...	...
Pancreas .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hepatitis .....	...	...	...	2	...	1	...	1	...	...	...	...	1	...	...
Jaundice .....	...	...	2	...	...	...	...	...	1	...	1	...	...	...	...
Liver	3	3	3	1	1	8	4	2	8	3	...	...	...	...	...
Spleen .....	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
	11	11	11	13	9	19	18	8	18	7	3	...	1	...	...

TABLE No. I.—CAUSES OF DEATH IN THE CITY OF EDINBURGH,
at different Periods of Life, in 1863.—BOTH SEXES.—*Continued.*

DISEASES.	ALL AGES.	AGE UNDER											
		MONTHS.			2	3	4	5	10	15	20	25	30
		3	6	12									
VIII.													
Nephritis	4	...	...	...	...	...	...	...	1	...	1	...	...
Nephria.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Ischuria.....	1	...	...	...	...	...	...	...	...	...	...	...	...
Diabetes	4	...	...	...	1	...	...	...	...	...	1	...	...
Stone	1	...	...	...	...	...	...	...	...	...	...	...	...
Cystitis	8	...	...	...	...	...	...	...	...	1	...	1	...
Stricture of Urethra	4	...	...	...	...	...	...	...	...	...	...	...	...
Kidneys	41	...	...	...	1	...	2	1	3	...	2	...	2
	63	...	...	...	2	...	2	1	4	1	4	1	2
IX.													
Paramenia	1	...	...	...	...	...	...	...	...	...	...	...	...
Ovarian Dropsy	10	...	...	...	...	...	...	...	...	...	...	...	1
Childbirth.....	21	...	...	...	...	...	...	...	...	...	1	3	9
Uterus	6	...	...	...	...	...	...	...	...	...	...	...	1
	38	...	...	...	...	...	...	...	...	...	1	3	11
X.													
Arthritis .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatism.....	8	...	...	...	...	...	...	...	...	...	...	...	...
Joints	19	1	1	1	...	...	...	1	1	2	...	2	1
	22	1	1	1	...	...	...	1	1	2	...	2	1
XI.													
Carbuncle	5	...	...	...	...	...	...	...	...	...	...	...	...
Phlegmon .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin	5	1	1	...	1	...	...	...	...	...	...	...	...
	10	1	1	...	1	...	...	...	...	...	...	...	...
XII.													
Cyanosis	4	2	1	...	...	...	...	...	...	...	...	...	...
Spina Bifida	1	1	...	...	...	...	...	...	...	...	...	...	...
Other Malformations	3	2	...	...	1	...	...	...	...	...	...	...	...
	8	5	1	...	1	...	...	...	...	...	...	...	...
XIII.—XVI.													
See above.	503	214	16	8	16	5	...	...	2	...	...	3	...
XVII.													
Intemperance	13	...	...	...	...	...	...	...	...	...	1	2	1
Privation	1	...	...	...	...	...	...	...	...	...	...	...	...
Want of Milk	9	8	...	1	...	...	...	...	...	...	...	...	...
Neglect	7	7	...	...	...	...	...	...	...	...	...	...	...
Cold .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Poison	5	1	...	...	...	...	...	...	...	...	1	...	1
Burns, &c.....	20	...	...	2	3	1	2	1	...	2	...	...	...
Hanging, &c.	3	...	...	...	...	...	...	...	...	...	...	...	1
Suffocation	21	11	3	1	1	...	...	...	...	...	...	...	2
Drowning	10	...	...	...	1	...	...	...	1	...	...	...	...
Fractures and Contusions	41	2	...	1	...	2	1	1	...	1	1	5	3
Wounds.....	10	1	...	...	...	...	...	1	...	...	...	...	2
Other Violent Causes	28	1	1	1	...	...	...	...	3	2	1	1	3
	168	31	4	6	5	3	3	3	4	5	4	8	13
Not Specified													
	15	4	1	2	...	...	...	...	...	...	1	1	1

TABLE No. I.—CAUSES OF DEATH IN THE CITY OF EDINBURGH,
at different Periods of Life, in 1863.—BOTH SEXES.—*Continued.*

DISEASES.	AGE UNDER														
	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105
VIII.															
Nephritis.....	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
Nephria.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ischuria.....	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Diabetes.....	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
Stone.....	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Cystitis.....	...	...	...	...	...	1	1	...	1	2	1	...	...	...	...
Stricture of Urethra.....	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...
Kidneys.....	4	5	1	1	3	1	7	2	3	3	...	...	...	...	...
	4	5	3	2	4	4	9	3	4	6	2	...	...	...	...
IX.															
Paramenia.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ovarian Dropsy.....	1	...	1	2	2	...	2	...	...	1	...	...	...	...	...
Childbirth.....	4	2	2	...	...	...	...	...	...	...	...	...	...	...	...
Uterus.....	...	1	1	1	1	1	...	...	...	...	...	...	...	...	...
	6	3	4	3	3	1	2	...	...	1	...	...	...	...	...
X.															
Arthritis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatism.....	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...
Joints.....	4	1	1	...	...	1	1	1	...	...	...	...	...	...	...
	4	1	1	...	2	1	1	2	...	...	...	...	...	...	...
XI.															
Carbuncle.....	...	2	...	...	...	...	...	1	2	...	...	...	...	...	...
Phlegmon.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin.....	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
	...	2	...	1	...	...	...	1	2	...	...	1	...	...	...
XII.															
Cyanosis.....	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Spina Bifida.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Malformations.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
XIII.—XVI.															
See above.	1	3	1	2	4	4	14	14	47	58	63	22	4	1	1
XVII.															
Intemperance.....	1	2	2	...	2	1	...	...	...	...	1	...	...	...	...
Privation.....	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Want of Milk.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Neglect.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cold.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poison.....	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
Burns, &c.....	1	1	...	...	2	1	2	1	...	...	...	1	...	...	...
Hanging, &c.....	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Suffocation.....	...	2	...	...	...	...	...	...	1	...	...	...	...	...	...
Drowning.....	2	3	...	1	...	1	...	1	...	...	...	...	...	...	...
Fractures & Contusions.....	2	...	3	2	3	3	4	1	4	1	1	...	...	...	...
Wounds.....	...	1	1	1	...	1	...	2	...	...	...	...	...	...	...
Other Violent Causes.....	2	3	...	3	1	...	1	2	...	3	...	...	...	...	...
	8	12	7	9	9	7	8	7	5	4	2	1	...	...	...
Not Specified															
	...	1	...	...	...	2	...	1	...	1	...	...	...	...	...

TABLE No. II.—CAUSES OF DEATH IN THE CITY OF EDINBURGH, for each Month in 1863, arranged according to Sex.

Only the Monthly Totals of the various Classes of Disease in the Sexes as arranged in Table I. are here given, as it was not considered necessary to give the Tables at full length.

MONTH.	TEMPERATURE.			MORTALITY.		
	Highest.	Lowest.	Mean.	Total.	Males.	Females.
January	53.0	25.5	38.7	392	199	193
February	59.0	26.5	41.2	402	188	214
March	58.5	25.0	43.0	415	215	200
April	57.0	30.0	44.6	420	205	215
May	64.5	36.5	49.5	372	182	190
June	68.0	42.0	55.6	392	200	192
July	75.2	39.5	58.0	275	139	136
August	69.0	39.0	56.0	326	161	165
September	60.0	41.0	50.0	289	145	144
October	58.0	31.5	46.8	360	180	180
November	57.0	26.5	44.1	371	186	185
December	56.0	24.5	41.4	398	221	177
Total				4412	2221	2191

MONTH.	TEMPERATURE.			I. Zymotic Diseases			II. Uncertain Seat.			III. Tubercular Class.			IV. Brain, &c.		
	Highest.	Lowest.	Mean.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.
January...	53.0	25.5	38.7	112	65	47	12	3	9	55	32	23	36	22	14
February...	59.0	26.5	41.2	97	42	55	13	3	10	62	34	28	40	20	20
March ...	58.5	25.0	43.0	99	51	48	13	4	9	64	33	31	48	27	21
April	57.0	30.0	44.6	122	53	69	12	6	6	69	36	33	43	27	16
May	64.5	36.5	49.5	81	38	43	14	6	8	69	35	33	41	26	15
June	68.0	42.0	55.6	78	38	39	14	6	8	75	35	40	58	29	29
July	75.2	39.5	58.0	69	39	30	14	7	7	57	29	28	28	14	14
August ...	69.0	39.0	56.0	75	39	36	16	7	9	58	31	27	38	23	15
September	60.0	41.0	50.0	68	31	37	21	6	15	43	29	14	43	18	25
October ...	58.0	31.5	46.8	82	39	43	15	4	11	58	29	29	37	21	16
November	57.0	26.5	44.1	92	40	52	17	7	10	63	34	29	35	16	19
December	56.0	24.5	41.4	85	43	42	16	8	8	63	37	26	38	28	10
Total				1059	518	541	177	67	110	735	394	341	485	271	214

MONTH.	TEMPERATURE.			V. Heart, &c.			VI. Lungs, &c.			VII. Stomach, &c.			VIII. Kidney.		
	Highest.	Lowest.	Mean.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.
January...	53.0	25.5	38.7	17	7	10	66	30	36	23	10	13	2	...	2
February...	59.0	26.5	41.2	28	11	17	64	31	33	22	10	12	4	3	1
March ...	58.5	25.0	43.0	26	13	13	70	38	32	20	10	10	8	8	...
April	57.0	30.0	44.6	23	17	6	70	28	42	16	5	11	3	2	1
May	64.5	36.5	49.5	18	11	7	65	32	33	16	5	11	9	6	3
June	68.0	42.0	55.6	18	10	8	46	27	19	24	12	12	4	4	...
July	75.2	39.5	58.0	12	7	5	34	16	18	10	5	5	4	2	2
August ...	69.0	39.0	56.0	20	8	12	25	14	11	18	8	10	5	2	3
September	60.0	41.0	50.0	16	8	8	33	19	14	11	9	2	8	6	2
October ...	58.0	31.5	46.8	31	16	15	50	22	28	23	12	11	5	3	2
November	57.0	26.5	44.1	18	11	7	67	39	28	14	6	8	5	2	3
December	56.0	24.5	41.4	26	12	14	60	34	26	29	15	14	6	5	1
Total				253	131	122	650	330	320	226	107	119	63	43	20

TABLE No. II.—CAUSES OF DEATH IN THE CITY OF EDINBURGH, for each Month in 1863, arranged according to Sex.—*Continued.*

MONTH.	TEMPERATURE.			IX. Uterus, &c.			X. Joints, &c.			XI. Skin, &c.			XII. Malformation.		
	Highest.	Lowest.	Mean.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.
January...	53.0	25.5	38.7	...	...	...	...	...	...	...	...	...	...	...	...
February	59.0	26.5	41.2	5	...	5	3	2	1	...	...	...	...	...	...
March ...	58.5	25.0	43.0	4	...	4	1	...	1	3	...	3	...	...	...
April	57.0	30.0	44.6	...	...	...	2	1	1	...	...	...	2	1	1
May	64.5	36.5	49.5	...	...	...	3	1	2	...	...	...	2	2	...
June	68.0	42.0	55.6	6	...	6	3	2	1	1	...	1	2	2	...
July	75.2	39.5	58.0	4	...	4	2	1	1	...	...	...	...	...	...
August ...	69.0	39.0	56.0	3	...	3	2	1	1	2	1	1	1	...	1
September	60.0	41.0	50.0	3	...	3	...	...	...	...	...	...	...	...	...
October ...	58.0	31.5	46.8	5	...	5	2	2	...	1	1	...	...	...	...
November	57.0	26.5	44.1	5	...	5	...	...	...	1	...	1	...	...	...
December	56.0	24.5	41.4	3	...	3	4	2	2	2	1	1	1	1	...
Total.....				38	...	38	22	12	10	10	3	7	8	6	2

MONTH.	TEMPERATURE.			XIII. Prem. Debility.			XIV. Atrophy.			XV. Age.			XVI. Sudden.		
	Highest.	Lowest.	Mean.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.
January...	53.0	25.5	38.7	15	7	8	3	1	2	26	9	17	...	...	...
February	59.0	26.5	41.2	19	11	8	7	3	4	22	8	14	2	1	1
March ...	58.5	25.0	43.0	19	13	6	5	4	1	15	5	10	2	2	...
April	57.0	30.0	44.6	19	9	10	7	6	1	19	7	12	2	1	1
May	64.5	36.5	49.5	14	6	8	10	5	5	18	5	13	3	...	3
June	68.0	42.0	55.6	17	13	4	5	...	5	23	8	15	1	...	1
July	75.2	39.5	58.0	9	5	4	5	2	3	16	6	10	...	...	...
August ...	69.0	39.0	56.0	23	11	12	4	1	3	21	6	15	...	...	...
September	60.0	41.0	50.0	10	6	4	5	3	2	17	5	12	...	...	...
October ...	58.0	31.5	46.8	18	13	5	5	3	2	13	7	6	1	...	1
November	57.0	26.5	44.1	16	10	6	8	3	5	14	8	6	...	...	...
December	56.0	24.5	41.4	16	13	3	5	1	4	23	9	14	1	1	...
Total.....				195	117	78	69	32	37	227	83	144	12	5	7

MONTH.	TEMPERATURE.			XVII. External Causes.			Not Specified.			CLASS	I.	Total	M.	F.
	Highest.	Lowest.	Mean.	Total.	M.	F.	Total.	M.	F.					
January...	53.0	25.5	38.7	21	12	9	4	1	3	II.	177	67	110	
February	59.0	26.5	41.2	14	9	5	...	...	...	III.	735	394	341
March ...	58.5	25.0	43.0	16	6	10	2	1	1	IV.	485	271	214	
April	57.0	30.0	44.6	11	6	5	...	...	...	V.	253	131	122
May	64.5	36.5	49.5	9	4	5	1	...	1	VI.	650	330	320	
June	68.0	42.0	55.6	18	14	4	...	...	...	VII.	226	107	119
July	75.2	39.5	58.0	10	6	4	1	...	1	VIII.	63	43	20	
August ...	69.0	39.0	56.0	14	8	6	1	1	...	IX.	38	...	38	
September	60.0	41.0	50.0	11	5	6	...	...	...	X.	22	12	10
October ...	58.0	31.5	46.8	13	7	6	1	1	...	XI.	10	3	7	
November	57.0	26.5	44.1	15	10	5	1	...	1	XII.	8	6	2	
December	56.0	24.5	41.4	16	9	7	4	2	2	XIII.	195	117	78	
Total.....				163	96	72	15	6	9	XIV.	69	32	37	
										XV.	227	83	144	
										XVI.	12	5	7	
										XVII.	168	96	72	
										Not specified	15	6	9	
Total.....				163	96	72	15	6	9	Total...	4412	2221	2191	

TABLE No. III.—DEATHS at different AGES in EDINBURGH,

MONTH.	TEMPERATURE.			ALL AGES.	AGE					
	Highest.	Lowest.	Mean.		MONTHS.			2	3	4
					3	6	12			
January	53·0	25·5	38·7	392	35	14	21	46	23	20
February.....	59·0	26·5	41·2	402	32	11	20	53	19	19
March	58·5	25·0	43·0	415	45	8	38	44	24	20
April	57·0	30·0	44·6	420	39	16	36	74	18	19
May.....	64·5	36·5	49·5	372	27	14	22	49	21	15
June	68·0	42·0	55·6	392	39	15	26	27	20	14
July.....	75·2	39·5	58·0	275	19	12	23	28	17	4
August	69·0	39·0	56·0	326	51	11	15	29	17	10
September	60·0	41·0	50·0	289	27	8	16	17	9	8
October	58·0	31·5	46·8	360	43	16	25	30	17	10
November	57·0	26·5	44·1	371	34	16	26	32	15	11
December	56·0	24·5	41·4	398	42	13	27	36	24	7
Total				4412	433	154	295	465	224	157

TABLE No. IV.—DEATHS at different AGES in EDINBURGH,

MONTH.	TEMPERATURE.			ALL AGES.	AGE					
	Highest.	Lowest.	Mean.		MONTHS.			2	3	4
					3	6	12			
January	53·0	25·5	38·7	199	18	7	14	24	13	14
February.....	59·0	26·5	41·2	188	19	7	12	28	8	6
March	58·5	25·0	43·0	215	26	4	25	20	18	8
April	57·0	30·0	44·6	205	26	6	21	29	6	11
May.....	64·5	36·5	49·5	182	17	5	15	24	8	7
June	68·0	42·0	55·6	200	29	10	10	14	12	6
July.....	75·2	39·5	58·0	139	12	7	12	12	9	2
August	69·0	39·0	56·0	161	26	4	8	14	7	6
September	60·0	41·0	50·0	145	15	5	7	11	6	5
October	58·0	31·5	46·8	180	27	9	16	15	9	4
November	57·0	26·5	44·1	186	22	10	16	14	6	7
December	56·0	24·5	41·4	221	28	9	17	22	13	1
Total				2221	265	83	173	227	115	77

TABLE No. V.—DEATHS at different AGES in EDINBURGH,

MONTH.	TEMPERATURE.			ALL AGES.	AGE					
	Highest.	Lowest.	Mean.		MONTHS.			2	3	4
					3	6	12			
January	53·0	25·5	38·7	193	17	7	7	22	10	6
February.....	59·0	26·5	41·2	214	13	4	8	25	11	13
March	58·5	25·0	43·0	200	19	4	13	24	6	12
April	57·0	30·0	44·6	215	13	10	15	45	12	8
May.....	64·5	36·5	49·5	190	10	9	7	25	13	8
June	68·0	42·0	55·6	192	10	5	16	13	8	8
July.....	75·2	39·5	58·0	136	7	5	11	16	8	2
August	69·0	39·0	56·0	165	25	7	7	15	10	4
September	60·0	41·0	50·0	144	12	3	9	6	3	3
October	58·0	31·5	46·8	180	16	7	9	15	8	6
November	57·0	26·5	44·1	185	12	6	10	18	9	4
December	56·0	24·5	41·4	177	14	4	10	14	11	6
Total				2191	168	71	122	238	109	80

During each Month in 1863.—BOTH SEXES.

UNDER																				
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105
5	19	6	7	10	12	9	20	8	13	10	16	20	14	29	16	13	4	2	...	...
11	21	7	5	15	12	18	15	11	17	22	9	15	13	27	15	10	3	1	1	...
9	14	4	6	17	13	13	12	15	12	12	16	21	19	18	17	9	7	1	1	...
9	20	6	11	10	14	12	11	11	13	10	14	21	14	18	15	6	2	1	...	...
7	15	4	5	15	9	12	17	7	17	13	14	18	15	27	17	12	...	...	...	...
9	14	8	12	12	13	17	24	12	9	17	19	24	8	26	13	9	4	1	...	...
9	12	5	10	12	7	8	8	7	5	16	13	14	10	11	11	12	1	...	...	1
3	15	6	8	5	6	14	10	11	15	16	14	22	17	5	13	9	4	...	...	...
8	15	7	5	11	12	7	6	7	15	13	18	13	12	26	16	7	5	1	...	...
6	12	5	14	21	16	11	12	14	10	12	20	16	15	16	14	3	1	1	...	...
10	15	8	9	14	17	14	12	12	15	16	13	26	13	18	11	9	3	2	...	...
8	16	2	9	8	13	20	8	17	16	15	13	26	18	23	17	15	5	...	...	...
94	188	68	101	150	144	155	155	132	157	172	179	236	168	244	175	114	39	10	2	1

During each Month in 1863.—MALES.

UNDER																				
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105
2	11	1	5	5	7	4	8	4	9	2	8	10	4	13	4	8	2	2	...	...
7	8	4	2	9	3	10	8	7	9	7	3	6	4	8	5	6	1	...	1	...
5	9	...	4	10	10	5	9	8	4	5	7	9	10	7	5	5	1	...	1	...
2	6	4	9	5	11	3	4	5	8	6	11	7	9	6	6	3	1	...	...	...
2	7	2	4	5	3	8	6	5	13	8	6	6	9	16	5	1	...	...	...	...
4	5	5	4	9	4	8	12	7	5	8	11	12	4	12	7	2	...	...	...	...
6	8	...	4	7	4	4	7	3	4	10	5	6	5	3	4	5	...	...	...	1
2	5	3	5	1	4	7	7	6	11	8	10	11	6	3	3	3	1	...	...	...
4	12	3	2	6	7	3	2	2	10	4	10	5	5	10	8	2	1	...	...	...
2	5	4	5	11	5	6	4	7	4	3	9	10	7	7	8	2	...	1	...	...
5	5	5	4	10	7	7	7	7	5	11	5	10	6	7	4	4	2	1	...	...
4	7	1	7	2	5	10	5	14	12	4	8	12	8	16	6	9	1	...	...	...
45	88	32	55	80	70	75	79	75	94	76	93	104	77	108	65	50	10	4	2	1

During each Month in 1863.—FEMALES.

UNDER																				
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105
3	8	5	2	5	5	5	12	4	4	8	8	10	10	16	12	5	2	...	...	...
4	13	3	3	6	9	8	7	4	8	15	6	9	9	19	10	4	2	1	...	...
4	5	4	2	7	3	8	3	7	8	7	9	12	9	11	12	4	6	1	...	...
7	14	2	2	5	3	9	7	6	5	4	3	14	5	12	9	3	1	1	...	...
5	8	2	1	10	6	4	11	2	4	5	8	12	6	11	12	11	...	...	...	...
5	9	3	8	3	9	9	12	5	4	9	8	12	4	14	6	7	4	1	...	...
3	4	5	6	5	3	4	1	4	1	6	8	8	5	8	7	7	1	...	...	...
1	10	3	3	4	2	7	3	5	4	8	4	11	11	2	10	6	3	...	...	...
4	3	4	3	5	5	4	4	5	5	9	8	7	16	8	5	4	1	...	...	...
4	7	1	9	10	11	5	8	7	6	9	11	6	8	9	6	1	1	...	...	...
5	10	3	5	4	10	7	5	5	10	5	8	16	7	11	7	5	1	1	...	...
4	9	1	2	6	8	10	3	3	4	11	5	14	10	7	11	6	4	...	...	...
49	100	36	46	70	74	80	76	57	63	96	86	132	91	136	110	64	29	6	...	...

TABLE NO. VI.—NEW SANITARY DISTRICTS,

1. District of Upper New Town.

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
1 Canal street.....	162—190	94	15	109	4	3	7	1	...	2	...	1	...	...	...
2 Castle street	203—221	637	23	660	6	3	9	4	...	2	3	...	...	...	...
3 Charlotte place	201	117	11	128	2	1	3	...	1	...	...	1	...	...	...
4 Charlotte square.....	212	500	20	520	4	3	7	...	...	1	1	2	...	...	...
5 Charlotte street, North	185—205	143	7	150	...	...	...	...	...	...	...	...	...	...	...
6 Do. do. South	207—211	98	...	98	1	...	1	...	...	...	...	...	...	...	...
7 Do. do. lane ...	203	33	9	42	...	...	...	...	...	...	...	...	...	...	...
8 Clyde street.....	214	278	23	301	3	1	4	...	1	...	...	...	...	...	...
9 Do. do. lane, North	...														
10 Do. do. do. South	...														
11 Frederick street	201—224	614	30	644	6	1	7	2	1	...	1	...	...	...	...
12 George street	217—226	1091	72	1163	23	3	26	4	10	2	5	1	...	...	...
13 Glenfinlas street	187—207	36	1	37	...	...	...	...	...	...	...	...	...	...	...
14 Hanover street	208—226	332	37	369	5	2	7	2	...	1	1	1	...	...	...
15 Hill street	211	88	8	96	...	...	...	...	...	...	...	...	...	...	...
16 Do. lane, North	206														
17 Do. do. South	...														
18 Hope street.....	211	176	14	190	4	1	5	...	...	1	1	1	...	...	...
19 Do. lane	210														
20 New Buildings, N. Bridge	220														
21 Princes street	201—218	806	42	848	10	4	14	1	2	3	1	2	...	2	...
22 Queen street	187—197	603	30	633	6	3	9	...	...	3	1	1	...	1	...
23 Register place.....	230	31	1	32	...	...	0	...	...	...	...	...	...	...	...
24 Register street, West...	228	115	8	123	...	...	0	...	...	...	...	...	...	...	...
25 Rose street	212—227	2325	269	2594	31	20	51	5	3	2	3	7	3	1	1
26 Do. lanes, south side	...														
27 Do. do. north side	...														
28 St Andrew square	231	251	6	257	1	1	2	...	...	...	...	...	...	...	...
29 St Andrew street, North	202—218	57	6	63	...	...	...	...	...	...	...	...	...	...	...
30 Do. do. lane...	206	24	1	25	...	...	...	...	...	...	...	...	...	...	...
31 St Andrew street, South	213—228	39	...	39	2	1	3	2	...	...	...	...	...	...	...
32 Do. Meuse lane	222	20	1	21	1	...	1	...	...	...	1	...	...	...	...
33 St David street, North	209	95	8	103	2	3	5	...	...	2	...	1	...	...	...
34 St David street, South	213—228	67	7	74	2	...	2	...	1	...	...	1	...	...	...
35 Thistle court	215	13	2	15	...	...	...	...	...	...	...	...	...	...	...
36 Thistle street	214	767	83	850	15	2	17	1	2	1	2	4	...	1	...
37 Do. lane, north side	208														
38 Young street	209														
39 Do. do. lane .....	...	149	15	164	2	...	2	...	...	...	1	...	...	...	...
40 York place	188	519	12	531	8	...	8	2	1	...	...	...	...	...	...
Totals,		10,166	764	10,930	138	52	190	24	22	20	21	23	3	5	1

2. District of Lower New Town.

1 Abercromby place	161	328	13	341	4	1	5	...	...	1	2	1	...	1	...
2 Albany lane	131—151	15	2	17	...	...	...	...	...	...	...	...	...	...	...
3 Albany street	150—163	530	42	572	3	1	4	...	1	...	1	...	...	...	...
4 Albert place	86	5	...	5	...	...	...	...	...	...	...	...	...	...	...
5 Albyn place	187	116	2	118	1	...	1	...	1	...	...	...	...	...	...
6 Barony street and lane	129	404	40	444	8	5	13	4	...	2	...	2	...	3	...
7 Bellevue crescent	92	118	1	119	1	...	1	...	...	...	...	1	...	...	...
8 Bellevue, south side ...	92	36	2	38	...	...	...	...	...	...	...	...	...	...	...
Carry forward,		1552	102	1654	17	7	24	4	2	3	3	4	...	4	...

AND THEIR VITAL STATISTICS.

1. District of Upper New Town.

1863.													No. of Paupers.	Street Cesspools.			Epidemics.			
Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.		
				Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.	
1	1	...	1	...	...	...	1	...	1	...	2	...	2	1	3	...	
2	2	5	2	7	...	3	...	
3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	6	6	...	...	...
4	1	2	...	...	...	...	5	5	...	1	...	
5	2	...	
6	4	1	1	2	...	...	...
7	
8	
9	1	...	...	...	1	5	6	4	5	...	
10	1	...	...	...	...	3	7	10	...	2	2	
11	1	...	1	...	...	1	...	...	1	4	2	6	1	5	2	
12	1	1	2	...	...	...
13	1	...	...	...	...	...	1	...	...	...	...	5	5	10	2	1	1	
14	
15	4	...	4	...	...	...
16	
17	1	...	...	...	...
18	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...
19	1	1	...	...	...
20	1	...	...	7	20	27	...	6	4	
21	2	...	1	...	6	6	12	...	...	...
22	1	1	2	...	...	...
23	2	...	2	...	2	...	
24	
25	
26	2	3	1	1	1	...	1	4	2	5	66	6	9	15	6	32	4
27	3	3	6	1	2	...
28	1	2	2
29	4
30	1	1	2	1	4	...
31
32
33	1	1	...	2	...	1
34	1	...	1	...	3
35
36	...	1	2	...	11	12	3	15	3	11	...
37
38	1	5	...	5
39
40	1	1	2	1	3	...	1	1	...
	3	3	1	...	6	1	3	2	...	6	10	7	7	86	74	81	155	20	87	14

2. District of Lower New Town.

1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	1	1
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	1	1	2	1	3	...	1	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	1	...	2	3	5	...	1	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	2	1	2	8	12	20	...	1

TABLE NO. VI.—NEW SANITARY DISTRICTS,

2. District of Lower New Town—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		1552	102	1654	17	7	24	4	2	3	3	4	...	4	...
9 Broughton :—	114—162	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 Anderson's court.....	...	61	9	70	...	...	...	...	...	...	...	...	...	...	...
2 Market	134	25	7	32	...	...	...	...	...	...	...	...	...	...	...
3 New Broughton .....	...	278	58	336	4	...	4	1	...	2	...	...	...	...	...
4 Old Broughton .....	...	115	9	124	...	1	1	...	...	...	1	...	...	...	...
5 Paterson's court .....	...	59	6	65	1	2	3	...	...	...	...	1	...	...	...
10 Church lane.....	118—159	53	11	64	1	1	2	1	...	...	...	...	...	...	...
11 Do. court .....	...	20	4	24	...	...	...	...	...	...	...	...	...	...	...
12 Circus place, North-East	106	29	4	33	...	...	...	...	...	...	...	...	...	...	...
13 Do. North-West	62—99	206	16	222	4	2	6	...	...	1	2	1	...	1	...
14 Do. South-East .....	...	55	1	56	...	1	1	...	...	...	...	...	...	...	...
15 Do. South-West	119	54	10	64	1	...	1	...	...	...	1	...	...	...	...
16 Circus lane	87	33	12	45	1	...	1	1	...	...	...	...	...	...	...
17 Cumberland street	93	1061	95	1156	...	...	...	...	...	...	...	...	...	...	...
18 Do. lane, North	75	223	42	265	21	6	27	5	2	2	5	4	...	...	1
19 Do. do. South	92	19	1	20	...	...	...	...	...	...	...	...	...	...	...
20 Darnaway street.....	157	125	7	132	2	...	2	...	1	...	1	...	...	...	...
21 Drummond place	109—120	369	10	379	3	1	4	...	...	...	...	1	...	...	...
22 Dublin street	120—163	381	26	407	6	...	6	...	...	1	1	3	...	...	...
23 Do. do. lane, East	138	41	...	14	...	...	...	...	...	...	...	...	...	...	...
24 Duke street.....	163—202	217	11	228	2	1	3	...	...	...	1	...	...	...	...
25 Duncan street.....	82—105	237	32	269	2	4	6	1	...	...	...	...	...	...	...
26 Dundas street	116—163	485	41	526	6	3	9	1	...	...	...	2	...	...	...
27 Fettes row	80	251	19	270	5	2	7	2	...	...	1	...	...	...	...
28 Forres street	161—180	110	10	120	2	...	2	...	...	...	...	...	...	1	...
29 Heriot row	165	355	15	370	4	...	4	...	...	...	1	...	...	...	...
30 Howe street	116—162	481	50	531	10	4	14	...	1	3	1	1	...	...	...
31 Gloucester place.....	117	139	2	141	1	...	1	1	...	...	...	...	...	...	...
32 India street.....	107—150	532	38	570	10	2	12	1	1	1	4	2	...	...	...
33 Jamaica street.....	143	1060	151	1211	20	14	34	1	1	4	4	7	...	1	...
34 Do. lane, South	140	2	2	4	...	...	...	...	...	...	...	...	...	...	...
35 King street, Great	116	733	43	776	4	1	5	...	1	1	...	1	...	...	...
36 London street	114	648	30	678	2	3	5	1	...	2	...	1	...	...	...
37 Mansfield place	108	106	10	116	...	...	...	...	...	...	...	...	...	...	...
38 Nelson place	136	10	2	12	...	...	...	...	...	...	...	...	...	...	...
39 Nelson street, N. and S.	120—159	333	14	347	2	1	3	...	...	...	...	...	...	1	1
40 Northumberland place	136	153	21	174	2	...	2	...	...	...	1	...	...	...	...
41 Northumberland street	140	502	34	536	...	...	...	...	...	...	...	...	...	...	...
42 Do. lane, East .....	...	9	3	12	3	3	6	...	...	1	...	...	2	1	...
43 Do. do. N.-W. ....	...	5	1	6	...	...	...	...	...	...	...	...	...	...	...
44 Do. do. S.-W. ....	...	21	5	26	...	...	...	...	...	...	...	...	...	...	...
45 Pitt street	80—115	481	30	511	5	0	5	...	...	...	...	...	...	1	...
46 Do. North	65—80	24	4	28	...	...	...	...	...	...	...	...	...	...	...
47 Royal circus	100—122	328	13	341	4	...	4	...	...	1	...	...	...	...	...
48 Royal crescent	83	67	4	71	1	1	2	...	...	...	1	...	...	...	...
49 St Colme street	186	58	2	60	...	...	...	...	...	...	...	...	...	...	...
50 St Vincent street	94—116	216	17	233	...	...	...	...	...	...	...	...	...	...	...
51 Scotland street	84—110	474	37	511	8	1	9	2	...	...	2	...	1	...	...
52 Do. do. lane	96	22	...	22	...	...	...	...	...	...	...	...	...	...	...
53 Summer bank	75	62	11	73	...	...	...	...	...	...	...	...	...	...	...
54 Wemyss place and lane	170	61	4	65	1	1	2	...	...	...	...	...	...	...	...
55 York lane	154—183	22	2	24	...	...	...	...	...	...	...	...	...	...	...
Totals,		12,963	1088	14,024	155	62	217	22	9	22	30	28	3	10	2

AND THEIR VITAL STATISTICS.—Continued.

2. District of Lower New Town—Continued.

1863.													No. of Paupers.	Street Cesspools.			Epidemics.		
Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
				Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.
9	2	1	2	8	12	20	...	3	1
1
2
3	3	3	...	3	...	...	...
4	1	1	2	...	...	...	...
5	2	...	...	...	...	...	...	...	...
10	1	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...
11
12
13	6	...	...	...	...	...	...
14	1	...	...	...	6	3	9	...	...	...
15
16	1	2	3	...	...	...
17
18	...	2	...	...	1	1	...	...	...	1	1	...	19	3	6	9	4	3	...
19	2	...	2	...	...	...
20	8	1	9	...	1	...
21	1	1	...	...	...	...	...	...	...	6	...	6	...	...	...
22
23	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...
24	1	...	...	...	...	...	...	...	...
25	1	2	...	1	...	...	...	...	1	...
26	1	...	...	...	2	2	...	...	...	...	1	...	2	1	0	1	...	1	...
27	1	...	...	1	...	...	...	...	4	1	2	3	...	1	...
28	1	...	...	...	2	...	2	...	...	1
29	3	...	...	...	...	...	...	...	...	...	1	...	...	1	2	3	...	...	...
30	2	...	...	2	...	1	...	...	...	3	1	4	...	2	...
31	2	2	...	...	...
32	3	3	...	1	...
33
34	...	4	...	...	1	...	...	1	...	2	4	3	52	4	...	4	1	9	...
35	1	...	...	1	...	...	...	1	...	...	5	5	...	1	1
36	1	...	...	...	...	...	...	...	...	...	...	...	6	2	...	2	...	3	...
37	1	...	1	...	...	...
38	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
39	1	1	2	...	3	1
40	1	...	1	...	...	...	...	...
41	2	1	...	...	...	...	...
42	2	2	4	...	...	...
43	1	...	5	...	...	...	...	1	...
44
45	8	...	4	4	...	4	...
46	4	4	1	...	...
47	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
48	3	3	...	...	...
49
50	2	...	2	...	2	...
51	1	...	...	1	...	...	1	1	8	...	2	2	...	4	...
52
53	2	...	...	...	...	...	...
54	1	...	...	1	...	...	...	1	1	1	1	2	...	...	...
55
7	6	...	2	12	4	1	7	...	7	14	14	4	121	61	57	118	6	42	4

TABLE No. VI.—NEW SANITARY DISTRICTS,

3. District of West End.

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
1 Alva street	203	320	13	333	5	2	7	...	...	1	2	1	...	1	...
2 Atholl crescent	202	205	10	215	3	...	3	...	...	...	1	...	...	...	...
3 Do. lane .....	...	8	1	9	1	1	2	...	...	...	...	...	...	...	...
4 Atholl lane	198	58	15	73	1	1	2	1	...	...	...	...	...	...	...
5 Atholl place	199	142	2	144	...	1	1	...	...	1	...	...	...	...	...
6 Bainfield	206	19	7	26	2	...	2	1	1	...	...	...	...	...	...
7 Cambridge street.....	210	25	4	29	2	...	2	...	...	1	...	...	...	...	...
8 Castle terrace.....	209	76	4	80	3	...	3	1	...	1	...	...	...	...	1
9 Wharton buildings...	219	40	13	53	1	1	2	...	...	1	...	...	...	...	...
10 Chester street.....	192	...	...	...	1	...	1	...	...	...	...	1	...	...	...
11 Coates crescent.....	201	168	2	170	1	...	1	...	...	...	...	...	...	...	...
12 Coates hall.....	180	69	11	80	...	...	...	...	...	...	...	...	...	...	...
13 Do. lane.....	...	35	5	40	...	1	1	...	...	...	...	...	...	...	...
14 Coates, West .....	...	...	...	...	2	1	3	1	...	1	...	...	...	1	...
15 Coates place.....	192	27	4	31	...	1	1	...	...	1	...	...	...	...	...
16 Dalry lane	184	163	26	189	2	1	3	...	...	2	1	...	...	...	...
17 Dewar place	204—215	44	2	46	2	...	2	...	...	...	1	...	...	...	...
18 Drumsheugh lane	195	18	1	19	...	...	...	...	...	...	...	...	...	...	...
19 Erskine place	207	28	1	29	1	...	1	...	...	...	...	1	...	...	...
20 Gardner's crescent.....	237	300	34	334	8	1	9	1	...	1	3	...	...	...	...
21 Grove place.....	207	34	2	36	...	...	...	...	...	...	...	...	...	...	...
22 Grove street.....	208—228	194	27	221	4	...	4	1	...	1	...	1	...	...	...
23 Haymarket	180	94	8	102	2	3	5	1	...	...	...	1	...	3	...
24 Lothian road.....	194—234	253	34	287	2	2	4	...	1	...	...	1	...	...	1
25 Maitland street, East ..	206	151	...	151	3	...	3	...	...	...	1	...	...	...	...
26 Do. do. West.	192	88	5	93	1	...	1	...	...	...	...	...	...	...	...
27 Manor place	198	138	6	144	1	1	2	...	...	...	1	...	...	...	...
28 Merchiston, North.....	227	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29 Melville place, North ..	199	82	6	88	...	...	3	...	...	...	...	...	...	1	...
30 Do. do. South	205	16	1	17	...	3	...	...	...	...	...	...	...	...	...
31 Melville crescent.....	195	45	2	47	...	...	...	...	...	...	...	...	...	...	...
32 Melville street.....	196	437	24	461	5	1	6	...	1	3	...	...	...	...	...
33 Morrison street.....	191—217	156	30	186	...	2	2	...	...	...	...	...	...	...	...
34 Osborne terrace.....	188	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35 Queensferry street.....	207	112	13	125	2	...	2	...	...	1	...	1	...	...	...
36 Rosebank	226	129	30	159	3	1	4	1	...	...	...	...	...	...	...
37 Rosemount buildings...	...	390	64	454	5	6	11	...	...	1	1	2	...	1	...
38 Rutland court.....	208	19	3	22	...	...	...	...	...	...	...	...	...	...	...
39 Rutland place.....	...	11	3	14	2	...	2	1	...	...	...	...	...	...	...
40 Rutland street.....	207	189	12	201	1	...	1	...	...	...	...	...	...	...	1
41 Rutland square.....	208	306	13	319	2	...	2	1	...	...	1	...	...	...	...
42 St Cuthbert's glebe.....	204	100	6	106	1	...	1	...	...	...	...	...	...	...	...
43 Do. lane.....	186—198	71	15	86	1	...	1	...	...	1	...	...	...	...	...
44 St Cuthbert's poorhouse	196	469	34	503	81	28	109	16	3	22	12	9	2	...	1
45 St Cuthbert's street	215	108	10	118	2	1	3	...	1	1	...	1	...	...	...
46 Shandwick place.....	206	138	9	147	3	...	3	1	1	...	1	...	...	...	...
47 Spittal street.....	227—236	113	13	126	1	2	3	...	...	1	...	...	...	...	...
48 Stafford street.....	201	201	17	218	3	2	5	...	1	...	...	1	...	...	...
49 Thomas street.....	197	11	2	13	...	...	...	...	...	...	...	...	...	...	...
50 Tobago place.....	209	10	4	14	...	1	1	...	...	...	...	...	...	...	...
51 Tobago street	231	188	37	225	1	2	3	...	...	...	1	...	...	...	...
52 Torphichen street.....	203	190	18	208	4	...	4	...	1	1	1	1	...	...	...
53 Wallace place.....	210	46	1	47	...	...	...	...	...	...	...	1	...	...	...
54 Walker street.....	196	168	15	183	2	...	2	...	...	...	1	...	2	1	1
55 William street	196	619	92	711	6	8	14	3	...	...	...	...	...	...	...
Totals.		7021	711	7732	173	74	247	30	10	42	28	23	4	8	5

AND THEIR VITAL STATISTICS.—*Continued.*

3. District of West End.																				
1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857.
1	2	...	2	...	...	...	...	...	...	2	...	2	...	1	...	
2	1	...	1	...	...	...	...	...	...	...	1	1	...	...	...
3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
4	1	...	...	...	...	...	...
5	4	1	...	1	...	...	...
6	1	...	...	...	...	...	...
7	2	...	2	...	...	...
8	6	6	...	...	...
9	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	3	...	3	...	...	...
11	1	...	...	1	1	2	...	...	...
12	1	...	...	...	...	...	...
13	
14	
15	
16	1	...	2	2	...	...	...
17	3	3	...	...	...
18	
19	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
20	1	1	...	...	...	...	1	...	...	1	1	2	...	2	...	
21	2	...	2	...	...	...
22	1	...	...	...	...	...	...	...	...	...	1	...	4	5	...	5	...	1	...
23	12	12	...	4	...	
24	3	1	9	10	1	9	...	
25	1	2	...	2	...	...	...
26	1	...	...	...	...	1	5	6	...	1	...	
27	1	...	...	3	3	...	...	...
28	
29	1	...	1	2	3	...	...
30	1	2	3	...	...	...
31	
32	1	...	...	1	...	...	1	...	...	6	3	9	1	2	...	
33	1	...	...	5	5	...	2	...	
34	1	...	...	...	...	...	...
35	1	1	...	...	...
36	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
37	1	...	...	...	...	...	...	...	...	4	...	...	...	10	...	10	...	...	...
38	
39	1	...	1	...	...	...
40	6	...	6	...	...	...
41	8	...	8	...	...	...
42	
43	
44	1	2	...	1	3	2	...	1	...	4	1	15	1	2	1	5	6	...	1	
45	26	1	
46	1	...	1	...	1	...	
47	1	...	1	1	3	...	3	...	...	...
48	1	1	...	...	4	...	4	...	1	...	
49	
50	1	...	...	2	1	1	2	...	1	...	
51	1	...	
52	
53	1	1	2	...	...	...
54	1	...	...	...	...	...	4	4	...	...	...
55	1	...	...	...	...	...	...	...	...	1	1	1	12	2	3	5	...	1	...
	8	3	...	1	9	4	3	2	...	7	9	21	8	528	66	69	135	3	45	1

TABLE No. VI.—NEW SANITARY DISTRICTS,

4. District of Upper Water of Leith.

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
1 Ainslie place	170—183	291	4	295	1	...	1	...	1	...	...	...	...	...	...
2 Allan street	57	354	65	419	5	7	12	1	1	2	1	...	2	1	1
3 Ann street	92—112	237	7	244	4	1	5	...	...	...	2	...	...	1	...
4 Baker's place	75	54	4	58	2	...	2	1	...	1	...	...	...	...	...
5 Bedford street	65	483	107	590	7	7	14	2	...	...	...	2	3	2	...
6 Brunswick street	76	555	67	622	7	5	12	2	1	2	1	1	...	...	1
7 Buckingham terrace ...	143—165	...	...	...	2	...	2	1	...	...	...	1	...	...	...
8 Carlton street.....	66	99	4	103	...	...	...	...	...	...	...	...	...	...	...
9 Cheyne street.....	56	260	31	291	3	2	5	2	1	...	...	...	...	...	...
10 Church street.....	70—114	102	16	118	2	4	6	...	...	1	...	...	...	...	...
11 Clarendon crescent.....	143—165	189	10	199	2	...	2	...	...	...	...	...	...	2	...
12 Comely bank	52	107	10	117	2	...	2	...	1	...	1	...	...	...	...
13 Danube street.....	76	181	8	189	4	...	4	...	1	...	...	...	...	...	...
14 Darling's buildings ...	57	99	10	109	...	4	4	...	...	...	...	...	...	3	...
15 Deanhaugh street	52—61	100	19	119	1	3	4	...	...	...	...	...	...	1	...
16 Dean bank houses	70	26	3	29	...	...	...	...	...	...	...	...	...	...	...
17 Dean bank institution	71	22	...	22	...	...	...	...	...	...	...	...	...	...	...
18 Dean terrace	61—74	107	6	113	...	1	1	...	...	...	...	...	...	1	...
19 Do. do. upper ...	76—102	30	...	30	1	...	1	1	...	...	...	...	...	...	...
20 Dean street	52—73	449	62	511	11	4	15	2	2	...	1	2	...	3	...
21 Dean bridge	173	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22 Dean road	73—142	11	2	13	...	1	1	...	...	...	...	...	...	...	...
23 Donaldson's hospital ..	200	206	1	207	...	...	...	...	...	...	...	...	...	...	...
24 Doune terrace.....	118—147	87	...	87	...	...	...	...	...	...	...	...	...	...	...
25 Eton terrace	165	118	7	125	...	...	...	...	...	...	...	...	...	...	...
26 Fairnington place	57	26	5	31	...	...	...	...	...	...	...	...	...	...	...
27 Glanville place	65	52	6	58	...	...	...	...	...	...	...	...	...	...	...
28 Great Stuart street ...	166	249	15	264	...	1	1	...	...	...	...	...	...	...	...
29 Hamilton place	66	244	32	276	6	3	9	...	1	1	3	...	1	1	...
30 Haugh street, north and south	54	271	56	327	3	1	4	1	...	...	...	1	...	...	...
31 Hermitage place.....	54	96	13	109	2	3	5	1	...	...	...	2	...	...	...
32 Horn lane	70	155	30	185	...	3	3	...	...	...	...	...	...	2	...
33 India place	82	1096	173	1269	15	15	30	1	2	2	5	4	...	2	...
34 Johnstone place	52	56	9	65	...	...	...	...	...	...	...	...	...	...	...
35 Kerr street.....	66	140	22	162	2	1	3	...	...	1	...	1	...	1	...
36 Lennox street.....	155	10	...	10	1	...	1	...	...	...	1	...	...	...	...
37 Leslie place	57	24	4	28	...	...	...	...	...	...	...	...	...	...	...
38 Lynedoch place	168—190	124	3	127	1	...	1	...	...	...	...	...	...	...	...
39 Legget's land	57	26	2	28	1	2	3	...	...	...	...	...	1	...	...
40 Mackenzie place.....	77	138	20	158	1	2	3	1	...	...	...	...	...	2	...
41 Malta green	47	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42 Malta place.....	...	20	2	22	...	...	...	...	...	...	...	...	...	...	...
43 Malta terrace.....	49	44	7	51	...	...	...	...	...	...	...	...	...	...	...
44 Market court	70	21	1	22	...	...	...	...	...	...	...	...	...	...	...
45 Market place	73	187	28	215	3	2	5	1	...	1	...	1	...	1	...
46 Mary place.....	53	90	9	99	2	...	2	1	...	...	1	...	...	...	...
47 Moray place	147—165	468	14	482	1	...	1	...	...	...	...	...	...	...	...
48 Oxford terrace	143	75	9	84	2	...	2	...	...	...	1	...	...	1	...
49 Orphan hospital	185	139	...	139	...	...	...	...	...	...	...	...	...	...	...
50 Patriot hall buildings	55	81	20	101	3	1	4	1	...	1	...	...	...	...	...
51 Raeburn place	51	249	31	280	6	...	6	1	1	1	...	...	...	...	...
52 Randolph cliff	180	64	2	66	...	...	...	...	...	...	...	...	...	...	...
53 Randolph crescent.....	187—199	152	7	159	1	...	1	...	...	...	...	...	...	...	...
54 Randolph place	201	92	7	99	1	1	2	...	...	1	...	...	...	...	...
55 Spring gardens	75	25	4	29	...	...	...	...	...	...	...	...	...	...	...
Carry forward.....		8581	974	9555	105	74	179	20	12	14	17	15	7	24	2

AND THEIR VITAL STATISTICS.—*Continued.*

4. District of Upper Water of Leith.

1863.														Street Cesspools.			Epidemics.				
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.	No. of Paupers.	Trapped.	Untrapped.	Total.	Cholera.	Fever.		
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.	1857-8
1	2	2	...	...	...
2	2	...	...	9	1	1	2	1	1	...		
3	1	...	...	...	...	...	...	...	...	1	...	...	...	2	2	4	...	...	...
4	2	...	2	1	...	...
5	...	1	...	...	...	...	...	...	...	...	1	1	11	...	6	6	...	...	...
6	...	1	...	...	1	...	...	1	...	...	1	...	21	5	1	6	1	...	...
7	1	...	1	...	...	...
8	2	...	2	...	...	...
9	1	...	...	...	...	...	...	...	...	...
10	1	...	...	1	...	1	...	2	1	...	4	4	8	...	...
11	1	1	...	...	...
12	1	1	...	2	...		
13	2	...	2	...	...	...	...	1	...	1	...	2	2	1	...		
14	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	2	...	...
15	1	1	...	1	...	...	...	...	...	...	...	...	...	4	...	2	2	...	...
16	2	2	...	...	...
17	1	...	...	...	...	...
18	2	...	2	...	...	...
19		
20	1	1	...	...	...	...	...	1	5	5	3	8	...	...	...
21	1	...	6	6	...	...	...
22		
23		
24	1	1	2	...	...	...
25	1	1	...	...	...
26	1	...	...	...	...	...
27		
28	1	...	...	...	2	...	2	...	...	...
29	1	...	2	...	12	12	...	...	...
30	1	1	...	11	...	1	1	1	...	...
31	1	...	...	3	1	...	1	...	...	...
32	1	2	...	1	1	...	...	...
33	1	2	...	1	1	...	...	...	3	1	...	1	49	3	3	6	2	5	1
34	1	...	...	...	...	...	...
35	1	1	...	1	...	...	...
36		
37		
38		
39	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
40	3	...	1	1	...	...	...
41		
42		
43	2	...	2	...	...	...
44	9	9	...	...	...
45	1	3	...	1	1	...	...	...
46		
47	5	1	6	...	...	...
48	1	1	...	...	...
49		
50	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
51	2	1	1	...	...	...	...	...	1	1	2	3	...	...	...
52	1	1	...	...	...
53	1	...	...	...	2	2	...	...	...
54		
55		
	7	5		2	8	2	3	3		6	7	7	7	132	40	72	112	7	8	1	

TABLE NO. VI.—NEW SANITARY DISTRICTS,

4. District of Upper Water of Leith—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		8581	974	9555	105	74	179	20	12	14	17	15	7	24	2
56 St Bernard's court.....	70	44	15	59	...	...	...	...	...	...	...	...	...	...	...
57 St Bernard's crescent...	70	156	4	160	3	...	3	...	...	2	...	...	...	...	...
58 St Bernard's place.....	57	174	36	210	2	7	9	...	...	2	2	...	...	...	...
59 St Bernard's row	49	98	20	118	1	...	1	...	...	...	...	...	...	...	...
60 Saunder's street	60	348	50	398	6	2	8	1	...	...	1	2	...	1	...
61 Stewart's hospital	162	83	...	83	1	...	1	1	...	...	...	...	...	...	...
62 Stockbridge.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63 Veitch's place.....	52	28	5	33	1	...	1	1	...	...	...	...	...	...	...
64 Veitch's square	50	76	6	82	...	2	2	...	...	...	...	...	...	...	...
65 Water of Leith .....	...	...	...	...	9	7	16	...	1	4	1	...	1	...	1
1 Archibald's land ...	111	31	10	41	...	...	...	...	...	...	...	...	...	...	...
2 Bell's brae	127	19	...	19	...	...	...	...	...	...	...	...	...	...	...
3 Bell's mills	130	82	11	93	1	...	1	...	...	...	1	...	...	...	...
4 Brown's close	101	81	18	99	...	1	1	1	...	...	...	...	...	...	...
5 Broken stairs	120	49	6	55	...	...	...	...	...	...	...	...	...	...	...
6 Crombie's close	102—132	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 Damside	101	185	26	211	...	1	1	...	...	...	...	...	...	...	...
8 Dean and Dean path	103—167	437	80	517	7	5	12	2	1	1	2	1	2	1	...
9 Dean park	162	19	5	24	...	...	...	...	...	...	...	...	...	...	...
10 Hawthorn bank	139	200	40	240	4	1	5	1	1	...	1	...	...	...	...
11 Hay's land	130	4	...	4	...	...	...	...	...	...	...	...	...	...	...
12 Miller's row and Miller's land	89	30	8	38	...	...	...	...	...	...	...	...	...	...	...
13 Mill dam.....	82	113	27	140	...	...	...	...	...	...	...	...	...	...	...
14 Sunbury	130	28	9	37	...	...	...	...	...	...	...	...	...	...	...
66 Watson's (J.) hospital	264	115	1	116	...	...	...	...	...	...	...	...	...	...	...
Totals,		10,981	1351	12,332	140	100	240	27	15	23	25	18	10	26	3

5. District of Lower Water of Leith.

1 Bonnington and Bonnington road .....	...	246	38	284	6	...	6	2	...	...	...	1	...	...	...
1 Beaver hall.....	38	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Blandfield row	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 Heriot hill	57	...	...	...	2	1	3	...	1	1	...	1	...	...	...
4 Heriot terrace.....	57	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 Logie green.....	33	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Powder hall	70	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Brandon street	61	143	9	152	...	...	...	...	...	...	...	...	...	...	...
3 Canonmills	36—57	215	31	246	6	5	11	2	...	...	...	1	2	1	...
1 Ann's court.....	46	56	9	65	...	...	...	...	...	...	...	...	...	...	...
2 Baker's land	46	160	22	182	...	2	2	...	...	1	...	...	...	...	...
3 Canon street	53	170	39	209	2	4	6	...	...	1	...	1	...	...	...
4 Huntly street.....	39	119	12	131	1	2	3	1	...	...	...	...	...	...	...
5 Perth street	65	10	1	11	...	...	...	...	...	...	...	...	...	...	...
6 Water lane	40	34	6	40	...	...	...	...	...	...	...	...	...	...	...
4 Claremont street, west	73	86	3	89	1	...	1	...	...	...	...	...	...	...	...
5 Claremont place.....	67	75	6	81	...	1	1	...	...	...	...	...	...	...	...
6 Clarence street	70	403	45	448	3	3	6	2	...	1	...	1	...	...	...
7 Eyre place	63	51	5	56	1	...	1	...	...	...	1	...	...	...	...
8 Henderson row	65	204	24	228	2	1	3	...	...	...	...	1	...	...	...
9 ... Deaf & Dumb inst...	73	59	...	59	...	...	...	...	...	...	...	...	...	...	...
10 Howard place.....	40—55	182	15	197	2	...	2	1	...	...	1	...	...	...	...
11 Do. do. south ...	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carry forward,.....		2213	265	2478	26	19	45	8	1	4	2	6	2	1	...

AND THEIR VITAL STATISTICS.—*Continued.*4. District of Upper Water of Leith—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.
56	7	5	...	2	8	2	3	3	...	6	7	7	7	132	40	72	112	7	8	1
57	1	...	2	2	...	...	...
58	...	1	...	...	...	...	...	...	...	...	1	...	1	16	...	2	2	...	...	...
59	1	1	1	2	...	...	...
60	2	...	1	10	...	6	6	2	...	...
61
62	46	1
63	1	...	1	1	...	...	...
64	1	...	1	4	1	6	7	...	...	...
65	...	2	...	...	...	...	...	...	...	...	1	3	1	1	...	...	...	...	6	...
1	2	...	...	...	...	...	...
2
3	2	...	...	...	...	...	...
4	4	...	...	...	...	...	...
5
6	1	...	...	...	...	...	...
7	...	1	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	1	...	...
8	13	...	...	...	1	2	...
9
10	1	...	...	...	...	...	...	...	...	...	17	...	...	...	...	...	...
11
12
13
14	5	5	...	...	...
66
	7	9	...	3	8	2	3	3	...	6	12	12	12	215	37	98	135	11	62	2

5. District of Lower Water of Leith.

1	1	...	...	...	...	...	...	...	...	1	...	3	...	7	7	1	3	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
3	...	1	...	...	...	...	...	...	...	2	...	2	...	9	12	12	2	12
1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
3	...	1	...	1	...	...	...	...	...	1	...	1	...	2	...	...	...	...
4	...	1	...	...	...	...	...	...	...	1	...	...	...	...	2	2	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...
4	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	2	...	...
6	...	2	...	...	...	...	...	...	...	...	...	11	...	...	...	...	1	...
7	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...
8	...	...	...	...	...	...	...	...	...	...	1	1	...	1	3	4	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...	6	6	...	...	...
	1	5	...	1	1	3	3	5	30	1	36	37	4	16	1

TABLE No. VI.—NEW SANITARY DISTRICTS,

5. District of Lower Water of Leith—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small Pox.
Brought forward,		2213	265	2478	26	19	45	8	1	4	2	6	2	1	...
12 Howard street	44	1	...	1	...	...	...	...	...	...	...	...	...	...	...
13 Hugh Miller place.....	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14 Inverleith field	105	26	6	32	...	1	1	...	...	...	1	...	...	...	...
15 Inverleith house.....	100														
16 Inverleith mains.....	114														
17 Inverleith place	81	55	2	57	...	1	1	...	...	...	...	...	...	...	...
18 Inverleith row	49—97	381	19	400	3	1	4	1	...	1	...	...	...	...	...
19 Inverleith terrace	49	22	1	23	...	...	...	...	...	...	...	...	...	...	...
20 Queensferry road	106	152	14	166	...	...	...	...	...	...	...	...	...	...	...
21 Reid terrace	45	...	...	...	2	1	3	...	...	...	...	1	...	...	...
22 Rintoul place	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23 St Mark's place	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24 St Stephen street	76—91	15	1	16	...	...	...	...	...	...	...	...	...	...	...
25 Saxe-Coburg place.....	76	161	8	169	2	...	2	1	...	...	1	...	...	...	...
26 Silvermills	52	148	25	173	5	1	6	2	...	...	...	...	1	...	...
27 Summer place.....	40	50	6	56	1	...	1	...	...	...	...	1	...	...	...
28 Tanfield	40	29	1	30	...	...	...	...	...	...	...	...	...	...	...
29 Warriston crescent.....	38	191	7	198	1	2	3	...	...	...	...	...	...	...	...
30 Warriston cemetery ...	50	10	3	13	...	...	...	...	...	...	...	...	...	...	...
31 Warriston house.....	63	...	...	...	1	...	1	...	...	...	1	...	...	...	...
32 Warriston place.....	44	50	4	54	1	...	1	...	...	1	...	...	...	...	...
Totals,		3504	362	3866	42	26	68	12	1	6	5	8	3	1	...

6. District of Broughton.

1 Annandale street	90—114	164	24	188	1	1	2	...	...	...	...	...	...	...	...
2 Do. do. lane	103	5	...	5											
3 Antigua street	144	138	7	145											
4 Bellevue terrace.....	97	126	3	129	...	...	...	...	...	...	...	...	...	...	...
5 Broughton court.....	106	73	15	88	...	2	2	...	...	...	...	...	...	...	...
6 Broughton place	123	348	23	371	3	...	3	1	...	...	...	1	...	...	...
7 Broughton place, East	120	100	5	105	1	2	3	...	...	1	...	...	...	...	...
8 Broughton road, Low	89—114	33	3	36	...	...	...	...	...	...	...	...	...	...	...
9 Broughton street	114—162	847	71	918	19	4	23	3	2	1	4	5	...	...	...
10 Do. do. lane.....	160	5	1	6	...	...	...	...	...	...	...	...	...	...	...
11 Do. do. lane, low	109	10	3	13	...	...	...	...	...	...	...	...	...	...	...
12 Claremont crescent.....	93	123	13	136	1	...	1	...	...	...	...	...	...	...	...
1 Ferniehill,	75	...	...	...	1	...	1	...	...	...	1	...	...	...	...
2 Zoological Gardens... ..	97	...	...	...	1	...	1	...	...	...	...	...	...	...	...
13 Claremont street, East	97	213	15	228	2	...	2	1	...	1	...	...	...	...	...
14 Forth street	150	210	9	219	2	...	2	...	...	...	...	...	...	...	...
15 Gayfield lane .....	...	46	10	56	1	1	2	...	...	...	...	1	...	...	...
16 Gayfield place.....	124	93	6	99	1	2	3	...	...	1	...	...	1	...	...
17 Gayfield square	103—131	465	39	504	7	1	8	...	...	1	...	3	...	...	...
18 Gayfield street	116	18	4	22	...	...	...	...	...	...	...	...	...	...	...
19 George place	72	74	...	74	...	...	...	...	...	...	...	...	...	...	...
20 Haddington place	106—121	331	26	357	5	1	6	...	...	1	2	...	...	...	...
21 Hart street	129—144	113	2	115	3	...	3	...	...	1	1	...	...	...	...
22 Hope crescent.....	94	37	4	41	...	...	...	...	...	...	...	...	...	...	...
23 James street	81	31	11	42	1	...	1	...	...	...	...	...	...	...	...
24 Middlefield	78	74	8	82	1	1	2	...	1	1	...	...	...	...	...
25 Moray street	71—80	270	41	311	3	...	3	...	...	1	1	...	...	...	...
Carry forward,.....		3947	343	4290	55	15	70	7	3	9	9	10	1	...	...

AND THEIR VITAL STATISTICS.—*Continued.*5. District of Lower Water of Leith—*Continued.*

1863.														No. of Paupers.	Street Cesspool.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.
12	1	5	...	1	...	...	...	...	1	3	3	5	30	1	36	37	4	16	1
13	
14	
15	
16	
17	1	...	...	...	1	...	...	...	...	...	1	1	...	1	...	
18	1	...	1	...	...	1	...	...	...	1	4	5	...	2	...	
19	
20	
21	1	...	...	...	...	...	...	...
22	
23	
24	
25	6	6	...	1	...	
26	1	...	1	...	4	...	...	...	1	1	...	
27	4	...	1	1	...	...	...
28	
29	1	...	1	...	3	...	3	...	2	...	
30	
31	
32	1	...	2	2	...	1	...	
	1	5	...	1	2	...	1	...	1	2	5	4	7	39	5	50	55	5	24	1

6. District of Broughton.

1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2	2	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
5	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
7	1	...	...	...	...	...	...	...	...	...	1	...	...	1	3	...	3	...	2	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	1	...	...	...	2	1	...	...	1	...	...	2	2	10	5	3	8	2	7	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	3	4	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	5	...	2	...
15	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...	...	...	2	...	1	1	5	2	1	3	3	1	...
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	1	...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	...	...	1	...
21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	...	...	...
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	...	...	1	...	3	5	...	5	...	...	...
	4	1	...	...	4	1	1	1	1	2	3	7	4	22	17	18	35	5	13	...

TABLE NO. VI.—NEW SANITARY DISTRICTS,

6. District of Broughton—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		3947	343	4290	55	15	70	7	3	9	9	10	1	...	...
26 Picardy place.....	161—173	199	10	209	2	...	2	...	...	...	...	1	...	...	...
27 Pilrig Model buildings	76	169	34	203	4	...	4	1	...	...	...	2	...	...	...
28 Pilrig place.....	67	19	...	19	...	...	...	...	...	...	...	...	...	...	...
29 Pilrig street	34—61	112	9	121	2	...	2	...	1	...	...	...	...	...	...
30 Rosebank	54	...	...	...	1	...	1	...	...	...	...	...	...	...	...
31 Shrub place.....	86	231	39	270	7	2	9	...	1	2	1	1	...	...	...
32 Shrub hill	86	60	18	78	1	1	2	...	...	...	...	...	...	...	...
33 Union place, N. and S.	155—170	192	13	205	3	...	3	...	...	1	1	1	...	...	...
34 Union street	150	244	22	266	4	3	7	1	1	2	...	1	...	...	...
35 Do. do. lane	160	10	1	11	...	...	...	...	...	...	...	...	...	...	...
Totals,		5183	489	5672	79	21	100	9	6	14	11	16	1	...	...

7. District of Calton and Greenside.

1 Baxter's place.....	152	63	2	65	1	...	1	...	...	...	...	...	...	...	...
2 Blenheim place	139	73	14	87	3	...	3	1	...	1	...	...	...	...	...
3 Brunswick street	112	47	3	50	1	...	1	...	...	...	1	...	...	...	...
4 Do. do. lane.....	...	10	1	11	...	...	...	...	...	...	...	...	...	...	...
5 Brunton place	117	53	1	54	1	...	1	1	...	...	...	...	...	...	...
6 Calton hill	350	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 Calton hill street	194—235	421	57	478	5	2	7	...	1	3	...	1	...	...	...
8 Calton street	191	157	12	169	1	1	2	...	...	2	...	...	...	...	...
9 Carlton terrace	183	140	5	145	1	...	1	1	...	...	...	...	...	...	...
10 Do. do. lane.....	178—191	3	2	5	...	...	...	...	...	...	...	...	...	...	...
11 Catherine street.....	181	278	59	337	1	2	3	...	1	...	...	...	...	...	...
12 Easter road.....	90—115	103	16	119	...	...	...	...	...	...	...	...	...	...	...
13 Elder street	197—225	356	22	378	9	1	10	2	...	...	1	3	...	...	...
14 Elm row	132	211	28	239	3	...	3	1	...	...	1	...	...	...	...
15 Greenside	110—147	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 Cuddie lane.....	131	39	3	42	...	1	1	1	...	...	...	...	...	...	...
2 Gilchrist's entry	149	148	34	182	1	...	1	...	...	...	...	...	...	...	...
3 Glenorchy place	121	107	21	128	5	5	10	1	...	2	...	3	...	2	...
4 Greenside court	134	134	25	159	2	...	2	...	...	1	...	1	...	...	...
5 Greenside end.....	110	53	8	61	3	...	3	...	...	2	...	...	...	...	...
6 Greenside lane, upper	117	136	28	164	5	4	9	...	1	1	...	1	...	1	...
7 Do. do., lower	117	30	8	38	...	...	...	...	...	...	...	...	...	...	...
8 Greenside place	170	484	71	555	9	6	15	...	1	2	1	6	...	1	...
9 Greenside row, lower	112	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10 Do. do., upper	116—143	491	100	591	5	8	13	1	...	5	1	1	1	...	...
11 Greenside street.....	181	380	60	440	8	6	14	4	...	...	...	2	...	1	...
12 Marshall's court.....	117	81	20	101	...	...	...	...	...	...	...	...	...	...	...
13 Nottingham place ...	143—183	20	1	21	...	...	...	...	...	...	...	...	...	...	...
14 Nottingham terrace	177	95	9	104	1	3	4	...	...	...	...	...	...	...	...
15 Queen's place	147	303	55	358	8	2	10	2	1	1	1	1	...	...	...
16 Simpson's court	134	235	49	284	3	1	4	...	...	4	...	...	...	...	...
16 Hillside crescent.....	117	59	3	62	1	...	1	...	...	1	...	...	...	...	...
17 Leith street.....	188—216	143	15	158	4	3	7	1	1	2	1	...	...	1	...
18 Leith street terrace	203—222	369	38	407	3	2	5	...	...	1	1	...	...	1	...
19 Leith walk, East side...	72—119	198	30	228	4	1	5	...	1	...	...	2	...	...	...
20 Leopold place.....	119—136	220	13	233	5	...	5	1	...	...	3	...	...	...	...
21 Little King street	179—207	165	36	201	4	2	6	...	2	...	1	...	...	...	...
22 London road .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carry forward,.....		5805	849	6654	97	50	147	17	9	26	14	21	1	7	...

AND THEIR VITAL STATISTICS.—*Continued.*6. District of Broughton—*Continued.*

1863.														Street Cesspools.			Epidemics.				
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.	No. of Paupers.	Trapped.	Untrapped.	Total.	Cholera.	Fever.		
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.	1857-8.
26	4	1	...	...	4	1	1	1	1	2	3	7	4	22	17	18	35	5	13	...	
27	...	...	...	...	1	...	1	...	...	...	...	...	1	...	...	2	4	6	...	2	...
28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	...	...	...	...	1	...	...	1	...	...	...	...	...	2	...	1	1	...	...	...	1
30	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
31	...	...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	...	...	...	...	...
32	...	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...
33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	...	3	...	...
34	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	3	...	...
35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	1	...	...	7	1	2	2	2	2	3	11	5	27	21	24	45	5	21	1	

7. District of Calton and Greenside.

1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4	...	...	...
7	1	...	...	...	...	...	...	...	...	1	...	...	2	2	7	...	7	...	1	...
8	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	3	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	1	...	...	...	...	...	...	...	...	...	...	3	...	2	...	2	...	7	...
12	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	12	13	...	...	...
13	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	2	3	...	2	...
14	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
15	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	15	...	...	...	...	...	...	...
3	...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	1	3	...
5	1	...	...	...	...	...	...	...	...	...	...	...	1	3	9	12	{	...	...	...
6	2	...	...	...	...	...	...	...	...	2	...	...	12					...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	4					...	...	...
8	...	1	...	...	...	...	...	...	...	...	...	2	12					1	1	...
9	...	1	...	...	...	...	...	...	...	2	...	1	20	...	...	...	1	28	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	3	1	...	11	...	...	...	1	39	...	...
12	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	1	...	...
15	...	...	...	...	3	1	1	...	1	...	1	...	8	...	...	...	...	1	...	...
16	...	...	...	...	...	...	...	...	...	...	...	...	16	...	...	...	1	...	...	...
16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...
17	1	...	...	...	...	...	...	...	...	...	...	...	3	1	...	1	...	7	...	...
18	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...
19	...	...	...	...	...	...	...	...	...	...	1	...	1	1	10	11	1	23	...	...
20	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	4	...	...
21	...	...	...	...	...	...	...	...	1	2	...	...	3	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	16	...	...	...	...
	6	4	...	...	5	2	1	1	1	2	15	4	5	126	23	53	76	9	120	...

TABLE No. VI.—NEW SANITARY DISTRICTS,

7. District of Calton and Greenside—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		5805	849	6654	97	50	147	17	9	26	14	21	1	7	...
23 Lover's lane	92—112	28	3	31	...	1	1	...	...	...	...	...	...	...	...
24 Maryfield	100	46	1	47	...	...	...	...	...	...	...	...	...	...	...
25 Montgomery street and lane	123	93	14	107	4	...	4	...	2	...	...	1	...	...	...
26 Norton place	120—128	163	13	176	2	4	6	...	...	2	...	...	...	1	...
27 Norton place, West ...	115—136	165	32	197	4	2	6	...	1	...	...	...	...	...	...
28 Regent Arch place... ..	167	32	7	39	3	2	5	...	...	...	...	...	...	1	...
29 St Ninian's row	181	7	...	7	...	...	...	...	...	...	...	...	...	...	...
30 Regent road	160—236	9	1	10	1	1	2	...	...	...	...	...	...	...	...
31 Prison, Calton hill	239	343	5	348	4	3	7	1	1	1	...	...	...	...	...
32 Regent terrace	191—215	258	14	272	3	...	3	1	1	...	...	...	...	...	...
33 Do. do. lane ...	...	47	11	58	...	...	...	...	...	...	...	...	...	...	...
34 Register street, East... ..	222—238	88	5	93	...	1	1	1	...	...	...	...	...	...	...
35 Royal terrace	170—180	329	15	344	3	1	4	...	1	1	...	...	...	2	...
36 St James' place	212	257	36	293	4	1	5	1	...	1	...	...	...	...	...
37 St James' square	236	667	73	740	9	5	14	...	...	5	...	2	...	...	2
38 St James' street, East ..	216	124	17	141	1	2	3	...	...	...	...	...	...	1	...
39 St James' street, North ..	218	271	25	296	4	6	10	1	...	1	1	1	1	...	...
40 St James' street, South ..	207—236	679	105	784	14	7	21	5	3	4	1	3	...	...	...
41 Shakspeare square .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42 Swinton row	209	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43 Waterloo place	218—232	121	8	129	2	...	2	...	...	1	...	...	...	...	...
44 Windsor street	125	202	11	213	1	1	2	1	...	1	...	...	...	...	...
45 Do. do. lane ...	115	5	...	5	...	...	...	...	...	...	...	...	...	...	...
Totals,		9739	1245	10,984	156	87	243	28	18	43	16	28	2	12	2

8. District of Abbey.

1 Abbey hill	102—116	486	75	561	18	13	31	2	3	5	2	4	...	...	...
1 Begg's (Dr) Buildings ..	130	184	41	225	1	2	3	...	...	1	...	...	...	...	...
2 Croall's buildings	113	...	...	...	1	...	1	...	...	...	...	1	...	...	...
3 Currie's close (86) ...	115	33	9	42	...	3	3	...	...	...	...	...	...	2	...
4 Duncan's court (25) ..	112	28	6	34	...	...	...	...	...	...	...	...	...	...	...
5 Fullerton's close (6) ...	109	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Hogg's place (49) ...	112	36	10	46	...	...	...	...	...	...	...	...	...	...	...
7 Holyrood terrace ...	130	...	...	...	2	...	2	...	...	...	...	1	...	...	...
8 Ironside court	114	21	5	26	1	...	1	...	...	1	...	...	...	...	...
9 Ironside place	113	121	9	130	...	...	...	...	...	...	...	...	...	...	...
10 Megget's court (46) ...	112	35	3	38	...	1	1	...	...	...	...	...	...	...	...
2 Abbey lane	106	20	2	22	...	...	...	...	...	...	...	...	...	...	...
3 Abbey mount	119—145	41	6	47	...	2	2	...	...	...	...	1	...	...	...
4 Abbey strand	118	39	5	44	2	2	4	1	...	1	...	...	...	...	...
5 Thomson's court (13) ...	...	93	11	104	2	1	3	...	...	...	...	1	1	...	...
6 Brand place	106	144	31	175	6	3	9	1	...	1	2	...	...	...	...
7 Comely Green crescent ..	102	43	6	49	...	...	...	...	...	...	...	...	...	...	...
8 Comely Green place ...	102	112	23	135	2	...	2	...	...	2	...	...	...	...	...
1 Jane terrace	95	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Rose lane	102—106	15	3	18	...	...	...	...	...	...	...	...	...	...	...
9 Croft-an-Righ	106	202	43	245	6	4	10	...	...	2	2	...	1	...	...
1 Rowley's court	112	33	5	38	...	...	...	...	...	...	...	...	...	...	...
10 Holyrood palace	119	21	2	23	...	...	...	...	...	...	...	...	...	...	...
11 Horse wynd	118	72	11	83	2	2	4	...	1	1	...	...	...	...	...
Carry forward,		1779	306	2085	43	33	76	4	4	14	6	8	2	2	...

AND THEIR VITAL STATISTICS.—*Continued.*7. District of Calton and Greenside—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.	Trapped.		Untrapped.	Total.	Cholera.	Fever.		
				Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.	
23	6	4	...	...	5	2	1	1	1	2	15	4	5	126	23	53	76	9	120	...
24
25	1	...	1	...	...	...
26	1	...	2	...	...	4	4	2	1	...
27	...	2	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4	...	...	...
28	2	2	...	...	...	...	...	...	1	1	...	...	...	...	...	...
29
30	6	6	...	1	...
31	1	...	...	1	...	...	...	...	1	11	...
32	1	...	1	...	...	...
33	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
34
35	11	1	12	...	...	...
36	1	1	...	...	...	...	1	1	...	13	2	1	3	...	2	...
37	2	1	...	...	5	...	3	3	2	3	...
38	1	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
39	1	2	2	...	2	2	3	5	...	4	...
40	...	1	...	...	1	...	1	...	...	1	1	1	...	15	...	...	...	2	11	1
41	2	7	...
42
43	1	...	1	...	...	...	...	...	...	...	...	3	3	...	1	1
44	2	2	...	...	...
45
	7	7	...	...	12	5	5	1	1	7	21	8	9	163	43	77	120	18	161	2

8. District of Abbey.

1	...	3	...	...	4	2	...	1	1	...	5	...	2	13	11	...	11	2	7	...
1	...	...	...	...	...	...	...	...	...	...	1	...	...	3	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
10	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	1	...
4	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	2	1	2	...
6	...	1	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	1	1	...	...	...	...	...	...	2	4	1	1	2	...	2	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	1	...	...	5	4	...	4	...	...	...
	...	7	...	...	5	3	...	1	1	2	8	...	5	36	22	5	27	3	13	...

TABLE No. VI.—NEW SANITARY DISTRICTS,

8. District of Abbey—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		1779	306	2085	43	33	76	4	4	14	6	8	2	2	...
12 Queen's park	113—118	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 St Margaret's loch...	120	...	...	...	3	...	3	...	...	...	...	...	...	...	...
2 Dunsappie loch	371	...	...	...	1	...	1	...	...	...	...	...	...	...	...
13 Spring gardens	106	95	12	107	...	...	...	...	...	...	...	...	...	...	...
1 Brown's place.....	106	42	3	45	2	...	2	...	...	...	...	...	...	...	...
Totals,		1916	321	2237	49	33	82	4	4	14	6	8	2	2	...

9. District of Canongate.

1 Canongate	118—214	1995	287	2282	57	34	91	6	8	13	4	9	1	2	1
1 Bakehouse close (146)	160	227	33	260	3	2	5	...	...	1	...	1	...	...	...
2 Bell's close (272) ...	210	53	8	61	1	...	1	...	...	1	...	...	...	...	...
3 Boyd's close (276) ...	210	300	36	336	1	6	7	1	...	...	...	...	...	...	...
4 Brown's close (79) ...	210	135	24	159	1	4	5	...	...	1	...	...	...	...	...
5 Brown's court (125)	126	78	19	97	...	...	...	...	...	...	...	...	...	...	...
6 Bull's close (106) ...	157	132	27	159	...	2	2	...	...	...	...	...	...	...	...
7 Callender's entry (67)	140	32	8	40	...	1	1	...	...	...	...	...	...	...	...
8 Campbell's close (87)	147	378	64	442	5	10	15	...	...	5	...	1	1	...	...
9 Canongate workhouse	138	67	4	71	13	1	14	3	...	2	...	2	...	...	...
10 Carfrae's entry (112)	160	57	7	64	...	...	...	...	...	...	...	...	...	...	...
11 Chessel's court (240)	203	209	34	243	3	4	7	...	1	1	...	3	1	...	...
12 Cooper's entry (130)	168	86	12	98	2	1	3	1	...	...	...	...	1	...	...
13 Coull's close (317) ...	208	127	22	149	1	3	4	1	...	...	...	...	2	...	...
14 Dunbar's close (137)	161	216	43	259	2	6	8	...	...	1	1	1	1	1	...
15 Duncan's close (35)	125	50	8	58	1	1	2	...	...	1	1	...	...	...	...
16 Galloway's entry (53)	132	40	5	45	...	...	...	...	...	...	...	...	...	...	...
17 Gentle's close (122)	163	38	4	42	1	...	1	...	...	1	...	...	...	...	...
18 Gibb's close (250) ...	206	27	6	33	...	1	1	...	...	...	...	...	...	...	...
19 Gilmore street	152	65	4	69	...	...	...	...	...	...	...	...	...	...	...
20 Gladstone's ct. (181)	174	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21 Gullan's close (264)...	206	209	38	247	...	9	9	...	...	1	...	...	2	1	...
22 Haddington's en. (80)	145	79	10	89	1	...	1	...	...	...	...	...	...	...	...
23 High School cl. (307)	207	27	2	29	...	1	1	...	...	...	...	...	...	...	...
24 House of Refuge (64)	138	405	10	415	14	1	15	4	2	2	...	1	...	...	...
25 Hume's close (307)	211	170	30	200	5	1	6	...	...	2	2	...	...	...	...
26 Jack's close, Big (225)	181	191	43	234	4	4	8	...	1	1	...	1	...	1	...
27 Do. do. Little (223)	184	169	31	200	2	6	8	...	...	3	...	...	...	1	...
28 Lochend's close (107)	152	298	51	349	4	9	13	...	...	3	1	...	2	1	...
29 Do. do. Little (115)	153	115	22	137	2	2	4	...	...	...	1	...	...	...	...
30 Logan's close (287)...	207	29	5	34	...	2	2	...	...	...	...	...	...	...	...
31 Macdowell street ...	149	207	31	238	3	8	11	...	...	1	1	1	1	1	...
32 Magdalene asylum...	174	66	...	66	...	...	...	...	...	...	...	...	...	...	...
33 Malloch's close (75)	144	83	23	106	...	2	2	...	...	...	...	...	...	...	...
34 Midcommon cl. (295)	207	130	23	153	1	7	8	1	...	1	1	...	...	...	1
35 Miller's close (171)...	173	69	17	86	1	...	1	...	...	...	...	1	...	...	...
36 Milne's close (212)...	195	120	24	144	1	2	3	...	...	...	...	...	...	...	...
37 Morocco close (273)	202	133	25	158	5	1	6	...	...	...	...	...	...	...	...
38 Morocco court.....	202	17	...	17	...	...	...	1	...	...	...	3	...	...	...
39 Munro's close (119)	154	34	7	41	...	...	...	...	...	...	...	...	...	...	...
40 New street	138—190	358	64	422	6	8	14	2	1	...	...	...	2	...	3
41 ...Riddle's entry (35)	176	95	19	114	3	2	5	...	1	1	...	2	...	...	...
42 ...Walker's place (25)	188	47	6	53	...	1	1	...	...	...	...	...	...	...	...
Carry forward,		7363	1136	8499	143	142	285	20	14	40	14	26	14	8	5

AND THEIR VITAL STATISTICS.—*Continued.*8. District of Abbey—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.
12	...	7	...	...	5	3	...	1	1	2	8	...	5	36	22	5	27	3	13	...
1	1	...
2
13	5	5	1	2	...
1	1	...	...	...	...	...	...	...	...
...	...	7	...	...	5	3	...	1	1	2	8	1	5	36	22	10	32	4	16	...

9. District of Canongate.

1	4	4	1	...	6	6	...	...	...	4	4	3	2	92	19	...	19	18	568	9
1	...	...	...	...	...	...	...	...	...	...	1	...	...	9	2	...	2	2	2	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	...	3	...	...	...
3	...	3	...	...	2	...	...	1	1	...	...	...	...	3	6	...	6	1	...	...
4	1	1	...	...	1	...	...	1	...	...	1	...	...	16	...	1	1	...	4	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	2	3	4	...	4	...	...	...
7	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	2	...	...	...
8	...	1	...	...	2	1	...	...	1	...	...	1	2	23	4	...	4	4	14	1
9	...	1	...	...	1	1	...	...	...	...	...	4	...	69	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	1	9	1	...	1	1	...	...
12	...	...	...	...	...	...	...	...	...	...	...	1	...	3	1	...	1	...	...	...
13	...	...	...	...	...	...	...	...	...	...	1	...	...	13	4	...	4	1	1	...
14	...	1	...	...	1	...	...	1	...	...	...	...	1	3	4	1	5	5	1	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	...	1	3	...	...
16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...
17	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	1	1	...	...
18	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	2	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
21	...	3	...	...	...	...	...	...	...	...	1	...	1	12	6	...	6	1	7	...
22	...	...	...	...	...	...	...	...	...	1	...	...	...	4	2	...	2	...	...	...
23	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
24	...	...	...	...	...	...	...	...	...	1	1	2	...	1	...	...	...	8	58	...
25	...	...	...	...	...	...	...	...	...	...	...	1	...	18	...	...	...	3	...	...
26	2	...	...	...	...	...	...	...	...	...	2	...	...	15	...	...	...	...	1	...
27	...	...	...	...	1	...	1	...	...	...	1	...	1	11	3	1	4	...	...	...
28	1	1	...	...	...	...	...	...	...	...	...	1	2	18	2	...	2	1	1	...
29	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...
30	...	1	...	...	...	...	...	...	...	...	1	...	...	...	3	...	3	...	...	...
31	...	2	...	...	...	...	...	...	...	...	2	1	1	...	2	2	4	...	2	...
32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33	1	1	...	...	...	...	...	...	...	...	...	...	...	3	...	1	1	...	2	...
34	...	2	...	...	...	...	...	...	...	1	1	...	...	1	1	...	1	...	...	...
35	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	2	2	1	...
36	...	...	...	...	...	...	...	...	...	...	1	...	1	11	1	...	1	3	...	...
37	...	...	1	...	...	...	...	...	...	...	...	...	...	16	3	...	3	3	...	...
38	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
39	...	...	...	...	...	...	...	...	...	...	...	...	2	18	6	...	6	5	2	...
40	...	...	...	...	1	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...
41	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...
10	21	3	...	...	15	9	1	3	2	8	20	14	17	394	91	6	97	62	668	10

TABLE No. VI.—NEW SANITARY DISTRICTS,

9. District of Canongate—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		7363	1136	8499	143	142	285	20	14	40	14	26	14	8	5
43 Old Fleshmarket cl. (333)	212	182	25	207	2	2	4	...	...	...	1	...	...	...	...
44 ... Ramsay's court...	212	59	10	69	...	1	1	...	...	...	...	...	...	...	...
45 Playhouse close (200)	189	35	6	41	2	...	2	1	...	...	...	1	...	...	...
46 Do. do., Old (196)	188	54	8	62	...	...	...	...	...	...	...	...	...	...	...
47 Panmure close (129)	160	70	18	88	1	...	1	...	...	...	...	1	...	...	...
48 Pirrie's close (246)...	204	120	25	145	1	3	4	...	...	2	...	...	...	...	...
49 Plainstone close (232)	200	119	20	139	...	...	...	...	...	...	...	...	...	...	...
50 Rae's close (281).....	204	54	8	62	...	...	...	...	...	...	...	...	...	...	...
51 Ramsay's close (41)	126	17	2	19	2	...	2	...	...	...	...	...	...	...	...
52 Reid's close (80).....	145	125	23	148	...	...	...	...	...	...	...	...	...	...	...
53 Reid's court (95).....	150	29	1	30	...	...	...	...	...	...	...	...	...	...	...
54 St John's close (188)	184	78	9	87	1	...	1	...	1	...	...	...	...	...	...
55 St John's street	164—180	355	42	397	7	2	9	2	...	1	...	2	...	...	...
56 Seton's close (265) ...	202	41	15	56	...	...	...	...	...	...	...	...	...	...	...
57 Shoemaker's cl. (215)	180	241	48	289	9	5	14	...	2	2	...	1	...	...	...
58 Strathie's close (86)	147	30	3	33	1	2	3	1	...	...	...	1	...	1	...
59 Tolbooth wynd (165)	172	81	20	101	...	1	1	...	...	...	...	...	1	...	...
60 Vallance's entry (72)	141	32	3	35	...	...	...	...	...	...	...	...	...	...	...
61 Weir's close (206) ...	192	55	7	62	1	2	3	1	1	...	...	...	...	...	...
62 Wilson's court (134)	167	61	8	69	1	...	1	1	...	...	...	...	...	...	...
63 Whitehorse close (31)	124	189	23	212	4	12	16	1	1	3	1	...	...	...	...
2 Canongate, N. Back ...	117—147	294	47	341	3	2	5	...	...	...	2	...	...	...	...
1 Amphion place	140	186	33	219	...	...	...	...	...	...	...	...	...	...	...
2 Burns' land.....	133	...	...	...	...	1	1	...	...	...	...	...	1	...	...
3 Calton, High	147—167	149	24	173	1	3	4	...	...	...	1	...	...	...	...
4 Calton, Low	151	14	3	17	...	...	...	...	...	...	...	...	...	...	...
5 Miller's entry (92) ...	146	63	10	73	...	...	...	...	...	...	...	...	...	...	...
3 Canongate, S. Back ...	118—190	299	59	358	12	7	19	5	2	4	...	1	...	...	1
1 Chalmers' court (81)	167	2	...	2	...	...	...	...	...	...	...	...	...	...	...
2 Clermiston buildings	140	...	...	...	...	1	1	...	...	1	...	...	...	...	...
3 Holyrood street	132	140	27	167	4	...	4	2	1	...	...	1	...	...	...
Totals,		10,537	1663	12,200	195	186	381	34	22	53	19	34	16	9	6

10. District of Tron.

1 Adam square	243	15	2	17	...	...	...	...	...	...	...	...	...	...	...
2 Bridge street, North ...	220—253	106	18	124	2	...	2	...	1	...	1	...	...	...	...
3 Bridge street, South ...	243—256	305	41	346	2	6	8	1	2	...	...	...	...	...	...
4 Cowgate, from South Bridge eastwards...	189—211	910	160	1070	19	26	45	5	1	5	2	5	1	1	...
1 Bull's close (307) ...	196	45	13	58	...	1	1	...	...	...	...	...	...	...	...
2 Hall's court (230) ...	204	54	8	62	...	2	2	...	...	1	...	...	1	...	...
3 High School wd. (387)	200—213	110	18	128	1	3	4	...	1	1	...	...	...	...	...
4 Robertson's cl. (263)	205—239	117	12	129	1	1	2	...	...	...	...	...	...	...	...
5 High School yards.....	218	191	28	219	6	6	12	...	1	1	1	1	1	1	...
6 Surgeon's square.....	226	6	2	8	...	...	...	...	...	...	...	...	...	...	...
7 High street, from South Bridge eastwards ...	256—226	370	60	430	23	14	37	1	5	5	1	3	2	1	1
1 Bailie Fyfe's cl. (101)	238	126	15	141	4	1	5	...	...	2	1	1	...	...	...
2 Barringer's close (91)	235	80	16	96	...	2	2	...	...	...	...	...	...	...	...
3 Bishop's close (129)	248	109	11	120	1	1	2	...	...	1	...	...	1	...	...
Carry forward,		2544	404	2948	59	63	122	7	11	16	6	10	6	3	1

AND THEIR VITAL STATISTICS—*Continued.*9. District of Canongate—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.
	10	21	3	...	15	9	1	3	2	8	20	14	17	394	91	6	97	62	668	10
43	1	...	1	...	...	...	...	...	1	4	2	1	3	2	...	...
44
45	4	...	...	...	...	1	...
46	2	...	2	...	...	...
47	5	...	5	3	...	...
48	1	...	1	12	2	...	2	...	...	...
49	12	2	...	2	...	...	...
50	5	3	...	3	...	...	...
51	1	...	1	...	...	...
52	6	3	...	3	...	1	1
53	1	...	1	...	...	...
54	4	1	...	1	...	...	...
55	2	2	...	...	...	2	2	...	4	...
56	1	2	...	2	1	4	...
57	1	...	...	...	2	1	...	...	1	...	1	3	1	11	3	1	4	1	2	...
58	4	2	...	2	...	1	...
59	9	4	2	6	1	...	...
60	1	1	...	1	...	...	...
61	1	...	...	1	2	...	2	2	...	...
62	2	...	2	1	...	...
63	...	4	...	...	1	...	1	...	...	...	2	...	1	44	3	...	3	15	1	1
2	1	...	9	11	20	...	...	...
1	1	...	...	...	...	1	...
2
3	1	...	1	...	...	...	...	4	...
4	4	...
5
3	1	...	1	...	...	...	...	...	2	5	11	4	15	...	...	...
1
2
3	1	...	...	...	...	1	...
	11	25	3	...	20	10	4	3	3	8	27	20	24	520	152	27	179	88	692	12

10. District of Tron.

1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4	...	1	...
3	1	2	...	...	...	...	...	...	...	...	1	...	...	1	6	2	8	1	9	...
4	...	6	2	...	1	1	...	...	...	2	2	...	3	62	4	...	4	11	566	2
1	...	1	...	...	...	...	...	...	...	...	...	...	...	4	1	...	1	8	2	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3	2	1
3	...	1	...	...	...	...	...	...	...	...	...	...	...	15	1	1	2	2	8	...
4	...	...	...	...	...	...	...	...	...	...	1	1	...	8	1	...	1	3	3	1
5	1	...	...	...	...	...	...	...	...	1	...	...	1	12	...	1	1	...	7	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	...
7	2	4	...	...	6	2	2	...	2	1	...	...	2	15	3	2	5	3	256	2
1	...	...	...	...	...	...	...	...	...	...	...	...	...	27	4	...	4	8	7	1
2	...	...	...	...	...	...	...	...	...	...	2	...	...	4	2	...	2	1	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
	4	14	2	...	7	3	2	...	2	4	5	1	7	152	25	7	32	42	865	7

TABLE NO. VI.—NEW SANITARY DISTRICTS,

10. District of Tron—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		2544	404	2948	59	63	122	7	11	16	6	10	6	3	1
4 Blackfriars' wynd (96)	200—243	785	123	908	16	25	41	3	1	9	2	2	2	...	1
5 ... Hodge's court ...	200	85	12	97	...	2	2	...	...	...	...	...	...	...	...
6 Cant's close (108) ...	248	226	33	259	3	4	7	...	...	2	...	...	...	1	...
7 Carrubber's cl. (135)	250	557	85	642	16	9	25	1	1	6	2	4	2	...	...
8 Chalmers' close (81)	232	337	59	396	1	3	4	...	...	1	...	...	1	1	...
9 ... Milne's buildings	194	[61	11	72]	...	1	1	...	...	1	...	...	...	...	...
10 Dickson's close (118)	250	276	44	320	4	14	18	1	...	6	1	1	...	...	...
11 Foulis' cl., South (42)	227	324	43	367	4	8	12	2	...	5	...	...	...	...	...
12 Gray's cl., North (125)	246	131	24	155	...	4	4	...	...	2	...	...	...	...	...
13 Do. do. South (56)	232	143	20	163	2	1	3	...	...	...	...	...	...	...	...
14 ... Elphinstone court	200	86	11	97	...	...	...	...	...	...	...	...	...	...	...
15 ... Mint	196	136	24	160	3	1	4	...	...	...	1	...	...	...	...
16 Halkerston's wd. (163)	254	8	1	9	...	1	1	...	...	...	...	...	...	...	...
17 Hyndford's close (50)	230	194	31	225	4	9	13	1	...	3	...	1	...	...	...
18 Kinloch's close (149)	253	2	...	2	...	...	...	...	...	...	...	...	...	...	...
19 Monteith's close (61)	230	198	27	225	6	4	10	2	...	5	1	...	...	...	...
20 ... Ironside court ...	190	24	2	26	1	...	1	1	...	...	...	...	...	...	...
21 Morrison's close (117)	243	132	29	161	2	4	6	1	...	2	...	1	...	...	...
22 Murdoch's close (68)	236	74	8	82	...	1	1	1	...	...	...	...	...	...	...
23 Paisley close (101) ...	238	240	35	275	2	2	4	...	...	2	...	...	...	...	...
24 Sandiland's close (71)	231	37	10	47	...	2	2	...	...	...	...	...	...	...	...
25 Skinner's close (64)	235	223	30	253	6	8	14	1	...	8	...	...	...	1	...
26 Strichen's close (104)	246	57	7	64	...	2	2	1	...	...	...	...	...	...	...
27 Toddrick's wynd (80)	238	396	62	458	4	8	12	2	1	5	...	1	...	...	...
28 Trunk's close (55) ...	228	155	22	177	...	7	7	1	...	2	...	...	...	...	...
29 ... Chapel Court.....	198	68	13	81	...	...	...	...	...	...	...	...	...	...	...
8 Netherbow	215—226	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 Baron Grant's cl. (15)	220	60	12	72	...	...	...	...	...	...	...	...	...	...	...
2 Fountain close (28)	225	249	44	293	1	9	10	1	...	1	...	1	1	...	...
3 Society close (21) ...	221	15	2	17	...	...	...	...	...	...	...	...	...	...	...
4 ... Ashley buildings	215	145	33	178	2	...	2	1	...	...	...	...	...	...	...
5 ... Ashley court.....	215	51	11	62	...	1	1	...	...	...	...	...	...	...	...
6 Tweeddale court (16)	221	65	14	79	1	4	5	1	...	2	...	1	2	...	...
7 World's End cl. (10)	221	83	5	88	...	...	...	...	...	...	...	...	...	...	...
9 Leith wynd.....	152—210	403	63	466	5	5	10	...	...	2	...	...	...	...	...
1 Canal court (33)	160	91	26	117	1	5	6	...	...	...	1	...	...	...	...
2 Douglas' court (63)	158	90	11	101	...	...	...	...	...	...	...	...	...	...	...
3 Shepherd's court (47)	166	38	7	45	1	...	1	...	1	...	...	...	...	...	...
4 Well close (33)	178	...	...	...	...	2	2	1	...	1	...	...	...	...	...
10 St Mary's wynd.....	189—215	589	91	680	10	19	29	4	...	6	3	2	1	...	...
1 Boyd's entry	201	60	18	78	...	1	1	...	...	...	...	...	...	...	...
11 Royal Infirmary.....	226—239	470	8	478	4	1	5	1	...	1	1	1	...	...	...
12 Infirmary street.....	227—247	57	1	58	3	...	3	...	1	1	...	...	...	...	...
13 Niddry street.....	252	107	12	119	4	2	6	...	...	3	1	1	...	...	...
14 Do. do. South ...	208	33	5	38	2	1	3	...	1	...	...	...	...	...	...
15 Physic gardens	147—164	61	9	70	2	...	2	...	...	...	...	2	...	...	...
Totals.		10,105	1531	11,636	169	233	402	34	17	92	19	28	15	6	2

AND THEIR VITAL STATISTICS.—Continued.

10. District of Tron—Continued.

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.
4	4	14	2	...	7	3	2	...	2	4	5	1	7	152	25	7	32	42	865	7
5	...	6	1	...	1	...	...	...	1	...	3	...	5	39	1	...	1	15	71	7
6	...	2	...	...	...	...	...	...	...	...	...	...	...	12	5	...	5	6	8	...
7	...	1	1	...	1	1	...	...	...	...	...	2	2	33	7	...	7	2	2	...
8	1	...	...	1	...	...	...	...	...	13	4	...	4	1	7	...
9	2	...	...	...	...	...	...
10	...	4	2	...	...	...	...	...	...	...	2	...	1	39	5	...	5	2	9	3
11	...	1	1	...	...	...	...	...	...	...	1	...	1	36	2	...	2	8	...	...
12	1	...	...	...	...	...	...	...	...	...	...	...	...	9	5	...	5	5	5	...
13	1	...	1	...	1	...	...	1	...	...	...	14	3	...	3	2	7	1
14	5	...	...	...	1	...	...
15	1	1	...	...	...	...	1	...	...	4	...	...	...	1	...	...
16	1	2	...	2	...	...	...
17	...	2	...	...	...	...	...	...	...	2	1	...	1	15	2	...	2	4	5	...
18	1	...
19	1	...	...	1	19	4	...	4	1	1	...
20
21	1	1	...	...	6	2	...	2	2	...	...
22	12	2	...	2	...	...	...
23	1	...	...	11	...	...	...	...	...	...
24	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
25	...	1	1	...	...	...	...	...	...	...	1	...	1	6	1	...	1	...	21	...
26	...	1	...	...	...	...	...	...	...	...	...	...	...	23	2	...	2	2	1	...
27	...	1	...	...	...	...	...	...	...	1	...	...	...	56	5	...	5	15	56	...
28	...	2	...	...	...	...	...	...	...	...	...	...	...	11	3	...	3	1	...	...
29
8	34	...
1	8	1	1	2	2	...	...
2	...	4	...	...	...	...	...	...	...	1	1	...	...	14	3	...	3	3	2	...
3	3	...	3	2	...	...
4	8	...	...	...	...	...	...
5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	2	...	...	...	...	...	...	...	...	...	...	2	3	...	3	1	...	...
7	1	...	...	...	...	...	...
9	1	...	1	...	...	1	...	...	...	19	5	4	9	10	71	1
1	...	2	...	...	...	...	...	...	...	...	1	...	1	6	...	...	...	...	3	...
2	2	...	...	...	...	...	...
3	1	...	...
4	4	...	...	...	3	2	...
10	...	4	...	...	1	...	1	...	...	...	2	1	1	35	4	...	4	15	34	3
1	...	1	...	...	...	...	...	...	...	...	...	...	...	5	2	...	2	...	2	...
11	1	1	...	...	...	...	...	...	...	...	...	...	...	18	102	2
12	1	1	...	...	...	...	...	...	...	...	1	1	2	...	5	1
13	13	1	2	3	...	2	...
14	1	1	...	5	2	...	2	...	...	...
15	4	5	9	...	2	...
6	48	11	...	...	16	7	5	1	3	13	23	5	22	640	109	20	129	165	1320	25

TABLE NO. VI.—NEW SANITARY DISTRICTS,

11. District of St Giles.

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
1 Argyle square.....	264—272	160	14	174	2	...	2	1	...	...	...	...	...	...	...
2 Bank street.....	281—290	155	17	172	1	2	3	...	...	...	...	...	...	...	...
3 Bank street, North.....	260—281	25	6	31	...	...	...	...	...	...	...	...	...	...	...
4 Blair street.....	211—254	256	54	310	1	4	5	...	...	...	...	...	2	...	...
5 Brown square.....	271	84	4	88	1	...	1	1	...	...	...	...	...	...	...
6 Candlemaker row.....	233—270	407	59	466	6	4	10	...	1	2	2	1	1	...	...
7 Castle.....	437	816	38	854	11	4	15	2	...	4	...	1	2	...	...
8 Castlebank.....	260	...	...	...	1	...	1	...	...	...	...	1	...	...	...
9 Castlehill.....	332	232	41	273	1	8	9	1	...	3	...	...	1	...	...
1 Blair's close (400) ...	330	114	16	130	...	1	1	...	...	1	...	...	...	...	...
2 Boswell's court (392)	320	65	7	72	1	1	2	...	1	...	...	...	...	...	...
3 Brown's close (385)	330	10	1	11	...	...	...	...	...	...	...	...	...	...	...
4 Brown's court (396)	328	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 Castle wynd (386) ...	291—332	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Jollie's close (595) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 Ramsay gardens.....	309	36	3	39	1	...	1	...	...	1	...	...	...	...	...
8 Do. lane.....	330	...	...	...	2	...	2	...	...	...	1	1	...	...	...
9 Do. lodge.....	307	...	...	...	2	...	2	...	...	...	1	...	...	...	...
10 ... Orig. Ragged Sch.	320	85	...	85	...	...	...	...	...	...	...	...	...	...	...
11 Rockville close (388)	318	24	3	27	...	...	...	...	...	...	...	...	...	...	...
12 Semple close (541) ...	316	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10 Lawnmarket.....	287—304	352	47	399	13	13	26	...	1	6	1	6	...	...	1
1 Baxter's close (469)	297	139	13	152	1	3	4	...	...	1	...	...	...	...	2
2 Brodie's close (304)...	296	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 Brown's close (385)	290	11	2	13	...	...	...	...	...	...	...	...	...	...	...
4 Buchanan's court (300)	296	16	2	18	...	...	...	...	...	...	...	...	...	...	...
5 Cranston's close (517)	302	12	...	12	...	...	...	...	...	...	...	...	...	...	...
6 Dunbar's close (413)	291	44	7	51	...	1	1	...	...	1	...	...	...	...	...
7 Fisher's close (312)	299	64	7	71	1	1	2	...	...	...	...	...	1	...	...
8 Galloway's close (425)	292	4	1	5	...	...	...	...	...	...	...	...	...	...	...
9 James' court (501) ...	302	330	50	380	4	...	4	...	...	1	2	1	...	...	...
10 Johnston's close (332)	302	61	8	69	...	...	...	...	...	...	...	...	...	...	...
11 Lady Stair's cl. (477)	300	64	1	65	2	...	2	...	...	...	...	...	...	...	...
12 Milne's court (517)...	303	350	74	424	6	3	9	1	1	2	...	1	...	...	...
13 Milne's entry (527)...	304	68	10	78	...	...	...	...	...	...	...	...	...	...	...
14 Paterson's court (441)	294	45	6	51	...	...	...	...	...	...	...	...	...	...	...
15 Riddle's close (322) ...	301	153	30	183	1	7	8	1	...	...	...	...	...	...	...
16 Seller's close.....	290	49	8	57	...	...	...	...	...	...	...	...	...	...	...
17 Wardrop's court (459)	295	115	17	132	2	3	5	1	...	...	...	...	...	...	...
11 High street (east to Bridges).....	287—260	413	41	454	17	7	24	...	...	2	3	5	...	...	1
1 Advocate's cl. (357)	288	351	73	424	3	4	7	1	...	...	1	...	...	1	...
2 Allan's close (269)...	277	8	1	9	1	...	1	...	...	...	...	...	...	...	...
3 Do. court (269) ...	215	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4 Anchor close (243)...	271	58	5	63	...	...	...	...	...	...	...	...	...	...	...
5 Bell's wynd (146) ...	268	236	41	277	5	2	7	1	1	3	...	...	...	...	...
6 Borthwick's cl. (190)	276	184	40	224	2	4	6	...	1	1	1	...	...	...	...
7 Burnet's close (156)	269	131	23	154	1	2	3	...	1	...	...	...	1	...	...
8 Byre's close (373) ...	290	40	11	51	...	...	...	...	...	...	...	...	...	...	...
9 Conn's close (162) ...	271	69	19	88	...	3	3	...	...	3	...	...	...	...	...
10 Covenant close (162)	270	198	27	225	1	5	6	1	...	1	...	...	...	...	...
11 Craig's close (265) ...	277	104	21	125	3	6	9	...	1	2	...	...	...	1	...
12 Fishmarket.....	189	27	5	32	1	3	4	...	...	1	...	...	...	...	...
13 Fleshmarket cl. (199)	260	142	17	159	...	4	4	...	...	...	...	...	...	...	...
14 Foulis cl., North (229)	268	32	4	36	1	...	1	...	...	...	1	...	...	...	...
15 Geddes' close (233) ...	267	46	7	53	1	...	1	...	...	...	...	...	...	...	...
Carry forward.....		6385	881	7266	96	95	191	11	8	35	13	17	8	2	4

AND THEIR VITAL STATISTICS.

11. District of St Giles.

1863.														No. of Paupers.	Street Cesspools.			Epidemics.			
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.		
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.	1857-8
1	1	...	...	...	...	...	...	...	...
2	1	...	1	...	...	...	1	...	1	...	...	7	...	...	...	...	8		
3		
4	...	1	...	...	...	...	...	...	...	...	1	...	...	4	...	2	2	...	2
5	6	2	...	2	...	1		
6	1	...	...	...	...	...	...	...	...	...	...	8	1	4	5	...	25		
7	1	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	1
8	1	3		
9	...	1	...	...	...	...	...	...	...	...	1	...	2	5	...	3	3	3	18
1	1	...		
2	1	...	...	...	...	...	...
3	1	...	...	...	...	...
4		
5	2	1		
6		
7		
8	2	2	...	...
9	1	...	...	...	...	...	...	...	...
10	3		
11		
12	1	1	...	...
10	1	2	...	...	1	...	1	...	...	...	1	...	2	37	...	...	...	2	81
1	1	...	1	...	...	...	...	...	...	8	2	...	2	2	2		
2		
3		
4	1	...	...	...	...	...
5		
6	1	...	1	...	...
7	...	1	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...
8	1	...	1	...	...
9	7	6	...	6	1	2		
10	3	2	...	2	2	...		
11	1	...	1	...	5	1	...	1	1	1		
12		
13	1	...	1	...	1	...	...	...	...	1	...	48	3	...	3	3	9		
14		
15	1	1	...	...	...	...	...	...	...	...	1	...	2	11	...	...	...	...	1
16		
17	1	...	...	...	...	...	...	...	...	...	1	...	1	9	2	...	2	...	...
11	2	1	1	...	...	...	1	2	...	...	1	1	...	...	...	4	450		
1	1	...	2	...	...	...	...	...	...	...	...	1	...	21	2	...	2	4	4
2	2	...	2	...	1		
3		
4	2	4	...	4	5	1		
5	43	4	...	4	8	10		
6	...	1	...	...	...	...	...	...	1	...	...	...	...	8	...	...	...	1	6
7	10	7	...	7	1	2		
8	2	...	...	...	...	...
9	14	5	...	5	...	1		
10	3	...	...	28	2	...	2	12	3		
11	3	...	...	...	...	...	...	...	1	...	...	1	...	8	2	...	2	3	2
12	2	...	1	...	...	...	...	...	...
13	2	9	2	...	2	7	5		
14	1	...	6	...	1	1	1	9		
15	6	...	...	...	1	...		
	8	7	7	1	6	1	2	1	2	5	12	5	14	324	51	13	64	65	648		

TABLE NO. VI.—NEW SANITARY DISTRICTS,

11. District of St Giles—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		6385	881	7266	96	95	191	11	8	35	13	17	8	2	4
16 Jackson's close (209)	260	63	7	70	2	1	3	1	...	...	...	...	...	...	...
17 Lyon's close (215) ...	261	17	2	19	1	...	1	...	...	...	...	1	...	...	...
18 Mary King's close ...	280	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19 Milne's square (173)	259	197	25	222	1	4	5	...	...	1	...	...	1	...	...
20 Old Assembly close (170) ...	219—271	286	41	327	8	4	12	1	...	1	1	5	...	...	...
21 Old Fishmarket close (196) ...		295	75	370	6	5	11	...	...	4	1	1	...	1	...
22 ... Night Asylum ...	...	36	3	39	...	...	...	...	...	...	...	...	...	...	...
23 Old Post Office close (253) ...	270	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24 Old Stamp Office close (221) ...		267	17	20	...	...	...	...	...	...	...	...	...	...	...
25 Roxburgh close (341)	287	37	2	39	...	...	...	...	...	...	...	...	...	...	...
26 Stevenlaw's cl. (134)	264	360	64	424	3	5	8	...	1	3	...	...	1	...	...
27 Writer's court (315)	284	120	28	148	...	3	3	...	1	...	...	...	...	...	1
28 Warriston close (332)	285	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 Cowgate, east to South Bridge ...	211—233	1438	263	1701	30	36	66	5	1	13	4	7	2	...	2
1 Allison's close (34) ...		232	216	32	248	4	8	12	...	3	...	...	1	...	...
2 Anderson's close (14)	233	25	9	34	1	...	1	...	...	...	...	1	...	...	...
3 Back close (138) ...	220	58	5	63	...	...	...	...	...	...	...	...	...	...	...
4 Baillie's court (50) ...	232	116	20	136	3	4	7	...	1	1	1	1	...	...	...
5 Barker's land (108) ...	227	39	8	47	...	...	...	...	...	...	...	...	...	...	...
6 Brodie's close (52) ...	232	92	14	106	2	2	4	...	...	...	...	...	...	...	...
7 Campbell's cl. (109)	228	...	...	...	...	1	1	...	...	...	...	...	...	...	...
8 College wynd (205) ...	212—252	459	87	546	17	15	32	2	2	7	...	2	2	1	...
9 ... Boswell's ct. (22)		...	59	19	78	...	...	...	...	...	...	...	...	...	...
10 ... Dick's court (17)	...	66	15	81	...	...	...	...	...	...	...	...	...	...	...
11 ... Good's entry (23)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 Commercial ct. (247)	211	46	4	50	...	1	1	...	...	1	...	...	...	...	...
13 Cowan's close (95) ...	229	23	...	23	2	...	2	1	...	...	1	...	...	...	...
14 Cowgate head ...	233	66	13	79	5	...	5	2	1	...	...	1	...	...	...
15 Dick's close (195) ...	214	17	5	22	...	...	...	...	...	...	...	...	...	...	...
16 Forrester's wynd (98)	228	159	21	180	...	1	1	...	...	...	...	...	1	...	...
17 Hammerman's cl. (55)	231	61	5	66	1	1	2	2	...	...	...	...	...	...	...
18 Hastie's close (225) ...	212	150	21	171	3	2	5	2	1	...	...	...	...	2	...
19 Heron's court (184)	222	49	10	59	1	1	2	...	...	...	...	1	...	...	...
20 Horse wynd (179) ...	216—254	339	46	385	8	4	12	...	2	2	...	1	...	...	...
21 Hume's or Dyer's cl. (101) ...		228	66	82	...	3	3	...	...	...	...	1	...	...	...
22 Kincaid's court (159)	222	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23 Kitchen's court (175)	218	134	21	155	1	3	4	...	...	1	...	1	...	...	...
24 Maconochie's cl. (44)	232	87	22	109	2	3	5	1	...	...	...	...	...	...	...
25 Mealmarket (122) ...	222	[295	65	360]	1	1	2	1	...	...	...	...	...	...	...
26 Peter's close (187) ...	215	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27 Pollock's close (28) ...	233	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28 Rattray's close or entry (115) ...	227	76	...	76	1	...	1	...	...	...	...	1	...	...	...
29 Scott's close (123) ...		224	264	37	301	...	2	2	...	1	...	...	...	...	...
30 Scott's entry (123) ...	270	15	3	18	1	...	1	1	...	...	...	...	...	...	...
13 College street, West ...	256—275	9	1	10	...	...	...	...	...	...	...	...	...	...	...
14 College street, North ...	248—256	15	2	17	...	...	...	...	...	...	...	...	...	...	...
15 Geo. IV. bridge ...	279	53	2	55	1	...	1	...	...	...	1	...	...	...	...
16 Greyfriar's place ...	278	55	14	69	...	1	1	...	...	...	1	...	...	...	...
Carry forward, ...		12,065	1846	13,911	201	206	407	30	18	73	23	41	16	6	7

AND THEIR VITAL STATISTICS—*Continued.*11. District of St Giles—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.
16	8	7	7	1	6	1	2	1	2	5	12	5	14	324	51	13	64	65	648	24
17	1	1	...	1	3	...	3	...	2	...
18	1	...	1	...	...	...
19	1	...	1	...	19	1	1	2	1	5	...
20	1	1	2	6	1	...	1	7	29	...
21	1	...	1	...	...	1	...	...	1	...	...	26	2	...	2	11	21	...
22	47	...
23	1	1	...	...	...
24	3	...	1	1	...	...	...
25	2	1	...	1	...	...	...
26	1	1	22	1	...	1	11	4	2
27	1	10	1	...	1	2	...	...
28	2	...	2	3	1	...
12	...	4	6	...	5	4	...	1	...	2	2	...	6	60	6	16	22	16	826	2
1	...	1	4	...	...	...	...	...	...	...	1	1	...	15	2	...	2	1	3	...
2	1	...	...	...	1	...	...
3	9	1	...	1	...	...	...
4	1	...	1	1	...	...	...	3	...	...
5
6	1	...	1	11	...	...	...	11	5	...
7	1	8	1	...	1	...	3	...
8	...	4	2	...	1	1	...	...	...	1	3	1	...	28	...	...	...	18	85	6
9	10	2	...	2	...	...	...
10	4	...	...	...	...	...	...
11	8	...	...	...	...	...	...
12	1	...	...	...	...	...	...
13	1	...
14	41	...	...	...	5	...	...
15	1	...	1	...	...	...
16	5	...	...	...	2	4	1
17	4	...	...	...	2	...	...
18	27	...	...	...	13	3	...
19	1	...	...	...	...	...	...	...	...	...
20	2	2	...	...	...	...	2	1	...	38	...	...	...	7	44	1
21	...	1	...	...	...	...	...	...	...	...	...	...	...	8	3	...	3	...	4	...
22
23	1	...	...	...	...	...	...	...	...	...	...	...	...	20	...	...	...	5	2	...
24	...	1	2	...	...	...	...	...	...	...	...	...	...	1	2	...	2	...	2	...
25	...	1	...	...	...	...	...	...	...	...	...	...	...	25	...	...	...	13	12	...
26	1	...	1	...	...	...
27	1	...	1	...	1	...
28	1	...	1	...	...	...
29	1	...	...	15	3	...	3	4	8	...
30
13	1	...	1	...	...	...
14	2	2	...	...	...
15	1	2	3	...	1	...
16
9	19	22	1	15	8	2	3	2	9	27	12	27	754	90	36	126	201	1761	36	

TABLE NO. VI.—NEW SANITARY DISTRICTS,

11. District of St Giles—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		12,065	1846	13,911	201	206	407	30	18	73	23	41	16	6	7
17 Hunter square.....	254	23	2	25	...	...	...	...	...	...	...	...	...	...	...
18 Lindsay place	278	13	2	15	1	...	1	...	...	1	...	...	...	...	...
19 Lothian street.....	278	547	58	605	13	6	19	3	1	5	1	3	...	...	...
20 Lord Cockburn street...	204—260	[114	19	133]	1	2	3	1	...	...	...	1	...	...	...
21 Market street	182—204	164	21	185	3	3	6	...	1	...	...	2	1	...	...
22 Melbourne place	288	82	7	89	...	...	...	...	...	...	...	...	...	...	...
23 Merchant street	250	100	14	114	2	6	8	...	...	2	1	...	1	...	...
24 Mound	215	12	1	13	...	...	...	...	...	...	...	...	...	...	...
25 Mound place	290	62	7	69	...	...	...	...	...	...	...	...	...	...	...
26 Parliament square	284	15	1	16	...	...	...	...	...	...	...	...	...	...	...
1 Police Office, Head...	278	63	7	70	...	...	...	...	...	...	...	...	...	...	...
27 Royal Exchange.....	282	103	11	114	3	1	4	...	1	...	...	...	...	1	1
28 Society	280	219	49	268	3	2	5	...	...	2	...	...	...	1	...
29 Victoria street.....	250—280	85	17	102	1	1	2	...	...	...	...	...	...	...	...
30 Victoria terrace	285	2	...	2	...	...	...	...	...	...	...	...	...	...	...
31 Waverley bridge	194	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32 West bow	236—300	321	48	369	4	1	5	1	1	...	...	1	...	...	...
Totals,		13,876	2091	15,967	232	228	460	35	22	83	25	48	18	8	8

12. District of Grassmarket.

1 Grassmarket	211—233	806	99	905	20	16	36	...	1	10	5	4	...	...	3
1 Aird's close (135) ...	231	52	11	63	1	4	5	1	1	...	1	...	...	...	...
2 Brown's close (14) ...	211	121	27	148	2	2	4	...	...	...	1	...	...	...	...
3 Castle wynd (46) ...	216	145	27	172	3	6	9	2	...	3	...	...	...	...	...
4 Cowie's close (107)...	227	53	14	67	...	1	1	...	...	...	...	...	...	...	...
5 Crawford's close (8) ...	210	114	25	139	1	3	4	...	...	3	1	...	...	...	...
6 Currie's close (94) ...	229	163	27	190	4	4	8	...	1	1	...	1	1	...	...
7 Dewar's close (102)...	230	64	7	71	1	...	1	1	...	...	...	...	...	...	...
8 Dunlop's court (36)...	215	[25	2	27]	1	...	1	...	...	...	...	...	...	...	...
9 Gilmour's close (99) ...	226	61	5	66	1	2	3	1	...	2	...	...	...	...	...
10 Gladstone's close (20) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11 Hunter's close (129) ...	230	76	15	91	1	2	3	...	...	1	...	...	...	...	...
12 Jamieson's close (68) ...	227	115	16	131	...	1	1	...	...	...	...	...	...	...	...
13 Lamond's close (23) ...	211	51	16	67	...	...	...	...	...	...	...	...	...	...	...
14 Marshall's close (3)...	210	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15 Plainstones close (78) ...	227	60	16	76	1	2	3	1	...	...	...	...	...	...	...
16 Smith's close, East (125)	230	77	20	97	2	4	6	1	...	...	1	...	1	...	...
17 Smith's close, West (119)	230	56	8	64	1	3	4	...	...	...	1	1	1	...	...
18 Temple's close (145) ...	232	41	9	50	...	...	...	...	...	...	...	...	...	...	...
19 Thomson's court (54) ...	222	109	25	134	2	2	4	...	...	...	...	...	...	1	...
20 Warden's close (139) ...	229	112	10	122	...	...	...	...	...	...	...	...	...	...	...
2 Heriot bridge	218	130	27	157	1	3	4	1	...	1	...	...	1	...	...
3 Johnston terrace	232—300	5	...	5	...	...	...	...	...	...	...	...	...	...	...
4 King's stables.....	201	111	18	129	2	2	4	...	...	...	...	2	...	...	...
5 West port	210—249	1008	160	1168	17	20	37	2	3	6	5	1	1	1	2
1 Aitchison's close (58) ...	227	119	26	145	4	3	7	...	1	1	1	2	1	...	...
2 Baird's close (135) ...	239	44	8	52	1	...	1	...	...	...	...	...	...	...	...
3 Brown's land (29) ...	...	57	19	76	1	2	3	1	1	...	...	...	...	...	...
4 Chapel wynd (51) ...	221	4	1	5	...	...	...	...	...	...	...	...	...	...	...
Carry forward,		3754	636	4390	67	82	149	11	8	28	16	11	6	2	5

AND THEIR VITAL STATISTICS—*Continued.*11. District of St Giles—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.
17	9	19	22	1	15	8	2	3	2	9	27	12	27	754	90	36	126	201	1761	36
18	1	...	1	...	...	...
19	1	1	1	1	2	...	3	3	1	3	...
20	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
21	1	...	...	...	4	...	4	1	1	2
22	1	1	...	...	...
23	1	1	...	...	...	...	...	...	...	1	...	...	1	9	1	1	2	...	...	1
24	2	7	9	...	...	...
25
26	8	8	...	...	...
1	5	...
27	...	1	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
28	1	...	5	...	...	...	1	...	...
29	2	...	...	...	1	2	3	...	...	...
30
31	4	...	4	...	...	...
32	4	...	...	...	2	5	...
	10	21	23	1	15	8	2	3	2	11	31	14	29	777	103	58	161	206	1775	39

12. District of Grassmarket.

1	...	5	...	...	1	...	1	...	...	2	2	...	3	53	15	...	15	48	825	5
1	...	1	...	...	...	...	...	...	...	1	...	...	...	6	2	...	2	6	...	...
2	...	1	...	...	1	...	1	...	...	...	...	...	...	13	2	...	2	...	...	...
3	...	...	...	...	1	1	...	...	...	...	1	...	1	3	...	...	...	...	1	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	1	2	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	8	1	...	1	5	2	...
6	...	...	1	...	...	...	...	...	...	...	1	...	1	8	1	...	1	5	20	1
7	...	...	...	...	...	...	...	...	...	...	...	...	...	7	1	...	1	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	3	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	2	...	8	...
12	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	7	4	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	...	2	...	...	...	...	...	...	...	...	...	...	...	10	1	...	1	5	3	...
16	...	2	...	...	...	...	...	...	...	...	...	...	1	13	2	...	2	...	...	...
17	...	1	...	...	...	...	...	...	...	...	...	...	...	16	1	...	1	2	...	...
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
19	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...
2	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	2	11	6	9	15	3	7	...
5	1	4	1	...	...	...	...	...	...	2	4	2	1	46	10	...	10	14	373	1
1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	2	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...
3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	19	2	...	3	1	2	...	...	5	8	2	11	207	56	13	69	100	1243	7

TABLE NO. VI.—NEW SANITARY DISTRICTS,

12. District of Grassmarket—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		3754	636	4390	67	82	149	11	8	28	16	11	6	2	5
5 Crombie's land (49)	227	39	7	46	1	2	3	...	1	...	...	...	...	...	1
6 Inglis' court (17) ...	208	117	26	143	2	1	3	1	...	1	...	...	...	...	...
7 Ink's close (6)	210	87	8	95	...	...	...	...	...	...	...	...	...	...	...
8 Killibrae (26)	216	114	22	136	1	3	4	...	...	...	...	...	1	...	...
9 Lady wynd (25)	212	12	3	15	...	...	...	...	...	...	...	...	...	...	...
10 St. Cuthbert's cl.(167)	247	67	13	80	1	...	1	...	...	1	...	...	...	...	...
11 Stevenson's close(153)	245	106	19	125	1	3	4	...	...	...	1	...	...	...	...
12 Tanner's close (123)	237	95	28	123	...	3	3	...	...	2	...	...	...	...	...
13 Well close (86)	237	41	9	50	1	1	2	1	...	...	...	...	...	...	...
14 Weaver's close (65)	225	23	1	24	...	1	1	...	...	...	...	...	1	...	...
Totals,		4455	772	5227	74	96	170	13	9	32	17	11	8	2	6

13. District of Fountainbridge.

1 Brandfield place	217	44	4	48	1	...	1	...	...	...	1	...	...	...	...
2 Bread street	238	294	33	327	7	...	7	2	1	...	1	2	...	...	...
3 Castle barns	238	117	23	140	2	1	3	...	1	...	1	...	...	...	...
1 Robb's court	238	26	2	28	...	...	...	...	...	...	...	...	...	...	...
4 Cowfeeder row	250	214	47	261	4	...	4	...	...	1	...	...	...	...	...
1 Belfrage lane	245	77	18	95	3	1	4	1	...	...	...	1	...	...	...
2 Fleming's close (1) ...	249	24	5	29	...	...	...	...	...	...	...	...	...	...	...
5 Downie place	238	254	15	269	...	...	...	...	...	...	...	...	...	...	...
6 Drumdryan	241	45	5	50	...	...	...	...	...	...	...	...	...	...	...
7 Dunbar street	236	279	43	322	3	4	7	1	1	1	...	...	...	1	...
8 Earl Grey street	239	481	58	539	5	7	12	...	...	...	1	2	...	1	1
9 Fountainbridge street...	...	1531	224	1755	30	21	51	4	2	5	3	5	...	...	3
1 Chalmers' buildings (136).....	234	110	25	135	1	2	3	1	...	...	...	...	...	...	...
2 Fountain court (81)...	222	74	18	92	...	...	...	...	...	...	...	...	...	...	...
3 Hamilton's court(133)	236	[9	56	65]	1	...	1	...	...	1	...	...	...	...	...
4 Hopetoun court (39)	238	78	11	89	...	1	1	...	...	...	...	...	...	1	...
5 Inglis' entry (8)	245	78	12	90	3	...	3	...	1	2	...	...	...	...	...
6 Knowles' pend (63)...	225	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 Strachan's court (12)	244	78	30	108	1	1	2	...	...	1	...	...	...	...	...
8 Walker's pend (18)...	244	111	17	128	3	2	5	...	1	1	...	...	1	...	...
9 Viewforth park	222	...	...	...	2	4	6	1	...	1	...	1	...	...	...
10 Freer street	236	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11 Gillespie street	245	21	...	21	...	...	...	...	...	...	...	...	...	...	...
12 Gilmore park .....	...	11	3	14	...	1	1	...	...	...	...	...	...	...	...
13 Gilmore place	246	392	33	425	3	1	4	2	...	1	...	1	...	...	...
14 Gilmore place, Lower...	240	30	5	35	...	...	...	...	...	...	...	...	...	...	...
15 Gilmore place, Upper...	247	44	1	45	...	...	...	...	...	...	...	...	...	...	...
16 Grove road	223	124	19	143	1	1	2	...	...	...	...	1	...	...	...
17 Hailes street	250	64	9	73	...	...	...	...	...	...	...	...	...	...	...
18 High riggs	240	236	38	274	5	6	11	...	1	2	3	...	...	...	1
1 Hamilton place	240	116	18	134	3	3	6	...	2	1	...	1	...	...	...
2 Robb's court (12) ...	250	27	4	31	...	1	1	...	...	1	...	...	...	...	...
3 Watson's court (9) ...	246	23	4	27	1	2	3	...	...	...	...	1	...	...	...
19 Home street	236	819	159	978	12	10	22	3	...	3	1	1	...	1	...
20 Ladyfield place	231	18	...	18	1	...	1	...	...	1	...	...	...	...	...
21 Leven street	245	306	41	347	4	5	9	...	...	3	...	...	...	...	...
22 Lochrin	235	9	3	12	...	...	...	...	...	...	...	...	...	...	...
Carry forward,		6155	927	7082	96	74	170	15	10	25	11	16	1	4	5

AND THEIR VITAL STATISTICS.—*Continued.*12. District of Grassmarket—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.			
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.		
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.	1857-8.
5	2	19	2	...	3	1	2	...	...	5	8	2	11	207	56	13	69	100	1243	7
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	1	...	...	1	...	1	...	...	...	...	...	...	14	1	...	1	1	1	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	15	2	...	2	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...
12	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	3	...
13	...	1	...	...	...	...	...	...	...	...	...	...	...	9	1	...	1	...	1	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	3	21	2	...	4	1	3	...	...	6	8	2	13	250	65	14	79	102	1250	7

13. District of Fountainbridge.

1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
2	...	...	...	...	1	...	...	...	...	...	...	...	...	5	3	2	5	...	...	1
3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	8	1	2	3	...	10	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	1	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	2	...	2	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	...	1	...	9	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	3	...	4	...
12	...	...	...	...	...	...	...	...	...	...	...	...	...	64	15	3	18	...	63	2
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	9	8	2	2	6	...	2	4	...	7	8	8	12	139	32	25	57	1	98	4

TABLE No. VI.—NEW SANITARY DISTRICTS,

13. District of Fountainbridge—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		6155	927	7082	96	74	170	15	10	25	11	16	1	4	5
23 Main point	234	53	15	68	1	2	3	...	...	2	...	...	...	...	...
1 Hay's court	245	23	1	24	...	...	...	...	...	...	...	...	...	...	...
24 Newport street	238	219	41	260	6	1	7	...	...	2	...	3	...	...	...
25 Orchardfield court	237	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26 Orchardfield place	238	29	4	33	...	...	...	...	...	...	...	...	...	...	...
27 Orchardfield street	239	69	14	83	1	...	1	1	...	...	...	...	...	...	...
28 Ponton street	239	447	87	534	5	14	19	1	1	2	2	1	...	...	...
29 Public Slaughterhouses	237	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30 Riego street	246	285	59	344	5	2	7	...	1	1	1	2	...	...	...
31 Romilly place	231	291	37	328	1	3	4	2	...	...	...	...	...	...	1
32 St Anthony place	237	188	21	209	3	1	4	2	...	1	...	...	...	...	...
33 Semple street	236	151	27	178	3	2	5	...	...	2	...	...	...	...	...
1 Weaver's land (6) ...	236	76	8	84	...	1	1	...	...	...	...	...	...	...	...
34 Spence's place	238	244	63	307	3	6	9	1	1	1	1	...	...	...	...
35 Tarvit street	241	25	2	27	1	...	1	...	1	...	...	...	...	...	...
36 Thornybauk	235	202	40	242	5	4	9	1	2	1	...	1	...	1	...
37 Tollcross	236	67	10	77	3	1	4	1	...	1	...	1	...	...	...
38 Union Canal basin	238	...	...	...	3	2	5	...	...	...	...	...	...	...	...
Totals,		8524	1356	9880	136	113	249	24	16	38	15	24	1	5	6

14. District of George Square and Lauriston.

1 Archibald place	253—278	214	28	242	5	3	8	...	1	...	2	2	...	1	...
2 Brougham place	237	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 Brougham street	237	60	8	68	1	...	1	...	...	...	...	...	...	...	...
4 Buccleuch place and lane	249	588	46	634	10	2	12	2	...	1	1	...	...	2	...
5 Chalmers' hospital	278	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Chalmers' street	237—278	39	1	40	1	1	2	...	...	...	...	1	...	1	...
7 Charles street and lane	269	287	32	319	5	...	5	2	...	...	...	...	...	...	...
8 Crichton street	267	151	21	172	...	3	3	...	...	...	...	...	1	...	...
9 Forrest road	282	7	...	7	...	...	...	...	...	...	...	...	...	...	...
1 City Poorhouse	281	569	52	621	111	19	130	20	8	26	10	9	...	...	...
10 George square	252—270	477	19	496	4	1	5	1	1	...	1	1	...	...	...
11 Do. do. lanes .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 Graham street	279	143	13	156	2	2	4	1	...	1	1	...	...	...	...
13 Heriot's hospital	290	203	1	204	...	...	...	...	...	...	...	...	...	...	...
14 Heriot place	290	149	18	167	1	1	2	1	...	...	...	...	...	...	...
15 Hope park square	239	63	15	78	1	...	1	...	1	...	...	...	...	...	...
16 Keir street	284	269	23	292	5	1	6	...	1	1	...	2	...	...	...
17 Lady Lawson's wynd	244—276	367	70	437	5	8	13	...	1	1	1	2	...	...	...
18 Lauriston gardens	248	16	...	16	...	...	...	...	...	...	...	...	...	...	...
19 Lauriston lane	243	107	8	115	2	1	3	...	...	...	2	...	1	...	...
1 Sick Children's hosp.	246	22	5	27	...	1	1	...	...	...	...	...	1	...	...
20 Lauriston park and terrace	245	35	5	40	...	1	1	...	...	...	...	...	...	...	...
21 Lauriston place	278	365	37	402	1	2	3	...	1	...	...	...	2	...	...
22 Lauriston place, West	253	97	7	104	3	2	5	...	...	1	2	...	...	...	...
23 Lauriston street	262	644	117	761	11	10	21	2	3	4	...	4	...	1	...
24 Meadows	237	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25 Merchant Maiden hosp.	250	101	...	101	...	...	...	...	...	...	...	...	...	...	...
26 Portland place	245	84	5	89	3	1	4	...	1	...	...	1	...	...	...
Carry forward,		5057	531	5588	171	59	230	29	18	35	20	22	5	5	...

AND THEIR VITAL STATISTICS.—Continued.

13. District of Fountainbridge—Continued.

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.	Trapped.		Untrapped.	Total.	Cholera.	Fever.		
				Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.	1857-8.
23	9	8	2	2	6	...	2	4	...	7	8	8	12	139	32	25	57	1	98	4
1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...
24	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
28	1	1	...	1	1	...	...	...	1	...	3	1	1	17	2	...	2	...	6	...
29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	11	...	...	...
30	...	...	...	...	...	...	...	...	...	...	1	1	...	4	...	...	...	...	...	...
31	...	...	...	...	...	...	...	...	...	...	1	...	...	2	1	1	2	...	1	...
32	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	2	2	...	3	...
33	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	1	1	1	3	...
1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
34	1	...	...	...	2	...	...	...	2	...	1	...	1	3	...	...	...	...	1	...
35	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
36	...	...	...	...	...	...	...	...	...	1	1	...	1	6	3	3	6	...	4	2
37	...	...	...	...	...	...	...	...	...	...	...	1	...	4	...	...	...	...	2	...
38	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	11	9	2	3	9	...	2	4	3	9	16	13	16	189	50	33	83	2	119	6

14. District of George Square and Lauriston.

1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	1	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...
4	...	...	...	...	1	...	1	...	...	...	2	2	...	...	2	8	10	...	2	2
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	2	...	7	...	...	...	...	...	...
8	1	...	...	...	...	...	...	...	...	...	1	...	...	3	1	...	1	...	1	1
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...
1	...	...	...	...	...	...	...	...	...	4	4	29	8	606	...	...	...	1	48	2
10	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	2	...	3	2
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	7	8	...	...	...
12	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	1	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...
17	1	2	...	...	...	...	...	...	...	...	1	1	3	25	6	...	6	2	1	...
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	1	...	...	...	7	13	20	...	...	...
21	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
22	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...
23	3	1	...	...	1	1	...	...	...	...	2	...	...	8	3	1	4	...	6	...
24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	3	1	...	2	1	1	...	...	5	14	37	12	654	26	32	58	8	65	7

TABLE NO. VI.—NEW SANITARY DISTRICTS,

14. District of George Square and Lauriston—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		5057	531	5588	171	59	230	29	18	35	20	22	5	5	...
27 Park place and lane ...	277	55	4	59	1	...	1	...	...	1	...	...	...	...	...
28 Park street	274	148	18	166	...	3	3	...	...	...	...	...	1	...	...
29 Teviot row	280	58	4	62	1	2	3	...	...	...	1	...	2	...	...
30 Vennel	210—284	110	25	135	2	...	2	...	...	...	...	2	...	...	...
1 Brown's place .....	...	71	10	81	1	1	2	...	...	...	...	1	...	...	...
2 Wemyss terrace	229	43	7	50	...	...	...	...	...	...	...	...	...	...	...
31 Watson's hospital	260	110	4	114	...	...	...	...	...	...	...	...	...	...	...
32 Windmill lane	249—267	48	6	54	1	...	1	...	...	...	...	...	...	...	...
1 Wilkie's court	249	40	9	49	...	1	1	...	...	...	...	...	...	...	...
2 Wilson's court	255	22	4	26	...	...	...	...	...	...	...	...	...	...	...
33 Windmill street .....	...	105	5	110	1	...	1	...	...	...	1	...	...	...	...
34 Wharton lane	238—280	32	4	36	...	...	...	...	...	...	...	...	...	...	...
35 Wharton place	278	60	3	63	2	1	3	...	...	...	2	...	...	1	...
Totals,		5959	634	6593	180	67	247	29	18	36	24	25	8	6	...

15. District of Nicolson Street.

1 Adam street, East	244—256	332	22	354	4	6	10	...	...	2	1	...	1	...	...
2 Adam street, West ...	256—265	247	38	285	3	1	4	1	...	...	...	...	...	...	...
3 Allison square	269	116	12	128	2	...	2	...	1	...	...	...	...	...	...
4 Brighton street	280	247	23	270	4	1	5	1	1	1	...	...	1	...	...
5 Bristo place	280	73	17	90	...	1	1	...	...	1	...	...	...	...	...
6 Bristo port	278	25	5	30	...	1	1	...	...	...	...	...	...	...	...
7 Bristo street	263—277	623	81	704	10	10	20	3	2	4	1	1	1	...	...
1 Dickson's court (18) ...	...	32	5	37	...	...	...	...	...	...	...	...	...	...	...
2 General's entry (58) ...	...	12	2	14	1	...	1	...	...	1	...	...	...	...	...
3 Hamilton's entry (36) ...	...	136	23	159	1	...	1	1	...	...	...	...	...	...	...
4 Middleton's entry (32) ...	...	275	59	334	5	12	17	2	...	2	...	...	...	...	...
8 Buccleuch pend	249	66	7	73	1	2	3	...	...	...	...	1	...	1	...
9 Buccleuch street	243—249	957	143	1100	32	22	54	4	3	8	2	4	1	3	...
10 Chapel street	255—264	154	22	176	2	...	2	...	...	...	...	1	...	...	...
11 Clerk street	250	507	67	574	13	2	15	2	2	2	2	2	...	...	...
12 College street, South ...	259—274	267	32	299	3	2	5	...	1	...	...	1	...	2	...
13 Crosscauseway, East ...	246—253	417	71	488	12	11	23	3	1	3	1	3	1	...	...
1 Brown's court (27) ...	251	42	4	46	...	...	...	...	...	...	...	...	...	...	...
2 Cowan's close (43) ...	251	414	76	490	3	9	12	...	...	1	...	2	1	...	...
3 Kay's court (76)	251	155	28	183	2	7	9	1	...	...	...	1	...	...	...
4 Kennedy's close (62) ...	252	33	3	36	1	...	1	...	...	...	...	...	...	...	...
5 Lamb's close (84) ...	249	70	16	86	1	...	1	...	...	...	...	...	...	...	...
6 Manual's court (92) ...	248	3	1	4	...	...	...	...	...	...	...	...	...	...	...
7 Murray street (52) ...	253	55	8	63	2	1	3	...	...	...	...	2	...	...	...
8 Smith's court (70) ...	251	13	2	15	...	...	...	...	...	...	...	...	...	...	...
14 Crosscauseway, West ...	253—258	166	19	185	4	3	7	...	...	3	1	1	...	...	...
1 Quarry close (26) ...	254	40	9	49	2	1	3	...	...	3	...	...	...	...	...
15 Davie street	259	197	33	230	7	2	9	1	...	...	...	...	...	...	...
16 Drummond street	251—260	439	63	502	8	6	14	1	...	4	...	2	...	...	...
17 Do. do., East	227—251	104	13	117	1	2	3	...	...	...	...	1	1	...	...
18 Gifford park	247	424	100	524	10	5	15	3	2	2	1	1	1	...	...
19 Gilmour street	256	170	27	197	3	1	4	...	...	...	1	1	...	...	...
20 Hay street	267	108	12	120	3	2	5	1	...	...	1	1	...	3	...
21 Hill place	264	363	42	405	8	3	11	1	...	...	1	1	1	...	...
22 Hill square	264	190	16	206	4	1	5	...	1	...	1	1	1	...	...
Carry forward,		7472	1101	8573	152	114	266	25	14	37	12	29	9	10	...

AND THEIR VITAL STATISTICS.—*Continued.*14. District of George Square and Lauriston—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.
27	5	3	1	...	2	1	1	...	...	5	14	37	12	654	26	32	58	8	65	7
28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...
29	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	1	1	...	...	...
30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	1	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	1	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	...	...	...
34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	7	3	1	...	2	1	1	...	...	7	15	37	12	659	29	38	67	9	66	9

15. District of Nicolson Street.

1	1	...	1	...	...	...	...	...	...	1	1	1	3	...	...	...	...	1	...
2	...	...	...	...	1	1	...	...	...	2	...	...	7	1	1	2	...	1	...
3	...	...	...	...	...	...	...	...	...	...	1	...	3	1	...	1	...	3	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
6	...	...	...	...	1	...	1	...	...	...	...	...	...	5	4	9	...	...	...
7	...	1	1	...	2	...	1	1	...	1	...	2	25	...	...	...	1	11	1
1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	3	3	1	4	...	...	1
4	...	4	...	...	...	...	...	...	...	3	...	2	14	2	1	3	1	3	1
8	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	1	...
9	1	2	...	...	5	2	...	2	1	1	4	7	4	24	2	...	2	5	...
10	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	3	...	...	...
11	1	...	...	...	...	...	...	...	...	...	1	1	2	2	2	4	2	1	...
12	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	7	...	...
13	...	2	...	...	...	...	...	...	1	3	1	...	35	10	...	10	1	27	1
1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
2	...	...	1	...	1	...	...	1	1	2	...	2	16	6	...	6	...	...	...
3	1	1	...	...	1	...	...	1	...	2	...	...	12	4	1	5	2	3	...
4	...	...	...	...	...	...	...	...	...	...	1	...	3	3	...	3	...	...	...
5	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	2	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
7	1	...	...	...	...	...	...	...	...	...	...	...	3	2	...	2	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	2	...	...	...
14	...	...	...	...	2	...	1	...	1	...	...	...	2	4	...	4	...	10	...
1	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...
15	5	...	...	...	1	1	...	...	...	...	1	...	3	2	...	2	...	...	...
16	...	...	1	1	...	...	1	...	2	1	1	10	...	...	...	1	13	...	...
17	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...	2	2	...	15	5	...	5	...	2	...	...
19	...	...	...	...	...	...	...	...	...	1	1	11	3	...	3	...	4	...	...
20	...	1	...	...	...	...	...	...	...	...	1	1	1	1	2	...	2	...	...
21	...	...	...	...	...	...	...	...	2	...	...	10	2	...	2	...	2	...	1
22	1	...	...	...	...	...	...	...	1	...	...	3	...	...	...	...	1	...	...
	11	11	4	1	15	4	3	5	3	4	25	17	16	221	68	15	83	10	97	5

TABLE NO. VI.—NEW SANITARY DISTRICTS,

15. District of Nicolson Street—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		7472	1101	8573	152	114	266	25	14	37	12	29	9	10	...
23 Hope park .....	...	90	10	100	1	1	2	1	...	...	...	...	...	...	...
24 Hope park end	240	86	12	98	3	...	3	...	1	...	1	...	...	...	...
1 Roy's court (82)	240	63	14	77	...	2	2	...	...	1	...	...	...	...	...
25 Ingliston street	240	56	8	64	1	3	4	1	...	1	...	...	...	...	...
26 Montague street	249	294	30	324	3	1	4	1	...	...	...	1	...	...	...
27 Nicolson street	255—264	820	108	928	21	6	27	3	3	5	3	3	...	...	...
1 Gibb's entry (104)	259	212	38	250	3	3	6	...	...	...	1	...	1	...	...
2 Gray's court (95)	260	35	9	44	...	...	...	...	...	...	...	...	...	...	...
3 Haddow's court (112)	259	106	12	118	...	...	...	...	...	...	...	...	...	...	...
4 Law's court (127)	257	41	8	49	...	1	1	...	...	1	...	...	...	...	...
5 Reikie's court (65)	264	47	14	61	...	1	1	...	...	...	...	...	...	...	...
28 Nicolson square	270	211	13	224	9	2	11	1	...	2	3	1	...	...	...
29 Nicolson street, West	263	354	37	391	5	3	8	...	1	1	...	...	1	...	...
30 Paul street	257	112	21	133	2	5	7	...	...	1	...	...	...	1	...
31 Potterow	265—277	896	162	1058	12	15	27	3	...	6	1	5	...	1	...
1 Clerk's close (64)	266	15	2	17	...	...	...	...	...	...	...	...	...	...	...
2 Graham's buildings } and court (23)	276	29	2	31	...	...	...	...	...	...	...	...	...	...	...
3 Hall court (48)	274	20	5	25	...	...	...	...	...	...	...	...	...	...	...
4 Haxton's court (11)	276	14	...	14	...	...	...	...	...	...	...	...	...	...	...
5 Simpson's court (56) .....	...	151	25	176	5	2	7	...	1	1	1	...	...	...	...
6 Turnbull's entry (25)	276	73	12	85	2	1	3	...	...	...	...	1	...	...	...
32 Rankeillor place	245	41	9	50	...	...	...	...	...	...	...	...	...	...	...
33 Rankeillor street	245—251	395	48	443	5	4	9	2	...	1	...	1	...	1	...
34 Richmond court	264	100	19	119	3	3	6	1	...	...	...	...	1	...	...
35 Richmond lane	255	91	13	104	1	2	3	...	...	1	...	...	...	...	...
36 Richmond pend	257	53	5	58	...	...	...	...	...	...	...	...	...	...	...
37 Richmond place	257—264	393	78	471	4	11	15	...	2	1	1	1	...	1	1
1 Union court (16)	253	63	11	74	...	3	3	...	...	1	...	...	...	...	...
2 Williamson's ct. (6)	253	55	9	64	1	...	1	...	...	...	...	...	...	...	...
38 Richmond street, East	253	323	57	380	4	3	7	...	...	1	2	1	...	...	...
39 Richmond street, North	255	735	110	845	13	15	28	2	2	1	2	3	...	1	...
40 Richmond street, South	257	510	109	619	14	16	30	1	3	4	1	3	1	1	...
41 Richmond street, West	254—262	549	85	634	5	6	11	...	1	2	1	2	1	...	1
42 Roxburgh place	262	190	21	211	2	...	2	...	...	...	...	1	...	...	...
43 Roxburgh street	254	192	20	212	2	1	3	...	...	...	...	...	...	...	...
44 Roxburgh terrace	251	121	20	141	1	2	3	2	1	1	...	...	...	...	...
45 Royal Maternity hosp.	264	24	6	30	1	15	16	...	...	...	2	1	...	...	...
46 St Patrick street	254	25	4	29	...	...	...	...	...	...	...	...	...	...	...
47 St Patrick square	252	476	51	527	8	2	10	2	1	1	1	1	...	...	...
48 Sibbald place	251	34	6	40	1	...	1	...	...	...	...	1	...	...	...
49 Simon square	259	357	59	416	2	3	5	1	...	...	...	1	...	...	...
Totals,		15,924	2383	18,307	286	246	532	46	30	70	32	56	14	16	2

16. District of Pleasance and St Leonard.

1 Arthur place, East	193	131	24	155	2	5	7	...	1	...	...	...	...	2	...
2 Arthur place, Middle	219	361	66	427	3	6	9	...	...	1	2	...	...	...	1
3 Arthur place, West	237	91	14	105	...	1	1	...	...	...	...	...	...	...	...
4 Arthur street	170—245	849	166	1015	11	12	23	2	2	6	...	2	...	...	...
5 Beaumont place	240—248	218	45	263	3	6	9	1	1	1	1	...	...	...	...
6 Brown street and lane	242	466	88	554	7	8	15	...	1	3	1	2	...	...	...
Carry forward,		2116	403	2519	26	38	64	3	5	11	4	4	...	2	1

AND THEIR VITAL STATISTICS.—*Continued.*15. District of Nicolson Street—*Continued.*

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.	Trapped.		Untrapped.	Total.	Cholera.	Fever.		
				Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.	
23	11	11	4	1	15	4	3	5	3	4	25	17	16	221	68	15	83	10	97	5
24	1	...	...	1	2	...	2	...	2	...
1	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
25	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26	1	...	...	...	1	...	3	3	...	...	...
27	1	...	2	...	1	1	...	1	2	1	...	12	8	2	10	...	21	1
1	2	...	1	19	3	...	3	2	8	...
2	2	...	2	...	...	...
3	2	...	2	...	...	...
4	2	...	2	...	1	...
5	1	...	...	...	1	1	2	...	...	...
28	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	1	...	...
29	1	...	...	...	1	1	...	...	...	1	1	...	...	3	3	...	3	...	...	...
30	2	...	...	6	3	...	3	...	5	...
31	1	2	...	...	...	...	...	...	...	1	1	...	4	42	9	3	12	2	49	...
1	1	1	...	...	...
2	2	...	2	...	...	...
3	1	...	1	...	...	...
4
5	2	...	...	11	3	...	3	1	1	...
6	1	...	...	...	...	...	...	...	...	...
32
33	1	...	...	2	2	2	...	2	...	...	...
34	1	2	...	...	5	...	1	1	1	1	...
35	...	1	...	...	...	...	...	...	...	...	...	1	...	7	2	...	2	1	1	...
36	1	1	...
37	...	2	...	...	...	...	...	...	...	...	2	1	1	16	5	...	5	...	3	...
1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	2	3	...	...	...
2	1	...	...	1	...	1	...	...	...
38	2	...	...	15	1	...	1	5	36	1
39	...	1	...	...	...	...	...	...	...	1	5	1	5	11	6	...	6	2		
40	2	4	...	...	1	1	...	...	...	...	4	1	...	22	4	...	4	2		
41	...	2	...	...	...	...	...	...	...	...	...	1	...	31	5	...	5	...	...	...
42	1	3	...	3	1	...	...
43	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	3	...
44	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
45	1	...	...	...	...	...	...	1	...	8	...	...	...	...	...	...	...
46	2	2	...	...	...
47	1	...	1	...	...	1	...	...	1	7	1	1	2	...	2	...
48	2	2	...	...	...
49	...	1	...	...	...	...	...	...	...	...	2	...	...	17	4	...	4	...	7	...
														456	144	34	178	29	241	7

16. District of Pleasance and St Leonard.

1	1	1	...	...	...	...	...	...	...	1	...	...	...	14	...	14	{	...	2	...
2	1	1	...	...	1	...	1	...	...	...	1	...	4							
3	...	...	...	...	...	...	...	...	...	1	3	...	14							
4	...	3	...	...	...	...	...	...	...	1	...	...	...	4	...	4	...	1	8	2
5	...	...	...	...	1	...	...	1	...	...	3	...	...	...	...	...	...	...	2	...
6	1	2	...	...	...	...	...	...	...	...	...	...	3	11	6	6	...	...	1	...
														33	24	...	24	1	13	2

TABLE No. VI.—NEW SANITARY DISTRICTS,

16. District of Pleasance and St Leonard—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Carry forward,		2116	403	2519	26	38	64	3	5	11	4	4	...	2	1
7 Carnegie street	237—250	823	159	982	11	8	19	1	1	3	2	4	...	...	...
8 Castle o' Clouts	270	42	4	46	...	...	...	...	...	...	...	...	...	...	...
9 Craigside house	158	24	4	28	...	...	...	...	...	...	...	...	...	...	...
10 Craigside place	166—204	155	32	187	2	1	3	...	...	...	...	1	...	...	...
11 Dalrymple place.....	246	441	103	544	13	5	18	1	1	2	3	4	...	2	...
12 Dumbiedykes	136—149	72	10	82	2	...	2	...	...	1	...	1	...	...	...
1 Prince Albert build- ings	150	...	...	...	5	4	9	...	1	1	...	2	...	...	...
2 View Craig row	175	...	...	...	1	...	1	...	...	...	...	1	...	...	...
13 Forbes place	241	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14 Forbes street	241	44	13	57	...	...	...	...	...	...	...	...	...	...	...
15 Henry place	258	78	10	88	2	1	3	...	...	...	...	2	...	...	...
16 Henry street	259	191	22	213	2	1	3	1	...	...	...	...	...	1	...
17 Hercules street.....	210—236	265	43	308	2	4	6	1	...	1	...	...	...	...	...
1 Hill mount .....	...	...	...	...	...	1	1	...	...	...	...	...	1	...	...
2 Holyrood cottages ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18 Heriot mount	237	114	33	147	2	2	4	...	...	2	...	...	...	...	...
19 Holyrood and St Leon- ard's lodges	113—240	10	...	10	...	1	1	...	...	...	...	...	...	1	...
20 Jeanie Deans' cottage...	267	6	2	8	...	...	...	...	...	...	...	...	...	...	...
21 Parkside street	256	272	35	307	3	2	5	...	...	...	...	1	...	...	...
22 Pleasance	190—253	1887	305	2192	34	31	65	5	3	6	12	5	1	2	2
1 Hardwell close (193)	249	151	22	173	2	...	2	1	...	1	...	...	...	...	...
2 Hatter's close (154)	253	113	17	130	1	4	5	...	...	...	...	...	...	1	...
3 Innes' court (93)	250	62	14	76	...	...	...	...	...	...	...	...	...	...	...
4 Long close (26)	206	89	23	112	...	...	...	...	...	...	...	...	...	...	...
5 Oakfield court (108)	250	115	15	130	3	1	4	...	...	...	...	...	...	...	...
6 Pleasance court (90)	249	23	7	30	...	...	...	...	...	...	...	...	...	...	...
23 Prospect street	170	...	...	...	3	1	4	1	...	...	...	...	...	...	...
24 Ritchie place	236	9	2	11	...	...	...	...	...	...	...	...	...	...	...
25 Salisbury square.....	220	64	17	81	...	2	2	...	...	...	...	...	...	...	...
26 Salisbury street	194—251	514	51	565	11	2	13	3	1	2	1	2	...	...	...
27 St John's hill, Upper...	200	268	62	330	8	6	14	2	2	2	1	1	1	...	...
28 Do. do. Lower...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 Robb's entry	185	69	14	83	1	...	1	...	...	...	1	...	...	...	...
29 St Leonard's hill.....	240—265	282	62	344	6	5	11	1	1	...	1	...	...	2	...
1 Holyrood street	239	72	4	76	...	...	...	...	...	...	...	...	...	...	...
2 Victoria place	239	67	8	75	1	...	1	...	...	...	...	...	...	...	...
30 St Leonard's lane	243	83	6	89	...	1	1	...	...	...	...	...	1	...	...
31 St Leonard's street.....	244—279	675	114	789	11	15	26	...	6	6	1	3	1	...	...
1 Begrie's entry (69)...	259	...	...	...	1	...	1	...	...	1	...	...	...	...	...
2 Bell's entry (17)	245	37	10	47	...	...	...	...	...	...	...	...	...	...	...
3 Brown's entry (81) ...	264	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4 Christie's entry (77)	262	59	11	70	1	3	4	...	...	...	1	...	...	...	...
5 Gray's place (29).....	244	18	3	21	...	...	...	...	...	...	...	...	...	...	...
6 John's place (19).....	245	30	5	35	1	...	1	...	...	1	...	...	...	...	...
7 Mino park	244	53	7	60	...	2	2	...	...	...	...	...	...	...	...
8 Rockville place	271	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9 St Leonard's court (9)	245	35	5	40	...	...	...	...	...	...	...	...	...	...	...
10 Victoria grove.....	239	17	2	19	...	...	...	...	...	...	...	...	...	...	...
Totals,		9445	1659	11,104	155	141	296	20	21	40	27	31	5	11	3

AND THEIR VITAL STATISTICS.—Continued.

16. District of Pleasance and St Leonard—Continued.

1863.													Street Cesspools.			Epidemics.				
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.				Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.	No. of Paupers.	Trapped.	Untrapped.	Total.	Cholera.	Fever.		
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.								1848.	1847-8.	1857-8.	
7	3	7	...	...	2	...	1	1	...	1	8	1	5	33	24	...	24	1	13	2
8	...	2	...	...	...	...	...	...	...	...	1	2	1	17	4	...	4	2	11	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
10	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
11	1	...	...	...	1	1	...	...	...	...	...	1	...	9	2	...	2	...	8	...
12	...	...	...	...	...	...	...	...	...	...	1	...	1	2	1	2	3	...	...	...
1	1	1	...	...	1	1	...	...	...	...	1	...	1	...	2	...	2	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	1	...	...	...
15	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
16	...	...	...	...	1	...	...	1	...	...	...	...	...	2	...	1	1	...	...	...
17	1	...	...	...	...	...	...	...	...	...	...	...	1	6	2	2	4	...	1	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	1	...	...	...	...	...	...	...	...	...	2	...	5	...	1	1	...	...	...
22	2	4	3	...	1	...	...	...	1	1	5	5	3	97	16	3	19	14	132	3
1	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	4	...
2	...	1	...	...	...	...	...	...	...	...	2	1	...	9	4	...	4	...	3	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	1	...	1
5	...	1	...	...	...	...	...	...	...	...	...	1	1	3	1	...	1	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	2	...	...	...
23	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	1	1	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	1	...
26	...	...	...	...	...	...	...	...	...	1	1	2	...	4	...	...	...	...	3	...
27	...	1	...	...	...	...	...	...	...	1	2	...	...	13	...	...	...	...	8	...
28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	1	...	...	...	...	...	...	...	...	...	2	...	1	12	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
30	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	2	...	1	...
31	...	2	...	...	1	...	...	...	1	1	2	...	1	24	...	7	7	2	15	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
4	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
7	2	...	...	...	...	...	...	...	...	...	...	...	...	3	...	2	2	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	2	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	12	23	3	...	7	2	1	2	2	6	27	17	16	280	61	22	83	20	202	7

TABLE No. VI.—NEW SANITARY DISTRICTS,

17. District of Newington.																
Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in								
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.	
1 Arniston place	262	102	5	107	2	...	2	...	...	...	...	...	...	...	...
2 Blacket place	239—260	223	21	244	2	...	2	...	...	...	...	...	...	...	...
3 Blacket place, South ...	236—250	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4 Causewayside	205—255	934	124	1058	23	7	30	4	3	5	2	3	...	2	1	
1 Amos' close (22)	255	73	19	92	...	2	2	...	...	...	...	...	...	1	...
2 Gow's close (14)	254	62	10	72	1	2	3	...	...	...	...	...	1	...	...
3 Grange court (68) ...	250	113	28	141	4	2	6	1	1	1	...	...	...	...	...
4 Jew's close (44)	255	8	2	10	...	...	...	...	...	...	...	...	...	...	...
5 Wallace's close (28) ..	255	38	6	44	...	...	...	...	...	...	...	...	...	...	...
6 Canning place	255	175	24	199	3	1	4	1	1	...	...	...	...	...	...
7 Grange place	245	95	9	104	1	1	2	...	1	...	...	...	...	...	...
8 Ratcliffe terrace	215	25	4	29	...	1	1	...	...	...	...	...	...	...	...
9 Ratcliffe place	215	47	10	57	...	...	...	...	...	...	...	...	...	...	...
10 Sciennes street, East	252	82	11	93	3	...	3	...	...	1	...	...	...	...	...
5 Clerk street, South	250—260	215	31	246	4	...	4	...	...	...	1	1	...	...	...
6 Craigie terrace	249	16	2	18	...	...	...	...	...	...	...	...	...	...	...
7 Dalkeith road	207—281	95	9	104	1	1	2	...	1	...	...	...	...	...	...
8 Duncan street	235	90	7	97	1	...	1	...	...	...	...	...	1	...	...
9 Gibbet toll, Old	280	16	3	19	...	...	...	...	...	...	...	...	...	...	...
10 Gray street, North	236—250	117	4	121	2	1	3	...	...	1	1	1	...	...	...
11 Gray street, South	207—235	69	3	72	...	...	...	...	...	...	...	...	...	...	...
12 Hamilton place	208	41	1	42	1	...	1	...	...	...	...	...	...	...	...
13 Hope park crescent ...	240	...	...	...	1	...	1	...	...	...	...	...	...	...	...
14 Hope park terrace	240—254	...	...	...	...	1	1	...	...	...	...	...	...	...	...
15 Lord Russell place	246	133	11	144	2	1	3	1	...	...	...	...	...	...	...
16 Lutton place	257	135	14	149	2	...	2	...	...	...	1	...	...	...	...
17 Mayfield loan, East ...	208—214	36	5	41	3	...	3	1	...	...	1	...	...	...	...
18 Mayfield loan, West ...	207	22	...	22	...	...	...	...	...	...	...	...	...	...	...
19 Mayfield street	211	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20 Mayfield terrace	225	58	3	61	1	...	1	...	...	...	...	...	...	...	...
21 Macnab street	246	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22 Middleby street	222	70	5	75	2	...	2	...	...	1	...	...	...	...	...
23 Minto street	211—260	284	27	311	4	...	4	2	...	...	1	...	...	...	...
24 Newington, West	263	40	...	40	2	...	2	...	...	...	...	1	...	...	...
25 Newington place, North	264	96	15	111	2	2	4	...	...	1	1	1	...	...	...
26 Newington place, East	273	16	3	19	...	...	...	...	...	...	...	...	...	...	...
27 Newington place, West	264	47	4	51	...	...	...	...	...	...	...	...	...	...	...
28 Newington terrace	264	53	2	55	...	1	1	...	...	...	...	...	...	...	...
29 Oxford street	274	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30 Peel terrace	194	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31 Powburn	184	22	2	24	...	...	...	...	...	...	...	...	...	...	...
32 Preston street, East ...	267—280	49	6	55	1	1	2	...	...	...	...	...	...	...	...
1 Preston terrace	267	...	...	...	1	1	2	...	...	1	...	...	...	...	...
2 Talbot place	271	40	3	43	1	...	1	...	...	...	...	...	...	...	...
33 Preston street, West ...	250—261	237	34	271	3	1	4	...	...	...	...	1	...	...	1
1 Farquharson place ...	250	26	2	28	...	...	...	...	...	...	...	...	...	...	...
2 ... Francis place .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34 Rosehall	230—251	94	18	112	1	...	1	...	...	...	...	1	...	...	...
35 Salisbury place	250—258	64	9	73	1	...	1	...	...	1	...	...	...	...	...
36 Salisbury place, West	251	24	5	29	1	...	1	...	...	...	...	...	...	...	...
1 Thomson's court	251	18	5	23	...	...	...	...	...	...	...	...	...	...	...
37 Salisbury road	260—277	100	7	107	2	...	2	...	...	...	1	...	...	...	...
38 Summerhall	240	45	3	48	...	...	...	...	...	...	...	...	...	...	...
39 Summerhall place	246	83	11	94	2	2	4	...	...	2	...	...	...	...	...
Totals		4428	527	4955	80	28	108	10	7	14	9	11	...	3	2	

AND THEIR VITAL STATISTICS.—*Continued.*

17. District of Newington.

1863.														No. of Paupers.	Street Cesspools.			Epidemics.		
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.
1	1	...	...	1	...	...	...	...	...	...	1	1	...	...	...
2	1	...	...	...	3	4	7	...	...
3	
4	1	...	...	1	...	...	...	...	...	...	...	4	1	35	20	2	22	...	10
1	...	1	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...
2	1	...	...	...	...	...	1	...	...	...	1	1	...	1	...	...
3	1	...	...	...	...	...	...	...	1	...	...	5	3	...	3	...	1	
4	
5	1	1	...	1	...	...
6	2	...	...	...	...	...	...	...	...
7	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	1	...	...	...	...	...	...	...	...
9	
10	1	...	1	...	3	...	...	...	...	...
5	1	...	1	...	...	...	...	...	...	...	1	3	4	...	...
6	
7	1	...	7	7	...	...
8	2	...	2	...	...
9	
10	
11	1	1	...	...	...
12	1	...	...	...	...	...	...	...
13	2	...	2	...	...	...
14	1	...	...	2	...	2	...	...	...
15	1	...	...	1	...	...	...	...	...
16	
17	1	...	...	...	...	...	3	3	...	...
18	1	1	...	...
19	2	2	...	...
20	
21	1	...	1	...	...
22	1	...	...	2	...	2	...	1	
23	8	8	1	...	
24	2	2	...	...
25	2	...	...	...	...	...
26	
27	
28	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
29	
30	
31	
32	1	1	...	...	1	1	...	...
1	1	...	...	...	...	...	...	...
2	1	...	...	...	...	...	...	...
33	1	...	...	2	2	...	1	
1	2	...	...	...	...	...
2	
34	5	...	...	...	...	1	
35	2	...	2	...	...
36	1	...	...	...	...	...
1	1	2	...	2	...	...
37	1	...	...	...	1	1	...	...
38	
39	1	...	...	...	4	1	5	...	...
	1	2	1	3	2	...	1	1	...	3	8	11	3	62	46	40	86	1	14	2

TABLE No. VI.—NEW SANITARY DISTRICTS,

18. District of Grange.															
Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
1 Argyle place	240	26	7	33	...	1	1	...	...	...	...	...	...	1	...
2 Carlung place	260	...	...	...	1	...	1	...	...	1	...	...	...	...	...
3 Cumin place	273	74	8	82	...	1	1	...	...	...	...	...	...	...	...
4 Dalrymple crescent ...	250	...	...	...	...	2	2	...	...	...	...	...	...	...	...
5 Dick place	245—268	136	12	148	1	2	3	...	...	...	...	...	...	...	...
6 Dick place, West	268—278	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 Findhorn place	222—252	76	11	87	...	1	1	...	...	...	...	...	...	...	...
8 Fingal place	240	51	2	53	1	...	1	...	...	...	...	...	...	...	...
9 Grange loan.....	222—268	325	36	361	...	...	...	...	...	...	...	...	...	...	...
1 Hewit's place	222	34	2	36	...	...	...	...	...	...	...	...	...	...	...
10 Grange road	250—288	181	17	198	2	1	3	...	...	...	...	...	...	1	...
11 Lauder road	230—279	58	8	66	...	...	...	...	...	...	...	...	...	...	...
12 Mansionhouse road.....	276—288	57	3	60	3	...	3	1	...	...	...	...	...	...	...
13 Meadow place.....	240—260	167	10	177	2	...	2	...	...	...	...	...	...	...	...
14 Rillbank terrace	243	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15 St Catherine's place ...	255	3	3	6	...	...	...	...	...	...	...	...	...	...	...
16 Sciennes street	245—255	264	46	310	2	2	4	1	...	...	...	...	...	1	...
1 Murray street.....	253	46	11	57	...	...	...	...	...	...	...	...	...	...	...
17 Sciennes place.....	247	19	...	19	...	...	...	...	...	...	...	...	...	...	...
18 Sciennes hill	255	36	2	38	3	...	3	2	...	...	...	...	...	...	...
19 Sciennes road	255—260	17	7	24	...	...	...	...	...	...	...	...	...	...	...
20 Seton place.....	260	27	2	29	...	...	...	...	...	...	...	...	...	...	...
21 Sylvan place	242	42	7	49	...	...	...	...	...	...	...	...	...	...	...
22 Tantallon place	256—270	...	...	...	...	1	1	...	...	...	...	...	...	...	...
23 Trades Maiden hospital	260	53	...	53	...	...	...	...	...	...	...	...	...	...	...
Totals.....		1692	194	1886	15	11	26	4	...	1	...	...	...	3	...

19. District of Morningside.															
1 Abbotsford park	323—327	43	5	48	...	...	...	...	...	...	...	...	...	...	...
2 Albert terrace.....	324	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 Banner place	310—325	21	5	26	...	...	...	...	...	...	...	...	...	...	...
4 Blackford road	308	64	7	71	1	...	1	...	...	...	...	...	...	...	...
5 Blackford place .....	...	17	3	20	...	...	...	...	...	...	...	...	...	...	...
6 Boroughmuirhead	310	66	11	77	2	1	3	...	...	...	...	2	...	...	...
7 Bruntsfield place	282—318	120	8	128	1	...	1	...	...	1	...	...	...	...	...
8 Bruntsfield terrace	314	27	...	27	...	...	...	...	...	...	...	...	...	...	...
9 Canaan lane	260—262	210	12	222	5	...	5	1	1	...	...	2	...	...	...
10 Chamberlain road	307—310	8	2	10	...	...	...	...	...	...	...	...	...	...	...
11 Churchhill	320—326	70	3	73	2	...	2	...	...	...	...	...	...	...	1
12 Clinton road	310	38	4	42	...	...	...	...	...	...	...	...	...	...	...
13 Colinton road, with Merchiston castle and bank	302—318	176	5	181	3	...	3	...	3	...	...	...	...	...	...
14 Eden lane	279—292	19	5	24	...	...	...	...	...	...	...	...	...	...	...
15 Esplin place	287	...	...	...	1	...	1	...	...	...	...	1	...	...	...
16 Gillespie's hospital	274	47	...	47	2	...	2	...	...	...	...	...	...	...	...
17 Greenhill bank	309—325	38	3	41	...	1	1	...	...	...	...	...	...	1	...
18 Greenhill gardens	309—320	210	9	219	1	1	2	...	...	...	...	...	...	...	...
19 Greenhill park	318	47	4	51	...	...	...	...	...	...	...	...	...	...	...
20 Hope terrace	318	61	4	65	1	...	1	1	...	...	...	...	...	...	...
21 Jordan lane and bank	256—260	124	10	134	8	3	11	1	...	2	...	3	1	...	...
22 Merchiston park.....	301—315	41	...	41	...	...	...	...	...	...	...	...	...	...	...
Carry forward.....		1447	100	1547	27	6	33	3	4	2	1	8	1	1	1

AND THEIR VITAL STATISTICS.—*Continued.*

18. District of Grange.

1863.													No. of Paupers.	Street Cesspools.			Epidemics.			
	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.		Premature Debility.	Trapped.	Untrapped.	Total.	Cholera.	Fever.	
					Total.	Typhus.	Typhoid.	Gastric.	Infantile.									1848.	1847-8.	1857-8.
1	
2	
3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	1	...	1	...	...	2	...	...	...	...	...	...
5	1	...	...	...	...	1	...	...	1	2	...	2	...	...	...
6	
7	
8	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	1	12	13	...	1	...	
10	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	
12	1	...	...	...	1	1	...	...	...
13	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
14	
15	1	...	1	...	...	...
16	1	...	...	1	...	1	...	...	6	...	...	...	...	6	...	
17	7	1	8	...	...	...
18	
19	
20	
21	6	6	...	...	...
22	1	...	...	...	...	...	...	...
23	
	2	2	3	...	1	2	...	2	1	...	4	6	11	20	31	...	7	...

19. District of Morningside.

1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	8	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	4	5	9	...	1	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	5	...	...	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...	...	1	1	...	...	6	3	9	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	...	2	1	...	1	...	...	1	...	1	1	1	2	...	2	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...
2	...	...	...	...	2	1	...	1	...	1	2	2	1	2	23	17	40	...	3	...	...

TABLE No. VI.—NEW SANITARY DISTRICTS,

19. District of Morningside—*Continued.*

Name of Street.	Height in feet above the sea.	Population 1861.			Mortality 1863.			Diseases in							
		Above 5.	Under 5.	Total.	Above 5.	Under 5.	Total.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.
Brought forward,		1447	100	1547	27	6	33	3	4	2	1	8	1	1	1
23 Merchiston place, North	301—310	29	9	38	...	...	...	...	...	...	...	...	...	...	...
24 Morningside	259—326	172	16	188	7	1	8	...	1	1	1	2	...	...	...
25 Morningside place	297	46	4	50	1	...	1	...	...	...	...	...	...	...	...
26 Morningside terrace	320	31	...	31	...	...	...	...	...	...	...	...	...	...	...
27 Montpelier	311	26	...	26	...	...	...	...	...	...	...	...	...	...	...
28 Napier road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29 Newbattle terrace	294—308	33	5	38	...	...	...	...	...	...	...	...	...	...	...
1 Church lane	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30 Pitsligo road	293—320	13	3	16	...	...	...	...	...	...	...	...	...	...	...
31 Royal Asylum, East Division	...	87	...	87	7	...	7	5	...	...	2	...	...	...	...
32 Steel's place	271	14	1	15	1	...	1	...	...	...	...	...	...	...	...
33 Strathearn road	315	27	2	29	4	...	4	1	...	...	...	1	...	...	...
34 Tipperlin	282	21	5	26	...	...	...	...	...	...	...	...	...	...	...
35 Viewforth place	250—317	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36 Viewforth road	250—317	38	4	42	1	...	1	...	...	...	...	...	...	...	...
37 Whitehouse loan	291—315	121	8	129	2	...	2	...	1	...	...	...	...	...	...
38 Wright's houses	249—274	273	38	311	1	...	1	...	...	...	...	...	...	...	...
Totals,		2378	195	2573	51	7	58	9	6	3	4	11	1	1	1

20. Landward District.

1 Canongate, Landward portion	...	13	1	14	...	...	...	...	...	...	...	...	...	...	...
2 Coltbridge	146	1305	187	1492	1	1	2	...	...	1	...	...	...	...	...
1 Murrayfield	139—200	...	...	...	2	...	2	...	...	1	1	...	...	...	...
2 Roseburn	150	...	...	...	1	1	2	...	...	...	1	...	...	...	...
3 Craigleith	150	...	...	...	2	...	2	...	...	1	...	...	...	...	...
1 Black's entry	100	...	...	...	1	...	1	1	...	...	...	...	...	...	...
2 Porterfield	100	...	...	...	1	...	1	1	...	...	...	...	...	...	...
3 Windlestrawlee	109	...	...	...	1	...	1	...	...	...	1	...	...	...	...
4 Gorgie	160	...	...	...	3	4	7	...	...	1	...	2	...	...	...
1 Damhead	150	...	...	...	...	1	1	...	...	...	...	...	...	...	...
2 Tynecastle	160	...	...	...	1	1	2	...	...	...	...	...	...	...	...
5 Morningside	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 Asylum (pauper)	260	706	...	706	64	...	64	63	...	...	...	...	...	...	...
2 Egypt	250	...	...	...	...	1	1	...	...	...	...	...	...	...	...
3 Myreside	250	...	...	...	...	2	2	...	...	...	...	...	...	...	...
6 Saughton	150	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 Asylum	150	106	5	111	4	...	4	3	...	...	...	...	...	...	1
2 Balgreen house	150	...	...	...	3	...	3	3	...	...	...	...	...	...	...
3 Carrickknowe	150	...	...	...	1	...	1	...	...	...	1	...	...	...	...
Totals,		2130	193	2323	85	11	96	71	...	4	4	2	...	...	1

NOTE.—In the First Column—The Closes and Courts in Streets are generally arranged alphabetically under the Streets to which they belong, and are distinguished by smaller-sized figures.

Numerals immediately following the names of Closes, &c., refer to the Number in the Street.

In the Second Column—Two Elevations are frequently given: where only one appears, it is taken at the highest level.

AND THEIR VITAL STATISTICS.—*Continued.*19. District of Morningside—*Continued.*

1863.													No. of Paupers.	Street Cesspools.			Epidemics.			
Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofula.	Old Age.	Premature Debility.		Trapped.	Untrapped.	Total.	Cholera.	Fever.		
				Total.	Typhus.	Typhoid.	Gastric.	Infantile.										1848.	1847-8.	1857-8.
23	2	1	...	1	...	1	2	2	1	2	23	17	40	...	3	...
24	1	1	...	1	10	1	11	...	5	...
25	1	...	...	...	...	5	5	...	...	...
26
27
28	2	...	2	...	...	...
29
1	4	7	11	...	...	...
30
31
32	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
33	1	...	1	...	...	...	...	...	...	...	...	1	1	...	...	...
34
35
36	1	...	...	2	3	5	...	...	...
37	4	4	...	...	...
38	4	...	1	1	...	...	...
	1	...	...	...	3	1	1	1	...	1	4	4	1	7	42	39	81	...	8	...

20. Landward District.

1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	3	...	...
1	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	1	1	...	...	5	...	...	...	5	...	...
1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	1	1	...	...	...	1	...	...	...	3	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	1	...	1	...	...	...	...	...	...	483	...	...	...	8	...	...
2	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
3	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	...	...	...	3	1	2	...	...	2	2	1	1	496	...	...	...	...	18	...

At page 16 the population of North Merchiston has been omitted. The mistake has been rectified in all the Tabular Abstracts.

In the Third Column—Where no Population is appended, the place was not built or inhabited at the Census in 1861. In some few cases, as in Cockburn Street, the Population has been specially taken during 1864, but is printed within brackets. Where deaths are recorded, and no Population, it has been found impossible to separate the Population of the Close or Court from that of the main street.

TABLE No. VII.—ABSTRACT OF TABLE VI., including DISTRICT BIRTH AND DEATH RATES, DENSITY OF POPULATION, &c.

No.	NAMES OF THE DISTRICTS.	Population in 1861.			Mortality in 1863.			Deaths 1863.			Birth-Rate per 1000.	Birth-Rate in excess of Death-Rate.	Death-Rate in excess of Birth-Rate.	Area in Imperial Acres.	Inhabited Area in Imperial Acres.	Proportion of Population to each Acre.	Proportion of Population to each Acre.
		5 years and upwards.	Under 5 years.	Total.	5 years and upwards.	Under 5 years.	Total.	5 years and upwards.	Under 5 years.	Total.							
1	Upper New Town	10,166	764	10,930	138	52	190	225	68	17-38	20-58	3-2	...	121	115½	90-3	94-8
2	Lower New Town	12,936	1,088	14,024	155	62	217	326	56-98	15-47	23-24	7-77	...	147	111	95-4	126-3
3	West End	7,036	712	7,748	173	74	247½	199	103-93	31-88	25-68	...	6-2	350	175	22-1	44-2
4	Upper Water of Leith	10,981	1,351	12,332	140	100	240	417	74	19-46	33-81	14-35	...	416	140	29-6	88
5	Lower Water of Leith	3,504	362	3,866	42	26	68	100	71-82	17-58	25-86	8-28	...	539	124	7-2	31-1
6	Broughton	5,183	489	5,672	79	21	100	141	42-94	17-63	24-85	7-22	...	197	116	28-8	48-9
7	Calton and Greenside	9,739	1,245	10,984	156	87	243	337	16	69-87	30-68	8-56	...	281	91	39	120-7
8	Abbey	1,916	321	2,237	49	33	82	121	102-8	36-65	54-09	17-44	...	110	48	20-3	46-6
9	Canongate	10,537	1,663	12,200	195	186	381½	537	18-5	31-23	44-01	12-78	...	59	55½	206-7	219-8
10	Tron	10,105	1,531	11,636	169	233	402	490	152-18	34-55	42-11	7-56	...	37	33	314-5	352-6
11	St Giles	13,876	2,091	15,967	232	228	460	600	16-71	28-8	37-57	8-77	...	131	68	121-8	234-8
12	Grassmarket	4,455	772	5,227	74	96	170	247	16-61	32-52	47-25	14-73	...	22	22	237-6	237-6
13	Fountainbridge	8,524	1,356	9,880	136	113	249	450	15-95	25-2	45-54	20-34	...	104	86	95	114-8
14	George Square and Lauriston	5,959	634	6,593	180	67	247½	170	30-2	37-46	25-78	...	11-68	182	89	36-2	74
15	Nicolson Street	15,924	2,383	18,307	286	246	532	1,017	17-9	29	55-55	26-55½	...	64	64	286	286
16	Pleasance and St Leonard	9,445	1,659	11,104	155	141	296	518	16-41	26-65	46-64	19-99	...	84	74	132-2	150
17	Newington	4,428	527	4,955	80	28	108	144	53-13	21-79	29-06	7-27	...	233	124	21-2	39-9
18	Grange	1,692	194	1,886	15	11	26	54	8-86	13-78	28-63	14-85	...	251	118	7-5	15-9
19	Morningside	2,378	195	2,573	51	7	58	39	21-44	22-54	15-15	...	7-39	620	315	4-1	8-1
	Total for Parliamentary Area,	148,784	19,337	168,121	2,505	1,811	4,316	6,132	93-65	25-67	36-47	10-8	...	3,948*	1,968½	42-5	85-4
20	Landward	2,130	193	2,323	85	11	96	46	39-9	41-32	19-8	...	21-52	3,127	...	7	...
	Total,	150,914	19,530	170,444	2,590	1,822	4,412	6,178	93-29	25-88	36-24	10-36	...	7,075	1,968½	24-1	86-5

* This does not include portion of Arthur's Seat within Parliamentary Boundary, amounting to 243 acres. By adding this, Parliamentary Area is 4191 acres. † Poorhouse. ‡ Maternity Hospital.

TABLE No. VIII.—ABSTRACT OF TABLE VI., including DISTRICT MORTALITY, arranged according to DISEASE.

No.	NAMES OF THE DISTRICTS.	Brain.	Heart.	Chest.	Abdomen.	Phthisis.	Croup.	Diphtheria.	Small-Pox.	Scarlatina.	Measles.	Hooping-Cough.	Erysipelas.	Fevers.					Diarrhoea and Dysentery.	Scrofulous Diseases.	Old Age.	Premature Debility.
														Total.	Typhus.	Typhoid.	Gastric.	Infantile.				
1	Upper New Town	24	22	20	21	23	3	5	1	3	3	1	...	6	1	3	2	...	6	10	7	7
2	Lower New Town	22	9	22	30	28	3	10	2	7	6	...	2	12	4	1	7	...	7	14	14	4
3	West End	30	10	42	23	23	4	8	5	8	3	...	1	9	4	3	2	...	7	9	21	8
4	Upper Water of Leith	27	15	23	25	18	10	26	3	7	9	...	3	8	2	3	3	...	6	12	12	12
5	Lower Water of Leith	12	1	6	5	8	3	1	...	1	5	...	1	2	...	1	...	1	2	5	4	7
6	Broughton	9	6	14	11	16	1	...	...	5	1	...	...	7	1	2	2	2	2	3	11	5
7	Calton and Greenside	28	18	43	16	28	2	12	2	7	7	...	...	12	5	5	1	1	7	21	8	9
8	Abbey	4	4	14	6	8	2	2	...	...	7	...	...	5	3	...	1	1	2	8	1	5
9	Canongate	34	22	53	19	34	16	9	6	11	25	3	...	20	10	4	3	3	8	27	20	24
10	Tron	34	17	92	19	28	15	6	2	6	48	11	...	16	7	5	1	3	13	23	5	22
11	St Giles	35	22	83	25	48	18	8	8	10	21	23	1	15	8	2	3	2	11	31	14	29
12	Grassmarket	13	9	32	17	11	8	2	6	3	21	2	...	4	1	3	...	...	6	8	2	13
13	Fountainbridge	24	16	38	15	24	1	5	6	11	9	2	3	9	...	2	4	3	9	16	13	16
14	George Square and Lauriston	29	18	36	24	25	8	6	...	7	3	1	...	2	1	1	...	...	7	15	37	12
15	Nicolson Street	46	30	70	32	56	14	16	2	17	27	6	2	21	6	5	6	4	12	58	25	38
16	Pleasance and St Leonard	20	21	40	27	31	5	11	3	12	23	3	...	7	2	1	2	2	6	27	17	16
17	Newington	10	7	14	9	11	...	3	2	1	2	1	3	2	...	1	1	...	3	8	11	3
18	Grange	4	...	1	...	...	...	3	...	2	...	...	2	3	...	1	2	...	2	1	...	4
19	Morningside	9	6	3	4	11	1	1	1	1	...	...	...	3	1	1	1	...	1	4	4	1
Total for Parliamentary Area		414	253	646	333	431	114	134	49	119	220	53	18	163	56	44	41	22	117	300	226	235
Landward		71	...	4	4	2	...	...	1	2	...	...	...	3	1	2	...	...	2	2	1	1
Total,		485	253	650	337	433	114	134	50	121	220	53	18	166	57	46	41	22	119	302	227	236

TABLE No. IX.—ABSTRACT OF TABLE VI., including DISTRICT PERCENTAGE OF MORTALITY, arranged according to DISEASE.

No.	NAMES OF THE DISTRICTS.	Population in 1861.	Proportion of Population to each Inhabited Acre.	Brain, per cent.	Heart, per cent.	Chest, per cent.	Abdomen, per cent.	Phthisis, per cent.	Croup, per cent.	Diphtheria per cent.	Small-Pox, per cent.	Scarlatina, per cent.	Measles, per cent.	Whooping-Cough, per cent.	Krysipelas, per cent.	Fevers, per cent.	Diarrhoea and Dysentery, per cent.	Scrofulous Diseases, per cent.	Old Age, per cent.	Premature Debility, per cent.
1	Upper New Town	10,930	94.8	.22	.2	.18	.19	.21	.03	.04	.009	.03	.03	.009	..	.05	.05	.09	.06	.06
2	Lower New Town	14,024	126.3	.15	.06	.15	.21	.19	.02	.07	.01	.05	.04	..	.01	.08	.05	.09	.1	.03
3	West End	7,748	44.2	.38	.12	.54	.36	.29	.05	.1	.06	.1	.04	..	.01	.12	.09	.11	.27	.1
4	Upper Water of Leith	12,332	88.	.21	.12	.18	.2	.14	.08	.21	.02	.06	.07	..	.02	.06	.05	.1	.1	.1
5	Lower Water of Leith	3,866	31.1	.31	.03	.15	.12	.2	.08	.03	..	.03	.13	..	.03	.05	.05	.13	.1	.18
6	Broughton	5,672	48.9	.15	.1	.24	.19	.28	.02	..	..	.09	.02	..	..	.12	.04	.05	.19	.09
7	Calton and Greenside	10,984	120.7	.25	.16	.39	.14	.25	.02	.11	.02	.06	.06	..	..	.11	.06	.19	.07	.08
8	Abbey	2,237	46.6	.18	.18	.62	.27	.36	.09	.09	..	..	.31	..	..	.22	.09	.36	.04	.22
9	Canongate	12,200	219.8	.28	.18	.43	.15	.28	.13	.07	.05	.09	.2	.02	..	.16	.06	.22	.16	.19
10	Tron	11,636	352.6	.29	.14	.79	.16	.24	.13	.05	.02	.05	.41	.08	..	.14	.11	.19	.04	.19
11	St Giles	15,967	234.8	.22	.13	.52	.15	.3	.11	.05	.05	.06	.13	.14	.006	.09	.07	.19	.08	.18
12	Grassmarket	5,227	237.6	.24	.17	.61	.32	.21	.15	.04	.11	.06	.4	.04	..	.08	.11	.15	.04	.24
13	Fountainbridge	9,880	114.8	.24	.16	.38	.15	.24	.01	.05	.06	.11	.09	.02	.03	.09	.09	.16	.13	.16
14	George Square and Lauriston	6,593	74.	.44	.27	.54	.36	.37	.12	.09	..	.1	.05	.02	..	.03	.1	.23	.56	.18
15	Nicolson Street	18,307	286.	.25	.16	.38	.17	.3	.07	.09	.01	.09	.15	.03	.01	.11	.07	.32	.13	.2
16	Pleasance and St Leonard	11,104	150.	.18	.18	.36	.24	.27	.04	.1	.03	.1	.2	.03	..	.06	.05	.24	.15	.14
17	Newington	4,955	39.9	.2	.14	.28	.18	.22	..	.06	.04	.02	.04	.02	.06	.04	.06	.16	.22	.06
18	Grange	1,866	15.9	.21	..	.05	..	..	..	.16	..	.1	..	..	.1	.16	.1	.05	..	.21
19	Morningside	2,573	8.1	.35	.23	.11	.15	.42	.04	.04	.04	.04	..	..	..	.11	.04	.16	.16	.04
	Total for Parliamentary Area	168,121	85.3	.24	.14	.38	.19	.25	.07	.08	.03	.07	.13	.03	.01	.09	.07	.17	.13	.14
	Landward	2,323	..	.3	..	.17	.17	.08	..	..	.04	.08	..	..	..	.13	.08	.08	.04	.04
20	Total,	170,444	86.5	.28	.14	.38	.19	.25	.07	.08	.03	.07	.13	.03	.01	.09	.07	.17	.13	.14

TABLE No. X.—MONTHLY DISTRIBUTION OF CASES OF DIPHTHERIA AND FEVER IN 1863.

No.	NAMES OF THE DISTRICTS.	DIPHTHERIA.										FEVER.															
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1	Upper New Town .....	...	...	...	...	...	2	...	...	...	...	2	1	5	...	...	...	...	...	1	...	1	1	1	1	6
2	Lower New Town .....	...	...	...	1	...	...	1	2	...	1	2	3	10	...	...	...	...	...	...	1	1	...	2	2	12
3	West End .....	...	...	...	...	...	1	2	...	...	2	2	1	8	...	1	2	...	...	...	...	2	2	...	...	9
4	Upper Water of Leith .....	...	1	1	1	3	3	6	5	1	...	4	1	26	...	...	...	1	...	1	...	3	1	1	1	8
5	Lower Water of Leith .....	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	2
6	Broughton .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	...	7
7	Calton and Greenside .....	...	...	3	2	...	...	1	1	2	3	...	...	12	1	1	...	...	1	...	3	1	...	2	2	12
8	Abbey .....	...	...	...	...	...	...	...	...	...	...	1	1	2	1	1	...	...	1	...	...	...	...	...	...	5
9	Canongate .....	...	...	1	1	1	1	1	...	...	3	...	1	9	1	2	...	2	1	...	2	2	...	5	3	20
10	Tron.....	1	1	...	1	1	...	2	6	2	...	1	...	3	2	1	2	2	...	1	2	16
11	St Giles	1	...	...	1	...	1	1	2	...	1	1	...	8	2	1	1	3	1	2	...	...	...	1	3	15
12	Grassmarket .....	...	...	...	1	...	...	1	...	...	...	...	...	2	...	...	...	...	1	1	...	...	...	1	...	3
13	Fountainbridge .....	...	...	...	1	...	2	...	...	...	...	1	1	5	1	...	...	3	...	...	...	3	1	...	1	9
14	George Square and Lauriston .....	...	2	...	1	1	...	1	...	...	...	...	1	6	...	1	...	...	...	...	...	1	...	...	...	2
15	Nicolson Street	1	1	1	1	2	1	1	2	...	2	3	1	16	1	1	2	5	2	1	...	2	...	3	3	1	21
16	Pleasance and St Leonard.....	1	...	...	2	3	1	1	...	...	1	...	2	11	...	1	...	...	1	...	2	...	1	1	1	7
17	Newington .....	...	...	...	...	...	...	1	1	...	...	1	...	3	...	1	...	...	...	...	...	...	...	1	...	2
18	Grange .....	...	...	...	1	...	...	...	...	...	...	...	...	3	...	1	...	...	...	...	...	...	...	1	...	2
19	Morningside	1	3	2	1	...	3
	Total,	3	4	6	14	11	13	18	14	4	14	18	15	134	12	14	7	15	11	8	10	10	15	22	23	16	163

TABLE No. XI.—ABSTRACT OF TABLE VI., including DISTRICT DISTRIBUTION OF PAUPERS, EPIDEMIC DISEASES, &c., &c.

No.	NAMES OF THE DISTRICTS.	Population 1861.	Proportion of Population to each Inhabited Acre.	Number of Paupers.*	STREET CESSPOOLS.			Cholera Epidemic 1848.	FEVER.		Percentage of Paupers to Population.	Percentage of Un-trapped Cesspools.	Percentage of Cholera Cases to Population.	Percentage of Fever Cases to Population.	
					Trapped.	Untrapped.	Total.		1847-8.	1857-8.				1847-8.	1857-8.
1	Upper New Town	10,930	94.8	91	74	81	155	20	87	14	.83	52.3	.18	.8	.13
2	Lower New Town	14,024	126.3	138	61	57	118	6	42	4	.98	48.3	.04	.3	.03
3	West End	7,748	44.2	535	66	69	135	3	54	1	6.9	51.1	.04	.7	.01
4	Upper Water of Leith	12,332	88.	309	37	98	135	11	62	2	2.5	72.6	.09	.5	.02
5	Lower Water of Leith	3,866	31.1	49	5	50	55	5	24	1	1.27	90.9	.13	.62	.03
6	Broughton	5,672	48.9	38	21	24	45	5	21	1	.67	53.3	.09	.37	.02
7	Calton and Greenside	10,984	120.7	187	43	77	120	18	161	2	1.7	64.2	.16	1.46	.02
8	Abbey	2,237	46.6	41	22	10	32	4	16	...	1.83	31.2	.18	.72	...
9	Canongate	12,200	219.8	566	152	27	179	88	692	12	4.64	15.1	.72	5.67	.01
10	Tron	11,636	352.6	676	109	20	129	165	1,320	25	5.81	15.5	1.16	11.34	.21
11	St Giles	15,967	234.8	820	103	58	161	206	1,775	39	5.13	36.	1.29	11.12	.24
12	Grassmarket	5,227	237.6	304	65	14	79	102	1,250	7	5.81	17.7	1.95	23.91	.13
13	Fountainbridge	9,880	114.8	293	50	33	83	2	119	6	2.96	39.7	.02	1.2	.06
14	George Square and Lauriston ..	6,593	74.	680	29	38	67	9	66	9	10.31	56.7	.14	1.	.14
15	Nicolson Street	18,307	286.	673	144	34	178	29	241	7	3.67	19.1	.16	1.32	.04
16	Pleasance and St Leonard	11,104	150.	396	61	22	83	20	202	7	3.56	26.5	.18	1.82	.06
17	Newington	4,955	39.9	95	46	40	86	1	14	2	1.91	46.5	.02	.28	.04
18	Grange	1,886	15.9	9	11	20	31	...	7	...	.47	64.5	...	.37	...
19	Morningside	2,573	8.1	8	42	39	81	...	8	...	.31	48.1	...	.31	...
	Total for Parliamentary Area ...	168,121	85.4	5,908	1,141	811	1,952	694	6,161	139	3.51	41.5	.39	3.66	.08
	Landward	2,323	...	502	...	...	...	...	18	...	21.61	...	...	.78	...
20	Total,	170,444	86.5	6,410	1,141	811	1,952	694	6,179	139	3.76	41.5	.39	3.62	.08

* These figures include the dependants of Paupers belonging to St Outhberts, and which could not be inserted in the detailed Statement.

TABLE No. XII.—DISTRICT DISTRIBUTION OF LODGING-HOUSES, PUBLIC WELLS, &c., &c.

No.	NAMES OF THE DISTRICTS.	Population 1861.	LODGING-HOUSES.			Number of Public Wells.	Number of Drinking Fountains.	PUBLIC CONVENIENCES.		Number of Urinals.
			Total Num- ber of Licenses.	Number of Apartments.	Number of Lodgers.			Number.	Accommoda- tion.	
1	Upper New Town	10,930	1	1	5	...	4	1	8	3
2	Lower New Town	14,024	...	...	...	...	...	...	...	...
3	West End	7,748	...	...	...	...	1	...	...	1
4	Upper Water of Leith	12,332	...	...	...	1	3	4	19	...
5	Lower Water of Leith	3,866	...	...	...	...	1	...	...	...
6	Broughton	5,672	...	...	...	...	1	...	...	1
7	Calton and Greenside	10,984	...	...	...	1	2	3	30	6
8	Abbey	2,237	...	...	...	...	...	1	9	1
9	Canongate	12,200	33	84	138	12	...	3	37	2
10	Tron	11,636	87	211	556	6	...	2	54	3
11	St Giles	15,967	142	473	1,049	14	2	4	81	7
12	Grassmarket	5,227	131	362	813	4	...	3	47	3
13	Fountainbridge	9,880	...	...	...	...	3	2	28	3
14	George Square and Lauriston	6,593	...	...	...	...	2	1	4	4
15	Nicolson Street	18,307	...	...	...	7	1	1	10	2
16	Pleasance and St Leonard	11,104	1	1	3	3	...	1	8	1
17	Newington	4,955	...	...	...	1	...	3	12	1
18	Grange	1,886	...	...	...	...	...	...	...	...
19	Morningside	2,573	...	...	...	...	...	1	4	1
Total,		168,121	395	1,132	2,564	49	20	30	351	39

TABLE No. XIII.—DISTRICT DISTRIBUTION OF BIRTHS (Legitimate and Illegitimate) in 1863, and of LICENCES in 1864.

No.	NAMES OF THE DISTRICTS.	Proportion of Population to each Inhabited Acre.	BIRTHS IN 1863.				Percentage of Illegitimate to Total Births.	Percentage of Illegitimate Births to Population.	LICENCES GRANTED IN 1864.					Proportion of Population to each Public House.	Percentage of Public Houses to Total Licences.
			Males.	Females.	Total.	Legitimate.	Illegitimate.		Total Number issued.	For Public Houses.	For Grocers.	For Hotels.	For Spirit Dealers.		
1	Upper New Town	94.8	120	105	225	214	11	4.9	1	46	42	26	6	237.6	38.3
2	Lower New Town	126.3	169	157	326	313	13	4	0.9	17	32	...	...	825	34.7
3	West End	44.2	95	104	199	196	3	1.5	0.4	12	18	2	...	645.7	37.5
4	Upper Water of Leith	88	222	195	417	385	32	7.7	0.6	11	26	1	...	1,121	29
5	Lower Water of Leith	31.1	48	52	100	96	4	4	1	4	7	...	...	966.5	36.4
6	Broughton	48.9	80	61	141	130	11	7.8	0.9	9	14	1	...	630	37.5
7	Calton and Greenside	120.7	164	173	337	318	19	5.6	0.7	23	22	7	2	477.6	42.6
8	Abbey	46.6	52	69	121	111	10	8.3	0.5	5	5	...	...	447.4	50
9	Canongate	219.8	286	251	537	484	53	9.9	0.4	28	25	1	...	435.7	51.8
10	Tron	352.6	250	240	490	436	54	11	0.6	24	19	1	2	484.8	52.1
11	St Giles	234.8	326	274	600	564	36	6	0.2	54	28	2	1	295.7	63.5
12	Grassmarket	237.6	111	136	247	228	19	7.7	0.6	15	20	2	1	348.5	39.5
13	Fountainbridge	114.8	227	223	450	430	20	4.4	0.2	20	29	...	...	494	40.8
14	George Square and Lauriston ..	74	76	94	170	167	3	1.8	0.5	4	6	...	...	1,648	40
15	Nicolson Street	286	512	505	1,017	729	288*	28.3	1.57	48	58	...	1	381.4	44.9
16	Pleasance and St Leonard	150	290	228	518	492	26	5	0.23	15	25	1	...	740.3	36.6
17	Newington	39.9	68	76	144	142	2	1.4	0.4	7	13	...	...	708	35
18	Grange	15.9	28	26	54	53	1	1.8	0.5	...	...	...	...	...	...
19	Morningside	8.1	22	17	39	37	2	5.1	0.8	2	3	...	...	1,286.5	40
	Total for Parliamentary Area ..	85.4	3,146	2,986	6,132	5,525	607	9.9	0.36	344	392	44	13	488.7	43.4
20	Landward .....	...	25	21	46	44	2	4.3	0.8	...	...	...	...	...	...
	Total, .....	...	3,171	3,007	6,178	5,569	609	9.8	0.35	344	392	44	13	495.5	43.4

* Including Royal Maternity Hospital, side Report, page 17.

APPENDIX No. II.

TABLE No. I.

CLASSIFIED LIST OF BYRES

WITHIN THE

PARLIAMENTARY BOUNDARY.

1. District of Upper New Town.

No.	Locality.	Name.	No. of Cows.	Under Dwellings.	Cleanliness.	Ventilation.	Condition of Court.
1	Rose Street Lane,	Campbell	9	Apart	dirty	imperfect	dirty
2	...	Robertson	16	...	...	...	...
3	...	Houston*	5	...	...	...	...
4	...	Wilson*	9	...	...	...	...
		Total	39				

2. District of Lower New Town.

1	Duke Street Lane,	Wilson	7	Apart	dirty	imperfect	pretty clean
2	Northumberland Place,	Doughtie	8	...	...	...	dirty
3	Jamaica Street Lane,	Orr	24	...	...	...	pretty clean
		Total	39				

* Have been shut and empty during the autumn.

3. District of West End.

No.	Locality.	Name.	No. of Cows.	Under Dwellings.	Cleanliness.	Ventilation.	Condition of Court.
1	Melville Street Lane,	Harley	8	Apart	pretty clean	imperfect	clean
2	Lothian Road,	White	2	...	dirty	...	dirty
3	...	Anderson	14	...	...	...	...
4	St Cuthbert's Lane,	Wilson	2	...	removed this autumn.	...	...
5	Morison Street,	Gibson	42	...	clean	good	...
6	...	Waldie	10	...	pretty clean	pretty good	...
7	Grove Place,	Bell	10	...	dirty	imperfect	...
8	... Cottage,	Hodge	1	...	clean	good	clean
9	Rosemount,	Simpson	17	...	...	...	dirty
10	Bainfield,	M'Culloch	18	...	dirty	imperfect	...
11	Dalry Lane,	Honeyman	35	...	clean	excellent	clean
12	...	M'Farlane	5	...	dirty	imperfect	dirty
13	...	Begbie	9	...	clean	...	pretty clean
Total			173				

4. District of Upper Water of Leith.

1	The Dean,	Lockhart	7	Apart	clean	pretty good	clean
2	Bell's Mills,	Finnie	3	...	pretty clean	imperfect	dirty
3	...	Crombie	22	...	...	...	very dirty
4	Dean Brae,	Veitch	6	...	dirty	...	dirty
5	... Street,	Watson	16	...	clean	good	clean
6	...	Robertson	24	...	...	...	...
7	Allan Street Lane,	Orr	7	...	...	imperfect	dirty
8	... Court,	Dick	11	...	...	...	...
9	Veitch's Place,	Boa	19	...	dirty	...	...
10	Dean Bank Lane,	Gray	4	...	...	...	very dirty
11	Patriot Hall,	Pinkerton	7	...	clean	...	clean
12	Hamilton Place,	Fleming	17	...	dirty	...	dirty
13	Saunders Street Lane	Jack	18	...	clean	good	...
14	Circus Lane,	Wilson	9	...	clean	imperfect	...
Total			170				

5. District of Lower Water of Leith.

1	Silver Mills,	Waterston	19	Apart	rather dirty	good	dirty
2	...	Henderson	17	...	clean	...	...
3	...	Scott	22	...	...	...	pretty clean
4	...	Mitchell	3	...	...	...	...
5	...	Niven	15	...	clean	imperfect	clean
6	...	Smith	9	...	...	...	...
7	...	Morton	39	...	...	good	...
8	...	Wilson	10	...	...	imperfect	...
9	...	Muir	3	...	...	...	...
10	...	Robertson	1	...	...	...	...
11	Water Lane,	Haddow	27	...	...	good	...
12	...	Brooks	3	...	} removed during the summer.		
13	...	White	6	...			
Carry forward,			174				

District of Lower Water of Leith, *Continued.*

No.	Locality.	Name.	No. of Cows	Under Dwellings.	Cleanliness.	Ventilation.	Condition of Court.
	Brought forward,		174				
14	Canonmills,	Arnold	8	Apart	clean	good	clean
15	...	Cameron	3	...	dirty	...	...
16	...	M'Farlane	4	...	...	imperfect	dirty
17	...	Coltherd	19	...	clean	good	clean
18	...	Munro	26	...	dirty	imperfect	dirty
19	Heriot Hill,	Craw	11	...	clean	good	clean
20	Logie Green,	M'Ewen	17	...	...	...	...
21	Beaver Hall,	Niven	34	...	...	...	pretty clean
22	Powder Hall,	Inglis	1	...	...	...	clean
23	Bonnington Mills,	Smith	8	...	...	...	...
		Total	305				

6. District of Broughton.

1	Broughton Lane (low)	Christie	37	Apart	clean	good	pretty clean
2	...	Cooper	24	...	dirty	imperfect	...
3	...	Gardiner	49	...	...	...	...
4	...	Robertson	21	...	clean	good	clean
5	Cuddie Park	Jack	21	...	dirty	imperfect	dirty
6	Blandfield Cottage,	Wilson	29	...	clean	good	clean
		Total	181				

7. District of Calton and Greenside.

1	Greenside,	M'Morran	13	Apart	dirty	imperfect	dirty
2	...	Mackintosh	45	...	pretty clean	...	...
3	Swinton Row,	M'Dougal	21	...	dirty	...	...
4	London Road,	Macfarlane	6	...	clean	pretty good	...
5	Easter Road,	Jackson	13	...	...	...	...
		Total	98				

8. District of Abbey.

1	Abbeyhill,	White	7	Apart	dirty	imperfect	dirty
2	...	Wilkie	2	Under	...	...	...
3	...	Davidson	12	Apart	...	...	...
4	Croft-an-Righ,	Thom	4	...	pretty clean	...	clean
5	Spring Gardens,	Brown	6	...	dirty	good	dirty
6	...	Brown	3	...	clean	...	clean
		Total	34				

9. District of Canongate.

No.	Locality.	Name.	No. of Cows.	Under Dwellings.	Cleanliness.	Ventilation.	Condition of Court.
1	Brown's Close,	Findlay	9	Apart	dirty	imperfect	dirty
2	Campbell's ...	Ross	5	Under	...	...	...
3	Gullan's ...	Smith	7	...	...	...	...
4	Logan's ...	Thompson	16	Apart	pretty clean	good	pretty clean
5	...	Somerville	10	...	dirty	imperfect	dirty
6	Reid's ...	White	11	...	...	...	...
7	Tolbooth Wynd,	Gibson	18	...	pretty clean	...	pretty clean
8	North Back	M'Bean	6	...	dirty	good	dirty
9	...	Fraser	1	...	...	imperfect	...
10	South Back	Brotherston	15	Apart & under	pretty clean	...	...
11	...	Carroll	2	Under	dirty	...	...
12	...	Kelloch	6	...	...	...	...
13	...	Cameron	10	Apart	pretty clean	...	...
14	M'Dowal Street,	Thompson	5	...	...	...	pretty clean
15	New Street,	M'Morran	14	...	...	...	...
Total			135				

10. District of Tron.

1	Blackfriars Wynd,	Weir	6	Apart	pretty clean	imperfect	dirty
2	Leith Wynd,	Pringle	19	...	...	...	...
3	South Niddry Street,	Ramage	28	...	...	...	...
Total			53				

11. District of St Giles.

1	Cowgate—Rattray's Close,	Laidlaw	13	Apart	pretty clean	imperfect	dirty
2	... Peter's Close,	Smith	7	...	dirty	...	...
3	Candlemaker Row,	Brown	24	...	...	...	...
Total			44				

12. District of Grassmarket.

1	Cowie's Close,	Lyons	5	Under	dirty	imperfect	dirty
2	Inglis' Court, West Port,	Ramsay	14	Apart	...	...	...
3	King's Stables,	Smith	8	...	...	...	...
4	...	Croan	1	...	clean	good	clean
Total			28				

13. District of Fountainbridge.

No.	Locality.	Name.	No. of Cows.	Under Dwellings.	Cleanliness.	Ventilation.	Condition of Court.
1	Main Point.	Shaw	15	Apart	dirty	imperfect	dirty
2	High Riggs, Fleming's Cl.	M'Pherson	3	...	clean	good	...
3	... No. 5,	Laidlaw	10	...	...	imperfect	...
4	... Robb's Entry,	Stevenson	17	...	dirty	...	...
5	... ..	Bell	2	...	clean	...	...
6	Hamilton Place,	Wardrop	5	...	dirty	...	...
7	...	Hamilton	3	...	clean	...	pretty clean
8	Toll Cross,	Alexander	12	...	...	good	clean
9	Lochrin,	Goodwell	9	...	...	...	...
10	Leven Lodge,	Porteous	23	...	pretty clean	...	dirty
11	Valleyfield,	Thomson	14	...	dirty	...	...
12	...	Hannah	9	...	pretty clean	...	...
13	Dunbar Street,	Prentice	8	...	excellent	excellent	excellent
14	Thornybank,	Spence	48	Apart & under	pretty clean	good	dirty
15	...	Ogg	17	Apart	...	...	...
16	...	Aitken	2	Under	dirty	imperfect	...
17	...	Scott	1	Apart	...	...	...
18	Fountainbridge,	Brown	9	...	...	...	...
19	...	Cairns	10	...	clean	good	...
20	...	Goodwin	2	...	...	...	...
21	Castlebarns,	White	17	...	dirty	imperfect	...
22	...	Telford	2	...	...	...	...
Total			238				

14. District of George Square and Lauriston.

1	Buccleuch Place Lane,	Main	6	Apart	pretty clean	imperfect	pretty clean
2	...	Burton	7	...	...	...	...
3	George Square Lane,	Forrest	13	...	...	...	...
4	Windmill Lane,	Chisholm	14	...	dirty	...	dirty
5	...	Learmonth	30	...	...	...	...
6	Lauriston Street,	Hardie	2	...	pretty clean	...	pretty clean
Total			72				

15. District of Nicolson Street.

1	Potterrow,	Dickson	17	Apart	dirty	imperfect	dirty
2	North Richmond Street,	Cockburn	8	...	...	...	...
3	Buccleuch Street,	Learmonth	23	...	...	...	...
4	...	Walker	5	...	...	...	...
5	Sibbald Place,	Chisholm	21	...	pretty clean	...	pretty clean
6	Crosscauseway, East,	Begbie	53	Under	...	...	...
7	... Cowan's Close,	Traquair	10	Apart	...	good	...
8	...	Leadbetter	4	...	...	imperfect	...
9	... Murray Street,	Sanderson	25	...	...	...	...
10	Crosscauseway, West,	Shaw	6	...	...	...	...
Total			172				

16. District of Pleasance and St Leonard.

No.	Locality.	Name.	No. of Cows	Under Dwellings.	Cleanliness.	Ventilation.	Condition of Court.
1	Pleasance, St John's Hill,	Drysdale	6	Apart	pretty clean	good	dirty
2	... James' Court,	Edgar	17	...	dirty	imperfect	...
3	... Thomson's Park,	Wood	21	...	...	good	...
4	... Hatter's Court,	Waldie	10	...	...	imperfect	...
5	... Hardwell Close,	Aitken	11	...	...	...	...
6	... No. 192,	Walker	15	...	...	...	...
7	Forbes Street,	Graham	17	...	pretty clean	...	pretty clean
8	Hercles Street,	Burnet	10	...	dirty	...	dirty
9	St Leonard's Street,	Purdie	1	...	removed this summer.	...	...
10	... ..	Aitchison	11	...	pretty clean	good	dirty
11	... ..	Stobie	31	Apart & under	...	imperfect	...
12	... ..	Gilroy	3	Apart	...	...	...
13	... Hill,	Wright	19	...	dirty	...	...
14	... Lane,	Finlay	2	...	removed this summer.	...	...
Total			174				

17. District of Newington.

1	Causewayside,	Currie	8	Apart	clean	good	clean
2	... 58,	Clapperton	16	...	dirty	imperfect	dirty
3	... 68,	Chisholm	12	...	pretty clean	...	...
4	... 115,	Galloway	3	...	...	...	...
5	... 127,	Guthrie	3	...	...	...	pretty clean
6	... 183,	Gibb	7	...	...	...	...
7	West Salisbury Place,	Middlemas	13	...	dirty	...	dirty
8	Old Gibbet Toll,	Finlay	3	...	pretty clean	good	pretty clean
9	... ..	Thomson	2	...	...	...	...
10	Dalkeith Road,	Souter	13	...	clean	...	...
Total			80				

18. District of Grange.

1	Grange Loan,	Rae	4	Apart	pretty clean	good	dirty
2	... ..	Girdwood	5	...	...	...	pretty clean
3	Lover's Lane,	Stewart	17	...	dirty	imperfect	very dirty
Total			26				

19. District of Morningside.

1	Merchiston,	Porteous	15	Apart	pretty clean	imperfect	pretty clean
2	Morningside,	Miller	4	...	...	good	...
3	Canaan Lane,	M'Gregor	1	...	...	...	...
4	... ..	Utterson	1	...	...	...	...
5	... ..	Bremner	1	...	...	...	...
6	... ..	Oswald	1	...	...	...	...
7	... Lodge,	Cassels	1	...	...	...	...
Total			24				

TABLE No. II.—SUMMARY of the preceding TABLE, along with the POPULATION of the Sanitary Districts.

No.	NAMES OF THE DISTRICTS.	Population 1861.	Proportion of Population to each In- habited Acre.	Number of Byres.	Number of Cows.	Under Dwellings.		Cleanliness.		Ventilation.		Condition of Court.	
						Under.	Apart.	Clean.	Dirty.	Good.	Imperfect.	Clean.	Dirty.
1	Upper New Town	10,930	94·8	4	39	4	...	...	4	...	4	...	4
2	Lower New Town	14,024	126·3	3	39	3	...	...	3	...	3	2	1
3	West End	7,748	44·2	13	173	13	...	8	5	5	8	4	9
4	Upper Water of Leith	12,332	88·	14	170	14	...	10	4	4	10	4	10
5	Lower Water of Leith	3,866	31·1	23	305	23	...	17	6	14	9	19	4
6	Broughton	5,672	48·9	6	181	6	...	3	3	3	3	5	1
7	Calton and Greenside	10,934	120·7	5	98	5	...	3	2	2	3	...	5
8	Abbey	2,237	46·6	6	34	5	1	2	4	2	4	2	4
9	Canongate	12,200	219·8	15	135	10	5	6	9	2	13	4	11
10	Tron	11,636	352·6	3	53	3	...	3	...	...	3	...	3
11	St Giles	15,967	234·8	3	44	3	...	2	1	...	3	...	3
12	Grassmarket	5,227	237·6	4	28	3	1	1	3	1	3	1	3
13	Fountainbridge	9,880	114·8	22	238	20	2	13	9	11	11	4	18
14	George Square and Lauriston	6,593	74·	6	72	6	...	4	2	...	6	4	2
15	Nicolson Street	18,307	286·	10	172	9	1	6	4	1	9	6	4
16	Pleasance and St Leonard	11,104	150·	14	174	13	1	6	8	4	10	2	12
17	Newington	4,955	39·9	10	80	10	...	8	2	4	6	6	4
18	Grange	1,886	15·9	3	26	3	...	2	1	2	1	1	2
19	Morningside	2,573	8·1	7	24	7	...	7	...	6	1	7	...
Total for Parliamentary Area,		168,121	85·4	171	2,085	160	11	101	70	61	110	71	100

No. III.

COPY OF CLAUSE 93 of the METROPOLIS LOCAL MANAGEMENT ACTS AMENDMENT,
relative to Licensing Cow-houses, 25 and 26 Vict., Cap. 102.

93. From and after the first day of November One thousand eight hundred and sixty-two, no place within any Parish or Place mentioned in the Schedules to the firstly-recited Act shall be used by any person carrying on the business of a Slaughterer of Cattle, or Cow Keeper, or Dairyman, as a Slaughterhouse for the purpose of slaughtering cattle, or a Cow-house or Place for the keeping of cows, without a Licence had for such purpose respectively from the Justices of the Peace, assembled at a Special Sessions, held in the Division or District where such Slaughterhouse, Cow-house, or Place is situate, and such Licence shall continue in force for the period of one year from the granting thereof, and thenceforth until the Special Sessions to be held next after the expiration of such period ; and no fee or reward exceeding Five Shillings shall be taken for any such Licence ; and if any person carrying on such business of a Slaughterer of Cattle, Cow-keeper, or Dairyman, use as a Slaughterhouse or Cow-house any place within any Parish or Place mentioned in the Schedules of the firstly recited Act which is not so licensed, every person so offending shall, for each offence, be liable to a Penalty not exceeding Five Pounds, of which offence the fact that cattle have been taken into such a place shall be deemed sufficient *prima facie* evidence : Provided always that before any Licence for the use of any place as a Slaughterhouse or Cow-house is granted as aforesaid, Fourteen Days' Notice of the intention to apply for such Licence shall be given to the Vestry or District Board of the Parish or District in which any such place is situate, to the intent that such Vestry or District Board, if they think fit, may show cause against the granting of any such Licence, and also Seven Days' Notice previous to such Special Sessions being held of the intention to apply for such Licence shall be given to the Clerk of the Justices for such Division : Provided, that nothing in this Act contained shall extend to Slaughterhouses erected, or to be erected, in the Metropolitan Cattle Market, under the authority of the Metropolitan Market Act 1851, or the Metropolitan Market Act 1857.

COPY OF CLAUSE 95.

VESTRIES and BOARDS to Contract for REMOVAL of MANURE from Stables and
Cow-houses.

95. It shall be lawful for every Vestry and District Board, if they in their discretion think fit, to appoint and employ a sufficient number of persons, or to contract with any company or persons for collecting and removing the manure and refuse straw from such Stables and Cow-houses within their Parish or District, the occupiers of which may signify their consent in writing to such removal : Provided that such consent shall not be with-

drawn or revoked without one month's previous notice to the Vestry or District Board, and that no person shall be hereby relieved from any penalty or penalties to which they may be subject for placing Dung or Manure upon the foot-ways or carriage ways of any Parish or District, or for having any Accumulation or Deposit of Manure, so as to be a nuisance, or injurious to health.

No. IV.

LAWS Regulating Cow-HOUSES in Paris, passed and confirmed 1838.

To obviate as completely as possible the serious inconveniencies resulting from Cow-houses, the Council of the Seine decided that it would only authorize the establishment of Cow-houses in very open and spacious localities, at the same time fixing, in an invariable manner, the number of cows permitted to be kept in them.

The following are the conditions imposed upon the trade:—

1st. The stables for cows not to be less than 13 feet 2 inches in height.

2d. The stables for one row of cows not to be less than 13 feet 2 inches in breadth from the manger to the opposite wall.

3d. The stables for two rows of cows not to be less than 23 feet in width from one manger to another, if the mangers are placed against the walls; and not less than 26 feet if the mangers are placed in the centre of the stables.

4th. The space reserved for each cow not to be less than 6 feet 6 inches in breadth.

Lastly, the Council decided that it was necessary to determine positively, that no cow establishment situated lower than the surrounding soil should be authorised, and that authorization should always be refused when it is sought for in a locality where the drainage from the Cow-house is received into a cesspool.

Regulations confirmed by the Ordinance of Police of 27th February 1838.—*Dictionnaire d'Hygiène Publique, art. Vacheries, by Dr Tardieu.*

No. V.

CLAUSES in GENERAL POLICE ACT [SCOTLAND], passed 1862, referring to Cow-Houses, 25 and 26 Vict., Cap. 101.

141. All Stables and Byres, and areas therewith connected, shall be constantly kept in a clean condition to the satisfaction of the Inspector of Cleansing, under a penalty not exceeding twenty shillings for each offence; and it shall be the duty of the Inspector from time to time to examine the state of all such places with a view to the enforcement of this enactment.

143. It shall be lawful for the Commissioners, or any of them, after inspection and report by the Superintendent of Police, or Inspector of Cleansing, to regulate and limit the time within which all common necessities and dungsteads shall be emptied and cleaned out; and if any other person under obligation by contract or otherwise to empty or clean out such places shall fail so to do within the time so limited, such other person shall be liable in a penalty not exceeding twenty shillings, besides forfeiture of any Stable or Byre dung in such place, which dung the Inspector of Cleansing, or any other officer authorized by the Commissioners, may remove or dispose of, or cause to be removed and disposed of, and the proceeds, under deduction of the expenses of removal, shall be applied to the police purposes under this Act.

No. VI.

RELATIVE PROPORTION OF COWS, and their Increase, in the OLD and NEW TOWN.

	1857.	1864.	Increase.
North of Princes Street,	729	840	111
South of Princes Street,	1068	1245	177
Total,	1797	2085	288

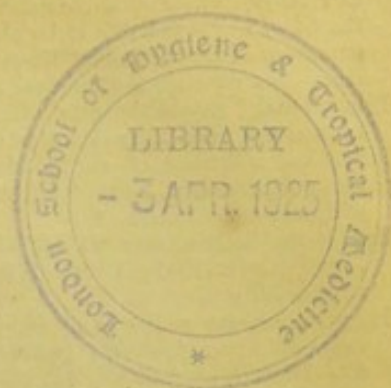
No. VII.

The average annual quantity of Milk brought by the Railways into Edinburgh is 132,000 Gallons.

By the North British Railway, (including the Peebles, and the			
Edinburgh, Perth, & Dundee lines),	.	11,206 Gallons.	
... Edinburgh and Glasgow Railway,	.	915	...
... Caledonian Railway,	.	120,000	...
		<u>132,121</u>	...

This represents but the $\frac{1}{7}$ th part of the Milk furnished by the Dairies within the Parliamentary Boundary; for, allowing the low average of three gallons a-day for each cow, we have 2,283,075 gallons as the yearly supply, which gives to each inhabitant $13\frac{1}{2}$ gallons per annum.

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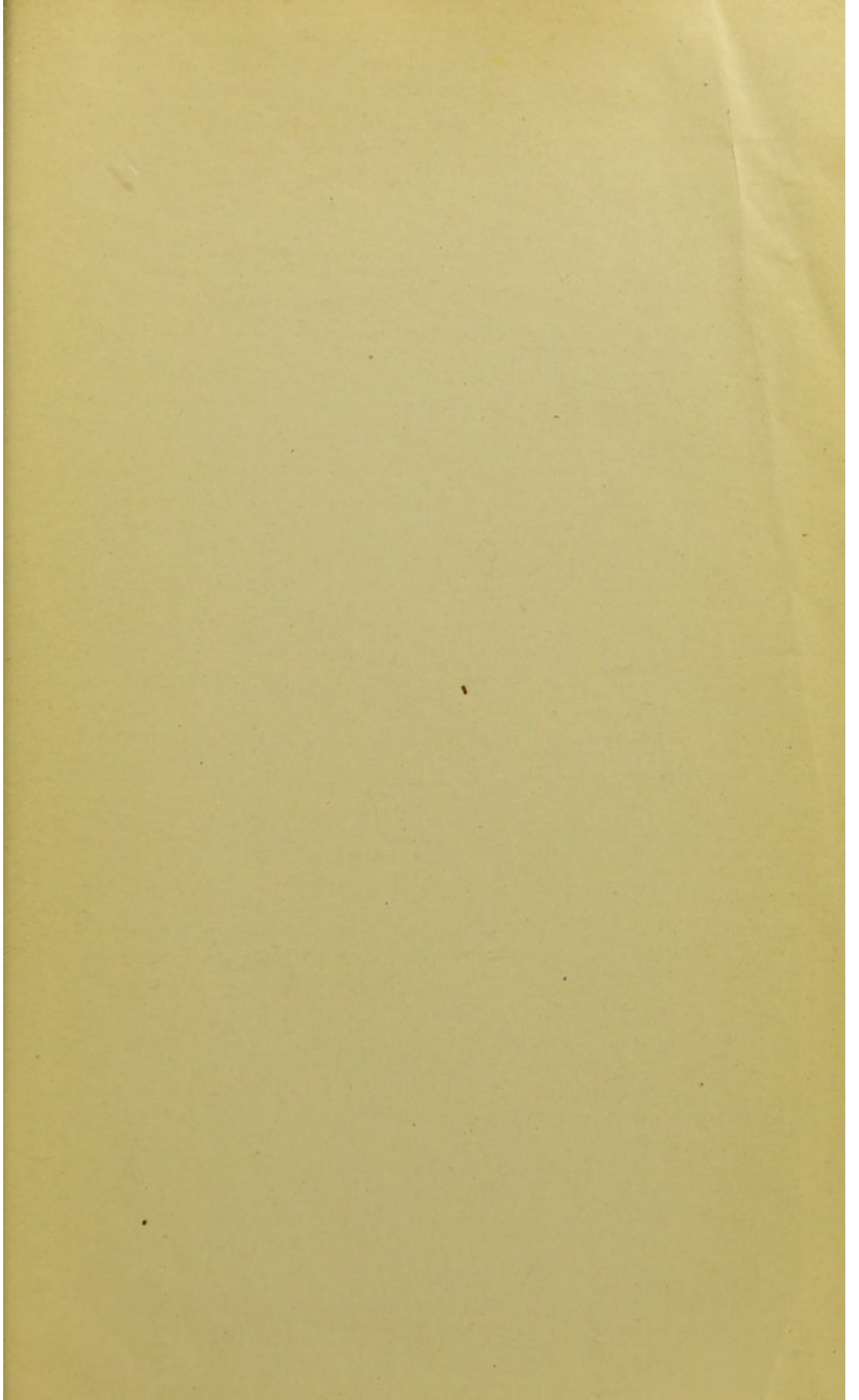


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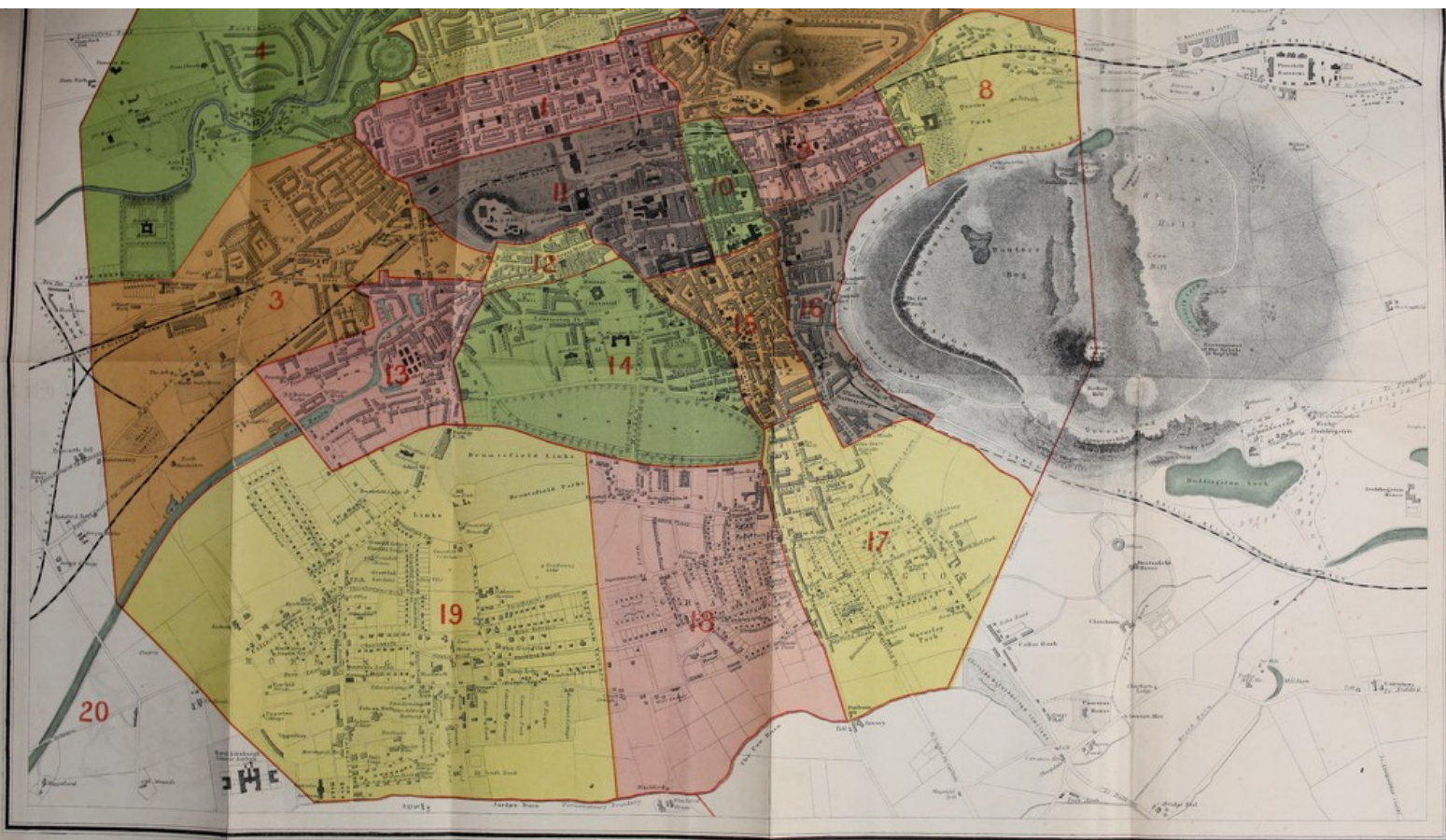




Plan of
EDINBURGH.
Tenth & Suburbs.

SCALE

One Inch Half of a Mile



1 Upper New Town
2 Lower
3 West End
4 Upper Water of Leith

5 Lower Water of Leith
6 Broughton
7 Cullen
8 Abbey

9 Ginnegate
10 From
11 St Giles
12 Grassmarket

13 Fountainbridge
14 Lauriston
15 Nicolson Street
16 Ploosance

17 Newington
18 Grange
19 Morningside
20 Landward

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