

11.—What is the common cost of the lodgings to persons of the labouring classes?

A labourer is accommodated in a poor family with permanent lodgings, for one shilling a-week. In the lodging-houses the charge is threepence for each mendicant or vagrant, every night.

12.—Are you of opinion that any and what legislative measures are desirable or available for remedy of any of the evils existing within your district?

The powers of the municipal authorities of Stirling are not sufficient for the purposes of a medical police. They do not, for example, possess the power of entering private property, and removing therefrom nuisances injurious to health. This was seriously felt immediately before the invasion of the cholera in 1832. I am of opinion that a Board of Health ought to be constituted with ample powers to enforce the removal of all nuisances both public and private, the cleansing, whitewashing, and ventilating the houses of the poor, the suppressing of all lodging-houses harbouring mendicants and vagrants, and the building of new houses for the poor, agreeably to a plan approved of by competent judges. This Board should, in my opinion, be composed chiefly of persons fully and accurately acquainted with the subject of medical police. I am also of opinion that any expenses incurred by this Board in the removal of nuisances, &c., should be paid by the parties offending, whether public or private, and that the proprietor should in all cases be liable for his tenant.

13.—Have any, and what voluntary exertions been made to improve the external or internal economy of the residences of the labouring classes within your district, and if so, describe their nature and effects?

A great many nuisances were removed, especially in the Castle Hill, immediately preceding the invasion of the cholera. In this quarter of the town all the nuisances on the public streets were, without any exception, removed, and most of those on private properties were very much mitigated. Every house in this quarter too, was, with a single exception, whitewashed, both outside and inside, and I believe with the happiest results. Several of the lodging-houses were also for a short time suppressed. These improvements were effected altogether by the energetic and unwearied exertions of a committee appointed by the Board of Health. In other districts of the town the duties of the other committees, similarly appointed, were not discharged so rigidly, and all traces of them are now completely effaced, whilst the inhabitants of the Castle Hill are still reaping the benefits of the rigid purification which this district underwent in 1832.

*General Observations.*

By the term typhus is understood the common continued fever of this country, and no other fever whatever. The statements in the preceding Answers therefore apply exclusively to it.

The Stirling dispensary, the different reports of which furnish the tables of disease contained in the preceding answers, was founded in 1831. Its object is to furnish gratuitously medical attendance and medicine to the poor. It is supported entirely by voluntary subscription; and no patient is admitted unless he is recommended by a subscriber, who certifies that the applicant is a poor person and unable to pay for medical attendance and medicine. Having been the ordinary medical attendant of this institution during the last ten years, and admitted and treated nearly all the cases of fever contained in the preceding Tables, I can, with great confidence, state that they can be implicitly relied on.

WILLIAM H. FORREST.

No. 15.

REPORT ON THE SANITARY CONDITION AND GENERAL ECONOMY OF THE LABOURING CLASSES IN THE CITY OF ST. ANDREWS.

BY JOHN ADAMSON, Esq., *Surgeon.*

GENTLEMEN,—If I rightly understand the object of your inquiry, it is expected of me, in the following Report, to exhibit the sanitary condition of the labouring inhabitants of St. Andrew's, in connexion with their general habits, grade of living, and such external circumstances as may be supposed to influence them.

With this view, I shall, in the first place, describe the condition of the town, so as to notice those general causes which may be supposed to affect the health of the community.

These are connected with the topography and meteorology of the district, the position and structure of the town, the nature of the soil, and the drainage, cleanliness, and ventilation of the streets and houses.

I will then illustrate the domestic economy of the working classes, by the information I have been able to procure regarding their personal habits, the wages of different trades, their customary food, and the aids which they derive from charity, whether public or private.

The rate of mortality in the town will be proved by the records of funerals compared with the estimated population; and the prevailing diseases will be approximated by a table compiled from

the cases which have occurred in my own practice during the last five years.

Finally, I will endeavour to show how far there is evidence of disease which may be referred to the condition of the working classes alone, and in what way it might be obviated.

*Topography, &c.*—St. Andrew's is situated in latitude 56° 20' north, and longitude 2° 49' west. It is built upon a rocky eminence, projecting somewhat into the sea, at the bottom of the bay to which the town gives its name.

The length of this promontory is about three-quarters of a mile,—its breadth about half a mile. Its surface appears flat, though declining gently on all sides from a point near the centre of the town.

On the north side, or seaward, it terminates in a precipitous cliff, about fifty feet high: on the opposite side it slopes towards the Kinnesburn, a small stream which forms its southern boundary. On the west it is continuous with the valley of Strathkinness, and on the east it terminates in the harbour, which is separated from the sea by a narrow spit of sand-drift.

The neighbouring country is in a state of high cultivation, with the exception of a low and nearly level tract of sandy soil on the north-west side, which is chiefly used as sheep-pasture, and for the game of golf, for which St. Andrew's is celebrated.

On the west side it is level for several miles; but towards the south and south-east it rises gradually, until, at a distance of from one to two miles, it attains an elevation of 300 to 375 feet.

*Meteorology.*—The climate of St. Andrew's presents some peculiarities; its vicinity to the sea tending to lower the temperature in summer, and to elevate it during the winter months. It is thus more equable than in the neighbouring inland towns.

*Temperature.*—The temperature is shown in the following abridgment of a table, constructed by the late Dr. Jackson, for a period of eight years, viz. 1821 to 1828, inclusive. The observations were taken at 10 A.M. and at 10 P.M.

The temperature of 1840 is shown by an accompanying table, constructed from observations made at the coast-guard station, at 8h. 30m. A.M. and 7h. 45m. P. M.

1821 to 1828.		1840.	Morning.	Evening.
Temperature of	January . . .	37.099	38.048	38.387
"	February . . .	39.099	37.310	38.689
"	March . . .	41.650	40.080	40.467
"	April . . .	46.499	48.883	48.266
"	May . . .	51.175	49.370	47.774
"	June . . .	57.326	56.850	54.566
"	July . . .	60.182	57.483	55.030
"	August . . .	59.175	60.306	57.322
"	September . . .	55.761	51.583	51.483
"	October . . .	49.409	46.064	46.274
"	November . . .	42.927	41.090	42.150
"	December . . .	40.204	37.500	35.435
Mean annual temperature		48.374	Mean Morn. 47.047	Eve. 46.319
Mean annual temp. 46.819				

*Winds.*—By observations on the wind taken at the coast-guard station from 1836 to 1840 inclusive, it appears that its direction is on an average from the

East, and points adjacent,	77	days	in	the	year.
West	177	"	"	"	"
North	45	"	"	"	"
South	41	"	"	"	"
Calm and variable	25	"	"	"	"

East winds are most frequent in April, May, and June. West, in January, February, July, August, September, October, and December.

*Moisture.*—The average atmospheric moisture is equal to about three-fourths of the actual capacity for the temperature. During the early spring months, it is rather less, sometimes, though rarely, falling so low as one-half.

In the months of April, May, and beginning of June, St. Andrew's, in common with the east-coast of Scotland, is severely afflicted with a dense, chilly fog, called, "Easterly Haar." It usually comes in suddenly from the sea, about the middle of the day or afternoon, and is peculiarly cold and disagreeable to the feelings, although it does not appear to affect the mean temperature of the month.

*Rain.*—By the observations of the late Dr. Jackson, in 1835 and 1836, the quantity of rain for these years was,—

In 1835, 24.28 inches | In 1836, 34.00 ditto.

It occurs chiefly with the wind from east or easterly. Cloudy days occur chiefly with westerly winds.

*Geology.*—The site of St. Andrew's belongs to the inferior coal formation; it consists of alternate layers of sandstone and shale, with seams of clay iron-stone, and thin unworkable beds of coal.

On the beach at low water these strata are seen beautifully dissected by the sea, which has washed away the softer clay, leaving a succession of long ridges of sand-rock at regular distances.

Overlying the stratified rocks, there is a continuous layer of sand and gravel, varying in thickness from three to six feet, affording a dry and excellent foundation for the houses.

In a considerable space on the south side of the town, there is found a bed of clay of several feet in thickness underneath the sand; it retains the surface water, thereby causing some houses to be comparatively damp, and affording wells at the depth of a few feet.

The level tract of sandy soil on the north-west side of the town is evidently composed of the detritus of the promontory on which it stands, carried over by the tidal current, which is in that

direction; the high ground to the south is a portion of a range of trap hills running through Fife.

St. Andrew's is thus seen to be free of every kind of malarious influence; its elevation and exposure on two sides to the sea are highly favourable for ventilation; and this is promoted by the direction of the streets, which allows them to be fairly swept by the prevailing winds. The rocky ridges offer facilities and inducements to sea-bathing, which is much practised by all classes of the inhabitants, while the gentle declivity and the composition of the soil prevent the occurrence of stagnant water, and render the streets and public walks dry and comfortable at all seasons.

*Town.*—The town itself does not cover the whole of the space included in the description of its site; it is almost completely surrounded by gardens, which occupy a very considerable space between it and the sea-cliff and Kinnesburn, on its respective north and south sides.

It consists of three principal streets, lying east and west nearly parallel to each other; their length approaches to half a mile, and their breadth, for which they are remarkable, is, at an average, not less than 70 feet.

There are comparatively few lanes, the spaces intervening between the principal streets being mostly laid in gardens. By this means a great proportion of the houses, even in the middle of the town, have a considerable space of ground attached to them, so much so, that it forms a prominent feature in its general aspect, and when observed from some points, gives it an appearance of double its actual size.

By measurement, including its gardens, St. Andrew's occupies a space of 109 acres, affording 121 square yards for each individual.

It is divided into two parishes, St. Andrew's and St. Leonard's.

*Sewerage.*—There are few sewers of any extent, and not any through the principal streets; they are supplied with open gutters instead. Water-closets are common in the best class of houses, but by no means general in the town; they are usually connected with cesspools, which, in some cases, require a periodical cleaning, though generally they do not fill, from the porous sandy soil allowing the liquid parts to drain away: this is of less consequence, as the supply of water comes from a distance in pipes. There is a great deficiency of public accommodation of this kind, and, in consequence, a very disgusting habit prevails of committing nuisance even in the streets, and in all the corners and public walks around the town.

*State of the Streets.*—The scavenger department is defective and, in principle, ill conducted. This is the more to be regretted as the gentle inclination of the streets, and the plentiful supply of water, which is often to be seen running in a clear stream through the gutter of the South-street, afford so great facilities for this pur-

pose. Funds, however, are wanting, and the filth is made to pay for its own removal. To further this object, it is allowed to collect to a certain extent; it is then scraped into heaps, which often lie for a day or two before they are supposed to be worth carting away. It is impossible, in such a case as this, to witness the effect of a good shower without longing to have the scavengers then employed, not in collecting and preserving the impurities, but in sweeping them into the gutters, where they would be washed away, certainly not to the profit, but very much to the comfort and cleanliness of the town. As a whole, however, St. Andrew's cannot be called a dirty town, at least in comparison with other towns. The South-street is even clean; and it is only to be regretted that, with so great facilities for perfection, the streets should not be all brought to that condition.

There are a few localities to which even the foregoing general description is not applicable; and as they assume a greater importance from some of the facts to be afterwards stated in reference to the health of their inhabitants, it will be necessary to describe them at more length.

*Argyle, &c.*—I allude particularly to a suburb called Argyle, several lanes at the west end of the South-street, and the east end of North-street, and neighbourhood.

In Argyle, the ground is almost level, and the soil, differing in this respect from the rest of the town, is naturally damp. The gutter on each side of the road is wide, and usually filled to overflowing with black fetid mud, (*Scotticè*) "rotten gutter," the effluvia from which on a still evening are felt to taint the whole air. There are also numerous pigsties and cowhouses, the inhabitants of this locality being in many instances small proprietors or occupiers of land; and as almost every house has a garden behind, it is a matter of no little importance to be owner of a dunghill. These, as well as the pigsties, are often made to adorn the fronts of the houses, and their contents are continually swelled by the addition of sea-weed and every attainable impurity.

The internal economy of the houses in this locality is often very good, many of the owners being in good circumstances for their station in life. A few of the houses are small, damp, and too much crowded together.

*Closes.*—The lanes at the west end of South-street, seven or eight in number, partake very much of the character of Argyle; they are dirty, narrow, and, in addition, they are very deficient in ventilation.

*North-street.*—The east end of North-street is open and airy: it is tolerably paved, and supplied with proper gutters; but it is inhabited to a great extent by fishermen, whose habits render it highly offensive. It is covered with offal of every kind, and upon the back of many of the houses there are dunghills filled with mussel-shells, dung from pigsties, &c.

In the adjoining huckster wynd, there is a large unoccupied space for a house, which is used chiefly as a depôt for dung by a small farmer; and from the kind of mixture usually collected on it, it often becomes so great a nuisance, that the neighbours, usually not particular in these respects, have more than once petitioned the authorities for an order for its removal.

There are some minor localities of a similar nature not requiring particular description. One, however, in many respects unlike the others, must be ranked among them, from the occurrence of about a dozen cases of fever in it in 1839. It is a row of houses at the Links; they are good of their kind, clean and well ventilated; but one of the few sewers of the town, recently constructed, passes along its front. It has several open gratings, and terminates in a ditch in the vicinity.

A practitioner of 30 years' standing in the town states that he never saw fever here until 1839, which was just after the construction of the sewer.

*Property.*—The annual value of real property within the burgh, above 2*l.*, is 8398*l.* 16*s.*

*Tenements.*—There are 1081 inhabited tenements: of these 281 are rented above 10*l.*, the greater number being spacious, well ventilated, and situated in the principal streets: they have, in the majority of cases, excellent gardens attached to them.

151 are rented between 5*l.* and 10*l.* They are situated in the wynds or lanes, as well as in certain parts of the main streets. They usually consist of half houses, two families living under the same roof.

329 are rented between 2*l.* and 5*l.*, from two to four families living under one roof, each possessing at least a room and closet, or two, and even three rooms.

In houses of this kind, the size of each apartment is about 14 feet by 16. When two are occupied by one family, they often contrive to have one a little superior to the other; it is used for sleeping in, and contains one or two beds, according to the number of individuals in the family; the other, also provided with a bed, commonly of the kind with folding doors, which allow it to be shut up during the day, is used as the kitchen, for eating in, and other domestic purposes. They are situated in some parts of the main streets, or in lanes and closes. In common with the preceding class, they have often small gardens, or at least back courts.

About 250 yield an annual rent under 2*l.*, from two to six, or even eight families, living under one roof. These are usually the lowest class of labourers and artisans, weavers, fishermen, widows, and single women.

The size of each apartment may average 12 feet by 14; though there is some variety in this respect, the rent being affected by peculiarities in situation, &c.

A few of these dwellings, particularly such as are inhabited by

widows and single women, are very neat and clean internally; their owners, perhaps at one time servants in respectable families, retaining ideas of comfort unusual with their present means. But many, more particularly when the family is large, are both excessively dirty and crowded with furniture of little value.

The floors on the ground-flat are usually earthen, and this advantage is seldom obviated by an attempt, even, at order or cleanliness. This state of filth is remarkably characteristic of the houses of the fishermen inhabiting the east end of North-street; they are, with a few exceptions, in a very dirty and miserable condition, and would be insufferable by any other class of inhabitants.

There are a few, but a very few, instances of dwellings exhibiting the wretchedness so often met with in large towns. I have noticed several where there was a want of bed-clothes, but I have no recollection of any where there was not at least a bedstead and some kind of bedding.

The usual furniture in the class of houses last described is, one or two beds with bedding, the mattress being filled with chaff; a deal table, a chest of drawers, or only a chest, a cupboard, two or three chairs or stools, with utensils for cooking, eating, and washing clothes.

It is rather a curious fact, that where there is the lowest notion of cleanliness, there is often exhibited an attempt at ornament, by gaudily-coloured prints pasted upon the walls.

It is remarked that there are no "kail-pots" among the fishers.

*Population.*—The population, by a census taken by Dr. Haldane, in 1836, was 4182, that is by actual census—

Of the parish of St. Andrew's	. . .	3882
Computation for St. Leonard's	. . .	300
		4182

In the statistical account of the parish of St. Leonard's, written in November, 1837, the inhabitants of St. Leonard's are stated to be 427 in the town and suburbs. I am not able to account for this discrepancy, but as the latter number, viz., 427, is very nearly the amount of the present population of St. Leonard's, I have adopted it, making the population for the whole town 4309.

There is also a considerable fluctuating population, consisting of students attending the University in winter, and other strangers resorting to the town for sea-bathing during the summer months. They are not included.

There is no separate account of the relative number of males and females in the town itself; in the town and country, however, there were, in 1831, 2520 males and 3101 females. There can be no great error in taking the same proportion for the town alone, which will give 1932 as the number of males, and 2377 females.

*Trades.*—The following statement is compiled from the survey for the police assessment:—

There are 137 widows who are householders.  
 67 spinsters ditto.  
 85 gentlemen and residents, who do not follow any calling, and professional men.  
 42 shopkeepers.  
 394 tradesmen.  
 49 day-labourers.  
 57 seamen and fishermen.

As also 250 householders who are not designated: they are chiefly widows, single women, and labourers.

It is difficult to define very strictly what may be the number of the labouring population as distinguished from the other classes, but if the tenements rented under 5*l.* yearly be supposed to indicate the number, there are 589 such families with an average of four individuals to each family,—in all 2356. Some of them are small proprietors and able to live without labour, or without constant labour; but the great bulk of them may be fairly enough divided into four classes, of which the two first are perhaps the most numerous.

*Wages.*—The wages of the first are from 12*s.* to 16*s.* weekly; they are chiefly masons, carpenters, tailors, carters, &c.

The wages of the second are from 6*s.* to 12*s.* weekly; they are chiefly day-labourers, weavers, and fishermen.

The wages of the third are under 6*s.*; they are weavers, weakly persons, washerwomen, who are out-of-door workers, &c.

The fourth class have no regular earnings; they are the sick, infirm, aged, and insane.

*Charities.*—The average number of persons who had received parochial aid during the seven years preceding 1837 was 103 per annum, and their allowances varied from 6*d.* to 2*s.* weekly, according to their exigencies (*Statistical Account of St. Andrew's, by Dr. Buist*): this statement includes, I suppose, the country part of the parish; the most ordinary allowance is 1*s.* per week; the total average expenditure, including the sum paid for the support of lunatics, is 417*l.* 0*s.* 4½*d.* for town and country.

In the parish of St. Leonard's, the average number of persons receiving parochial aid is fifteen, and the weekly allowance made to them is 1*l.* 2*s.*, being at an average nearly 1*s.* 6*d.* each; 20% annually has also been disbursed for occasional demands, making the average yearly expenditure 78*l.*

The dissenting congregations collect publicly for their own poor about 20% annually or upwards.

The expenditure of other public charities may be accounted about 103*l.* annually, (statement of Dr Haldane).

The chief of these is styled the "Ladies' Society:" they profess to give relief only during the winter season; the number at present

in their list is seventy-two; they are infirm females, old women, widows with children, and a few destitute old men.

These people are visited at their own houses, by the ladies composing the society, who converse with them, inquire into their domestic economy, and, when necessary, relieve their occasional wants.

In this way they distribute tea, sugar, soup, and flannels.

They also give a regular allowance of two half-quartern loaves, or half a peck of oatmeal weekly, and sometimes half a loaf in summer.

It is a prominent object of the society to find out occasional cases of destitution from sickness or other calamities; and when a family is thus known to have experienced to a certain extent the pinchings of poverty, they are waited on with consolation and assistance.

It is thus hoped that their gratitude is called forth and a kindly feeling generated between both classes.

They also endeavour to prevent begging and dissipation, by cutting off from their list all who are found to continue in these practices.

There is also a Female Society among the members of the Secession Congregation, with kindred objects.

It is also a practice common among ladies in St. Andrew's to expend a certain portion of their leisure in visiting the sick and destitute of their poorer neighbours. It thus happens that there are few cases of *long-continued* destitution which are not well known to the wealthier class; and many individuals are in the practice of giving money, clothing, coals, oatmeal, broth, and, in sickness, cordials to the necessitous.

The poor themselves are also not the least ready in thus aiding their suffering fellows; and were it not for this *charity of the poor*, the amount of distress would be much greater than it is. Many cases of destitution arising from occasional sickness are not known beyond their immediate neighbours, and it is thus that their wants are supplied.

*Medical Charity.*—There is no public medical charity in St. Andrew's, the poor being attended gratuitously by any of the practitioners, for whom they choose to send.

They often manage of themselves to pay for the medicines prescribed; at other times these are paid for by charitable individuals, or given for nothing by the druggist.

The kirk session occasionally pay for the medicines ordered in extreme cases; but they usually protest against all charges of this kind, unless permission to incur the debt has been previously obtained from the member in charge of the district.

The trouble and loss of time thus occasioned to the practitioner are usually of more account than the trifling value of the medicine; and I, at least, am now obliged either to leave the matter



between the patient and the druggist, or, when the disease is a serious one, to order him to place the price to my own account.

*Clothing.*—The clothing of the working class is generally sufficient and respectable; there is no appearance of rags or very great filthiness of apparel, except in a very few cases, in most of which the fault lies with the individuals exhibiting them.

*Dissipation.*—The sale of whiskey in St. Andrew's is between 11,000 and 12,000 gallons annually. Of this quantity, about one-half is sold in the shops of grocers, who are also spirit-dealers. The remainder is sold or consumed in the public-houses, twenty-four in number.

There are eleven houses licensed to sell ales and porter only.

As in most other towns, there are a certain number of notorious drunkards, and from the quantity of whiskey consumed in public-houses, a great part of which must be by inhabitants of the town, it is evident that there is much more tipping among the lower classes than is consistent with the welfare of their families.

Many indeed of the very worst cases of destitution arise from this cause, and as these are not generally accounted proper cases for charity, it often happens that the families of a drunken parent are exposed to great hardship.

As a class, however, the tradesmen of St. Andrew's may be justly styled sober and industrious, and if we overlook a few especial occasions, it is really a rare thing to see any of them drunk upon the street. A temperance society has probably effected considerable improvement in this respect.

*Tobacco.*—The use of tobacco is rather general: I have noticed that old men are given to snuff; the middle-aged more frequently chew; and the young almost invariably smoke.

*Habits of Fishermen.*—The fishermen and sailors inhabiting the east end of North-street must, in a great degree, be excepted from the foregoing general description of the habits of the working classes.

As a body, they present many peculiarities; for instance—they associate only with each other; they usually marry the daughters of fishermen, few women not bred in the trade being fitted for the duties of a fish-wife; they employ the whole of their time, not occupied at sea, either in bed or lounging at a corner of the street, in full view of the public-houses, of which there are several for their especial accommodation; and their only enjoyment seems to consist in feasting and drinking, at which they continue as long as their money lasts. In this way they are enjoying themselves in gluttony and drunkenness for one week; and the next, if the weather is unfavourable, they are on the verge of starvation.

The internal economy and arrangement of the houses of the working class often exhibit very remarkable differences in comfort and respectability, which seem to be more owing to the habits of the possessors than to any moderate difference in the wages.

And although their food must also vary from similar causes, and from the numbers and necessities of the family, yet the following may be taken as a fair statement of the usual food of the best class of labourers, viz., those who are earning from 12s. to 16s. per week:—

*Food.*—The breakfast is porridge, with milk or small-beer; sometimes, but not often, tea, &c.

The dinner is broth, made with pork and vegetables or coarse pieces of beef; fried pork, with potatoes; often salt herrings or fresh fish, which are abundant and cheap.

Families of this class have usually gardens; and they are often well supplied with vegetables, such as green kail, cabbages, carrots, and onions.

The bread in common use is made with a mixture of peas and oatmeal (bannock), or of oatmeal alone (cake); they have either this or common wheaten-bread, with tea, in the evening; and for supper, potatoes or porridge.

This is the best style of living of the labouring men; many of them, such as the second class, with wages from 6s. to 12s., are not able to live in this manner; they have the same breakfast and evening meal, viz., porridge and potatoes, but their dinner is inferior; it consists of potatoes, with herrings or melted hogs'-lard, pork broth, and sometimes pork. I have seen a large family of this class dining from a dish of mashed potatoes and turnips, of potatoes and salt only.

The almost invariable possession of potatoes arises in some degree from a common practice among the farmers in the neighbourhood of allowing their reapers a small portion of ground for the planting of potatoes in lieu of part of their harvest wages; this ground is planted and attended to by the person receiving it, and when the season is favourable, they have a very cheap stock of potatoes for the year.

Many individuals of the third class are widows and single women, and with the aid of friends, or otherwise, they sometimes manage to live as well as any of the preceding class: they very often contrive to have tea at least once a-day; if there is any family, however, they are not able to get on without assistance; their food is the same as the preceding class, eked out by the pieces of bread, broken victuals, broth or meal, which they receive in charity; they manage to get through very often without being able to tell how they do so. I have inquired of a considerable number of this class whether they have enough, and though they have often expressed a wish that they could afford something better, they have in every case where I have happened to put the question, said that they had at least as many potatoes as they could eat. They have also occasionally complained of stomach complaints, which they attributed to their poor fare.

The fourth class do not differ much from many of the preceding, they just receive so much more charity; and being recognized

paupers, perhaps their living may be more regular, such as it is, than the others. Some of them complain of not having enough.

The following is the domestic economy of two old paupers, a man and his wife, as stated by themselves: they receive 2s. a-week from the kirk session, and half a peck of oatmeal weekly during winter from the Ladies' Society; I believe, also, coals occasionally. The woman earns 9d. a-week by winding weavers' pirns, and they get broth from two families in the town.

The money is expended as follows:—1s. is put aside for house-rent, 6d. is expended for a peck of potatoes, 4d. for one ounce of tea, and 4d. for sugar (which serves them for the week, taking it twice a-day); leaving 7d. for salt herrings, fish, coals, soap, &c. They have not had more than 3d. worth of flesh in their house for six months.

Such is the condition of the recognized pauper; one of some privation, no doubt, but far removed from actual want.

Other cases of equal or greater necessity occur occasionally, where assistance is neither asked for nor wanted. There is a primary stage in the advance to destitution, and sometimes a temporary and accidental lapse into that condition where this may happen; it may be traced to the feeling that it is a degradation to have received public charity, and that it is only to be sought for, or given, in cases of great calamity, or on the occurrence of old age or infirmity.

I have found that medicines prescribed by me were not procured from this cause; the people preferred to suffer rather than own that they could not pay.

This is a sort of pride said to have formerly been more common, and even characteristic of the county; lest it should disappear entirely, I will not omit the opportunity of recording an anecdote exhibiting the feeling, though it did not actually occur within the town. A woman, aged above 70, who had no visible means of support but her labour, was known to be struggling with growing infirmities; she was seldom able to go out to work, and though she made no complaint, it was feared that she might be in absolute want of food: in these circumstances a lady in her neighbourhood was authorized by the clergyman of the parish to ask whether she would not require parochial assistance: when this was spoken of, the poor creature burst into tears, and said with much feeling, that she had reason to bless God she never rose that morning on which there was not both meal (oatmeal) and water in the house, and while she had this, none of the poor's money should enter her door.

I have also met with a few accidental cases where I imagined public relief should have been, but where it could not be obtained; and it is evident that such must continue to occur, not from any fault of the guardians of the parochial funds, but from the want of means to meet every demand. Indeed I have more than once remarked of a zealous advocate of the present system, that

his benevolent feelings constrained him to give freely from his own pocket what he would not on any account allow from the public funds under his charge.

*Causes of Pauperism.*—The direct causes of pauperism are old age and infirmity, drunkenness, death, or desertion of the head of a family, insanity and feebleness, or ill health preventing from employment in any remunerating occupation.

There cannot be said to be any manufactures in this town, and consequently there is no body of labourers to be thrown out of employment by fluctuations in trade.

Work can in general be easily obtained by able and steady male labourers; but of late years the employment of machinery has completely extinguished the spinning-wheel, once the occupation and support of aged and infirm females. Many of them who cannot sew, or unable for field-work or washing, can find very little to do. The winding of weavers' pirns is so ill paid, in consequence of the very small earnings by weaving, that a woman cannot make more than from 1½d. to 2½d. a-day at this work. And even the weavers themselves, making only 1s. a-day with their utmost exertions, are on the very verge of pauperism, and are thrown into the list of destitutes by the slightest causes.

*Mortality.*—There is no registration of deaths in St. Andrew's; and in consequence I have not been able to discover the diseases which are fatal, or the ages at which death occurs.

An accurate account, however, of all the funerals is taken by the sexton; and I have estimated the number of deaths in the town by going over this document very carefully, with the assistance of the church beadle, so as to exclude all the funerals which have come from the country.

The very few cases of deaths where the bodies have been removed to other burying grounds have been ascertained by the recollection of the beadle, corroborated by inquiries at all the undertakers in St. Andrew's. I have thus discovered the dates of these funerals, and having incorporated them with the list mentioned, I feel satisfied that it exhibits the actual mortality.

The total deaths for five years, viz. 1836 to 1840 inclusive,			
are . . . . .	Males . . .	204	
Ditto . . . . .	Females . . .	234	
			438

The yearly average is,	Males . . .	40·8
Ditto . . . . .	Females . . .	46·8

Yearly average of both . . . . . 87·6

The population has been computed as 1922 males and 2377 females, which gives a

Mortality of 1 in 47·3 males  
And 1 in 50·7 females.

The mean annual mortality of males and females is 1 in 49·1. If the lower census by Dr. Haldane in 1836 is taken, the mean annual mortality will be 1 in 48·8 of the whole population.

*Mortality of the different Months.*—The average deaths of each month computed from a mean of five years, viz. from 1836 to 1840 inclusive, are—

January	10·8	July	7·0
February	8·4	August	6·8
March	7·4	September	4·8
April	5·4	October	4·4
May	8·4	November	9·0
June	6·0	December	9·2

Among the deaths recorded, four occurred by accidents, two by suicide, two, if not more, among strangers visiting the town, and a few were old people from the country, who had come into it to reside in their old age. In this way the apparent mortality of the town itself has been slightly increased.

*Mortality in Argyle.*—I have procured an accurate census of the suburb Argyle, and an account of the whole deaths which have occurred there in the last five years, with the view of discovering the effect of the supposed unwholesome effluvia arising from the filthiness of that locality.

The inhabitants are 338, and the deaths 36, or 7·2 annually, giving a mortality of 1 in 47.

*Mortality among the "Fishers."*—Among the fishermen inhabiting the east end of North-street, there is conjoined both external and internal filth, with irregular habits and dissipation; and with the view of exhibiting the effect of this combination, I have procured a census of this portion of the town. It includes all the inhabitants of the North-street east of the Secession meeting-house, and the Castle Wynd.

The population is 498.

The deaths during the last five years 58, giving an annual mortality of 1 in 42·9.

*Diseases.*—There are no public records from which to arrive at the diseases prevailing among the labouring population. I have, however, constructed a table, from an analysis of my own practice, showing the relative frequency of some of the more common diseases and the months in which they have occurred. A great proportion of the cases have been among the labouring classes:—

Diseases.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
Scarlatina . . . . .	8	6	2	3	9	19	27	24	9	15	16	4	141
Measles . . . . .							1	10	0	23	46	10	90
Influenza . . . . .	27												27
Hooping cough . . . . .	1							1	2	1	1	1	7
Fever, common continued; typhus and infantile remittant. } Do. symptomatic . . . . .	12	6	5	8	6	3	11	4	7	4	8	7	81
Bronchitis . . . . .	2	2	1	3	3	2	0	3	1	3	9	4	33
Pneumonia . . . . .	12	7	4	4	6	6	7	4	1	2	1	5	66
Phthisis . . . . .	1	1	2	3	7	2	2	2	1	0	2	6	29
Stomach complaints. } Gastritis, peritonitis, enteritis. . . . .	6	1	1	1	0	7	2	2	0	2	2	1	25
Diarrhœa and dysentery . . . . .	9	4	7	1	4	1	2	4	2	6	3	1	44
Organic disease of the brain, apoplexy, paralysis . . . . .	2	1	4	0	1	2	2	2	2	2	0	0	18
Inflammation of the brain and membranes . . . . .			2	1	0	1	1	1	0	0	1	1	8
Hydrocephalus . . . . .	1	1	3	2	2	1	2	1	2	1	0	1	17
Ophthalmia . . . . .	3	3	3	1	1	3	1	1	0	2	3	1	22
Erysipelas and erythema . . . . .	1	3	1	4	1	0	2	1	1	3	4	2	23
Rheumatism . . . . .	2	2	1	1	1	0	1	1	0	0	9	5	23
Diseases peculiar to females. Hysteria . . . . .	5	4	5	6	3	8	5	2	0	0	3	4	45
Diseases of the heart. } Pericarditis . . . . .	2	0	3	1	1	0	0	1	0	2	0	1	51
Small-pox . . . . .					1								1

*Scarlatina.*—Scarlatina occurred chiefly in June, July, August, October, and November of 1837. A few cases have also appeared now and then at various periods and localities; it has exhibited a very remarkable difference in severity, which sets at nought all attempts to account for it by natural causes; sometimes being as deadly as cholera, at other times so slight that the children affected have not even been confined to the house. This happens in the same family, or among children situated in every apparent respect alike.

Different epidemics of the same disease vary as much in their general characters; and it is commonly remarked here that there is usually a period of great severity, and another of comparative mildness in their course; this variability of symptom adding to the difficulty of appreciating the effects of external causes. The greatest number of bad cases, however, have been in localities which were dirty and ill ventilated, and I have imbibed a strong impression that, dwelling in such localities



predisposes to a severe form of the disease, although I can urge no definite facts to prove it.

*Measles.*—All the cases of measles occurred in 1840, in July, August, October, November, and December; it exhibited in its course some very remarkable peculiarities, which in our present state of knowledge regarding the essential nature of this disease, as well as scarlatina, point out the hopelessness of trying to account for them by such supposed causes of disease as are chiefly considered in this Report,—for instance, the first children affected were almost all of the better class, and about five or six years of age. These cases were comparatively mild. After an apparent cessation of the disease for some weeks, it suddenly became general among younger children of all classes, and was now, in many cases, very severe, and even fatal. It attained its greatest degree of severity and extent in the beginning of November, and when it had again almost disappeared, it all at once revived among much older children (*viz.*, from 10 to 14) of the better class, and in these cases it was again extremely mild in its symptoms. I have not been able to form any opinion as to the effect of destitution upon this disease; it has not appeared to have any influence.

*Influenza.*—All the cases of influenza occurred in January, 1837: it affected all classes indiscriminately, and certainly showed no particular favour to the wealthy.

*Phthisis.*—It is to be regretted that there are no records by which the comparative frequency of phthisis in the town can be ascertained. I cannot even give the comparative mortality with other diseases occurring here, or indeed any definite facts regarding it; although I feel certain that it is often brought on in the predisposed by indulgence in dissipation, close confinement to work, or living in ill-ventilated localities.

*Bronchitis.*—Is a very common disease among the children and adults of the labouring class; it affords distinct evidence of arising from exposure to cold, and, except that the labouring population are very liable to this exposition in their occupation, it shows no other connexion with pauperism.

*Pneumonia.*—The same may be said of pneumonia.

*Diarrhœa and dysentery* appear to result from errors in diet; as well as atmospheric influences in children, it occasionally arises from neglect and improper food.

*Fevers.*—The fever which appears in St. Andrew's is usually the mild form of typhus: it is not attended with any eruption on the skin; and when death occurs, the usual morbid appearance is in the bowels, which are ulcerated on their internal surface. To show the localities of this fever, I have made a map of the town, on which I have marked the situation of every case of fever which has occurred. These marks are very remarkably grouped in certain situations, *viz.*, in Argyle, Huckster-wynd, and east end of

North-street, and at the row of houses at the Links; all of which localities are already described as the filthiest in the town, or presenting some peculiarity of this kind.

The cases have not been confined to the poorest class inhabiting these localities; and it is quite remarkable that only one case has occurred among the paupers on the poor-roll, being rather less for this class than for the rest of the town. I feel therefore as much warranted in asserting that there is no evidence in St. Andrew's of destitution exerting a direct influence upon the origin of fever, as in stating that it does arise in some degree from impure air.

*Rheumatic affections* have been most frequent in the month of November; and, considering the small number of cases, it is rather remarkable that some have occurred in that month in each of the five years.

*Hydrocephalus* has been most frequent among infants; yet I have attended a few cases, and have assisted at the *post mortem* examinations of several more, where the children were at school, and exhibited great precocity of intellect. This may have been the consequence of the disease, or state of brain predisposing to it; but I have so often observed great cerebral irritation in other affections occurring in children who had overworked themselves, in consequence of the high degree of emulation kept up in our public schools, that I have no hesitation in affirming it to be an occasional source of disease.

It is now seen that, as far as I have been able to bring it forward, there is little or no evidence of disease resulting directly from destitution. It does occur, however, from this cause in an indirect manner. Labourers are not usually provident, and they are too often surprised by sickness, without being at all prepared for the evil day. They are well aware that if they once fall into debt, it is often impossible to recover their ground; and they often struggle on, when afflicted with disease, in the hope of thus overcoming it, but only thereby aggravating its severity: in other cases, they are driven back to their work from a sick-bed, at a far too early period of convalescence, thereby provoking relapses and even other diseases. These appear at first sight to be voluntary exposures, and they often are so; but they are also too frequently unavoidable, as well from the feeling attached to the receipt of parochial charity as the difficulty of obtaining it.

I have now stated all the facts which I am able to bring forward, from the very limited field for this inquiry, presented by St. Andrew's; and it must be admitted that they do not allow of any very marked conclusions. The sources of disease, whether inherent in the human body or acting upon it as external causes, are so various in their numbers and mode of action, and even so mutually influential, that it is, under any circumstances, difficult to distinguish and define them; in the present instance, the labouring classes are in comparatively small numbers to the

wealthier inhabitants; and, when in want, they are so generally reached by some amount of relief from public or private sources, that their sufferings must be far minor in degree, compared with that destitution in larger towns, to which so much disease is attributed. The internal economy, too, of many of their houses is good, however faulty they may be externally in certain localities. The constant exposure also of the great bulk of labourers to the open air—the prevalence of gardens, which give even the weaver and artisan a certain amount of healthful recreation—and the almost universal practice among the men, women, and children, of the poorest class of labourers and tradesmen, of working at the harvest, must all tend in some degree to neutralize the hurtful agencies to which they are exposed. To these must be added the peculiarly salubrious situation and general features of the town and locality. The consequence, as proved by the small mortality, is, that there is a very trifling amount of fatal disease, which is to be accounted for by known and controllable causes; and I am not warranted in asserting more than that there appears to be some cases of continued fever, fairly attributable to filth, besides a high probability of an increased degree of severity in some other diseases from the same cause; that some diseases are aggravated or induced—that even death is sometimes to be found among the indirect effects of destitution; and that the greatest mortality of all occurs in that locality where filth and dissipation are conjoined.

There can hardly be a doubt that some of these influences have their origin in the inferior standard of comfort and cleanliness attendant upon poverty. And I do not forget that, although the degree of destitution may not go below that point to which the system can accommodate itself with impunity, even if the limit of human life were attained, there may still be room for the exercise of charity and benevolence as a social and Christian duty. This part of the subject, however, is at present in other hands, and with them I may leave it. I will confine my remarks to the modes which appear most obvious for the removal of those agents, to which disease may be ascribed.

In the first place, the state of the streets and lanes should be improved: this is the department of the magistracy; and the manner is simple; indeed, it was formerly adopted during the visitation of the cholera, in 1832.

It would also be desirable, that destitution of the necessaries of life were obviated without recourse to private charity at all, and I am so sanguine as to believe that, in time, the same benevolent feelings which now prompt to the relief of occasional and paltry wants, and are thereby in a great degree limited and exhausted, would find a higher field, in raising the physical and social condition of the labouring population.

The external condition of all their houses, and the internal economy of many of them, afford so much room for improvement,

that the result of a very little exertion would at once be evident and encouraging, if the people were at first directed and assisted in these improvements, so that they might see the change which is within their power; and were they encouraged to keep it up by a judicious method of reward, in a short time new tastes and desires would be created for a higher degree of comfort and cleanliness. Education, also, is within the reach of all, and a little exertion would make its attainment universal. The oatmeal and loaves of the Ladies' Society, now no longer required, might issue from the shop of the bookseller instead of the baker, to contribute to the religious and secular instruction, or to the amusement of the present recipients. In this way many of the supposed causes of disease would disappear, while a more liberal and ready relief would obviate some at least of the cases of disease arising indirectly from poverty. By similar means, also, it would appear possible even to heal the moral cancer of North-street. Very great exertions have long been made for the reformation of its inhabitants, by teaching and preaching among them; yet it must be allowed, they remain the same reckless reprobates as ever. In their case, it is very clear that something more must be done before success can be expected. They must be brought to that point in the social scale where church-going is practised as a respectable ceremony, before they will be affected by moral influences alone; and this will not appear so hopeless a task, if we examine the apparent causes of their present state, which I believe to be in a great degree physical. For instance, the mode in which they dispose of their fish is by hawking them through the town, from door to door; the wives belonging to each boat going together—often four or five in a body—apparently because they cannot trust each other on separate beats. In this way the greater part of their day is spent, and too often wound up with a carouse in a public-house. In the mean time their houses and children are totally neglected; the latter are rarely sent to school; they do not associate with other children; and, tainted by the example continually before their eyes, they grow up into fishermen and fish-wives as profligate and degraded as their parents.

I do not mean to propose a fish-market merely as a specific for this evil, but I feel very confident that if this was erected in the town, and if accommodation was given for cleansing and baiting the fishing-lines, so that it need not be done in the dwelling-houses, thus making their external economy more susceptible of improvement, the women would have leisure to attend to their domestic duties; they would not be continually thrown into their present temptations to drunkenness; the children would be looked after and sent to school; and the men themselves, experiencing for the first time in their lives something like domestic comfort, would have less craving for their present enjoyments.

In this way the minds of this whole community would become

amenable to the lessons of the praiseworthy individuals who have hitherto laboured so vainly among them, and a moral reformation would be added to their physical improvement.

Were this even of no importance in itself, it would at least effect the object to which its proposal is limited in this Report, it would remove the indubitable sources of the comparatively high rate of mortality among this portion of the inhabitants of St. Andrew's.

Such are the few recommendations I feel myself warranted to make in connexion with the facts which have been here stated.

And I have the honour to remain,  
Gentlemen,  
Your most obedient Servant,  
JOHN ADAMSON.

To  
The Poor Law Commissioners.  
March 16th, 1841.

No. 16.

ON THE SANITARY CONDITION OF THE POOR OF ABERDEEN.

BY DR. A. KILGOUR AND DR. JOHN GALEN,

*Secretaries to the Committee of the Magistrates and Town Council for Inquiring into the Sanitary Condition of the Poor of Aberdeen.*

HAVING been appointed, at a meeting of a Committee of the Town Council with the medical gentlemen attached to the Infirmary and Dispensaries, as secretaries for managing the Inquiry as to the Sanitary Condition of the Poor of Aberdeen, it appeared advisable to us and the gentlemen present not to adhere, in all points, to the form of questions transmitted by the Poor Law Commissioners of England, (it being in many respects not applicable to this town,) but to follow up the views and intentions of the Commissioners as detailed in their Circular of 19th June, 1840, by such machinery as might be best suited to the locality. Accordingly, we were directed to prepare and issue certain Tabular Forms and Queries, having reference to the number of the population attacked with fever, and applying at the different medical charities; their ages; their station of life as indicated by their occupations; and the nature and character of their residences; with the opinion of the medical officers of these Institutions as to the causes of the extension and propagation of the fever, and the means of correcting such circumstances as they might consider as fostering or promoting the extension of disease among the community. And we were directed to prepare a General Report on the condition of the town, to be transmitted, along with the individual Reports, to the Commissioners.

In the performance of this duty, we have found reason to regret that we have not been enabled to ascertain numerically some points of considerable interest; and, in fact, we feel that the information expected in a report of this kind cannot be furnished with unquestionable accuracy until the department of statistics has made more extensive advances, and furnished securer grounds for general inferences.

In this Report we adopt the following order:—

- I. Fever, and its statistics, and cholera.
- II. The supposed causes of fever, embracing the paving, drainage, and sewerage; the deficient cleanliness of the streets and lanes; the deficient cleanliness and ventilation of dwelling-houses; the too crowded state of the population; poverty, and intemperance.
- III. The remedies suggested for these agencies.

I. FEVER.

Aberdeen has been visited by three epidemics of fever in the last twenty-two years. The first was in the years 1817-18-19. We have no means of ascertaining the number attacked during that epidemic; but it was so great that the infirmary, which at that time had only two wards for fever patients, admitting eleven patients each, was found altogether insufficient, and two additional places were opened as fever hospitals.

The second epidemic was in 1831-32. During this epidemic two additional fever wards were opened in the infirmary, and accommodation given to fifty-two fever patients, instead of twenty-two as formerly. From the Dispensary Record, we find the following in regard to fever patients for these two years:—

1831, admitted . 705; dead . 15  
1832, do. . 1999; do. . 42

The third epidemic may be said to have commenced towards the end of 1837, and extended over 1838-39, and to the present period of 1840.

We subjoin here a Table of fevers at the Dispensary and Infirmary, with the deaths at each, for five years, regretting that, from deficiencies in their respective records, it cannot be extended over a longer consecutive period of years:—

Year.	General Dispensary.		Infirmary.	
	Admitted.	Dead.	Admitted.	Dead.
1835	355	6	261	18
1836	277	10	407	32
1837	656	34	651	42
1838	757	34	515	10
1839	733	22	575	63