# [Report of the Medical Officer of Health for St. Pancras, Metropolitan Borough].

#### **Contributors**

St. Pancras (London, England). Borough. Vestry. Hillier, Thomas, 1831-1868.

#### **Publication/Creation**

[1857]

#### **Persistent URL**

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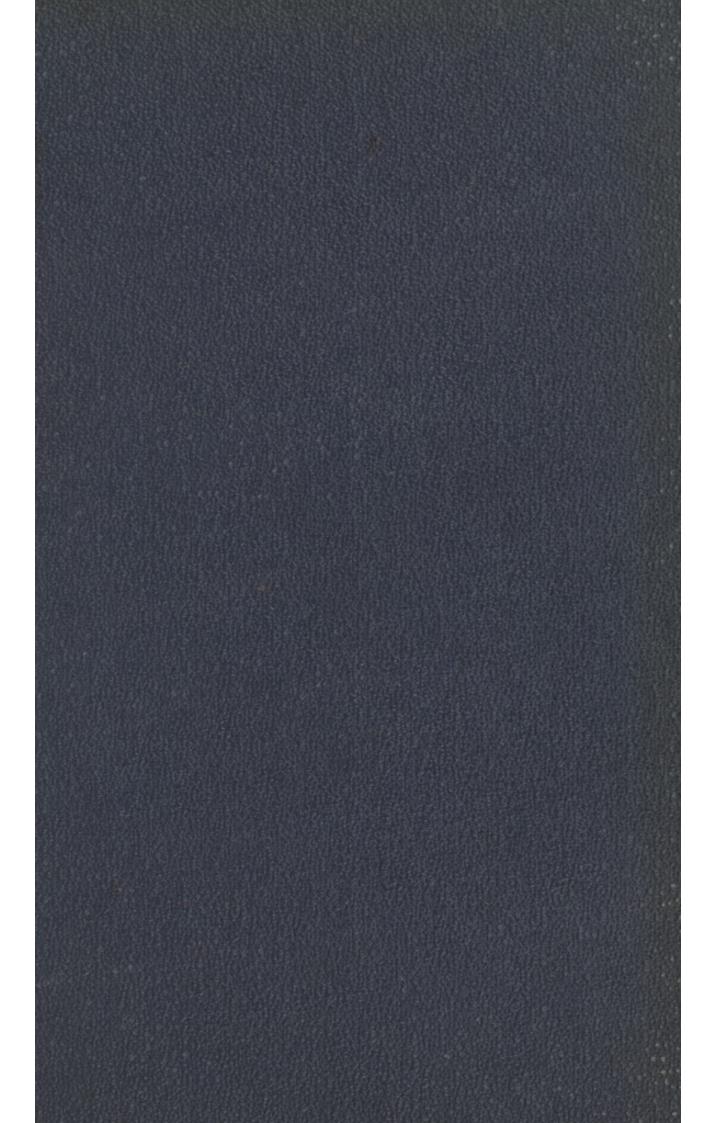
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# FIRST ANNUAL REPORT

OF THE

# MEDICAL OFFICER OF HEALTH

OF

ST. PANCRAS, MIDDLESEX,

ON THE

SANITARY CONDITION OF THE PARISH,

During the year 1856,

BY

THOMAS HILLIER, M.D.

71

# TO THE VESTRY OF ST. PANCRAS.

Having now held the appointment of Medical Officer of Health in this Parish for a period of one year, it may be well to give you a summary of the Vital Statistics of the district during the year, also a short account of the works performed in the sanitary department, and bring before your notice a few of the more important evils which still operate against the public health, at the same time suggesting such remedies as to me appear practicable.

# STATISTICS OF THE YEAR.

In 41 weeks of the year 1856, the registered mortality was below the corrected average, and in 11 weeks only was it above the average. In each quarter of the year the mortality was below the average. During the entire year the mortality was nearly 13 per cent. below the corrected average of the ten preceding years, and about 12 per cent. below the mortality of 1855. In 1856 there were registered in St. Pancras 3,857 deaths, whilst in 1855 there were 4,336. The rate of mortality last year was little more than 20 to every thousand living, whilst in the nine preceding years the mortality was at the rate of 24 to every thousand. In London at large the proportion in 1856 was 22 to a thousand.

In Table I. are given the births and deaths in each sub-district of the parish, together with the deaths of children under 5 years of age during the four quarters of the year; also for the whole year the proportion of deaths under 5 to the number born; the number of deaths from 6 epidemic diseases (a class of diseases on which sanitary improvements exert especial influence); the proportion which this number bears to every 10,000 living; and the proportion which it bears to the deaths from all causes. Also there is given the ratio which the total mortality (corrected, as explained in a note to the table) bore to every thousand persons estimated to be living in each sub-district.

I have thought that the comparison of the number of children dying under 5 years of age with the number born, would give a valuable guide to the relative salubrity of the sub-districts. This plan appears to be less liable to fallacy than the comparison of infant mortality either with the total numbers of deaths or with the estimated population, from the impossibility of determining the relative pro-

portion of children to the entire population in each place, and from the great difficulty in estimating the present population of the places. Estimated by this standard they are found to take the following order, beginning with the most unhealthy:—Tottenham Court, Camden Town, Somers Town, Gray's Inn, Regent's Park, and Kentish Town.

The proportion of deaths under 5 years of age to the number of births was as 10 to 37 in the whole parish; in Kentish Town it was only as 10 to 45; whilst in Tottenham Court district it was 10 to 26; but this last ratio is probably raised considerably by the presence of the Strand Union Workhouse, in which, as in most workhouses, a larger proportion of young children die than in the surrounding districts.

The natural increase of population in the parish, that is to say, the excess of births over deaths, was in the year 1856, 2,194; of the increase by new residents coming from without, I have no means of judging.

When the sub-districts are compared, as regards the mortality from six epidemic diseases to every 10,000 living, they stand in the following order:—Gray's Inn, Tottenham Court, Somers Town, Camden Town, Regent's Park, and Kentish Town.

As regards the *total* mortality to every thousand persons living, the order is,—Tottenham Court, Somers Town, Gray's Inn, Camden Town, Regent's Park, and Kentish Town.

In whatever way they are compared, the Kentish Town subdistrict shows the most favourably. This is in accordance with what I stated in my first monthly Report, namely, that elevation and thinness of population are two elements which are always found very much to influence mortality.

It may be useful to ask on what these influences depend? An increase of elevation is accompanied by an increased exposure to the light and warmth of the sun, a more pure air, freer ventilation, and superior drainage.

It is desirable, then, to give to the low-level localities, as far as possible, the advantages of the higher ones.

This will be best accomplished by throwing open the courts and passages to the light of day, by increasing the ventilation of houses, by ensuring the removal of all refuse as quickly as possible from the neighbourhood of dwellings, and preventing the escape of effluvia from such refuse whilst it is near houses by keeping it strictly under cover, by improvements of drainage, and by the suppression of all noxious trades.

In Kentish Town, between 18 and 19 have died to every thousand living; whilst in Somers Town and Tottenham Court districts nearly 21 have died. We may fairly conclude that this difference is in great measure dependent on removable causes, and we are also certain that even in Kentish Town there are many causes in operation to raise the mortality above that which is inevitable.

I may mention, in illustration of the last remark, the open Fleet Ditch in the Gospel Oak Fields, which is every day becoming more polluted, and in the summer is a very fearful nuisance; the drainage of Torriano Avenue, Gloucester Place, and other places; the undrained brick fields, roads, and other open spaces, covered with stagnant water and all kinds of refuse; the houses recently built upon a clay soil with very imperfect foundations; and many other things of equally pernicious character. If, however, the mortality of all parts of the Parish had been no higher than that of Kentish Town, during the year no fewer than 200 lives would have been prolonged.

The health of London in general, as well as of St. Paneras in particular, as measured by the mortality during the year 1856, was unusually good.

During the first quarter of the year Typhus Fever was very prevalent in the Parish, and especially in the Workhouse. During the Summer quarter Diarrhoea was very fatal, especially to children. With these two exceptions epidemic diseases have been much less prevalent than they usually are. There have been, however, more deaths from measles than in 1855. This will be seen in Table II., which gives the number of deaths from each of six epidemic diseases in the several sub-districts, and compares the number in the Parish with the number in the year 1855.

In Table III. is given the total number of cases of sickness, and the numbers of the chief epidemic diseases, coming under the care of the District Medical Officers. The total number is considerably less than in 1854 and 1855.

I may remark, in passing, that a complete register of sickness which is not fatal would be a much more valuable gauge of the public health than the register of deaths only, which often gives incorrect impressions on the subject. The Medical Officers of Health throughout London

are endeavouring to organize a plan for the partial attainment of this end, by registering acute diseases occurring at the various Public Institutions in their several districts.

I am not sufficiently sanguine to attribute the whole of the improved health during the year 1856 to sanitary measures, nor do I think we are justified in expecting for the future as great an immunity from epidemics as we have enjoyed last year; but at the same time there can be no doubt that much sickness has been averted and many lives prolonged by improvements which have been effected.

In support of this I may give some facts supplied me by the experience of some of the District Medical Officers, with reference to the number of cases of sickness coming under their treatment during last year, in comparison with previous years, in some streets in which sanitary measures have been recently carried out.

In Britannia Street and Chad's Place, where the house drainage has been much improved during the year, Dr. Davis reports, that whilst in 1854 he had 64 cases of sickness, in 1855 48 cases, in 1856 he had only 38 cases. The full benefit of these improvements cannot as yet be estimated, because the disturbance of the drains during a portion of the year tended to counteract the advantages gained since the completion of the new drains.

Dr. Wildbore reports, that in Southampton Court, Henry Street, and Fitzroy Market, low fever was until recently constantly present, but since the sanitary improvements made there he has seldom had a case. Several other parts of his district, he also states, are notably more healthy.

Mr. Sutherin reports, that the health of some of the worst courts and streets in his district have very much improved during the year, especially Scalesbury Place, Phillips Buildings, Isaacs Place, Toms Buildings (which are now much improved, and called Equity Buildings), and Middlesex Street.

#### WORKHOUSE.

The mortality in St. Paneras Workhouse in 1856 was 149 males and 179 females, making a total of 335. So that the mortality in 1856 was 38 per cent. lower than the average of the three years 1853, 1854, and 1855. The mortality for 1856 would be considerably raised by adding the deaths which occurred during the first quarter of the year amongst persons sent to the Fever Hospital; but as I am not able to make a similar correction for other years, I am obliged

to omit it also in the last year. Even after making this addition for 1856, and not making a similar correction for other years, the mortality would contrast very favourably with the immediately preceding years.

The health of the inmates has been very much improved by the increased space allowed them since the removal of the children to the country and the opening of the new building for casuals.

The removal of the Kitchen and Laundries from the body of the house will be of the utmost service. I am also very glad to hear that the Directors have decided on building, so as to give increased accommodation to the Lying-in and Lunatic departments. There is nothing of so much importance to the health of a large establishment as an ample supply of fresh air. Money expended on furnishing it, either by enlarging a building or by improving its ventilation, is, although a heavy tax at first, in my opinion, money well invested, and will save much more than is expended, by improving the health of the inmates, by expediting the recovery of the convalescent, and thus shortening the period of their maintenance by the parish, by rendering stimulants, such as wine and spirits, much less necessary, and in a number of other ways.

#### METEOROLOGY.

On this subject I am not able to give you any original information, not having been furnished with the necessary instruments for making observations.

The variations of the weather exercise of course a very great influence on public health; some of these changes are readily measured by the thermometer, barometer, rain gauge, and anemometer, and their influence has long been recognized.

The amount of Ozone in the atmosphere is believed to have very important bearings upon health, but observations with regard to it have not been sufficiently long made to allow of any positive deductions.

As I have no records of the meteorology of St. Pancras, it may be well to give a little information of that observed at the Royal Observatory at Greenwich during last year as compared with other years. During the first or Winter quarter, for 8 weeks the temperature was above the average, and for 5 weeks it was below; during the second quarter, 6 weeks were warmer and 7 weeks colder than usual; during the third quarter, 6 weeks were warmer and 7 colder; during the fourth quarter, 6 were warmer and 7 colder than usual.

8

The average temperature of each entire quarter was severally as follows:—Of the first 40°, being 1.7° above; of the second 52.2°, or 0.6° below; of the third 59.9°, or 0.5° above; of the fourth 44.2° which is 1° above, the several averages of the corresponding quarters during 85 years.

The mean daily range of temperature\* during the first quarter was 1° below, during the second 0.2° below, during the third 0.7° above, and during the fourth 0.1° below, the several averages of 15 years. The amount of rain which fell was during the entire year 21.9 inches, which is 3.6 inches less than the average of 40 years. During the fourth quarter only 3.9 inches fell, which is 3.7 less than the average.

# SANITARY CONDITION OF PRIVATE HOUSES.

In many houses the over-crowding is very great, each room being occupied by a family. It is usually found too that families with children congregate in the same house, because the parties who occupy houses where there are not any children object to having them introduced, on account of the noise they make and the trouble which they give. The consequence is that some houses have as many as 50 or 60 inmates. There is a clause under the Nuisances Removal Act, sec. 29, by which the Vestry is called on to take proceedings before a Magistrate to abate over-crowding, if it is certified to be such as to endanger health. No prosecutions have been taken under this clause, but it is probable that in future years they may be considered advisable.

In some parts of the district there are many underground cellars inhabited, which are extremely unhealthy from want of light, ventilation, and drainage. The Metropolitan Local Management Act, sec. 103, prescribes that the District Surveyor shall report to the Vestry all cases in which rooms or cellars are occupied contrary to the Act. There is a certain standard prescribed for those inhabited before the passing of the Act, and a little higher one for new houses; and if these standards are not reached the places are illegal, and the owners are liable to a heavy fine if they allow them to be tenanted. The requirements are not stringent enough, but such as they are ought to be enforced. There are many of these kitchens to which I have not had time during the past year to direct attention, from press of other business. It is very desirable that a complete return of them should be obtained.

<sup>\*</sup> By this I mean the average of the differences between the maximum and minimum temperature in each 24 hours. This item is very important in a sanitary aspect, as it measures to some extent the sudden changes of temperature, and the difference between night and day temperature.

Whilst condemning existing dwellings, and using means to render them less thickly peopled, it is of the highest importance that means be taken to provide suitable dwellings for the poor.

I should be glad to call your attention to the operations of the Metropolitan Association for improving the dwellings of the industrious classes, and of the Society for Improving the Condition of the Labouring Classes. The former Association has erected one large building in this parish, called Pancras Square. There are 110 sets of rooms. Each set of rooms has a separate kitchen range, boiler, and oven; it has a scullery with a supply of water, a place for dust, and a separate water closet. The rents of the sets of two rooms vary from 4s. to 5s. 6d.; for three rooms from 5s. to 7s. This building has paid very well even as a commercial speculation.

There are also some model buildings near the Bagnigge Wells Road, built by the Society for Improving the Condition of the Labouring Classes. These are small houses with two floors, adapted for 23 families and 30 aged women. The rents of families are from 4s. to 6s. per week; those for single women 1s. 6d. per week.

The health of the tenants of these places has been found by statistics to be very much better than that of those living in the houses around. The moral and social benefits conferred by these buildings have been immeasurable.

The Society for Improving the Condition of the Labouring Classes, whose offices are in Exeter Hall, has during the year 1856 been engaged on the important experiment of determining how far existing courts, lanes, and alleys can be cleansed, improved, and made fit for human dwellings at such a cost as to be remunerative. The experiment has been made in three places of the most unpromising character: Wild Court, Drury Lane; Clark's Buildings, St. Giles's; and Tyndall's Buildings, Grays Inn.

So far, there appears to be every probability of the expenditure being a fairly remunerative one, but sufficient time has not elapsed to give complete proof on the point.

By the 14th and 15th Victoria, cap. 134, it is in the power of the Vestry to build lodging houses for the poor, and provision is made for borrowing the money from the Public Works Loan Commissioners, and defraying the expenses of the works by an improvement rate. By another Act of Parliament, 18th and 19th Vic., cap. 132, any number of persons not less than six may form a corporate company for the purpose of building such lodgings.

There are several places in this Parish well adapted for Model Lodgings. There is one near Hunter Street, Brunswick Square, where there is a large open space and a number of dilapidated houses, called Compton and Poplar Places, at present in a fearful sanitary condition, which may be purchased at a moderate price.

I believe that gentlemen of property could not possibly do anything more likely to benefit their fellow-men than to enter upon such undertakings as have been adopted by the two societies mentioned. The main things requiring improvement in the houses of the poor are—the water supply, which should be laid on to each floor, the ventilation, the drainage, the water closets, and the dust bins. In addition, there is needed the appointment of a trustworthy person to look after the premises, and see that they are kept in good condition.

An Association was, in 1854, established in St. Marylebone of a kind similar to the ones above alluded to, and has carried on its operations with great success. It now possesses three distinct sets of houses,—Christ Church Buildings for 30 families; Lisson Buildings for 28 families; and 16 eight-roomed houses in Gray's Buildings, Duke Street. The scheme is self-supporting, and appears likely in a short time to pay a fair dividend. The Charter contained no provision for borrowing any money, so that the capital was all raised by shares.

The Society for Establishing Public Baths and Wash-houses have also conferred much benefit on the working man. They have a large establishment in George Street, Hampstead Road, in which there are 75 single baths, 12 vapour and shower baths, and 2 swimming baths. The washing department contains 103 washing tubs with a boiler to each, 8 wringing machines, 18 mangles, 35 drying closets with every other Laundry accommodation, so as to serve for 500 washerwomen daily.

The department for cleansing and purifying the dwellings of the poor supplies lime wash and chlorides, with the use of pails and brushes, at a very trifling cost.

During last year 83,737 persons have used the baths, whilst the clothes of 423,148 poor persons have been washed, and 4,157 sets of rooms have been cleansed and purified.

The benefits of this establishment are immense, by promoting habits of cleanliness, and placing the means of bathing within the reach of nearly all; but for the very poor *free* baths are desirable.

The Laundry department is of great value in affording the poor housewife an opportunity of washing and drying her linen away from her one room, in which the family have to live night and day. I have frequently seen a small room of this kind with from four to eight or even ten inmates, rendered doubly unhealthy by these laundry operations, which produce a damp and almost malarious atmosphere.

This Society has recently spent a considerable sum for new apparatus, and their funds are at present rather low. It would be well if another such establishment existed in the neighbourhood of King's Cross, in Somers Town, or the Pancras Road.

## HOUSE DRAINAGE.

A great deal has been done during the past year in the improvement of house drainage. No fewer than 900 houses have had their drainage improved in consequence of representations made to the owners. 329 cesspools have been filled up. In some cases these cesspools were within the four walls of the house, under the staircase or in the cellar, and were thoroughly poisoning the dwellings in which they were situated.

Wherever it has been practicable, cesspools have been filled up, and glazed pipe drainage, with a pan and water supply, substituted for the open privy. In order to render this possible, it is necessary that there should be a sewer within a short distance of the house, and many cases have come under my notice in which cesspools cannot be abolished from the want of such a sewer.

Scarcely anything has this year been accomplished by your Board in the matter of new Sewerage. It is to be hoped that this very important part of your functions will be actively exercised in coming years.

The following is a list of *some* of the places without a main sewer. Those marked with an asterisk have been brought forcibly under notice by frequent complaints, or prevailing sickness during the last year.

In Ward I. — Green Street (Great & Little), Kentish Town.

Mansfield Place, Kentish Town
Prospect Place, ditto
Spring Place, ditto
Wesleyan Place, ditto
Willow Walk, ditto
\*Crown Place, ditto

In Ward II. — Exeter Street

Moreton Street

Lewis Street

Grafton Terrace

In Ward III.—Little Camden Street

\*Torriano Avenue

King Street (North & South), Camden Town

Queen Street

Little Randolph Street

In Ward IV.—Park Village West
Warren Street, Camden Town

In Ward V. — \*Southampton Cottages, Euston Square \*Seymour Row, Euston Square

In Ward VI.—Canterbury Place, Pancras Road
Essex Street, King's Cross
\*Ashby Street, King's Cross
Northampton Street, King's Cross
Lower end of Norfolk Street
Suffolk Street (East and West)

In Ward VIII.—\*Upper James Street, Wellington Square

\*Wellington Square and Place
and many of the Mews in the Parish.

The principle upon which I have acted in the removal of nuisances, has been not to make any representations to you without good reason, but in all cases where there has been good cause to follow up the evil until everything possible in the case has been remedied. The adoption of this course has been attended in many cases with delay, and has sometimes given offence to parties interested. I feel assured, however, that thoroughness and impartiality are of the very utmost importance in this, as in all similar matters, are indeed the only methods of accomplishing the ends in view.

The number of cases which it has been necessary to bring before a magistrate, under the Nuisances Removal Act, has been 124; but it is believed that the proportion of cases of resistance will every year diminish, as it is seen that the notices at first issued are in all cases enforced. In a few cases measures have been taken under the Metropolis Local Management Act, by which the Vestry is empowered to do the necessary works of improvement, and to recover the expenses from the owner, in case of his failure to comply with the proper notice given to him. This Act gives more power than the other, but as yet the working of it has been attended with much more delay.

The abolition of cesspools, and emptying all their contents

directly into the sewer, render it more than ever important to look well to the main sewers, so that exhalations from them may be diminished to the utmost possible extent. A copious supply of water is one of the most important means of securing this end. It is especially necessary that all the water-closets be really, and not in name only, water-closets, with an ample supply of water always laid on.

There appears to be great difficulty in effectually trapping the sewers, and it is of course folly to attempt to trap all the entries, in consequence of the necessity of a supply of air in the sewers, and the risk of foul air forcing its way into private houses. Those gullies situated in crowded courts and culs-de-sac, where there is no free circulation of air, should, however, be in all cases carefully guarded. There can be no doubt that very many of the stinking gullies depend on a badly-acting sewer, in which the slope or form is defective, or through which from some cause the flow of fluid is impeded. The possibility of ventilating sewers has often been discussed, and is a question of great importance, but is one on the practical details of which I do not at present feel competent to give an opinion.

### REMOVAL OF DUST.

The arrangements made for this purpose do not yet work nearly so well as could be desired. There are constant complaints made that the dustmen refuse to remove it from the houses of the poor unless they are paid for their trouble. The effect of this is that the dust-bin becomes full, and the refuse is then scattered about the yard, in the back kitchen, or cellar, where the vegetable and animal matter is allowed to rot.

I trust that some measures will be devised by the Committee of Works by which this evil may be remedied. If the penalties to which the dustman is liable for neglect of duty were rigidly enforced, there would in a short time be a great improvement.

#### PAVING AND SURFACE DRAINAGE.

The condition of roads, especially in narrow and crowded streets, exercises an important influence on health. Where the paving is bad, water with animal and vegetable refuse remains in holes, and gives off pestilential effluvia, which exercise a very depressing effect on the human constitution.

There are two streets, Haverstock and Hethersett Streets, on which I have several times reported, where, from the want of surface drainage, the health of the inhabitants is suffering. In the neighbourhood of St. Jude's Church, Gray's Inn Lane, the roads are in a fearful state; as also in Agar Town, and there is no doubt that the

constant moisture arising from them, together with decomposing organic matter, exercises a very pernicious effect on the health of the inhabitants.

I am glad to hear that the Vestry have arranged to make roads in Agar Town, and hope they will soon take in hand the other districts.

# WATER SUPPLY.

On this subject I hope shortly to give a separate detailed report, and in it I shall also allude to the soil of the Parish.

# OFFENSIVE OR NOXIOUS TRADES.

There are in this Parish a considerable number coming under the above designation. The slaughter-houses have been fully examined during the year, and have been licensed under the Metropolitan Market Act. One underground place, totally unfit for slaughtering, was licensed in spite of the opposition of the Vestry. The whole of the licensed places are now periodically inspected, as frequently as other engagements will permit, by the Sanitary Inspector, and any butchers proved to be killing in unlicensed places are prosecuted. Three have been fined during the year for the last offence. There is no doubt that a great improvement has taken place in the slaughterhouses of the Parish; but still there are too many of them in crowded districts, and unless great cleanliness is observed in these, it will be advisable for the Vestry to oppose the renewal of the licenses hereafter. It is impossible that slaughtering of animals can be carried on amongst a dense population without proving more or less injurious to the public health. This it does in several ways, by occasioning the escape of effluvia from decomposing animal refuse into the air and along the drains, and by the numerous trades to which it gives rise in the neighbourhood which are offensive and noxious, such as gut spinning, tallow melting, bladder blowing, and paunch cleansing.

It is to be hoped that the licensing of innumerable small slaughter-houses is only a temporary measure to give place to the adoption of a few public slaughter-houses in open situations, and regularly open to constant inspection. One very great evil in allowing slaughtering on a small scale, is that it affords facilities for the disposing of diseased animals. There is no doubt that a large number of diseased cattle are slaughtered and sold as healthy meat.

During the last few years there has been a very fatal epidemic prevalent amongst cows in London, attended with low inflammation of the lungs and pleuræ, and at the present time a much more serious epidemic of a fearfully destructive character is with good cause apprehended. There is ample proof that nearly all the diseased animals have found their way into the butchers' shops, and have been eaten either in joints or minced up into sausages or saveloys. Very recently I found in the Slaughter Houses of the New Cattle Market on one day three diseased animals just slaughtered; and the meat was about to be sent to Newgate Market, for sale as human food. If this is done in a public slaughter house in open daylight, what may we fairly expect in places less readily open to view? On another occasion, in the same place, I found a beast, suffering from an aggravated form of lung disease, just about to be killed. This place appears to be entirely without authoritative inspection.

Facts recently published in a letter addressed to Sir George Grey on the cattle plague and diseased meat in relation to the public health, by Mr. J. S. Gamgee, portray in the strongest colours the evils of the present state of things. Just now, when there is reason to dread the inroad of a murrain from the Continent, it appears the more necessary to call attention to these evils, which require the most immediate interference of Government.

## COW HOUSES.

Several cases have occurred during the year of manifest injury to health and even accelerated death from these places. I hope soon to lay before you a set of regulations, which I would recommend for adoption, to keep these places in a state more tolerable, both to the cows themselves and to neighbouring inhabitants. In several cases improvements have been ordered in these places and effected; but the evils are so great and extensive that measures of a more radical nature are required. Independently of the nuisance to the neighbourhood, and the injury to health by furnishing unwholesome milk, there is another most serious aspect of the London system of cowkeeping. The want of ventilation and cleanliness renders the cows particularly liable to diseases, especially those of the lungs, the skin, the udder, and the feet. These diseases, so long as they do not interfere materially with the supply of milk, are almost unheeded, but so soon as this fails to such an extent as to render the cow more expense than profit, she is sent to the butcher, and is made to supply the meat market with food of a most unwholesome kind.

#### GAS WORKS.

These are monster nuisances. During the year, in consequence of representations made to the Imperial Gas Company, one part of their process has been conducted under cover, which was formerly carried on in the open air.

The Association of Officers of Health have been inspecting a number of the Gas Works in London, and will before long report on the subject. It is hoped that by seeing a number of Works the best means for preventing nuisance will be learnt, and it will then be in the power of the Vestry to enforce the adoption of those means. It has been found that in the best regulated works *some* annoyance is occasioned, but in others badly managed the nuisances are much increased, and are such as ought not to be tolerated.

There are many other trades which may fairly come under the category of nuisances, such as tallow melting, tripe dressing, catsmeat cooking, and fish frying, of most of which complaints are often received. No other power appears at present to belong to the Vestry in reference to these trades than to enforce cleanliness and the adoption of the best practicable means to prevent nuisances. This power has been exercised in the case of tallow melters and fish fryers on two or three occasions during the past year, by enforcing the use of improved apparatus for passing the fumes through the fire, or carrying them immediately into the flue.

Laystalls for the deposit of road drift, and the contents of dust carts, are very offensive and injurious to health. Three of them, situated in Agar Town, are at present undergoing prosecution by the Directors of the Poor.

The Mews throughout the parish require thorough improvement as regards pavement, drainage, and the arrangements for the removal of manure. Where people live over the stables, as is usually the case, great alterations are called for. Large quantities of ammonia and other gaseous products of decomposition are evolved, and render the rooms above quite unfit for human beings, especially children.

#### BURIAL GROUNDS.

All the old burial grounds in the parish are now closed, for the purposes of interment, except in one or two cases, where burial is permitted in a family grave. The last one that remained open was that of St. Andrew's, Holborn, situated in Grays Inn Road, on which I reported in August last. It has been since that time closed by order of the Secretary of State.

It is very important that the old burial grounds should be well covered with grass, and suitable trees planted, as the best means of disposing of the injurious emanations arising from the soil.

In the vaults under some of the Churches are many corpses

buried, which are undergoing slow decomposition in leaden coffins, and though not perceptibly in many cases, yet really polluting the atmosphere.

I have visited nearly all the vaults in the Parish; the condition of them was not so offensive as I had expected. In some of them very large numbers of coffins lie piled on each other to a height of six or seven feet, over the entire area of the church.

It would be well if, by some Act of Parliament, arrangements could be made for removing them all to some Cemetery, or if this be impracticable, that the vaults be filled up with charcoal or other disinfecting material, and then hermetically sealed as far as this can be effected.

# UNWHOLESOME FOOD.

I have already reported on Milk as sold in this Parish, and I believe that no article of nutriment so much affects the public health as this; in consequence chiefly of its employment in the early periods of life, when the tissues are being framed, and the whole system is very weakly and delicate. So long as the cows are kept as at present it will be impossible to have a supply of wholesome milk.

Bread, as the most important article of food, has very naturally engaged my attention. The employment of Alum in bread by the bakers is almost universal. I have only met with two cases of freedom from it out of many specimens examined. No doubt the effects of the alum are to render the bread whiter, to give it a crisper crust, a cleaner fracture, and make it some what 'lighter.' It also renders the flour more retentive of moisture, so that more bread can be made of a sack of flour with than without alum. Bread without alum, when a day or two old, 'crumbles' very readily; whereas, bread with alum, however old, is tough and will not readily crumble. It is probable too, as suggested by Dr. Odling, that alum prevents the conversion of starch into sugar in some cases when the wheat has sprouted. The worse the flour the larger the quantity of alum used. The use of alum in bread is partly the fault of the public, who will insist upon having very white bread with a smooth fracture. The baker, however, is glad to take advantage of this taste, because by the use of this ingredient he can employ a worse quality of flour than he could otherwise dispose of.

There is a penalty of £10 for the adulteration of bread with alum (1 & 2 Geo. IV. cap. 50, sec. 6). It becomes a question for serious consideration, whether it would be well to prosecute the bakers under this Act, or what measures are best calculated to check the adulteration. There are some persons who go so far as to say that alum is an improvement to the bread; but, in my opinion, the alum is injurious, and certainly those who wish to get their bread unadulterated should be enabled to do so.

Four Bakers, who were examined by the Sanitary Committee on the subject, all admitted that bread would be very much better without this ingredient, but that the public compelled them to use it, by insisting on having a very white bread at a cheap rate. Nearly all bakers use a small quantity of potatoes to assist fermentation. These are not injurious, though not so nutritious as wheat flour. The adulteration of all kinds of food, which are practised to an incredible extent, are of themselves more than enough to engage the time of one person.

Under the head of unwholesome food should be mentioned putrid meat, poultry, and fish, the flesh of diseased animals, and decaying fruits. Many of these things have been seized during the year by your Inspector; but it is impossible for one man, with a hundred other duties, to do much towards suppressing such a wide-spreading evil as this is in so large a district as St. Paneras. It was only last week that 13 quarters of stinking veal, about to be cut up for sausages, were seized by the Inspector in Somers Town with my sanction. The owner had the meat forfeited, and was fined 20s.

# ABSTRACT OF SANITARY WORKS PERFORMED UP TO MARCH 25th, 1857.

1550 places have been inspected and reported to the Medical Officer of Health.

110 slaughter-houses visited (on the average 6 times each.)

With reference to 1007 places, notices have been served requiring sanitary improvements. Of these notices 837 have been complied with; 170, of which 87 have been served within the last month, have not yet been fully attended to; many of them are however in progress.

Summonses have been taken out against 61 persons for nuisances in 124 places. Of these only 6 have been lost, chiefly from disputed ownership.

In compliance with notices,

337 houses have been repaired, cleansed, and whitewashed;

329 cesspools have been emptied;

398 cesspools have been filled up;

461 water closets have been furnished with pan and trap;

To 494 closets water has been supplied;

To 23 houses water has been supplied;

212 new drains have been made;

336 drains have been repaired;

806 traps have been put to drains;

345 yards have been paved;

13 houses have had their ventilation improved;

158 new dust bins have been made;

182 dust bins have been furnished with lids;

61 pigs have been removed;

37 manure heaps have been removed;

28 cowsheds have been cleansed and improved; and

4 new water closets have been constructed where they were much required.

The number of persons who have been called on to make these improvements was 580. The estimated cost to these individuals is about £4000; so that the expense of sanitary improvements has fallen much more heavily on private persons than on the Vestry. There can be no doubt, however, that their property has been raised in value by much more than that amount.

The above abstract does not include the work done more immediately under the inspection of the Assistant Surveyors. A very large amount of house drainage, especially in the Gray's Inn District, has been done under their supervision. Nor does it give any adequate idea of the total amount of sanitary work accomplished, for in consequence of the constant inspection, very many places have been greatly improved without any formal notice having been issued by the authorities; and much good has been effected by rendering people more alive to the value of such works.

The Inspector was not appointed until the 30th May, so that the time occupied by the works has been only 10 months. In such an immense parish a very great deal of time is spent in merely passing from one place to another. During a great portion of the year the Inspector, Mr. Newman, has attended to all the complaints of nuisances, but recently it has been arranged that the Assistant Surveyors shall attend to such as appear to indicate that structural works will be required to remove them.

Another portion of the Inspector's time is occupied at police courts, of which there are four to be attended, situated at a distance from each other. During the year between 60 and 70 summonses have been issued.

There are a large number of places in this parish which ought to be visited periodically; some quarterly, some monthly, and some more frequently. I refer to crowded courts and alleys, to mews, cowhouses, slaughter-houses, &c. &c. It is clearly impossible for one man to do this as it ought to be done. Places in which epidemic sickness prevails, of which information is received from the District Medical Officers, and the weekly tables of mortality now supplied by the Registrar-General, are visited by myself and the Inspector.

It is only right to state that very much credit is due to Mr. Newman for the zeal and energy with which he performs his duties, which are at times very perplexing.

In conclusion, Gentlemen, I may say that I feel that my Report is but an incomplete one, many important subjects have been omitted, and others, which deserved a lengthened consideration, merely mentioned, from a fear that I should weary you with details; but sufficient has, I trust, been adduced to show the manifold aspects of the sanitary inquiries upon which it is my duty to enter, to prove that your operations during the past year have not been unattended with benefit, and to encourage increased activity in the same direction.

I have the honor to be, Gentlemen,
Your obedient Servant,
THOMAS HILLIER.

21, Upper Gower Street, April 3rd, 1857.

TABLE I.—Table showing the number of Births, Deaths, and Deaths under 5 years of age registered in the Sub-Districts of St. Paneras during the 52 weeks ending December 27th, 1856; also the proportion of Deaths under 5 years of age, the number of Deaths from 6 Epidemic Diseases, and the proportion of Deaths from Epidemic Diseases and Deaths from all causes to every 10,000 Persons living.

	First Quarter.			Secon	Second Quarter. Third Quarter. Fourth Quarter.						Cotal	otals of the Four Quarters.								
	Births.	Deaths.	Deaths under 5 years.	Births.	Deaths.	Deaths under 5 years.	Births.	Deaths.	Deaths under 5 years.	Births.	Deaths.	Deaths under 5 years.	Births.	Deaths.	Deaths under 5 years.	Proportion of Deaths under 5 to number of Births.	Number of Deaths from 6 Epidemic Diseases	Number of Deaths from 6 Epidemic Diseases to every 10,000 living.	Proportion of Deaths from 6 Epidemic Diseases to Deaths from all causes.	Proportion of Deaths from all causes to every 10,000 living. *
Regent's Park .	258	146	46	264	146	51	232	150	88	232	154	66	986	596	251	1:3.9	112	31	1:5:32	186
Tottenham Court Strand Union	216	143 38	65 14	232	} 142 26	61 12	192	137 24	80 4	211	134 38	66 11	851	556 126	272 41	1:2.84	109	35	1:6:1	213
Gray's Inn Somers Town	234 328	124 183	47 63	186 340	114 165	45 75	199 299	133 194	58 107	218 293	139 181	71 91	837 1260	510 723	221 336	1:3.8	110 133		1:4·6 1:5·44	196 208
Camden Town . Workhouse	247	106 124	46 25	193	96 96	47 20	220	109 57	61	231	95 87	39 11	}891	406 364	193 63	}1:3.5	76 40	32.4†	1:5·34 1:9	190
Kentish Town .	300	131	52	307	122	62	316	157	78	303	166	81	1226	576	273	1:4.5	87		1:6.6	184
The whole Parish	1583	995	358	1522	907	373	1458	961	483	1488	994	436	6051	3857	1650	1:3.7	667	35	1:5:76	196

The total numbers of Deaths have been corrected by deducting those Deaths in the University College and Royal Free Hospitals which were of residents in other Districts; and distributing the Deaths which occurred in the above-named Hospitals, and also those in the London Fever and Middlesex Hospitals which were of St. Paneras residents to their proper Sub-Districts.

\* The items in this column are calculated by omitting altogether the Deaths in the Strand-Union (as not properly belonging to this Parish), and distributing the Deaths in St. Paneras Workhouse amongst the several Sub-Districts according to their population. The Population has been estimated as explained in my First Monthly Report. After making these corrections the Mortality of the Sub-Districts and the whole Parish would stand thus:

Regort's Park 663. Tottenham 613. Gray's Inn 567. Somers Town 794. Camden Town 450. Kentish Town 644. The entire Parish 3731.

+ If the Deaths in the Workhouse be included this number would be raised to 46.

# TABLE II.

Deaths from Small Pox, Measles, Scarlet Fever, Hooping Cough, Diarrhea, and Typhus in the several Sub-Districts of Saint Pancras during the year 1856.

		-			CONTRACT	CIA WA	4 1	
Sub-Districts.	Color of the color	Small Pox.	Measles.	Scarlet Fever.	Hooping Cough.	Diarrhœa.	Typhus.*	Sum of the Six Diseases.
Regent's Park .			16	16	25	23	32	112
Tottenham Court		5	12	16	18	29	29	109
Gray's Inn		2	20	20	9	26	23	110
Somers Town		4	25	19	34	17	34	133
Camden Town .		2	12	11	28	22	41	116
Kentish Town .		5	4	13	28	24	13	87
Totals for 1856		18	89	95	152	141	172	667
Totals for 1855		42	53	229	167	120	121	732

<sup>\*</sup>In this column are included 32 Deaths in the London Fever Hospital.

#### TABLE III.

Saint Pancras, Middlesex.—Cases of Sickness under the care of the District Medical Officers during the 52 weeks, ending the 28th day of December, 1856.

Districts.	Names of Medical Officers.	Total No. of Cases.	Low Fevers.	Diarrhœa.	Scarlet Fever.	Small Pox,	Measles,	Hooping Cough.	Other Diseases.
North-West	Mr. Adams	1903	91	97	28	1	90	34	1562
South-West	Dr. Wildbore	2487	91	88	8	30	99	48	2123
South-East	Dr. Davis .	1612	34	141	29	8	91	24	1285
Central	Mr. Sutherin	1512	48	174	12	11	70	31	1166
North	Mr. Jefferys	1541	38	128	17	14	31	19	1294
Totals -		9055	302	628	94	64	381	156	7430

These Districts, unfortunately, do not correspond with the Registration Sub-Districts adopted for the Returns of Mortality. As determined on 1st July last, the North-West District includes nearly all the Regent's Park and a small part of Somers Town Sub-District, the South-West includes Tottenham Court and a small part of Regent's Park Sub-District, the South-East includes Gray's Inn and a part of Somers Town, the Central includes a great part of Somers Town and a small part of Camden Town, the Northern includes all Kentish Town and a part of Camden Town.

In 1855, the total number of cases under treatment was 10279; and in 1854, 11803.

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To be considered by the Vestry on Thursday, the 25th June, 1857, at Three o'clock.

# SAINT PANCRAS, MIDDLESEX.

# THE SANITARY COMMITTEE

REPORT—That the Medical Officer of Health has presented to your Committee the following Report on the Cow-houses in the Parish, which Report they submit to the Vestry for consideration.

# TO THE SANITARY COMMITTEE.

GENTLEMEN,

I am anxious to-day to bring under your notice at some length the condition of the Cows and Cow sheds in this district. On a previous occasion I presented to you certain forms which I had drawn up for the purpose of recording the state of these places after inspection. These forms have now been filled up with some care, and are presented to you to-day. They contain an account of the dimensions of each shed, of its paving, drainage, ventilation, cleanliness, general state, provision for water supply, receptacles for manure and various kinds of food; also the state of the yards attached to the sheds, the nearness to houses, general management of the establishment, apparent health of the cows, and various other particulars. Each place has been visited once at least by myself and several times by the Inspector.

The number of cows kept in the parish is between fourteen and fifteen hundred. There are 92 establishments, in which there are about 141 distinct sheds. They are distributed through the district as follows:—

In Ward	I.	there are	2000	In Ward	V. there are	19
17	11.	"	4	"	VI. ,,	14
"	ш.	"	8	. ,,	VII. ,,	16
37	IV.	- 37	4	"	VIII. ,,	13

In situation they vary extremely; some are well placed on sloping ground with good drainage at a moderate distance from houses. Of the whole number, however, there are only 22 which are not

very near to inhabited dwellings. Others are almost underground; 20 have inhabited rooms over them; many are completely shut in amongst houses densely peopled so that there is little or no circulation of air, and the noxious exhalations from them are allowed to stagnate and accumulate. In some instances the sheds may be said to form parts of dwelling houses. In respect to their size there is great variety; the cubic capacity of some sheds is not more than 400 cubic feet, and used for a single cow, whilst others contain 30,000 cubic feet, and hold from 50 to 60 cows. The cubic space allowed for each cow is in some as low as 230 feet, whilst a few give from 1000 to 1,500 feet, which is not at all more than the cows require. There are 65 sheds in which each cow has less than 500 feet allowed to it.

As regards *Paving* there are very few in a satisfactory state; the material employed is various; in the best it is asphalte or flags. The most usual material is bricks; these even when well laid are not quite free from objection on account of their porosity, allowing liquids to saturate and pass through them to the subjacent soil; but in the majority of cases the bricks are very badly laid. There are 30 sheds whose paving is of the worst description.

As to Drainage, about half are not to be complained of, whilst from 20 to 30 are very bad. In some instances the drains pass under dwelling houses, and thus usually create a great nuisance.

Very few are efficiently ventilated, whilst from 40 to 50 are as bad as they can be in this respect. The object of some cowkeepers is to keep their cows as hot as possible, seeing that warmth favors the formation of cream, whilst the general health of the cow suffers. The effect of a great difference in temperature between the interior of the shed and the external air is to produce very violent drafts whenever there is an opening into the shed, and the cows from being constantly kept too warm are especially susceptible to colds and inflammation of the lungs from these occasional currents of cold air. The ventilation should be so arranged as to be constant and not attended with a perceptible draft. About 40 of the sheds are kept in a most filthy condition.

Of the Yards, some are large, well paved and drained, and tidily kept. In 16 instances there are no yards, so that the manure and fodder are either placed in the road or in the sheds themselves. Many yards are unpaved, or with the pavement in deep holes, and very badly drained. Seven sheds are without water supply. The Manure is kept too long on the premises in 76 cases. In 63 there is no suitable pit for it; in scarcely any is the place covered over. Occasionally the manure heap is immediately under the windows of dwellings houses, and is in some instances the receptacle for the

contents of a privy. The washings from the manure are frequently allowed to run over the yard or into the street. The grains on which the cows are fed are usually kept until they are sour and give out an offensive smell. In 17 sheds the cows drink distillers' wash, which is kept in uncovered receptacles, and is very stinking. In addition, there is often vegetable matter lying about the yard in a rotten state. In 15 of the sheds pigs are kept as companions to the cows. Some of the animals are kept very clean, being curried and attended to in the same way as horses. In many instances, on the contrary, they are fearfully neglected, and their coats are either one entangled mass of filth, or else are nearly free from hair owing to a diseased state of the skin.

The majority of the cows are kept in the sheds through the year; some, however, especially in the North of the Parish, are sent out to grass during the summer months.

What are the effects of such a condition of things as I have described? It might be suspected that animals thus kept would be very liable to the inroads of disease, and experience has fully confirmed the suspicion. Many of the London cowkeepers within the last twenty years have been nearly ruined by the ravages of disease amongst their cattle. One gentleman, who keeps a large number of cows, informed me that in one year he lost more than ninety. Another, who kept about fifty cows lost three hundred in six years; he has sent away as many as twelve in the week with the disease. Another, who keeps four or five hundred cows, does not consider it bad luck to have to part with two cows weekly through the year on account of sickness. I do not mean to say that cattle diseases never prevail in the country; but even there cattle are not always kept in an unexceptionable manner. Dr. Greenhow, in a recent Report to the General Board of Health, on murrain in horned cattle, says, "the pulmonary murrain does not appear to be more prevalent in London than in the country." There is, however, the utmost difficulty in judging of the extent and fatality of cattle diseases in London as compared with the country, on account of the general practice adopted by dairymen with their cows when ill; they very seldom submit them to treatment, but so soon as the milk fails send them to market, or sell them to parties who go round to obtain such animals.

In relation to this subject may be mentioned with advantage the conclusions at which the Cattle Insurance Companies have arrived. They charge for insuring dairy cows in the country from 6d. to  $7\frac{1}{2}$ d. in the pound, whilst for dairy cows in London they charge from 1s. 6d. to 2s. in the pound, "dependent on mode of lodgment and general management," so that they consider the risk on town cows to be three times as great as that on country cows. They will not hold themselves

in anyway responsible until twenty-one days have elapsed from the payment of the premium; and thus they avoid a very vast amount of risk, for it is well known that animals recently brought into sheds are more liable to suffer from the lung disease than those which have been some time in the sheds.\* It is clearly the interest of these companies to charge as moderately as the risk will allow; and they have no doubt adopted their standard as the result of large and carefully considered experience.

With eattle as with man nothing tends so much to check the spread of disease as a good supply of pure air. The disease which has been most fatal to cows for some fifteen years past is pleuro-pneumonia, generally known as the lung disease, a disease believed to be contagious, now prevalent in Mecklenburg and Holstein, quite distinct from the steppe murrain which prevails in the South of Russia. The general impression in the trade appears to be that this lung disease is now nearly the only fatal disease to which cows are liable. There is, however, great ignorance on the subject of cattle diseases, and it is not at all unlikely that several diseases may be grouped under the category of the lung disease, which is no doubt the most common one.

The foot and tongue disease was formerly the prevalent epidemic amongst cows; but of late years it has become quite rare. The mange, a contagious disease answering to itch in man, is occasionally found amongst the London cows. Diseases of the udder are not infrequent.

The health of the public is intimately associated with that of the cattle in several ways. In the first place, the milk of diseased animals is unwholesome, and the effect upon infants who are often solely dependent on this for nourishment cannot fail to be most injurious. Some persons, indeed, have stated that diseased cows do not yield milk; this I know to be incorrect, for I have seen a cow in an advanced stage of disease yielding milk. In one instance, I examined a specimen of milk from such a cow; under what disease this was labouring I could not ascertain. I found the milk to be rather pale and watery in appearance; but it yielded an unusual quantity of pale colored cream, and the reaction was abnormally alkaline. No doubt in acute diseases the milk generally fails; but so completely do many London dairymen regard cows as their machines to supply milk that they seldom notice other symptoms until the milk fails. I do not, however, think from what I have been able to learn that there is much milk sold in this parish from cows actually

<sup>\*</sup> One dairyman informs me, that in one place in this parish his cows seldom remained in the shed above two months without having the disease. If they passed this period they seldom became ill.

diseased. But even where they are not in a state that would be usually considered diseased, there is reason to think that the milk of cows kept constantly in close confinement in ill-ventilated sheds and fed constantly on grains and wash instead of fresh green food is unwholesome especially to young children. A medical friend of mine informs me that his own child constantly suffered from diarrhea and pain, so long as it was fed on the milk of stall fed cows, but that these symptoms subsided at once on the substitution of milk from a cow at grass; he has also noticed similar circumstances with many other children. Other medical men have had similar experience.

The obvious physical characters of the milk are not it is true much affected by the mode of keeping the cows. I have examined several specimens of milk brought directly from cows kept in some of the closer sheds; when the animals are fed on wash this may usually be detected by the smell. The quantity of cream is certainly rather above than below the average, and the amount of solid matter generally is not diminished. I have not found, as stated by some, that the reaction is less alkaline than that of country milk. None of these things, however, prove that the milk is wholesome. This question is certainly one on which additional evidence would be valuable.

Another method in which the diseases of cattle affect the health of man is by supplying the market with diseased meat. There is abundant evidence to show that as a rule the flesh of all cows, however diseased they may have been, is sold in some shape or other as human food. The flesh of animals in some states of disease is probably not injurious; but with other diseases it is most pernicious. Present regulations afford little or no security against the consumption of the worst kinds of meat. It is true that the Sanitary Inspector has power to seize any meat exposed for sale which he considers to be unfit for food, and meat of this kind has been frequently seized by your Inspector; but in the first place it is impossible for any one, however experienced, to distinguish many portions of the flesh of a diseased beast, unless he can see the whole carcase; and again, in a district so extensive as this, it is impossible for one man whose time is fully occupied with other duties to do much towards a regular and constant inspection of nearly a hundred slaughter-houses, besides all the butchers and sausage-makers' shops. I believe, however, that for the most part the quality of meat sold in this Parish is far superior to that sold in many parts of London.

Another evil of the present state of things is the direct nuisance arising from the sheds and yards. Within the past twelve months several distinct cases of injury to health from these places have

come under my notice. There are three houses in Cumberland Market at the back of which is a cow-shed; in these houses measles of a most virulent form and low fever have been present, and proved fatal to three persons. These deaths were ascribed by the Medical Attendant in great measure to the offensive effluvia from the cowhouse. Another case in Little Drummond Street was noticed in my Seventh Monthly Report, where a death was ascribed to the proximity of a cow shed. We may be sure that for every single case that comes to light there are many others that remain in darkness.

I am convinced, gentlemen, that you will not allow the present state of things (fraught as it is with such serious evils) to continue unchanged. In what way can a remedy be provided? The most effectual remedy would be to remove all cows out of the metropolis. This, however, is a measure not to be taken hastily or without consideration, and could only be carried out by an Act of Parliament. It would, of course, be attended with temporary loss to individuals; and it would probably be right that in some cases compensation should be made. Several cowkeepers have, however, expressed to me a wish that it were adopted, and have stated that in their opinion it would be a benefit to the trade generally. At the present time very large quantities of milk are brought into London by rail from the country. In 1853 it was estimated that the quantity of milk brought by rail was three million quarts; since then the amount has largely increased. In this parish there is about one cow for 136 persons. Each cow may be reckoned to give on an average about nine quarts a day, which become probably about twelve after a due use of the pump. This gives about a quart for every thirteen persons, which is no doubt considerably less than the amount consumed by the inhabitants of this parish.

If immediate expulsion be deemed too severe a measure, a system of licensing and registering each shed and each cow might be devised. No shed should be licensed until it came up to a certain prescribed standard, and should only be permitted to hold a fixed number of cows. No cow should be placed in a shed until it had been marked and registered. On the illness of any cow notice should be given to the Inspector, who should consult with some skilled person as to the course to be adopted with it, and if slaughtered whether it should be allowed as human food.

This, however, could only be effected by an Act of Parliament, which will certainly not be passed at once. The question then comes what *immediate* steps can be taken under existing laws, and what powers are possessed by your Board at the present time?

The only Act at all applicable, so far as I know, is the Nuisances

Removal Act. By the 8th section of that Act, any animal so kept as to be a nuisance, and any accumulation which is a nuisance or injurious to health are defined to be nuisances contemplated by the Act, unless the accumulation be absolutely necessary for the carrying on of a trade, and be not kept longer than is necessary for the purposes of such trade.

It is in the power of the magistrate before whom a complaint is made to order such works as may be necessary to prevent the recurrence of the nuisance. Now, in my opinion, in order to prevent the recurrence of nuisances arising from cow sheds in crowded districts, it is necessary that the sheds be sufficiently capacious, well ventilated, paved, drained, properly supplied with water, also furnished with suitable receptacles for manure and fodder; it is also requisite that the sheds and yards be well cleaned twice a day, and the manure be removed frequently, and before eight o'clock in the morning. It would probably be advisable in the first place to address to all the cowkeepers a letter of advice somewhat to this effect:—

"The Vestry of this Parish having received constant complaints of the condition of the cow-houses in this district, and believing that their present state is very prejudicial to the health of the community, after consideration of the subject have come to the conclusion that these establishments require a very complete reform, and can only be tolerated in the district under the following conditions:—"

Then should follow the regulations.

"If within a month from the receipt of this letter your premises are not in a satisfactory state, it is the intention of the Vestry to take legal proceedings against you."

It is no doubt to the interest of the cowkeepers if they wish to remain in London to put their houses in order, as this is the only chance they have of being tolerated. Some of them, conscious of this, have formed an Association in self-defence. All who join it are required to conform to the following regulations:

"To cause the houses, barns, sheds, or other buildings in which the cattle are kept to be thoroughly cleansed every morning and evening. To do all in their power to remove any cause or pretext for complaint being made, or objections raised to the keeping of cows in London. To permit at any time any person sent by the Association to visit their premises, and render every facility to such persons to make a faithful report of the same. To avoid the accumulation of manure, refuse, or any other matter which shall become a nuisance, and submit to the decision of a majority of members present at a general meeting relative to the report of the visitor. To forfeit all nterest in the funds of the Association on being a second time con-

victed by a Magistrate of the Peace for any act equivalent to a breach of any of the rules of the Association."

So far as they go these regulations are very good; but they are too vague; moreover, but few have joined the Association, and it is to be feared that the most untidy cowkeepers will stand aloof, and thus not be subject to its rules.

It may perhaps be useful for me to give an outline of the way in which such establishments as these are treated in Paris. All places of business which are considered unhealthy are there divided into three classes. Before any of these establishments are permitted, certain authorisations have to be obtained. Those belonging to the first class are altogether forbidden near private dwellings; those in the second class are only allowed on certain conditions; those in the third class (to which cow houses belong) are under the constant inspection of the police.

They are not to be less than thirteen feet high; for one row of cows they must not be less than thirteen feet wide, and for two rows not less than twenty-three feet from one manger to another. The space allowed for each cow is not to be less than six and a half feet wide. On no account is any establishment to be permitted below the level of the surrounding soil. No cesspools are allowed.

I would submit for your consideration the following regulations which if enforced would secure very great benefit to the community, but would no doubt fall heavily on some individuals. They are in the main taken from a set of rules framed by a Committee of the Metropolitan Association of Medical Officers of Health, and closely resemble the regulations enforced in the city.

### I .- As to the construction of the sheds and their accompaniments.

- 1. Every cow house shall be paved with flag stones or other non-absorbent material, set and embedded in cement or concrete, with a proper inclination to the foot of the stalls so as to lead into a channel, having a fall of not less than 1½ inch in 10 feet, towards a trapped gulley.
- 2. Every cow house shall be provided with a good trapped drain for the entrance of fluid matter only into the sewer.
- 3. Every cow house shall be furnished with an adequate supply of water.
  - 4. There shall be a covered dung pit properly constructed so as

to prevent the escape of fluid from the dung into the adjoining part of the yard, neighbouring premises, or public ways.

- 5. Each cow house will be allowed to contain only so many cows as shall admit of one thousand cubic feet for each animal; it shall be properly lighted and ventilated. If the state of the neighbourhood be considered to require it, it shall be provided with tight roofing and ventilating shafts, so as to convey the noxious effluvia above the level of adjacent houses.
- 6. Every yard adjoining a cow house shall be well paved with stone or other impermeable material (the joints of the paving to be run with grout), sloped in such a manner towards the channels and a trapped gulley as to permit the rapid escape of fluids into the sewer.
- 7. The grain bins and receptacles for wash shall be kept in repair, clean, and under cover.
  - 8. In no case will inhabited rooms be allowed over a cow shed.

### II.-As to management.

- 1. The sheds shall be thoroughly cleansed at least twice a day, and the yards once a day.
- 2. All solid manure shall be carefully swept up, twice a day, and placed under cover; to be removed from the premises every morning before eight o'clock. (In the winter months, where fewer than five cows are kept, the manure may be kept till the second day.)
- 3. Every cow house shall be limewhited at least four times in the year, within a week of the quarter days.

The use of disinfecting material is to be strongly recommended, as subsidiary to other means of preventing nuisance. Various substances may be used for this purpose, as the chloride of lime, chloride of zinc, or charcoal; but I have seen none which acts so well as a patent powder introduced by Dr. Angus Smith and Mr. M'Dougall, of Manchester; it contains sulphurous acid, lime, magnesia, and carbonic acid. It has an extraordinary power as a deodorizer, and has the advantage of fixing the ammonia which many of these agents set free. Its own odour is not to most people at all offensive. It appears to arrest decomposition, and in this respect differs altogether from charcoal and many other deodorizers. It is said considerably to enhance the value of the manure to which it is added, by preventing

the escape of some of the most important constituents, especially ammonia and phosphates.

I trust, gentlemen, you will give me credit for having treated this important subject dispassionately and with some care, and that my suggestions will in the main, if not in all their details, meet with your approval.

I have the honor to remain,

Gentlemen,

Your obedient servant,

THOMAS HILLIER, M.D., LOND.,

Medical Officer of Health.

21, UPPER GOWER STREET, June 9th, 1857.

That your Committee having heard the above Report read, recommend that the following letter be sent to each Cowkeeper in the Parish, viz.:—

St Pancras, Middlesex, Vestry Offices, Pancras Road, 1857.

SIR,

This Vestry having received constant complaints of the condition of the cow-houses in the Parish and believing that their present state is very prejudicial to the health of the community, after consideration of the subject, have come to the conclusion that these establishments require a very complete reform, and can only be tolerated under the following conditions:

That every cow-house be well paved and properly sloped to the foot of the stalls, so as to lead into a channel with a sufficient fall towards a trapped gulley.

That every cow-house be provided with a good trapped drain for the entrance of fluid matter only into the sewer.

That every cow-house be furnished with an adequate supply of water.

That every cow-house be properly lighted and ventilated.

That every yard adjoining a cow-house be well paved, and so sloped towards the channels and trapped gulley as to permit fluid refuse quickly to escape into the sewer. That it be provided with a covered dung-pit, properly constructed so as to prevent the escape of fluid from the dung into the adjoining part of the yard, neighbouring premises, or public ways.

That the grain bins and receptacles for wash be kept in repair, clean, and well covered.

That the sheds be thoroughly cleansed twice a day, and the yards once a day.

That all solid manure be carefully swept up twice a day, placed under cover, and removed from the premises every morning before eight o'clock. (In the winter months, where fewer than five cows are kept, the manure may be kept till the second day.)

That every cow-house be lime-whited at least twice a year.

Inhabited rooms over cow-sheds are strongly objected to.

It is considered that each cow requires, in order to supply it with sufficient air for its health, a cubic space of not less than 1000 feet.

The use of deodorising materials is much recommended as subsidiary to other means of preventing nuisance.

If within a month from the receipt of this letter your premises are not in a satisfactory state, it is the intention of the Vestry to take legal proceedings against you.

G. W. F. Cook, Vestry Clerk.

All which, &c. ROBERT LITTLER,

Chairman pro tem.

June 16th, 1857.

it be provided with a covered dung-pit, properly constructed at me to provent the escape of fluid from the dung into the adjoining part, of the yard, neighbouring premies our public ways.

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G. W. F. Coox, Fotog Clerk.

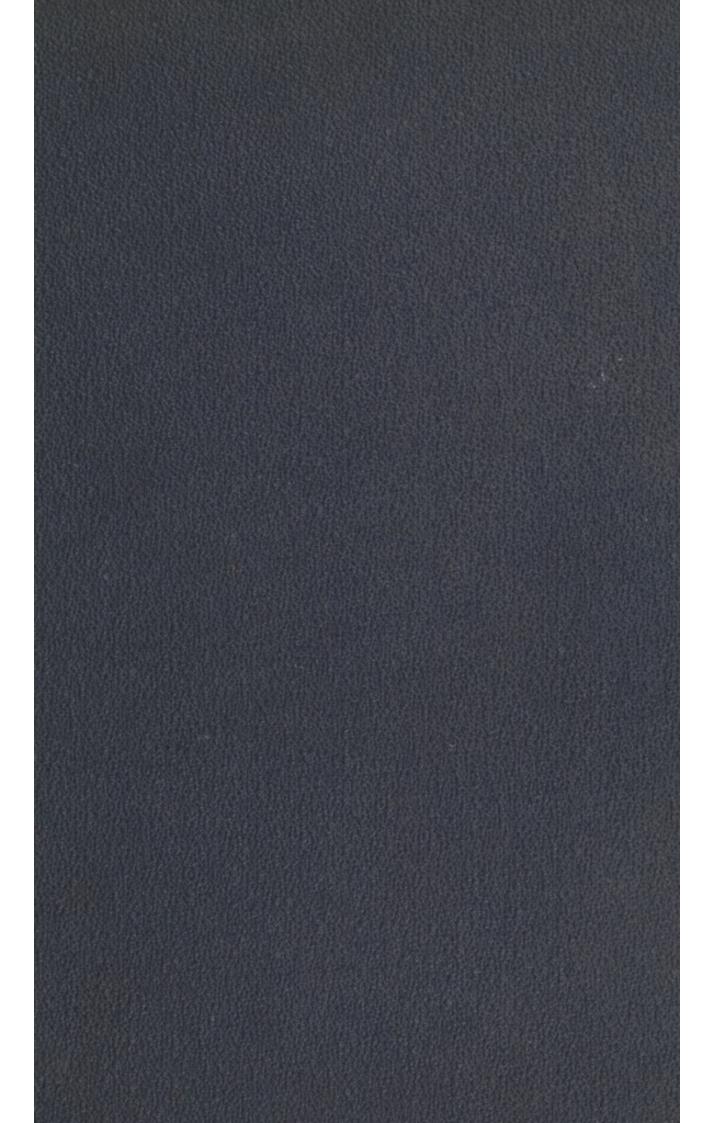
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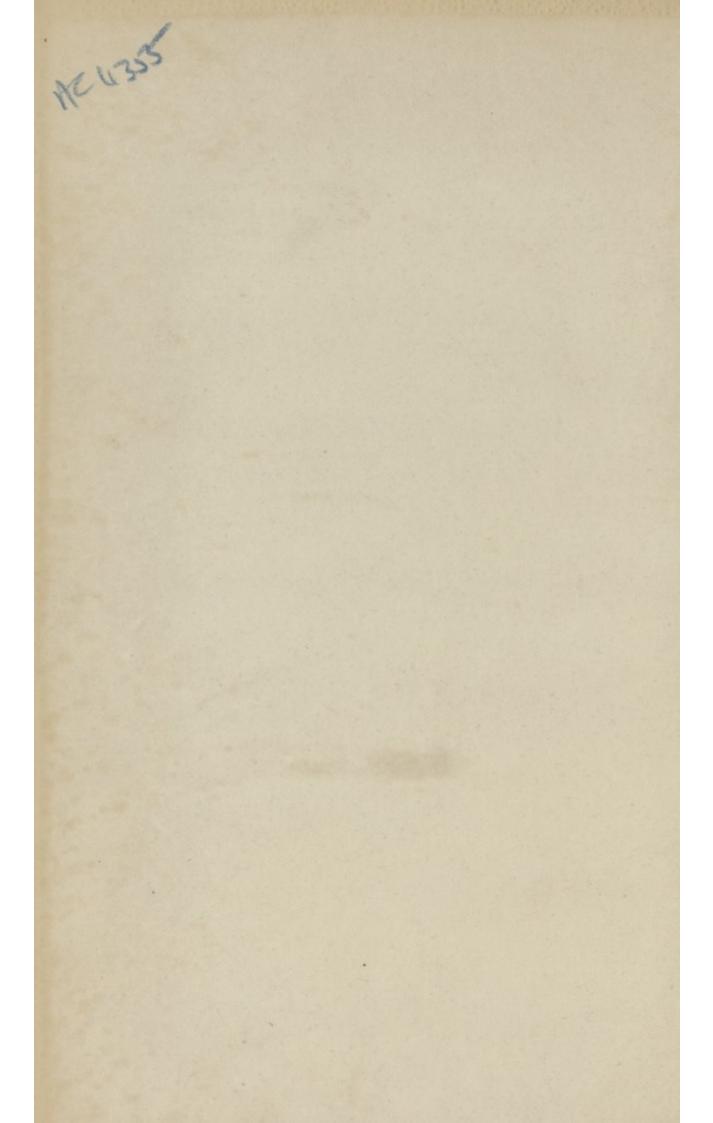
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FIRST MONTHLY SAINT PANCRAS, MIDDLESEX,

SANITARY CONDITION

#### THOMAS HILLIER, M.D.,

Medical Officer of Health for the Parish of Saint Pancras.

MAY 1st, 1856.

No. 1.

### TO THE SANITARY COMMITTEE.

In estimating the sanitary condition of a place, the method usually adopted is to ascertain the number of deaths occurring in a given period, at various ages, and from various causes, and then to calculate the proportion which the total number of deaths bears to the number of inhabitants, in the place; and the proportions which the number of deaths from particular causes, and at particular ages, bears to the total number of deaths; and then to compare these ratios with the ratios obtained by similar methods in other places.

On this plan, no cognizance is taken of the large amount of sickness which does not prove fatal, and unfortunately there is no system of registration pursued by

which we can obtain the number of such cases.

This information, in reference at least to that portion of the parish that receives parochial relief, I shall be able to obtain, by the aid of the District Medical Officers; and I hope that, with reference to the rest of the parish, by constant communication with private practitioners, and the officers of public institutions, I shall acquire a considerable amount of information.

In drawing conclusions from Vital Statistics, the utmost care is required; to render them of any great value, the localities from which they are taken should as far as possible exhibit a unity of character in all matters relating to public health; for instance, we should not unite those parts situated on an elevation with those placed on a low level; we should not combine dwellings that are very much crowded together and densely populated with those that are freely supplied with air and with but few inhabitants; nor should we take a place in which a hospital or other public institution is situated, and compare it with others, without taking this fact into consideration.

For these reasons, the sub-division of the parish into such sections as were contemplated by your Committee, who reported on this subject, is most desirable, but at the present time is impossible; for, in order to determine the per centage of deaths on the population of any district, it is manifest that we should first know what is the exact population of the place. Now the only data upon which we have to proceed are the census returns obtained in the year 1851, which refer to the entire parish, and give no information respecting any new division which we may adopt.

To obtain an approximation to the present population, the best plan is to consider that the same annual rate of increase has been going on since the last census as occurred between the last two censuses, -- namely, between 1841 and 1851.

This method, although the least objectionable, may possibly give very erroneous results, because, independently of the fluctuations occurring in the excess of births over deaths during the period, there may have been a greater or smaller proportional number of new residents in, and a greater or smaller proportional number of removals from, the district.

The division of the parish which I propose at present to adopt, is the one made use of by the Registrar General into six districts,—namely, Regent's Park, Tottenham Court Road, Gray's Inn Road, Somers Town, Camden Town, and Kentish Town. They are bounded as follows:—four of them are to the North of the New Road.—viz., Regent's Park, Somers, Camden, and Kentish Towns. Regent's Park District is separated from the others by the Hampstead Road, High Street, and Pancras Vale. Somers Town District extends from the New Road on the South to Fig Lane on the North; with Brewer Street and Skinner Street on the East. Camden Town District is bounded on the North by the Regent's Canal, on the West by Brewer and Skinner Streets, and on the South by the New Road, whilst Kentish Town District includes all the parish North of Regent's Canal and Pancras Vale.\* Two are to the South of the New Road,—viz., Tottenham Court and Gray's Inn Road. They are separated from each other by Burton Crescent.

In the accompanying table (see Schedule A), I have given the following particulars with reference to each of these sub-divisions:—The area in acres, the number of inhabited houses, and of the population in 1851, the estimated population in 1856, the ratio of inhabited houses to the population in 1851, also the number of persons to an acre, and the elevation in feet above high water mark; and, in regard to these particulars, I have compared them and the whole parish with the whole of

London.

There is no one circumstance which has so much influence on the salubrity of a district as the *elevation*. So much is this the case, in reference to epidemic diseases, that the amount of mortality from them in the London Districts has been exactly in an inverse proportion to the elevation above Trinity high water mark.

Now in this respect, it will be seen that St. Pancras is remarkably well situated; no part of the parish being less than fifty feet above the high water mark, and the whole parish, on an average, being eighty feet above it; in this respect, it ranks

fourth amongst the Metropolitan districts.

In regard to density of population (another very important element affecting mortality), in 1841 it ranked twenty-fifth; since that time, no doubt, it has taken a higher position on this scale, because its population has increased more rapidly than that of most districts. If we compare some of the sub-districts with other parishes, we find that Tottenham Court and Somers Town are more densely populated than Shoreditch and Bethnal Green, and about on a level with Whitechapel. It will be seen that one district of the parish (Kentish Town) is very thinly populated, not being built upon for more than half of its extent; it is also very favorably situated as regards its level; and we shall probably find that its mortality is lower than that of other districts. The parish, taken as a whole, is twice as densely populated as the whole of London.

In St. Pancras Parish the average annual mortality, during the years 1841 and 1851, was twenty-four to every thousand living; now, it has been ascertained, that the amount of mortality which is natural to a Town population, and cannot be prevented by such sanitary regulations as have been put in force in some places, is

not more than seventeen in the thousand.

From this, it may be calculated, that in the ten years from 1841 to 1851, ten thousand three hundred and thirty-seven more persons died in St Pancras than would have died had sanitary measures been completely carried out. Since 1851, the annual mortality has not been quite so much as twenty-four to the thousand, but not far short of it.

It will be my object to ascertain as far as possible the causes on which this excessive mortality is dependent, and to report to you on them, especially calling your

attention to such as admit of being readily removed.

To descend from great things to small, I should like to adduce one illustration of the manner in which sanitary measures will not only save the lives of the population and prevent disease, but also materially diminish the expenses of the parish.

During the past three months, one hundred and sixty-one persons have been sent to the Fever Hospital, at the expense of the parish, of whom thirty-four have died;

<sup>\*</sup> It will be seen that, on this division, Camden and Kentish Towns do not exactly correspond with Camden and Kentish Towns proper.

during their stay there, they have cost the parish £142. 14s.; besides this, there has been the money necessarily expended on them during their period of convalescence, which we may fairly estimate at £100 more; there has also been in many cases the cost of maintaining the wives and children during the illness of the fathers, and in others the cost of the permament maintanance of widows and orphans. The additional expense incurred by this last item, it is difficult to estimate; but, at the very lowest, it cannot be less than £250. We thus have £400 expended on the fever cases occurring in one quarter of a year. Now it has been fully proved that fevers might in nine cases out of ten be prevented by moderate attention to sanitary matters, so that £360 of this—if not the whole—would have been spared: this is only one amongst many illustrations that might be adduced, to show that money spent upon public health is money well spent, even regarded as a commercial investment.

Since my appointment, I have not been able to do more than take a cursory view of this large parish;—the most populous in London; in area, nearly four times as extensive as the City of London, within and without the walls, and nearly twice as extensive as Saint Marylebone; in population, one-third more than the City of London, about 14,000 more than Saint Marylebone, and about two-thirds that of Manchester.

I shall only, on the present occasion, call your attention to one class of causes which is operating to the injury of the health and the destruction of the lives of the population. I refer to the condition of the houses of the poor, especially in respect to drainage, water supply, want of cleanliness, and domestic accommodation. These are all matters of the greatest importance, and which fortunately are now, to a great extent, under your control. In order to effect any extensive improvements in these respects, you must institute a very thorough system of inspection of nuisances. When I have ascertained that a set of houses is generally in a bad state, I should place in the hands of an Inspector forms for him to fill up, which would give, in reference to these houses, precise and detailed information. The forms will be of this kind (see Schedule B). I should then be enabled to come to the Sanitary Committee with definite recommendations, and they might give notice to the landlords that they would be required to make the necessary improvements, or that further measures would be taken against them. The Inspector would subsequently be expected to ascertain whether the improvements have been effected; and if not, to summon the owners before a Magistrate, and to appear against them. So that the Inspector will often have to visit the locality of a single nuisance three or four times before it is removed.

We do not want inspection at present to find out nuisances; the nuisances are, unfortunately, so numerous and so great that we have no difficulty in finding them. The difficulty will be in their removal; and it is, as a part of the machinery essential to their removal, that I ask for inspection; without it, all our discoveries will end in themselves, and be attended with no beneficial result. There are also many densely populated places which, after they have once been set right, will require to be periodically visited, in order to see that they do not return to their former condition.

The District Medical Officers have, in several instances, pointed out to me houses in which formerly there were always cases of illness; but in which, since the landlords have attended to the drainage, and made a few improvements, there has been little or no illness. It would be very easy to adduce a hundred illustrations of the visible benefits which have resulted from such measures, in other places.

It is much to be regretted, that landlords cannot always see that it is to their own interest to keep their property in a condition such as decent people can inhabit. By leaving their houses in the state in which many of them are now, they can only have tenants who, from poverty, can get no better accommodation, or else those who

prefer filth to cleanliness.

The number of the latter description is, I am convinced, not nearly so great as is often represented; and the class would soon become quite extinct if they were compelled for a time, by the constant inspection of the sanitary authorities and the co-operation of the landlords, to attend to the decencies of life. For they would soon find the advantages of their new mode of living, not only in comfort, but also

in the improved health of themselves and their families, and would be as anxious to live in well-drained, clean, and respectable places, as they are now indifferent about it.

In several of the worst localities I have found many rooms, and even whole houses, recently deserted, and have been told by the neighbours that the tenants had left on account of the vile state into which the places had fallen.

It is to be hoped, that, in most cases, landlords will make the required improvements, without obliging the Vestry to have recourse to compulsion; they will thus

save themselves both trouble and expense.

I may now mention some of the places in which I consider a house to house visitation is required. In the neighbourhood of Tottenham Court Road—Mortimer Market, Pancras Street, New Inn Yard, Phillips Gardens, Southampton Court, and Holbrook Place; near the Hampstead Road—Eden Street, Henry Street, Fitzroy Row, Cumberland Court, and some parts of Mary Street and Mary Place; in Gray's Inn District—Compton and Poplar Places, Brunswick Grove, Brunswick Buildings, Drapers Place, Caroline Place, Cromer Street, and James Street.

In the neighbourhood of the Great Northern Railway and the Imperial Gas Works, there are a number of houses quite unfit for human habitation. I may mention especially Scalesbury Place, Vernums Buildings, and Wellers Place. In Pancras Place, Pancras Road, and throughout Agar Town, the paving, lighting, and drainage, as well as the general condition of the houses, require the serious attention of the Vestry. In Winchester Terrace there is an open ditch running by the side of the railway wall, which receives all the drainage of the houses; this ought to be at once covered. As might be expected, low fever is a frequent visitor in these houses.

Near the King's Road, Waits Place requires attention; and near Ferdinand Street, Camden Town, there is Little Charles Place; and in Kentish Town, Alfred Place.

In Somers Town, there are Brill Cottages and Crescent, Denton Street, and

many others that require notice.

These are a few amongst many. I have taken them as specimens, selecting several from each of the different districts. I do not mean to say that these are the worst in the parish, but they are so bad as to demand serious attention. In some of them are overflowing cesspools, choked drains, and privies, unfit for use; sometimes these last are in the cellar, or under the staircase, and in the foulest possible condition, filling the houses with the most offensive and noxious effluvia.

In some houses, and even sets of houses, there is no water supply; and in scarcely any of them is attention paid to the trapping of drains, proper pavement of courts,

and general cleanliness and repair of the houses.

I believe there are some persons who would defer a house to house visitation until the outbreak of an epidemic. Such persons do not appear to know, that, by adopting these measures now, we may entirely, or to a great extent, avert the epidemic; and that the conditions of house drainage, &c. above alluded to, are constantly in healthy seasons operating to the injury of health as really, though not quite so apparently, as during the prevalence of epidemic disease.

It should not be forgotten that the existence of such places as those we have mentioned is attended with danger, not only to those who live in them, but also to those who occupy the better classes of houses in the neighbourhood; for the disease which has been nursed in the low alley may be propagated by contagion, or by the

atmosphere, to the square or the terrace.

There is one way in which contagious and infectious diseases are propagated, to which I wish especially to call attention. I refer to the Street Cabs and Omnibuses; they are at present in the habit of conveying to and from the Hospitals patients affected with small pox, and other infectious diseases, and then immediately afterwards may be used by persons in health; and thus diffuse the most frightful diseases to an incalculable extent. The same remark is applicable to the parish conveyance, used for the removal of paupers, both healthy and diseased.

The only way in which this can be prevented is, to provide public vehicles for the conveyance of all persons afflicted with infectious diseases: these, I think, should be provided by the Vestry, and they might be let out for hire to those who could afford to pay for them. Then it should be rendered penal for any cabman knowingly to convey such persons. The parish should have two conveyances, at least, for the

sole use of persons with such diseases; and they should be so constructed as to

allow of patients assuming the recumbent posture.

In conclusion, permit me to remind you, that sanitary improvements will nearly always be attended with present pecuniary expense, either to the public or to individuals, and that I shall therefore run the risk, at times, of meeting with active opposition in the performance of my public duties. I trust, however, that, whilst I shall studiously avoid interfering with the interests of individuals in a reckless manner, nothing shall deter me from advising that, which, after mature deliberation, I consider to be required by the health of the community; and, whilst thus acting, I feel assured that I shall receive your warm support.

In the accompanying table is a return of the deaths and of the births registered

during the four weeks ending on the 26th April (see Schedule C).

The total number of deaths registered in the four weeks is 304, besides eight inhabitants of St. Pancras who died in Middlesex Hospital, and five in the Fever Hospital.

The average of the corresponding four weeks in ten years preceding is 304.6,

which, when raised in proportion to the increase of population, is about 384.

During the past month the health of St. Pancras, in common with the rest of London, has been better than is usual at this season of the year. The proportion of deaths to the population has been however quite as high as in the rest of the

In the Tottenham Court District the number of registered deaths exceeds the number of births. Of the deaths registered in this district, ten occurred in University College Hospital, and thirteen in the Strand Union. Of those occurring in University College Hospital, two belonged to other parishes: but, then, to compensate for this, we have eight St. Pancras people dying in the Middlesex Hospital, and no doubt others in hospitals from which I have received no information. Of the deaths registered in Gray's Inn Lane District, four died in the Royal Free Hospital, and these were all from other parishes.

SICKNESS OCCURRING AMONGST THE POOR UNDER THE CARE OF THE DISTRICT MEDICAL OFFICERS DURING THREE WEEKS ENDING APRIL 26TH, 1856.

	Low Fevers.	Small Pox.	Scarlet Fever.	Measles.	Diarrhœa	Hooping Cough.	Other diseases	Total Number of Cases.
N.W.—Mr. Adams	4	0	0	0	2	1	98	105
S.—Dr. Wildbore	6	3	1	0	1	6	160	177
N.—Dr. Davis	4	0	4	6	8	2	35	54
E.—Mr. Jefferys	2	7	2	0	4	2	73	90
C.—Mr. Sutherin	2	0	1	3	5	3	70	84
Totals	18	10	8	9	15	14	436	510

It must not be considered that the amount of sickness occurring under the notice of the District Officers is proportional to the total amount of sickness in the locality, because there are many disturbing causes. In one district there are many more poor than another, and a much larger proportion who receive parochial relief; and even amongst the poor, in some localities there are dispensaries and hospitals where many of them are treated, whilst in others there are no such institutions; still, by comparing the number of cases occurring at two or more corresponding periods in the same district, we shall have some guide as to the relative healthiness of the places at different times.

### [ SCHEDULE A. ]

Area in Acres.	No. of Inhabited Houses in 1851.	No. of Inhabitants in 1851.	Estimated Population in 1856.	Ratio of Inhabited Houses to persons in 1851.	Persons to an Acre in 1851.	Elevation in feet above high water mark.	Estimated number of Persons to an acre in 1856.
427 145	3575 2586	31918 28433	35684 28652 110	1:8·92 1:10·7	74 193	87 73	83 202
155	2946	26523	514 28840 70	1:9	169	52	186
184	3731	35641	38135	1:9.5	196 115	60 52	207 146
1634	3248	23326	1600 34935	1:7.18	14	110	21
2716	18584	166956	190000	1:9	61 30:3	80	70
	1427 1445 	in Acres. ted Houses in 1851.  427	in Acres. ted Houses in 1851. Inhabitants in 1851.  427	in Acres. ted Houses in 1851. Inhabitants in 1856.  427	Acres.   India   India   Population   India   Population   India   Population   India   India   India   Population   India   India	Acres.   Indicates   Indicat	Acres   Inhabitants   Inhabi

### According to the number of their Population.

1.—Somers Town
2.—Regent's Park
3.—Kentish Town
4.—Tottenham Court
5.—Gray's Inn

5.—Gray's Inn 6.—Camden Town

### THE DISTRICTS ARRANGED-

### According to their size.

1.—Kentish Town
2.—Regent's Park
3.—Somers Town
4.—Camden Town

5.—Gray's Inn 6.—Tottenham Court

### According to the estimated density of their Population.

1.—Somers Town
2.—Tottenham Court
3.—Gray's Inn
4.—Camden Town
5.—Regent's Park
6.—Kentish Town

# [ SCHEDULE B. ]

# Weekly Return of Sanitary Inspections.

2144)	Da	ite.			eral St of House.		Yards and Cell- ars.		reneh.	Source of Water Supply.		Priv Sinks Dra	, and	000	Coplai	m- nts.	V	enti	lation.		Lodgme	nt of Inm	ates.	9 .	10.11	Remarks.
No. of House.	Name	Place.	Owner.	Clean or Dirty?	In or out of Repair?	Dust	Dry ? Clean ?	What?	Where?	Water Company? Pump?	Cesspool?	Offensive, Smell, or Obstruction?	Deficiency of Water 1	Untrapped Sinks or Drains ?	Of external Nuisance?	Within the House?	Wind	lows B.	Whether room for louvre at top landing?	No. of inhabited Rooms?	No. of separate holdings?	In which holding recent Death or Illness?	No. of present Inmates of such holding?	Total No. in House	cy's	
MANA S	10.0			2007	2000	3 1					200		2 10 11	100	9		O A A A				9 80 8		20 20 140			
						0 2 2 0	10 W 10					200	1800	100	Service Street			Special South			A STATE OF THE PARTY OF THE PAR		25 1			
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(Signed)		Inspector	of	Nuisances.
( - 9 )	***************************************	Tuelbecon	2	T1 000001000

[ SCHEDULE C. ]

Mortality of the Parish of Saint Pancras during the four weeks, ending 26th April, 1856.

Births

	SE	X.				1	T W	VHA	T A	GES	?						FR	ROM V	VHAT	CAUS	ES?		3 3	100	same period.
	Males.	Females.	Totals.	0 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60		70 and over	Low Fevers.	Small Pox.	Scarlet Fever.	Measles—Hooping Cough.	Convulsions.	Consumption & other Tubercular Diseases	Premature Birth, and Debility.	Bronchitis and Pneumonia.	Diarrhoa.	Violence—Priva- tion & Poison.	Other causes, chiefly Chronic,	in heart out tight of The Pethologic conditions of
Regent's Park	20	21	41	17	1	0	0	1	3	4	3	7	5	0	0	1	1	2	3	3	9	2	1	19	96
Tottenham Court	35	31	66	25	2	2	1	4	5	7	3	8	9	2	1	1	4	4	10	4	6	1	9	24	64
Gray's Inn	21	21	42	13	0	0	1	4	4	5	7	5	3	6	0	0	2	1	8	2	8	0	0	15	63
Somers Town	25	26	51	21	3	0	0	3	4	2	3	9	6	0	0	0	3	3	14	2	7	1	0	21	117
Kentish Town	18	18	36	20	1	1	0	1	2	1	6	2	2	0	0	0	5	3	7	1	9	0	0	11	88
Camden Town	19	19	38	23	0	1	1	0	1	2	4	2	4	2	0	1	1	1	6	0	6	1	2	18	68
Workhouse	12	18	30	5	0	0	0	4	2	9	3	1	6	1	0	0	0	0	7	3	2	1	0	16	2229
Fever Hospital	1	4	5	0	0	1	0	1	1	1	1	0	0	4	0	0	0	0	0	0	1	0	0	0	gommer !
Middlesex Hospital	5	3	8	1	1	0	1	2	0	0	0	3	0	0	0	1	0	0	0	0	1	0	0	6	61974
Whole Parish	156	161	317	125	8	5	4	20	22	31	30	37	35	15	1	4	16	14	55	15	49	6	12	130	496

SECOND REPORT

ON THE

SANITARY CONDITION OF SAINT PANCRAS, MIDDLESEX,

# THOMAS HILLIER, M.D.,

Medical Officer of Health for the Parish of Saint Pancras.

JUNE 9th, 1856.]

[No. 2.

### TO THE SANITARY COMMITTEE.

GENTLEMEN,

I am glad to be able to report that a number of the houses near Pancras Road, which were mentioned in my last Report as being quite unfit for human habitation, are now being pulled down. Whilst, however, we thus get rid of a number of houses, in which disease has been fostered and encouraged, we must not forget that by these very improvements, there will be many persons obliged to seek new dwellings, and in many instances they will congregate still more closely in other densely populated districts. Thus, whilst one locality is improved, others suffer. This remark is applicable not only to the present case, but to all similar cases. The improvements which have of late years been effected in St. Giles's, have been in a great measure at the expense of other districts. At the present time, there are some parts of this parish, in which the poor people driven out from St. Giles's have found refuge, and in this way places that were previously crowded are now much more so. These considerations, in addition to others which might be adduced, point very strongly to the necessity of some organization for the purpose of providing the poor with a better class of dwellings. Whilst old and wretched habitations are being pulled down, let us not fail to supply new and superior dwellings. It would be premature at present to enter into any details on this subject; but I trust that the Vestry will consider it of sufficient importance to require their serious attention. The Model Lodginghouses, established by the societies for improving the dwellings of the working classes, have been found to be self-supporting, and to be attended with the very greatest benefits, both to the health and morals of the inhabitants. In the Metropolitan Buildings, Old Pancras-road, the average rate of mortality for the three years, 1850-51-52, was only 13.6 to 1000. The average mortality for the whole metropolis during the same period was 22 to 1000. This speaks for itself.

Great advantages have resulted also through the Metropolis from the operation of the Common Lodging Houses' Act, by which these places are put under the inspection of the police. In this parish there are only twelve registered lodging-houses; there are many more used as common lodging-houses, which

shall be registered as soon as we find them out. It is a remarkable fact, that during the cholera epidemic of 1854, only 72 cases of cholera occurred in the 6416 houses which were under the inspection of the police; the estimated population of these houses was 82,000. This is a smaller mortality than occurred in almost any class in the metropolis. When it is remembered that these places are generally situated in the worst and most confined localities, and that the tenants usually belong to the lowest and most profligate class, we cannot have a stronger proof of the advantages resulting from constant and systematic inspection.

A custom prevails amongst the poor which is attended with great evils. On whatever day of the week a death occurs, the funeral takes place on the Sunday; and if the death occur on Thursday, Friday, or Saturday, the funeral is usually postponed until the Sunday week. In consequence of this, the corpse remains in the house for 9, 10, or 11 days, very much to the annoyance of neighbours, and often with great risk of infection both to the relatives and to others. It is generally placed in a room where a whole family live, a room which serves as their only dining-room, bed-room, scullery, wash-house, and pantry. During the past 10 days three cases of this kind have come to my knowledge; one was a case of typhus fever. This is a very serious evil, and one which would be even more so during the presence of epidemic disease and in hotter weather. Can any remedy be suggested?

The Inspector of Nuisances commenced his duties on Friday, May 30th, and has already visited 250 houses, and has served a large number of notices for the removal of nuisances. In many instances we find that the requisite improvements will be made at once; in other cases we meet with opposition, which occasions delay and trouble, but will not eventually prevent our attaining the object in view.

The following is a summary of orders which I recommend that you issue to proprietors for the removal of existing nuisances:—

In 42 cases to cleanse and lime-wash houses.

To remove dust and rubbish in 32.

To pave yards or cellars in 14.

To provide water-supply in 4.

To empty and fill up 61 cesspools, and complete the necessary works of drainage, so as to establish a proper communication with the main sewer.

To repair and trap drains in 59 houses.

To supply water to 12 privies.

To trap 3 gully holes.

To drain and pave a slaughter-house and stable.

As an illustration of the evils with which we meet, I will quote from one of the Inspector's reports:—"The whole of the houses in Southampton-court are in a very bad state of repair; the water closets are without pans and water; many of them have the soil over the floors. In one house I found the soil (consisting of excrement chiefly) over the yard to the depth of one foot. In another yard a donkey is kept, in a place which had not been cleaned out for weeks. Many of the back rooms on the ground floor are used for storing fish and stale vegetables. The water pipe has been cut off in No. 14, and the water flows over the floors, which are under water, soaking into the next houses."

I think you will admit that there is need of sanitary measures when such a state of things as this exists, and that in the very midst of a dense population. In places similar to the above, we have found houses with from 40 to 50 inmates.

There is an evil, to which I wish to invite attention, arising from the practice of the Water Companies, who, as soon as the landlord falls in arrear with his water rates, cut off the supply of water to his houses, and thus his unfortunate tenants are deprived of that element, an unrestricted supply of which is the first essential of decency, comfort, and health. At the present time I know of several places thus deprived of water. In Wait's-place, which was mentioned in my last Report, there are eight houses, with several families in each house, without any water, except what they can obtain by begging from their nearest neighbours, who live at some distance in the King's-road. The consequence is, that the houses and courts are very dirty, the drains blocked up, and the inhabitants suffering severely from the effluvia. One fatal case of typhus fever has occurred there during the last month.

It is provided, by the 83rd section of the Metropolis Local Management Act, that if any person discontinue any water supply, without the consent of the Vestry, he shall forfeit and pay any sum not exceeding £10.

Complaints are constantly being made about the difficulty in obtaining the removal of dust. The scavengers often refuse to do their duty unless they are paid for so doing by the occupier of the house. This operates very injuriously in the case of the poorer class of houses. The dust-heap frequently contains decaying animal and vegetable matter; and, if allowed to remain for any length of time, becomes very offensive and injurious to health. It should be clearly understood, that the dustmen lay themselves open to a heavy penalty by thus refusing to act; and for the future, I think, the penalty should be enforced.

It will be seen, from the subjoined table (Schedule A), that during the 5 weeks ending May 31st, the total number of deaths registered was 357. I should explain that this includes those inhabitants of this parish who died in the London Fever Hospital. Typhus was fatal in 20 cases, scarlet fever in 13, and small pox in 2. Under the age of 3 years, 137 deaths occurred. Of those who died in Hospitals 12 came from other parishes. The average number of deaths during the corresponding period of the past 10 years, 1846-55, was 358.2, which, if raised in proportion to the increase of population, becomes 394. So that the number of deaths during the last 5 weeks has been below the average; this has been the case also throughout the Metropolis.

In the table (Schedule B) is a record of the sickness under the care of the District Medical Officers.

The mean temperature of the 5 weeks has been considerably below the average.

Workhouse.—There have been 33 deaths in the Workhouse during the 5 weeks; and 3 inmates of the Workhouse who were sent to the Fever Hospital, Islington, died there. The general health of the establishment has been good; but the occurrence of 2 cases of typhus still indicates a necessity for improvement. The removal of the children into the country, the ventilation of the entire building, and the removal of the laundries and the kitchen have, I am glad to find, been determined on, and will, I trust, be carried out with the least possible delay. Some parts of the House are still very full, especially the infant nursery, the girls' bed-room, the women's receiving and casual ward (which is still used for the two purposes), and some of the rooms in which the able bodied women sleep. The average number of inmates during the month has been 1482.

THOS. HILLIER.

[SCHEDULE A.]

Mortality of the Parish of St. Pancras, during the Five Weeks ending the 31st day of May, 1856.

Births

									1	1	T	VH.	AT	A	GES	12		T			FR	OM V	VHA	T CA	AUSI	ES?					ring t	
LOCALITIES.	Area in Acres.	No. of Inhabited Houses.	Population.	M.	F.	M Deaths in Hospitals.	М.	TOTAL.	M.F	0 to 3	3 to to 5 1	10 to 0 15	15 to 20	20 3 to 1 30	30 46 to to 40 56	50 to 60	60 to 70	70 and over. Low Fevers.	Dysentery and Acute Diarrhoa	Diarrhea of Infants.	Searlet Fever.	Erysipelas, Pycemia, and Puerperal Fever.	Measles, Hooping Cough and Croup.	Bronchitis and Pneumonia of Infants,	Convulsions of Infants.	Consumption and other tubercular diseases.	v ovenec, Privation, and on.	premature Birth and Debility.	Other diseases chiefly chronic.	M.	F.	Total.
Regent's Park	427	3575	31918	25	20	2	1 2	7 21	48	13	2	2	1	5	3	5 5	4	8 5	5		1.		1	3	1	11	2	1	21	40	48	88
Tottenham Court Road	145	2586	27933	29	22	7	1 3	6 23	59	24	3	2		7	5	5 5	5	3 1		1	4	1	1	5	6	10	5	3	22	42	43	85
Strand Union			500	7	4			7 4	11	6					2		3.									5			6	44		
Gray's Inn Road	155	2946	26523	17	29	3	3 2	0 32	52	21	1	6 1		5	3	5 6	2	2 2	1		1		6	3	3	11	2	2	21	34	34	68
Somers Town	184	3731	35641	33	34	1	1 3	4 35	69	28	4	3 1	2	5	2	1 8	6	6 7		1	4	1 1	2	8	2	11	4	3	25	54	53	107
Camden Town	171	2498	19515	18	14	2	1 2	0 15	35	12	4.		1	1	4 :	5 2	3	3 2	2		2		4	2	2	7	2		14	35	33	68
Workhouse			1600	10	23	2	1 1	2 24	36	8	1	1		2	1 :	2 5	6	10 2	2							7		6	21			
Kentish Town	1634	3248	23326	20	26		1 2	0 27	47	24		. 1	1	3	4	6 4	2	2 1			1	1	1	5	2	14	3	4	15	59	66	125
The whole Parish	2716	18584	166956	159	172	17	9 17	6 181	357	136	15 1	4 3	5	28	24 35	2 35	31 3	34/20	1	2	13	2 2	15	26	16	75	18	19	147	264	277	541

N.B.—The Divisions are those of the Registrar General, which do not quite correspond with any other divisions. The numbers of houses and of the population are derived from the last census in 1851.

Twelve of the deaths in Hospitals were of people from other Parishes:—7 in the University College Hospital—5 in the Royal Free Hospital.

### [ SCHEDULE B. ]

St. Pancras, Middlesex.—Cases of Sickness under the care of the District Medical Officers during the Five Weeks ending 31st of May, 1856.

Districts.		Nam	es of Medical Officers.		Total No. of Cases.	Low Fevers.	Diarrhoa.	Scarlet Fever.	Small Pox.	Erysipelas and Pyœmia.	Measles.	Hooping Cough.	Bronchitis, Pleurisy, and Pneumonia.	Consumption.	Carbuncles and Boils.	Acute Rheumatism.	Other Diseases.
North-West	. 10	Mr.	Adams	. 2	148	7	4	2	2 2 2	2	2	4	3	6		5	113
South-West		Dr.	WILDBORE		272	5	3	4	6	3	8	14	39	6	4	2	178
South-East		Dr.	DAVIS .	or a	100	2	4	3	2		8		1	2	3	1	74
Central		Mr.	SUTHERIN .		112	- 4	14			1.0	10.0		16	E		1	77
North		Mr.	Jefferys .		108	4	3		2			2	3	2	- A	1	91
			To	TALS	740	22	28	9	10	5	18	20	62	16	7	10	533

# THIRD REPORT

ON THE

SANITARY CONDITION OF SAINT PANCRAS, MIDDLESEX,

# THOMAS HILLIER, M.D.,

Medical Officer of Health for the Parish of Saint Pancras.

JULY 2nd, 1856.]

No. 3.

### TO THE SANITARY COMMITTEE.

GENTLEMEN,

During the 4 weeks, ending June 28th, the total number of deaths registered was 254; giving a weekly average of 63.5. In the nine weeks preceding the number was 674, giving a weekly average of 74.9; so that the present return still exhibits a favorable condition of the public health. The average number of deaths during the corresponding periods in the ten years 1846-55 was 268. The total number of deaths during the last quarter has been 928, of which 134 have been from epidemic diseases. Of these diseases typhus, a disease more under the control of sanitary measures than almost any other, has been fatal to the largest number of persons. The yearly rate of mortality exhibited by the deaths of the quarter is about 22 to the thousand, if no correction be made for increase of the population; or between 19 and 20 if the correction be made. But we must not expect that every quarter of the year will be as healthy as the preceding one has been; so that we shall, no doubt, for the whole year get a higher death-rate than the above.

It will be seen, by comparing the schedules A and B, that the number of deaths from a disease often fails to give a fair representation of the prevalence of that disease. For instance, whilst we get only 5 deaths from measles in the entire parish, there have been under the care of the parochial medical officers 62 cases of that complaint. Measles has been very abundant, but the epidemic has not assumed a virulent form.

The number of deaths in the Workhouse during the month has been 27; and 3 of the inmates sent to Hospitals died in them. The general health of the establishment has been tolerably good. During the past week diarrhea has been somewhat prevalent. Some of the girls were suffering a fortnight since from inflammation of the eyes, and were removed to Pratt-street, in order to isolate them from the rest of the school. They are now convalescent.

The average number of inmates has been 1369, more than a hundred less than last month.

The following is the number of inmates, arranged according to their sex and age :-

THE RELIGIO	to 5	5 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	over 70	Total
Males	32	70	82	30	32	54	67	94	145	606
Females	52	37	55	80	65	60	65	80	242	736
Totals	84	107	137	110	97	114	132	174	387	1342

My attention has been engaged during the late very hot weather on the subject of putrid fish offered for sale in Somers town and other localities. The inspector is empowered by Act of Parliament to seize meat, poultry, fish, or vegetables exposed for sale which he considers unfit for food; and if it appear to a Justice that such article is unfit for the food of man he shall order it to be destroyed; and the owner of it shall be liable to a penalty not exceeding ten pounds. Acting upon this, the Inspector for this Parish has, during the last week, seized a very large number of mackarel and lobsters offered for sale. They were in such a condition of putrescence that they would probably have occasioned severe illness in any one eating them. In one case the salesman obstructed the Inspector in the performance of his duty; in consequence of this he was given into custody, and was, the next day, fined by the Magistrate at Clerkenwell (Mr. Corrie) for impeding an officer in the discharge of his duties, and was dismissed with a warning that in case of a repetition of the offence the penalty would be much more severe.

During the last month it has been necessary to bring cases of a different description before a Magistrate. These have been instances of defective house drainage, in which the owners have not attended to the preliminary notices served on them. In each case the Magistrate has at once ordered the works to be done, and has inflicted the payment of costs on the proprietor.

Since the 30th of May 113 written notices, relating to more than 200 houses, have been served; of these 50 have accomplished their purpose, the required improvements either having been completed or being now in progress. In addition to this a large number of verbal notices have been given, which have also very generally been attended to; and in many cases so promptly has the nuisance complained of been removed that there has been no necessity for a notice.

[SCHEDULE A.]

St. Pancras,	Mi	ddle	sex	_De	eati	as d	urn	ng 1	the								lin	g	th	e 2	8tl	1 da	ау	of d	Jun	ie,	185	6.		_		irtl	
										A	T	VH	AT	A	GE	5?					F	ROI	W W	VHA	T CA	AUS.	ES?				san	uring ne per	riod.
LOCALITIES.	Area in Acres.	No. of Inhabited Houses.	Population.	м.	F.	Deaths in Hospitals. { F.	м.	TOTALS. F.	M.F	0 to 3	3 to to 5	5 10 o to	0 15 to 5 20	20 to 30	30 4 to t	0 50 0 to 0 60	0 60 0 to 0 70	70 an	Low Fevers.	Dysentery and Acute Diarrhos (not of Infants.)	Scarlet Fever.	Erysipelas, Pyœmia, and Puerperal Fever.	Hooping Cough.	Measles.	Bronchitis and Pneumonia of Infants.	Convulsions of Infants.	Consumption and other tubercular diseases.	100	Premature Birth and Debility	ses cb	M.	F.	Totals.
													-	_		-				-	-	1					_		-		-		
Regent's Park	427	3575	31918	26	26	2	28	26	54	19		2	1 1	3	2	3	6 9	8	4				2	1	6	2	7	1	4	27	42	38	80
Tottenham Court Road	145	2586	27933	10	10	3 3	13	13	26	6	3		. 3		2	3	3 3	3	2	1			4	1		3	1	1	3	10	40	43	83
Strand Union			500	13	2		13	2	15	1				1	4	1	1 2	5	3								4			8		1	
Gray's Inn Road	155	2946	26523	11	16	1	12	16	28	8	2.		1 1	4	5.		2 1	4	2		1		2	2	1	2	5		1	12	23	32	55
Somers Town	184	3731	35641	20	22	1	21	22	43	20	2	3	1 2	1	3	1	5 2	3	2			1	1	1	8	3	9	4		14	59	57	116
Camden Town	171	2498	19515	10	10	1	11	10	21	6	2.		. 2	2	2	1 :	3 1	2					2		2	10				7	32	25	57
Workhouse			1600	10	17	3	13	17	30	6			1 1	1	2.		6 6	7	1						1		6	1	1	20			
Kentish Town	1634	3248	23326	13	23	2	15	23	37	17	1	2	1 1	5	4	1	1	5		1	1	1	2	5	2	4	14	1	5	8	48	46	94
The whole Parish	2716	18584	166956	113	126	13 3	126	129	255	83	10	7	5 11	17	24 1	0 27	7 24	37	14	2	2	2 ]	13	10	20	24	46	8	14	106	244	241	485

N.B.—The Divisions are those of the Registrar General, which do not quite correspond with any other divisions. The numbers of houses and of the population are derived from the last census in 1851.

This Table includes Three Deaths of Patients in the Middlesex Hospital—One in Saint Mary's—Two in the London Fever Hospital. Four of the Deaths in Hospitals were of inhabitants of other Parishes.

[SCHEDULE B.]

St. Pancras, Middlesex.—Cases of Sickness under the care of the District Medical Officers during the Four Weeks ending the 28th of June, 1856.

Districts.	Names of Medical Officers.	Total No of Cases		Diarrhoea.	Scarlet Fever.	Small Pox.	Erysipelas and Pyœmia.	Measles.	Hooping Cough.	Bronchitis, Pleurisy, and Pneumonia.	Consumption.	Carbuncles and Boils,	Rheumatism.	Diseases.
North-West	Mr. Adams	144	8	6	2		4	18	6	5	3		3	89
South-West	Dr. WILDBORE	208	3			2	3	-36	6	13	4	19	12	110
South-East	Dr. Davis	90	4	7	3	2	2	7	8	1	5	3	3	53
Central	Mr. SUTHERIN	105	9	13	1	2		1	8. 4	11	2	-2	4	60
North	Mr. Jefferys	91	2	3	1		1	S	1	1	3	1	-5	73
	TOTAL	s 638	26	29	7	6	10	62	13	31	17	25	27	385



ON THE

SANITARY CONDITION OF SAINT PANCRAS, MIDDLESEX, DURING JULY, 1856,

BY

# THOMAS HILLIER, M.D.,

Medical Officer of Health for the Parish of Saint Pancras.

JULY 30th, 1856.]

[No. 4.

### TO THE SANITARY COMMITTEE.

GENTLEMEN,

During the four weeks, ending July 26th, there were registered in St. Pancras 302 deaths, being at the rate of 75.5 weekly. This return exhibits a less favorable state of the public health than was indicated in my last report. The average number of deaths during the corresponding period of the ten years, 1846-55, was 271, which, if corrected for increase of population, gives 298, being a little below the present return.

Typhus fever has been a little less fatal than in the three previous months, but has still numbered 11 victims. Diarrhœa is on the increase, but is not more prevalent than is usual at this season of the year; it has destroyed 15 infants and 4 older persons. Of the epidemic diseases measles has been fatal to the largest number (18), whilst 12 children have died from hooping cough.

From the table (Schedule B) it will be seen that measles and diarrhea have been the most common diseases occurring in the practice of the District Medical Officers. Low fever is a little less prevalent than it has been. Several cases of English cholera have occurred, but no real cases of epidemic or Asiatic cholera have come to my knowledge.

In the Workhouse there have been 23 deaths. The average number of inmates during the month has been 1,354.

The following table shows the number of deaths in the several sub-districts

of St. Pancras, and in two workhouses, from six epidemic diseases and from all causes during the quarter ending June 28th, 1856:—

DISTRICTS.	Low Fevers.	Small Pox.	Scarlet Fever,	Measles and Hooping Cough.	Diarrhosa.	Other Causes.	Total Numbers from all Causes,	Corrected Totals.
Regent's Park	9	0	2	5	2	128	146	146
Tottenham Court	5	2	5	10	3	117	142	130
Gray's Inn Road	11	0	2	12	1	97.	123	113
Somers Town	9	1	4	7	2	140	163	163
Camden Town	5	0	2	7	1	80	95	95
Kentish Town	1	0	1	13	1	105	121	121
Strand Workhouse	3	0	0	0	0	36	39	39
St. Paneras Workhouse	4	0	0	0	1	91	96	96
rero registered in St. Pancer	9700	Lida	2 y (s	Lan	has .	afrene z	id ad:	wiking CT
Totals	47	3	16	54	11	794	925	906

From Tottenham Court District, in the last column, 12 cases have been deducted for deaths in University College Hospital of people from other districts, which gives 130 deaths for this district. For a similar reason ten have been deducted from the deaths in Gray's Inn district, giving 113 deaths. Three have been added to the total number for persons who died in the London Fever Hospital, whose previous residences are not known. The table includes all the deaths that occurred in the London Fever Hospital, the Middlesex and St. Mary's Hospitals, of persons who resided in this parish immediately before entering the hospitals.

During the quarter ending June 28th, the number of deaths in St. Pancras was 925; the total number of deaths throughout the metropolis during the same time was 14,069. The proportion which the population of this parish bears to that of the whole metropolis is about as 1 to 14. So that the mortality has not been so high in St. Pancras during the spring quarter as that of all London.

I will now compare the mortality of the several portions of the parish. It will be found by making the necessary calculations\* that in Tottenham Court and Somers Town a considerably larger proportion of the population, in Regent's Park and Gray's Inn Road a somewhat smaller, and in Kentish Town a much smaller proportion, have died than in the parish taken as a whole.

<sup>\*</sup> In making these calculations, I have omitted altogether the deaths in Workhouses, and have included only so many deaths in Hospitals as really belonged to the Parish, assigning each death to the district from which the person came. I have estimated the population in the method explained in my first Report.

A more valuable guide to the sanitary condition of a place than the total mortality is the mortality from epidemic diseases.

The several districts when compared in this respect are found to stand in the following order, beginning with the one whose deaths from epidemic disease bear the smallest proportion to the population,—Kentish Town, Regent's Park, Camden Town, Somers Town, Tottenham Court Road, and Gray's Inn Road.

The mortality in Regent's Park District would be much lower than it is if it were not for a few streets situated in it, which, from their extremely bad sanitary state, afford very many more than their due proportion of deaths. I refer to Henry Street, Hampstead Road, Eden Street, Henry Place, Mary Place, Fitzroy Row, and one or two more in the same locality. Henry Street contains 43 houses, with a population of nearly 1,200 persons. Many of the houses were till recently in a very foul state, with offensive cesspools and bad drainage. The backs of the houses on the North side of the street are shut in by cottages and workshops, and behind some of the houses on the South side are shops and large schools. Near the Hampstead Road, slaughtering of cattle is carried on in a place quite unfit for the purpose, and till within the last week or two all the refuse from the animals was deposited on an uncovered dust-heap. which was also the receptacle for all the excrement of the workmen in the yard, and of the inhabitants of two cottages. I am happy to say that this very fearful state of things is in process of improvement, most of the houses being now properly drained, the cesspools emptied and filled up, and proper water closets substituted. There is still, however, room for considerable improvement.

During the month my attention has been directed to the burial grounds in the parish. In Tottenham Court Road the grave yard adjoining Tottenham Chapel has been a great source of annoyance, in consequence of the trustees having taken upon themselves to level the whole ground, by removing the tombstones, and in some places disturbing the soil. The greatest portion of the mischief was done during one night. I am happy to say that I have not met with any cases of serious illness resulting from this. The trustees have, at my request, recently covered the ground with a layer of quick lime, which will, it is hoped, prevent any future evil results. I have visited the vaults under the Chapel, and find that there is nothing in them to occasion any apprehension to the inhabitants.

There is one burial ground in this parish in which interments still take place, and that in a somewhat crowded locality, namely, that of St. Andrews, Holborn, situated near Gray's Inn Road. It is not merely the fact, that burials take place here to which I wish to direct attention, but the manner in which they are conducted. The paupers are buried in a large pit, which is kept open for weeks or even months until there are enough coffins to reach within five feet of the surface of the ground. A thin stratum of earth and a small quantity of quick lime are, it is true, placed between each row of coffins, but not enough to

prevent the escape of all the noxious gases arising from the process of decomposition. I recently visited one of these pits, and found that the smell proceeding from it was of the most offensive kind. I should mention that there had been at this time a recent addition to the contents of the pit, and a man was then engaged in placing some lime over the coffins. The pit was situated close to a wall which forms one side of a narrow inhabited street. The parish authorities of Holborn have promised to take measures to prevent the escape of the effluvia; but it is much to be desired that the ground should be at once entirely closed, as is the case with all other old burial grounds in this parish, except in a few cases for private graves.

I have also visited the St. Pancras Cemetery, situated at Finchley. It is fifty acres in extent. The soil is for the most part loamy clay, but in some parts sandy and gravelly; it appears to be thoroughly drained, and generally well adapted for the purpose of interment. The regulations issued by the Secretary of State for the Home Department, as to the method of conducting interments in the new burial ground are not exactly complied with in reference to those who are buried at the expense of the parish. The eleventh regulation, that "no more than one body shall be buried in any grave, except in a grave purchased for the exclusive use of a family," is not observed. At the present time the practice of burying several in a grave may not appear to be objectionable; but it is right to think of the future when very probably the cemetery will be closely surrounded with inhabited dwellings, and when the ground will be nearly or quite full. And if this practice is allowed now, it is to be feared that in times of epidemic disease crowding will be vastly augmented.

Planting the ground with suitable herbage and shrubs is very much to be recommended for the sake of the public health, to say nothing of ornament. Vegetation absorbs the noxious gases arising from decomposition, and transforms them into objects of beauty and sources of health.

It would be very beneficial if the old burial grounds in the parish, where the soil is saturated with the products of decomposition, were thus treated. It has been supposed that some of the old burial grounds will be employed for building purposes. This is a scheme that would be attended with the utmost danger, and could certainly not be allowed for very many years to come, if at all.

I remain, Gentlemen,
Your obedient Servant,
THOMAS HILLIER.

[ SCHEDULE A. ]

St. Paner	ras,	Mid	dlese	x	-De	ath	is di	uri	ng i	the	F	our	· V	Ve	ek	s e	nd	in	g th	le 2	6t	h d	ay	of d	July	y, 1	856	3.				B	irth	IS
										A'	TV	VH.	AT	AG	ES	?		1			F	ROM	( W)	HAT	CA	USE	S?						ring t	
Four Weeks	Area	No. of Inh	Pop	icer	no	Deaths in Ho		To	cie	Dis 85	10 5	12	10	30	ris:	0.5	100	1	(not o	Diarrho	Searlet	Sn Sn	Erysipelas Puerj	Ноор	W C	Bronchitis of	Con	Consump	Violence,	Premature F	Other disease	49	38	
LOCALITIES.	in Acres.	of Inhabited Houses.	pulation.	M.	F.	Hospitals. {F.	М.	TOTALS. F.	M.F	0 to 3	3 to to 5 1	5 10 0 to 10 15	15 to 20	20 3 to t	0 40 0 to	50 to 60	60 to 70	CASIS.	arrhœa f Infants.)	a of Infants.	let Fever.	iall Pox.	, Pyœmia, and peral Fever.	ooping Cough.	Measles.	hitis and Pneumonia of Infants.	vulsions infants.	tion and other or diseases.	Privation, and Poison.	Birth & Congenital Debility.	s chiefly chronio.	M.	F.	Totals.
Regent's Park	427	3575	31918	18	21	1	19	25	44	22	5	3 2	1	1	2	1 3	2	2 :	3 1	2	1			1	10	1	3	7		4	11	34	37	71
Tottenham Court Road	145	2586	27933	31	15	4 5	35	20	55	25	2		3	4	5	5 4	4	3	1	5	1			2	2	1	3	8	7	4	21	28	40	6
Strand Union			500	5	5		5	5	10						1	2 3	1	3 .										4			, 6	100		
Gray's Inn Road	155	2946	26523	11	19	3 2	14	21	35	11		1	1 1	3	5	3 6	3	1 :	2				1		2	2	1	6		1	17	29	30	5
Somers Town	184	3731	35641	28	24	1 1	29	25	54	25	4	4	1 1	2	5	2 3	2	5 5	2	2	1		1	4	3	1	2	14	1	5	18	52	36	88
Camden Town	171	2498	19515	18	13		18	13	31	13	2		1 1		1	2 5	5	1		1				2	1	3	2	8	1	1	12	34	44	7
Workhouse			1600	11	12	]	11	13	24	1				3	4	1 2	4	9	1 1		*							4		1	17	wir.		
Kentish Town	1634	3248	23326	24	22	3	27	22	49	14	2	2.	. 3	2 6	3	7 6	2	5	2 1	3	1	1	1	3		2	2	5	9	3	16	5 59	47	10
The whole Parish	2716	18584	166956	146	135	12 9	158	144	302	111	15	10	5 !	9 19	26 2	23 32	23	29/1	1 4	15	4	1	3	12	18	10	13	56	18	19	118	236	234	47

N.B.—The Divisions are those of the Registrar General, which do not quite correspond with any other divisions. The numbers of houses and of the population are derived from the last census in 1851.

Eight Deaths in the University College Hospital, and Two Deaths in the Royal Free Hospital were of Persons from other Parishes.

[SCHEDULE B.]

St. Paneras, Middlesex.—Cases of Sickness under the care of the District Medical Officers during the Four Weeks ending the 26th of July, 1856.

- clabo	Districts.	Names of Medical Officers.	Total No. of Cases.	Diarrhoea	Small Pox.	Erysipelas	Hooping Cough.	Consumption.  Bronchitis, Pleurisy, Pneumonia.	Rheumatism. Carbuncles an Boils.	Other Diseases.
	8 48 11 34 3	1 10 1 3 7	1 2 1	2 8 8 8 8	E   6   6   6	100	91 1.1 19		and	2000
	7 4 21 28 4	8 2 1 2 2	[ 0	1 2 2 3 6 6	10 1 1 10 10	102 102	15 4 A 35	2586 2 8882 N	dal bedil her	Comment of
	North-West	Mr. Adams	171 13	17	4	OI I	30 6	1 2	3	95
	South-West	Dr. WILDBORE	189 4	9		6	32	3 1	14 6	114
8	South-East	Dr. Davis	138 1	17	7		11 1	1 3	5 3	89
2	Central	Mr. SUTHERIN	125	18	2 5		7	8 1	2 2	80
OF I	North	Mr. Jefferys	88	14	. 1	1	1 3	22 1 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 5	60
42	18 19 118 236 23	81 TOTALS	711 01 18	75	139 01611	7	81 10	114 30 31 8 81	22 19	438



# REPORT

ON THE

### SANITARY CONDITION OF SAINT PANCRAS, MIDDLESEX,

DURING SEPTEMBER, 1856,

BY

# THOMAS HILLIER, M.D.,

Medical Officer of Health for the Parish of Saint Pancras.

Остовев 14тн, 1856.]

[No. 6.

### TO THE SANITARY COMMITTEE.

GENTLEMEN-

The present return indicates a more favorable state of the public health than that of last month.

The number of deaths for the *four* weeks ending September 27th, was 282, giving a weekly average of 70.5; whilst, in my last report, the average was 80. The chief difference is caused by the diminution in the amount of infantile diarrhœa, which gave last month 67 deaths; and in the present report only 22.

Other epidemic diseases are not very prevalent. There have been 9 deaths from continued fever, 9 from scarlet fever, 2 from small pox, 5 from measles, and 11 from hooping cough.

### WORKHOUSE.

The number of deaths in the Workhouse during the four weeks has been only 10: of whom 3 were under 3 years of age, and 5 over 70. The average number of inmates has been 1332.

The following Table shows the number of deaths from several epidemic diseases, and from all causes, in the sub-districts of St. Pancras, and in the two Workhouses, during the quarter ending September 27th, 1856.

Localties.	Low Pevers.	Small Pox.	Scarlet Fever.	Measles and Hooping Cough.	Diarrhoea and Cholera.	Other Causes.	Totals.	Corrected Totals.
Regent's Park	7	181	1	15	21	106	150	150
Tottenham-court-road	3		4	9	18	118	152	137
Gray's-inn-road	8	Bus a	7	8	22	95	140	129
Somers' Town	9		11	7	20	147	194	194
Camden Town	4	1	2	10	14	78	109	109
Kentish Town	- 3	- 4	2	7	31	110	157	157
Strand Union	10	10 - cold	205	aleast .	1	23	24	24
St. Paneras Workhouse	1			1	2	53	57	57
Totals	35	5	29	57	129	730	983	957

In the last column, 15 cases have been deducted for Tottenham-court district, and 11 for Gray's-inn-road, on account of the deaths in University College and the Royal Free Hospitals respectively, of persons from other parishes.

By comparing this Table with the similar one for the preceding quarter, given in my Fourth Report, it will be seen that the mortality has been higher during the Summer than during the Spring quarters—there being in the former 957, and in the latter 906 deaths. The deaths from diarrhæa and cholera were, in the Spring quarter, only 11; in the Summer quarter, 129. The mortality from continued fever has diminished; whilst that from scarlet fever has increased.

The number of persons that died throughout the Metropolis during the late quarter was 14,066—which is about a thousand more than in the corresponding quarter of 1855, or an increase of about 7½ per cent.

The deaths in St. Pancras in the Summer quarter of this year compared with those in 1855 show an increase of 19 in 957 deaths, being only 2 per cent. This parish, then, has not been, relatively to last year, so unhealthy as the rest of the metropolis during the late quarter.

THOMAS HILLIER.

[ SCHEDULE A. ]

St. Penera	as,	Midd	llese	x	Dea	ath	s du	rin	g t	he :	Fo	ur	W	ee	k	s e	nd	lin	g %	27t	h d	lay	of	S	epte	emb	er,	18	56.	124.0		F	Birtl	he
		100	er-			IB				A	T	WI	IAT	r A	GE	S?					1	FRO	M	WH	AT (	CAU	SES	?	Tun	-	1	du	ring in	the
LOCALITIES.	Area in Acres.	No. of Inhabited Houses.	Population.	M.	F.	Deaths in Hospitals.	м.	TOTALS. F.	M.F	0 to 3	3 to t	5 10 to to 10 10	15 to 20	20 8 to t	30 4 to t	10 50 50 to	60 to 70	70 and over.	Low Pevers,	Acute Diarrhos	Diarrhos of Infants.	Erysipelas, Pycemia, and Puerperal Fever.	Scarlet Fever.	Small Pox.	Measles, Hooping Cough, and Croup.	Bronchitis and Pneumonia of Infants.	Convulsions of Infants.	Consumption and other tubercular diseases.	Violence, Privation, and Poison.	Premature Birth and Debility.	ases ch	M.	E.	Totals.
Regent's Park	427	3575	31918	19	21		19	21	40	22	2	2	1		3	4 1	3	2	1	1	4				2	5	1	7		4	15	25	39	64
Tottenham Court Road	145	2586	27933	17	24	2 4	19	29	48	22	2	4	1	1	4	4 .	2	8			4				3	4	3	4	4	5	20	1	1	
Strand Union			500	3	6		3	6	9	2				2	1	. 1	3			100	1							5			3			
Gray's Inn Road	155	2946	26523	26	7	3 1	29	18	47	11	5	4 :	3	5	4	2 6	3	1	1	1	4		6			2	2	12	4	2	13	31	27	58
Somers Town	184	3731	35641	30	26	. 3	30	29	59	25	6	3	1	2	7	3 2	4	5	5 .	8	3	1	2		8	6	7	9	1	1	16	49	41	90
Camden Town	171	2498	19515	15	11	1 2	16	12	28	14	3.		3	1	1	1 1	2	1	2 .		1				2	1	2	4	2	4	10	30	31	61
Workhouse			1600	6	4		6	4	10	3						. 1	1	5.		·er	1							1		2	6			
Kentish Town	1634	3248	23326	16	25	E .	16	25	41	22		1	1	1	3	4 2	1	3		2 0	4		1	2	3	1	2	7	2	4	15	52	44	99
The whole Parish	2716	18584	166956	132	134	6 10	138	144	282	121	18 1	14 10	8	122	23 1	8 14	19	25	9	2 2	22	1	9	2	18	19	17	49	13	22	98	219	215	434

N.B.—The Divisions are those of the Registrar General, which do not quite correspond with any other divisions. The numbers of houses and of the population are derived from the last Census in 1851.

This List includes Seven Persons who died in the Middlesex Hospital. Two deaths in the University College Hospital, and Two in the Royal Free Hospital, were from other Parishes.

[SCHEDULE B.]

St. Pancras, Middlesex.—Cases of Sickness under the care of the District Medical Officers during the Four Weeks ending the 27th of September, 1856.

Districts.		Total No. of Cases.	Low Fevers.	Diarrhoea.	Dysentery.	Influenza.	Scarlet Fever.	Small Pox.	Erysipelas and Pycemia.	Measles.	Hooping Cough.	Bronchitis, Pleurisy, and Pneumonia.	Consumption,	Carbuncles and Boils.	Rheumatism.	Other Diseases.
North-West	Mr. Adams	131	9	8	2		1			4		7	4	1	1	94
South-West	Dr. WILDBORE	155	2	14			0		1	2	2	10	1	6	8	109
South-East	Dr. Davis	122	3	19			3			8	1	5	6	1	5	71
Central	Mr. SUTHERIN	99	2	21	1		4		2	11	1	2	3 '	2	6	44
North	Mr. Jefferys	155	3	. 44			1		1	7	1	1	1	3	1	92
	TOTALS	662	19	106	3		9	••	4	32	5	25	15	13	21	410





# REPORT

ON THE

### SANITARY CONDITION OF SAINT PANCRAS, MIDDLESEX,

DURING OCTOBER, 1856,

BY

# THOMAS HILLIER, M.D.,

Medical Officer of Health for the Parish of Saint Pancras.

NOVEMBER 5TH, 1856.]

[No. 7.

### TO THE SANITARY COMMITTEE.

GENTLEMEN-

The number of deaths registered during the five weeks that ended on the 1st of November was 353. From this number 12 must be deducted for deaths occurring in University College and the Royal Free Hospitals of persons from other districts—giving 341. The weekly average thus obtained is 68.2, which is less than the averages of the three immediately preceding reports.

October is usually a healthy month in London, and the October of this year has been more healthy than usual. The average number of deaths in St. Pancras for the corresponding five weeks of the past ten years was 332.7, which, if raised for increase of population, gives 366. Diseases of the zymotic class were fatal to 83 persons.

It will be seen by comparing the table of mortality (schedule A) with the corresponding table of my last report that Fever is slightly on the increase, having been fatal to 18 persons instead of 9: Diarrhœa has diminished (13 instead of 24); Scarlet-fever has increased from 9 to 14.

Very gratifying are the indications of the state of public health afforded by the accounts of this Parish with the Fever Hospital. During the Spring quarter, ending Lady-day, the account amounted to £142. 14s. for 161 patients; for the quarter ending Midsummer, it was £90. 5s. for 95 patients; whilst during the last quarter ending Michaelmas, it was only £27. 4s. for 35 patients; a saving on the quarter of £115. 10s. as compared with the Winter quarter. This is not due to any change in the practice of sending persons to this Hospital, or of making out the accounts, but from an actual diminution to that extent in the number of paupers affected with fever. I learn from Dr. Buchanan, the resident Medical Officer of that Hospital, that the diminution is more striking in this Parish than in any other district.

During the last fortnight pulmonary and bronchial affections have much increased, especially amongst *infants*, who are always the most sensitive to changes of temperature. Bronchitis and pneumonia have been fatal during the five weeks to 45 infants under three years of age, and to 15 older persons; croup has been fatal to 7 children. Tubercular disease has destroyed 62 persons.

### WORKHOUSE.

Here there have been 21 deaths in all; 4 from consumption, 1 from "Fever," but stated subsequently by the Surgeon not to have been typhus or typhoid; 1 death from suicide by hanging. The general health of the establishment is good; considerable benefit is felt by the additional space obtained since the former boys' school has been used as an infirmary. The average number of inmates during the month has been 1,401.

Every successive month from the present time until about March we may expect to find an increase in the number of inmates; and, to avoid overcrowding, I would suggest that the maximum number of inmates to be allowed in each Ward be at once affixed in some conspicuous place, with a resolution that on no account shall that number be exceeded. If it should be found that the Wards will not contain all the inmates during the most severe season, it would be far better economy (to say nothing of higher considerations) to make some temporary provision than to run any risk of fever or other disease from overcrowding.

The proposed improvements in ventilation in the body of the house have not been so far carried out as could be wished, in consequence, I presume, of the numerous other improvements which have been effected. *Constant* ventilation is of more importance in Winter than in Summer, because *occasional* free ventilation, such as may be practised by the opening of windows and doors, is almost totally inadmissible at this season.

### SLAUGHTER-HOUSES.

In accordance with the Metropolitan Market and Local Management Acts, 120 butchers gave notice to the Vestry that they intended to apply to obtain a license for their Slaughter-houses at the recent Quarter Sessions, held at Clerkenwell.

The Vestry, on the report of your Committee, considered that seven of the places were unfit to be used as Slaughter-houses, and instructed the Vestry Clerk to oppose them.

In 109 cases the license was unopposed, 4 persons withdrew their notice. Of those in which no opposition was offered very many were all that could be wished, so long as slaughtering is allowed in the midst of towns; the others, though somewhat small, and near to the houses, were properly drained, paved, and ventilated.

I believe that very great good will result from this new law, not so much by shutting up Slaughter-houses, as by rendering those in use more cleanly and better adapted for the trade.

In nearly every one of those unopposed, the Butchers had, at my suggestion, improved their premises, either in respect of Paving, Drainage, or Ventilation, or the three combined—so that whilst very few tradesmen have suffered, the community will have been greatly benefited.

After the 1st of December next, no unlicensed place may be used as a Slaughter-house under a penalty of five pounds; and all the licensed places will be open to inspection—and it is my intention to keep a careful record of their condition on the various days when they are viewed, and also of Complaints made by neighbours: so that next year, when the licenses have to be renewed, if it be found that any place has been badly conducted and frequently complained of, it will be in the power of the Vestry to oppose the renewal of the license.

There can be no doubt that the fear of losing the license will operate as a salutary check on the occupiers of these places.

Here, as in nearly all similar cases, self-interest, if rightly understood, dictates the same precautions regarding cleanliness, fresh air, the removal of refuse, &c., as are required by the health of society: for the condition of the atmosphere in which an animal is kept for a few hours before it is slaughtered, is quite as important to the preservation of meat as the state of the place in which the meat is subsequently hung. If the atmosphere be close or foul, the meat very speedily becomes tainted—especially in warm weather; whilst if it be cool, fresh, and pure, the meat will keep very much better.

In 6 out of the 7 cases opposed, the Magistrates refused the license. As this was the first year in which the law had come into force, the Bench were disposed to be more lenient than they will be hereafter, in order to avoid any unnecessary severity upon the trade.

A greater nuisance than the Slaughter-houses have been, are the Cowhouses on which I have before reported. During the month the death of one, and the very severe illness of another have, I believe, been clearly traceable to the close proximity of a Cowhouse, in which there was a large cesspool extending under the back yard of the adjoining house. The death was that of a girl aged 6 years, the daughter of a Railway Porter, living in Little Drummond Street. She died of a very malignant type of scarlet fever. I do not of course mean to say that scarlet fever was produced by the effluvia from the drainage, but that the malignancy which led to the fatal result was occasioned thereby. The child had not been strongly, if at all, exposed to infection—and the disease is not epidemic just now. The mother has also had the disease, but she will, it is hoped, recover.

It is high time that these establishments should be sent into the country: or, if this cannot be at once effected, should be placed under some restrictions analogous to those recently placed upon the Slaughter-houses.

There are in this Parish 74 persons who keep cows—eleven of which are in Somers' Town, and twelve in Ward No. 8. The numbers kept in these places vary from 2 or 3, to as many as 30 or 40.

THOMAS HILLIER.

[SCHEDULE A.]

St. Pane	ras,	, Mid	ldles	ex	-D	ea	ths	duri	ng	the	e.I	iv	re '	We	eel	ks	er	ndi	ing	gls	t d	ау	of	No	ve	mbe	er, 1	185	6.			В	irth	18 1
										A	Т	WH	IAT	'AG	ES	S?		-			)	FRO	)M	WHA	T (	CAUS	SES?					du	ring t	the
LOCALITIES.	Area in Acres.	No. of Inhabited Houses.	Population.	М.	F.	Deaths in Hospitals.	. M.	TOTALS. F.	M.F	0 to 3	3 to 5	5 to to 10 1	0 15 0 to 5 20	20 3 to t 30 4	30 4 to to	10 50 50 60	60 to 70	70 and over.	Low Fevers.	Acute Diarrhosa (not of Infants.)	Diarrhœa of Infants,	Scarlet Fever	Small Pox.	Erysipelas, Pyœmia, and Puerperal Fever.	Measles, Hooping Cough,	Bronchitis and Pneumonia of Infants.	Convulsions of Infants.	Consumption and other tubercular diseases.	Violence, Privation, and Poison.	Premature Birth and Debility.	Other diseases chiefly Chronic.	M.	F.	Totals.
Regent's Park	427	3575	31918	24	23	1	2 25	25	50	20	1	1.		3 7	2	3 ;	3 5	5	3	1					4	8		13	1	3	17	35	43	78
Tottenham Court Road	145	2586	27933	19	19	5	7 24	26	50	17	3	1	1 1	7	5	3 :	2	5	4		. 2	2			1	3	2	12	1	5	18	37	32	69
Strand Union			500	3	8		. 3	8	11	3					1		1 2	1			1		1					1		1	8	1	0.2	
Gray's Inn Road	155	2946	26523	19	32	3	2 22	34	56	24	4		1	7	4	4 5	5	5	1		1	1		2	7	9	3	9	3	2	17	51	37	88
Somers Town	184	3731	35641	38	30		2 . 38	32	70	33	5	5	1 :	2 5	2	3	7 3	4	5		1	4		2	4	15	6	10	2	3	18	66	56	122
Camden Town	171	2498	19515	7	24	1.	. 8	3 24	32	13	3	3	1	. 3	2	1	3 2	1	2		1	1			5	2	1	4	1	5	10			
Workhouse	1		1600	9	12		. !	12	21	1	1	1.		1 1	2	5	3 3	4	1	1								4	1	1	13	49	56	105
Kentish Town	1634	3248	23326	24	36	2	1 2	6 37	63	23	3 6	3	2	1 3	5	3	5 3	9	2	1	4	6		1	1	8	3	9	2	2	24	60	50	110
The whole Parish	2716	18584	166956	143	184	12	14 15	198	353	134	1 22	14	6	8 33	23 2	22 3	2 25	34	18	3	10	14	1	5	22	45	15	62	11	22	125	298	274	572

N.B.—The Divisions are those of the Registrar General, which do not quite correspond with any other divisions. The numbers of houses and of the population are derived from the last Census in 1851.

This Table includes three deaths in the London Fever Hospital, and four in the Middlesex Hospital. Four of the deaths in the Royal Free Hospital, and eight in the University College were of inhabitants of other parishes.

### [SCHEDULE B.]

St. Pancras, Middlesex.—Cases of Sickness under the care of the District Medical Officers during the Five Weeks ending the 1st of November, 1856.

Districts.	Names of Medical Officers.	Total No. of Cases.	Low Fevers.	Diarrhoea.	Dysentery.	Influenza.	Scarlet Fever.	Small Pox.	Erysipelas and Pyœmia	Measles.	Hooping Cough.	Bronchitis, Pleurisy, and Pneumonia.	Consumption.	Carbuncles and Boils.	Rheumatism.	Other Diseases.
N. O. W.				200 300			10 30 S				1 8	1 8		E 5	7	91
North-West South-West	Mr. Adams Dr. Wildbore		17	6		4	5		5	6	5	8 27	1	11	19	130
South-East	Dr. Davis		1	6	1		1	2	2	11	4	3	7	4	4	130
Central	Mr. SUTHERIN	126	4	12			2		3	10	3	16	1	5	13	57
North	Mr. Jefferys	139	3	7		1	2		2	1	4	11	2		2	104
p	Totals	797	26	35	1	5	11	2	13	30	16	65	15	21	45	512



# REPORT

ON THE

# SANITARY CONDITION OF SAINT PANCRAS, MIDDLESEX, DURING NOVEMBER, 1856,

RY

# THOMAS HILLIER, M.D.,

Medical Officer of Health for the Parish of Saint Pancras.

DECEMBER 8th, 1856.]

[No. 8.

### TO THE SANITARY COMMITTEE.

GENTLEMEN-

The number of deaths registered during the four weeks, ending November 29th, was 344. From this number 4 must be deducted, for 3 deaths in University College Hospital and 1 in the Royal Free Hospital, of persons belonging to other districts, giving 340. So that the average weekly mortality, during the month, has been 85.

The average number of deaths in St. Pancras for the corresponding four weeks of the ten years 1845-1855 was 286, which, if raised for increase of population, gives 315—being 25 less than the present return.

The diseases of the respiratory organs have, during the recent cold weather, been especially fatal; the number of deaths from these affections have amounted to 88, of which 16 have been children under 3 years of age.

The above number does not include the deaths from croup, of which there have been 7; nor those from hooping cough (7); nor those from consumption (48).

Epidemic diseases have not been especially fatal; Measles 13, Fever 19, Scarlatina 8, Small Pox 1. There have been 46 deaths above the age of 70, which is nearly an *eightieth* part of the number living at that age. There have been 146 deaths under 3 years of age.

A case of Typhus Fever in Johnson Street, Somers Town, is thus registered:—"The wife of a coal dealer, aged 24 years, Typhus (14 days), caused by a bad smell from a gully-hole acting on a predisposed constitution." Mr. Dansey, the Medical Attendant, adds:—"The stench from the gully-hole outside the door was very bad, and on Thursday, November 13th, the sewer was opened and the contents emptied into the street within four yards of the house, and the filth left exposed from half-past eleven a.m. until six p.m., during which time the patient became much worse, caused, I have no doubt, by breathing the poisoned air from the exposed filth, and from that time she never rallied." This matter has already been under the attention of the Vestry, and I recommend that for the future the regulations with reference to the removal of the contents of sewers and filth be more strictly enforced.

The mean temperature of the four weeks has been 40°·8, which is about 3° below the average of corresponding weeks in 38 years (as determined by Mr. Glaisher). On every day from the 2nd to the 20th of the month the temperature was below the average, and dense fogs were frequent. The highest reading of the thermometer at Greenwich was on the 23rd November, when it was 58°, the lowest was on the 29th, when it was 24°·3.

### WORKHOUSE.

There have been 30 deaths in the Workhouse, and two sent from the Workhouse have died in the Fever Hospital; one of these was a "casual." There has been one death from erysipelas, and several severe cases of the same disease which have recovered have occurred. Childbirth has been fatal to two persons. Two have died of syphilis. Six of bronchitis. The average number of inmates during the month has been 1423.

[SCHEDULE A.]

St. Par	ncra	s, N	liddl	esex	1	)ea	ths	dur	ing	th			WH					din	lg	29t.		RON						856	5.		-		irth	
													44.17	LAL	22.4	3431	***				,	LOD	ir i	17 112	11 0	AUG	1313 :						e per	
LOCALITIES	3.	Area in Acres.	No. of Inhabited Houses,	Population.	M.	F.	Deaths in Hospitals. { F.	М.	TOTALS. F.	M.F	0 to 3	3 to t	5 10 to to 10 15	15 to 20	20 3 to t 30 4	0 40 0 to 0 50	50 to t	8	Low Fevers.	Influenza.	Diarrhosa of Infants.	Erysipelas, Pyœmia, and Puerperal Fever.	Scarlet Fever.	Small Pox.	Measles, Hooping Cough, and Croup	Bronchitis and Pneumonia of Infants.	Convulsions of Infants.	Consumption and other tubercular diseases.	Violence, Privation, and Poison.	Premature Birth and Debility.	Other diseases chiefly Chronic.	M.	F.	Totals.
Regent's Park .		427	3575	31918	36	25	1	36	26	62	25	3	4 4	2	4	3 6	1	4 (	6 4		1	3	3		4	5	4	9	4	3	22	56	32	8
Tottenham Court	Road	145	2586	27933	25	24	2 2	27	26	53	27	1	1 1	1	2	3 5	2	2 8	3 4		2				3	6	4	8	5	5	26			
Strand Union .				500	5	12		5	12	17	5				1	1 2	1	2 3				1						6	1		9	38	34	1
Gray's Inn Road .		155	2946	26523	23	24	1	23	25	48	21	4	2	1	1	4 4	4	2 1			1		4		4	7	2	7	1	3	19	40	31	-
Somers Town .		184	3731	35641	28	22	2	30	22	52	25	3.	. 1		3	4 6	2	4 4	2	1					11	10	2	7		3	16	56	42	
Camden Town .		171	2498	19515	10	12	1	10	13	23	9			1	2		2	2 7				1			1	4	2	2		1	12	1		
Workhouse				1600	12	18	2	14	18	32	5				3	6 1	3	8 6	2			2						3		4	21	33	21	
Kentish Town .		1634	3248	23326	33	24		33	24	57	29	3	4 3	1	2	7	1	2 5	7				1	1	4	13	2	6	2	4	17	45	46	
The whole Parish.		2716	18584	166956	172	161	6 5	178	166	344	146	141	1 9	6	18 2	8 24	162	6 46	19	1	4	7	8	1	27	45	16	48	13	23	142	268	206	-

N.B.—The Divisions are those of the Registrar General, which do not quite correspond with any other divisions. The numbers of houses and of the population are derived from the last Census in 1851.

Three deaths in University College Hospital were of persons from other parishes. One death in the Royal Free Hospital was of a female belonging to Saint Andrew's, Holborn. The Table includes two deaths in the Fever Hospital.

[SCHEDULE B.]

St. Pancras, Middlesex.—Cases of Sickness under the care of the District Medical Officers during the Four Weeks ending the 29th of November, 1856.

Districts.	Names of Medical Officers.	Total No. of Cases.	Low Fevers.	Diarrhoea.	Dysentery.	Influenza.	Scarlet Fever.	Small Pox.	Erysipelas and Pyœmia.	Measles.	Hooping Cough.	Bronchitis, Pleurisy, and Pneumonia.	Croup.	Consumption.	Carbuncles and Boils.	Rheumatism.	Other Diseases.
North-West	Mr. Adams	109	8					1	1		1	6		4	1	3	84
South-West	Dr. WILDBORE	175			1	7	1	3.0	8	2	3	49	1		9	30	64
South-East	Dr. Davis	172	2	8					2	15		6		3	1	4	131
Central	Mr. Sutherin	108	2	4					3	14	1	18	1	3	3	10	49
North	Mr. Jefferys	110	6	6	1		1				2	9		2	1	3	79
	Totals	674	18	18	2	7	2	1	14	31	7	88	2	12	15	50	407