





REPORT

TO

HER MAJESTY'S PRINCIPAL SECRETARY OF STATE
FOR THE HOME DEPARTMENT,

FROM THE

POOR LAW COMMISSIONERS,

ON AN INQUIRY INTO THE

SANITARY CONDITION

OF THE

LABOURING POPULATION OF GREAT BRITAIN;

WITH

APPENDICES.

*Presented to both Houses of Parliament, by Command of Her Majesty,
July, 1842.*

LONDON:

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FOR HER MAJESTY'S STATIONERY OFFICE.

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1842.

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TO THE
RIGHT HON. SIR JAMES GRAHAM, BART.

HER MAJESTY'S PRINCIPAL SECRETARY OF STATE
FOR THE HOME DEPARTMENT.

*Poor Law Commission Office, Somerset House,
9th July, 1842.*

SIR,

ON the 14th May, 1838, the Poor Law Commissioners presented to Lord John Russell a report "relative to certain charges which have been disallowed by the auditors of unions in England and Wales;" together with two supplementary reports; one a "Report on the prevalence of certain Physical Causes of Fever in the Metropolis, which might be removed by proper sanitary measures, by Neil Arnott, M.D., and James Phillips Kay, M.D.;" the other a "Report on some of the Physical Causes of Sickness and Mortality to which the Poor are peculiarly exposed, and which are capable of removal by Sanitary Regulations exemplified in the present condition of the Bethnal Green and Whitechapel Districts, as ascertained on a personal inspection by Southwood Smith, M.D., Physician to the London Fever Hospital." (See Fourth Annual Report, App. A, No. 1.)

On the 29th April, 1839, the Commissioners received from Dr. Southwood Smith a "Report on the prevalence of Fever in Twenty Metropolitan Unions or Parishes during the year ended the 20th March, 1838," which they appended to their Fifth Annual Report. (App. C, No. 2.)

- One on the condition of the labouring population of Truro, from Dr. Barham :
- One on the condition of the labouring population of Brighton, from Dr. Jenks.
- One on the sanitary condition of the labouring population in the town of Wolverhampton, by Dr. Dehane.
- One on the prevalence of fever in the parish of Breadsall, Derbyshire, by Dr. Kennedy and Mr. Senior.
- One on the sanitary state of the town of Stafford, by Dr. Edward Knight.
- One on an improved description of cottage tenements for the labouring classes, by Mr. Edmund Ashworth.
- One on the sanitary condition of the town of Lancaster, Dr. de Vitrié.
- One on the sanitary condition of the town of Leeds, by Mr. Robert Baker.

The detailed statements which we received from the Boards of Guardians, and the Union medical officers, were too voluminous for insertion at length in the present Report; but we have caused them to be carefully examined, and some of the most important results which they contained have been extracted in the manner which we shall presently explain.

It will be observed that the inquiry which we were directed by Lord John Russell to make, in accordance with the address of the House of Lords, was limited to England and Wales. Subsequently, however, we received instructions from the Marquis of Normanby, dated 28th January, 1840, directing us to extend our inquiries to the causes of disease and destitution amongst the working classes in Scotland.

On the receipt of these instructions, we caused a circular letter to the medical practitioners to be sent to the provosts of all the Scotch burghs, with a request that they would put us in communication with the officers of the medical charities and establishments within their jurisdiction. In the same letter we stated fully the objects of the inquiry, and requested to be

informed as to the general state of the main sewers, drainage, &c., of the several towns. (Appendix, Nos. 4 and 5.)

In Scotland, with a few exceptions, none of the medical profession are engaged in the public service as medical officers; and we were therefore compelled to rely on the exertions of the private medical practitioners, from whom we received extensive, zealous, and efficient aid. The President of the College of Surgeons of Edinburgh communicated to us a resolution passed by that body, recommending that all members and licentiates of the college should give every aid in their power to the inquiry into the sanitary condition of the poor. We directed additional queries to be issued to the members of the college, from some of whom we received information similar to that obtained from the medical officers in England.

With respect to the sanitary state of towns and districts in Scotland, we subjoin the following reports from medical gentlemen :—

- A report from Dr. Arnott upon Edinburgh and Glasgow :
- One report from Dr. Scott Alison on the sanitary condition of the colliery population of Tranent, and the adjacent districts :
- One report on the condition of the labouring population of Musselburgh from Mr. Stevenson, surgeon :
- One report on the condition of the labouring population of Ayr from Dr. Sym :
- One on the condition of the labouring population, Stirling, from Mr. W. H. Forrest, surgeon :
- One on the condition of the labouring population in Dumfries, from Dr. M'Lellan :
- One on the sanitary condition of the poor of Aberdeen, by Drs. Kilgour and Galen :
- One on the sanitary condition of the town of Lanark, by Mr. John Gibson, surgeon :
- One on the sanitary condition of the city of St. Andrews, by Mr. Adamson, surgeon :
- One on the sanitary state of the town of Greenock, by Dr. Laurie :

One on the sanitary condition of Tain and Easter Ross, by Mr. James Cameron, surgeon.

We have likewise received a report on the sanitary condition of the labouring population in Inverness, from Mr. Anderson, solicitor; and one on the sanitary condition of the Old Town of Edinburgh, by Mr. William Chambers.

As our inquiries led us to believe that considerable doubt exists as to the provisions of the existing law of Scotland upon matters concerning the public health, and as there is not in Scotland any local administrative machinery similar to that of the English unions which can exercise a superintendence over the health of the working classes, we obtained the services of Mr. J. H. Burton, advocate of Edinburgh, to report on the legal provisions existing in that city and in other parts of Scotland, and on the additional legislative measures which appeared, from the reports of the medical gentlemen, to be expedient for the improvement of the sanitary condition of the population of that part of the empire.

We also obtained the services of Mr. Charles R. Baird, of Glasgow, writer to the signet, who was pointed out to our notice by the circumstance of his having paid much attention to the condition of the labouring population of that city to report on the powers with which the local authorities are at present invested by law, and the additional powers they may need for the protection of the health of the inhabitants.

It will be observed that the letter of Lord John Russell, in accordance with the address of the House of Lords to Her Majesty, merely directed us to make inquiry as to the extent to which the causes of disease, stated in the Reports of Drs. Arnott and Kay, and of Dr. Southwood Smith, to prevail amongst the labouring classes of the metropolis, prevail also amongst the labouring classes in other parts of England and Wales, and to transmit the results of that inquiry to the Secretary of State for the Home Department. We should, therefore, have complied with the letter of our instructions if we had merely laid before you the information which we have collected in answer to the inquiries which we circulated. It appeared to us, however, that so large a mass of mis-

cellaneous evidence would not be likely to convey a distinct view of the subject of inquiry if we presented it in an undigested form to Her Majesty's Government; and we, therefore, requested our secretary, Mr. Chadwick, to peruse the information which we had received, (including the returns from the boards of guardians and union medical officers,) and, by comparing the different statements with such authentic facts bearing upon the question as he might collect from other sources, to frame a report which should exhibit the principal results of the inquiry which we were instructed to conduct. We subjoin the Report which Mr. Chadwick has prepared in accordance with this request; and we present to you this, and the other accompanying documents, in the full assurance that, as they contain matters seriously concerning the welfare of the community in general, and particularly of the working classes, they will receive the attentive consideration of Her Majesty's Government.

We have the honour to be,

Sir,

Your very faithful and obedient Servants,

GEORGE NICHOLLS,

GEORGE CORNEWALL LEWIS,

EDMUND WALKER HEAD.

APPENDIX.

1.—Circular Letter of Instructions to the Assistant Commissioners in England.

Poor Law Commission Office, Somerset House,
8th November, 1839.

Sir,—I am directed by the Poor Law Commissioners to call your attention to the following letter lately addressed to them by Lord John Russell.

Whitehall, August 21st, 1839.

"Gentlemen,—The Queen having been pleased to comply with the prayer of an humble address presented to Her Majesty in pursuance of an Order of the House of Lords, dated 19th of August, 1839, that 'Her Majesty will be pleased to cause inquiry to be made as to the extent to which the causes of disease stated in the Appendix A., No. 1, of the Poor Law Commissioners' Fourth Annual Report, and Appendix C., No. 2, of their Fifth Annual Report, to prevail amongst the labouring classes in the metropolis, prevail also amongst the labouring classes in other parts of England and Wales; and that Her Majesty will be graciously pleased to cause the results of such inquiry to be communicated to the House,' I have to desire that you will cause inquiry to be made accordingly, and that you will prepare a report upon the results of such inquiry, and transmit the same to me in order that it may be laid before the House of Lords.

"I am, Gentlemen,

"Your obedient Servant,

"J. RUSSELL."

The Commissioners consider this the proper time for making arrangements to obtain the returns and information on which they may prepare a report to be submitted to the House of Lords in the ensuing Session of Parliament.

The Commissioners request your particular attention to the subject, as one of great importance to the labouring classes, inasmuch as it may lead to the removal of the causes of prevalent and fatal diseases, and of consequent destitution and suffering.

The steps which the Commissioners propose to take for obtaining the information required by the order of the House of Lords, are:—

1. To procure from the medical officers of unions returns of the number of cases of contagious or infectious disease, the spread of which within their respective districts has been promoted by the circumstances referred to in the order of the House of Lords with their observations thereon; for which purpose the Commissioners will issue the necessary circulars to the medical officers.

2. To obtain information from the Boards of Guardians of districts in

which these diseases appear to have prevailed to a considerable extent, and where the guardians have applied to municipal or other authorities for the removal of circumstances promoting the prevalence of such diseases.

3. In large towns, to request some physician,* or general practitioner of eminent reputation, to prepare a report (founded upon data obtained from the various dispensaries, infirmaries, fever hospitals, and other similar public establishments) respecting the circumstances promoting the prevalence of contagious and infectious diseases in such large towns.

The Commissioners will be glad to receive from you the name of any physician or general practitioner of sufficient eminence to obtain the requisite data, and who will be willing to furnish them with such a report in each of the towns in your district named in the margin.

4. If the means already indicated should prove insufficient, to obtain a report from yourself founded on personal examination, on spots where, from the returns or from other information, such examination by yourself or the medical officer of the district may appear necessary.

Some of the chief considerations bearing upon the subject are set forth in the reports referred to in the resolution of the House of Lords, and if within your district there were any Boards of Health appointed during the prevalence of the cholera, it is probable that their reports founded on an examination of the condition of those classes amongst whom the prevalence of that disease was apprehended may furnish you with useful information.

The Commissioners wish further to observe that the state of the dwellings occupied by the labouring classes exercises an important influence upon their health, and the nature and frequency of the diseases to which they are subject, as well as indirectly upon the moral state of themselves and their families.

The Commissioners therefore request you to investigate the state of the dwellings of the labouring classes in your district, both in towns and in the country, with reference to the following observations,—

It will be desirable generally, after informing yourself of the various descriptions of cottage tenements in your district and the nature of the accommodation or comforts which they contain, to observe—

1. What is the common cost of erection, and the average cost of repairing each description of these cottage tenements.
2. What are the rents paid by the labourers for each description of these cottage tenements.
3. What is the general proportion of the rent paid by the labourer to his total expenditure.

You may find within your district instances where the employers of labour (whether agricultural or manufacturing) have erected on their own lands tenements of an improved description for the residence of the labourers employed by them. You are requested to take notice of all such instances which may come before you, and examine them as standards of comparison with other tenements of an inferior kind. You will inquire as to the comparative health and condition of the inmates, and whether the advantage of improved dwellings has been observed to have any salutary influence on the moral habits of the inmates;—whether the increased comforts of his house and home have tended to withdraw the labourer from the beer-shop, and from the habits of improvidence to which it leads;—whether residents in separate and improved tenements are superior in condition, as compared with the labourers who hold merely lodgings, or who reside with other families in the same house.

Where you meet with remarkable instances of improved tenements of this description, you are requested to set them forth in your report, and obtain the loan of the plans or drawings of them, together with any inform-

* The Commissioners have no money to remunerate physicians; and those named should be distinctly informed that the service will be purely honorary.

ation as to their cost and the probable returns in rent, and whether on the whole (other advantages than the pecuniary return being taken into consideration) they are deemed profitable; or what may be the extent of pecuniary loss upon them, or how far it may be counterbalanced by other considerations.

Although the facts collected by you may not lead to the adoption of any legislative remedies, the publication of successful examples may be useful in stimulating to the voluntary adoption of them.

The Commissioners wish you however to consider whether any legislative measure in the nature of a Building Act (*i.e.* an Act prescribing certain rules to be followed in the building of cottages) would tend to introduce generally the improvements which may have been adopted partially by public-spirited persons in your district.

This may be considered:—

1. In the case of tenements intended for the residence of the labouring classes in towns;

2. In the case of cottage tenements in rural districts.

With regard to the former class of tenements, the wages of the labourers in towns being commonly double those earned in the rural districts, they may be well able to afford to procure such an increase of comfort in their houses as may be obtained by means of a Building Act, even at the cost of an additional rent. You are also requested, in your observations on this subject, to bear in mind another question, namely, the expediency of exempting small tenements from the payment of rates, or wherever rents are collected weekly, of collecting the rates from the landlord.

It has been stated that the exemption from poor's rate tends to deteriorate the tenements of the labouring classes, inasmuch as many of such tenements are, for the purpose of obtaining the exemption, built of such quality and appearance as may bring them within the exempted class. It has been further stated, that the benefit of the exemption goes to the landlord, the rent for cottages built for letting in towns being very high as compared with rents obtained for other house property, and that such increased rents have been demanded expressly on the ground of exemption from rating. The causes affecting the construction of cottages are not expressly mentioned in the reports referred to in the resolution of the House of Lords, which treat chiefly of the external and immediately-removable causes of disease, such as stagnant pools or other out-door nuisances with which the parochial officers had to some extent been heretofore accustomed to interfere. But the defective construction of the cottages themselves, and the imperfect protection they may afford against cold or damp—the want of means for the due regulation of warmth or of conveniences for cleanliness, may often be the causes of the prevalence of disease; and the Commissioners consider not only that these subjects cannot with propriety be overlooked in any report on the sources of disease among the labouring classes, but that the beneficial moral results which may arise from the suggestion of improvements in the habitations of the labouring classes justify the Commissioners in taking this occasion to direct your attention to the heads of inquiry which are noticed in this communication.

Signed, by Order of the Board,

E. CHADWICK, *Secretary*.

To

Assistant Poor Law Commissioner.

2.—Circular Letter of Instructions to Clerks of the Boards of Guardians in England and Wales.

Poor Law Commission Office, Somerset House,
12th November, 1839.

Sir,—I am directed by the Poor Law Commissioners to inform you that they have, in compliance with a communication from Her Majesty's Secre-

tary of State for the Home Department, directed the enclosed letters to the medical officers of your board, together with the accompanying forms for their answers, and I am to request that you will transmit them accordingly.

The medical officers will transmit to you the returns when completed, and by you they will be forwarded when the information required is obtained from all the medical officers to the office. In case of any defect in the returns which cannot be remedied, you will state the nature and extent of the same at the time of transmission.

Before transmitting the returns, you are to read them at a meeting of the Board of Guardians, acquaint them with the answers, and annex any further information which they may be enabled to communicate in aid of the inquiry.

Signed, by Order of the Board,
EDWIN CHADWICK, *Secretary*.

To the Clerk to the Board of Guardians.

3.—*Circular Letter of Inquiry to the Medical Officers of the Unions in England and Wales, transmitted to them, with Forms of Return, through the Clerks to the Guardians.*

Poor Law Commission Office, Somerset House,
12th November, 1839.

Sir,—With the view of ascertaining the extent of the existence of circumstances promoting the prevalence of contagious and infectious diseases described in the reports referred to in the Order of the House of Lords, set forth in the letter from Lord John Russell, a copy of which is hereto annexed, you are requested to fill from the medical relief Lists the enclosed returns, and transmit them to the clerk of the union, with such observations as occur to you thereon.

You will observe that the object of the Commissioners is to ascertain the existence and extent of the visible and removable agencies promoting the prevalence of such diseases as are commonly found connected with the defects in the situation and structure or internal economy of the residences of the labouring classes.

The attention of the physicians who drew reports on the state of the metropolis was almost exclusively directed to the causes affecting the prevalence of various forms of *continued fever*, arranged under distinguishing names adopted by nosological writers: but in rural districts the prevalence of ague, and of small-pox, and scarlet fever, may be worthy of notice when the causes promoting their prevalence appear removable.

You will, in your observations on the class of cases returned, note the situation, character and quality of the tenements in which the diseases have occurred;—whether they are situated in a neighbourhood habitually infected with malaria;—whether there are occasional causes of malaria, such as floods, &c.; and in such cases, whether you have any suggestions to make as to the best means of diminishing the evil;—whether they are drained or undrained, whether tight or otherwise;—whether there are good means of securing ventilation with a due regard to warmth;—whether there are accumulations of filth, and if so, whether they are ascribable to the slovenly or indolent habits of the inmates, or to the want of proper receptacles for refuse;—whether the occurrence of disease amidst this part of the population is regular or otherwise, and what are the seasons at which it appears, and its characteristics.

The Commissioners request that you will favour them with any information which you may have gained in the course of your medical experience, as to the condition of the inmates of such residences;—whether there is a need of superior cottage accommodation, or to what extent the improvement of the residence would influence the habits beneficially; as, for exam-

ple,—whether you have witnessed any beneficial effects on the habits of the inmates by providing cottages with a day-room, scullery, pantry, three bedrooms, and convenient receptacles for refuse and for fuel;—whether within your district there are other labourers of the like class, who occupy improved tenements in a superior situation, and what is the general health and condition of the inmates as compared with the general health and condition of the inmates less advantageously situated;—whether you have seen any cottages constructed with a view to the most economical management of fuel both in cooking and maintaining a proper temperature in the rooms;—and further, any observations that may occur to you on the subject of the health of the labouring classes in connexion with what may appear to you to be available sanitary regulations.

The accompanying portions of the report, and the appendix referred to in their lordships' order, are transmitted for your information as to the causes of disease existing in the metropolis, which it is deemed necessary to investigate in other parts of the country.

Signed, by Order of the Board,
EDWIN CHADWICK, *Secretary*.

To the Medical Officer of the

District.

(Copy.)

Whitehall, August 21, 1839.

Gentlemen,—The Queen having been pleased to comply with the prayer of an humble address presented to Her Majesty, in pursuance of an order of the House of Lords, dated 19th August, 1839, "that Her Majesty will be pleased to cause inquiry to be made as to the extent to which the causes of disease stated in the Appendix A., No. 1, of the Poor Law Commissioners' Fourth Annual Report, and Appendix C., No. 2, of their Fifth Annual Report, to prevail amongst the labouring classes in the metropolis, prevail also amongst the labouring classes in other parts of England and Wales; and that Her Majesty will be graciously pleased to cause the results of such inquiry to be communicated to the House,"—I have to desire that you will cause inquiry to be made accordingly, and that you will prepare a report upon the results of such inquiry, and transmit the same to me, in order that it may be laid before the House of Lords.

I am, Gentlemen,

Your obedient Servant,
(Signed) J. RUSSELL.

Form of Return transmitted with the above Letter to the Medical Officer.

For the Year ended September 29, 1829.

A RETURN from Mr. _____ Medical Officer
of the _____ District of the _____ Union.

CASES.		Occupation of Applicants.	Situation and State of Residence.	OBSERVATIONS. (If there should not be sufficient space for the requisite Observations, they may be continued on the back of the Return, or on a fly-leaf, to be attached to the Return.)
No. of.	Nosological Names of.			

Signature of Medical Officer: _____

4.—Circular Letter to the Provosts of Burghs in Scotland.

Poor Law Commission Office, Somerset House,
London, 1840.

Sir,—The Poor Law Commissioners have received from Her Majesty directions to extend to Scotland the inquiry they have, in compliance with an address from the House of Lords, been directed to make in England as to the causes of disease and destitution arising from the situation and construction of the dwellings of the labouring classes, and from other similar circumstances affecting their sanitary condition.

The Commissioners request your aid in conducting the inquiry in the of

The Commissioners have obtained valuable information in England from the medical practitioners who have the care of hospitals and dispensaries, where those contagious febrile diseases to which their attention has been specially directed come under the observation and treatment of experienced professional men.

The Commissioners ask of you the favour of putting them in communication with the officers of the medical charities and establishments in the of

supported by the voluntary subscriptions of the inhabitants or by payments out of the town funds, or both.

The Commissioners desire to ascertain, either from the officers of such institutions or from the medical practitioners of the most extensive practice amongst the poorer classes, or from those who visit them in their habitations, to what extent continued fever, and other contagious febrile diseases, are prevalent amongst the poor;—what is the character of the streets and houses in which these maladies most frequently arise, or spread with the greatest rapidity; the state of the paving,—scavenging, and sewerage of such streets,—their width,—the drainage of the houses,—their size,—their state of repair,—the number of families living under one roof,—the number living in cellars;—and other circumstances relating to the structure and situation of the habitations of the poorer classes, and their habits, by which they may be rendered more susceptible of the influence of contagion.

The Commissioners would also be glad to obtain information whether the main sewers of the town have been constructed in a satisfactory manner, and kept in good repair; and to what body, and with what powers this duty is confided;—whether there are any sanitary regulations of a local character for the enforcement of the paving of streets, and of drainage on the owners of houses erected within a reasonable distance of sewers;—whether any local body has power to interfere in the removal of any, and if so of what, nuisances injurious to health; or to cause lodging-houses, and dwellings liable to be infected with fever, to be cleansed and whitewashed from time to time, and by whom the expense of such interference is sustained.

The Commissioners are further desirous of ascertaining whether the authority possessed by the town council, or other local body intrusted with the paving, scavenging, sewerage, the removal of nuisances and other causes of disease, are sufficient, or might in any respect be increased with advantage to the sanitary condition of the town, and especially of those parts of the town which are inhabited chiefly or exclusively by the working classes, and which are therefore comparatively remote from the observation, and less subject to the interference of the middle classes.

The Commissioners will be glad to obtain from you or from the town council of any suggestions which you may be desirous to make on the subject; and they trust they may have the benefit of your

advice and assistance in the inquiry with which they are charged in the of
its suburbs. and

I have the honour to be, Sir,

Your very obedient servant,

EDWIN CHADWICK, Secretary.

To

The Provost of

5.—Circular Letter of Inquiry to Dispensary Surgeons and Medical Practitioners in Scotland.

Poor Law Commission Office, Somerset House,
London, 19th June, 1840.

Sir,—The Poor Law Commissioners have been directed to extend to Scotland the inquiry which in the past year they received Her Majesty's commands to conduct in England, for the purpose of ascertaining what circumstances in the condition of the poorer classes promote the spread of continued fever and other contagious febrile diseases.

They are desirous that this inquiry should be conducted with care in large towns, where the sources of contagion or the circumstances which promote its rapid diffusion among the population are more rife than in the rural districts; they are anxious to obtain the assistance of the medical practitioners having charge of hospitals and dispensaries in such towns, because such institutions afford the best means of observing under what circumstances febrile contagious diseases are disseminated; of defining the districts of the town in which they spread; of ascertaining the character of the streets and houses in such districts; the comparative attention paid to the paving, sewerage, and drainage of these districts; and whether or not they are subject to malarious influences.

The structure of the dwellings of the labouring classes; the nature and extent of their internal accommodation, and of the means for securing cleanliness, for removing filth, for promoting ventilation, and for providing warmth with due economy, can be most easily ascertained by medical gentlemen who devote their time to the frequently gratuitous services of public institutions; they also are most competent to discriminate between the direct influence of the habits of the poorer classes, and of the external circumstances by which they are surrounded, on their sanitary condition; while on the other hand they will not be liable to fall into the error of supposing that these habits are independent of arrangements which administer to domestic comfort.

The Commissioners trust, therefore, they may rely with confidence on your affording them your valuable assistance in the inquiry which they are directed to pursue. They trust you will permit them to suggest that if the cases recorded in the books of your hospital were grouped according to the districts from which the patients were removed, you would at once be able to define in a map those parts of your town most subject to contagious febrile diseases, and to furnish the Commissioners with the number of cases of each febrile disease occurring in each of these districts, and would possess the means of ascertaining and delineating the features of those districts in all that relates to the sanitary condition of the inhabitants, and to medical police. Besides the general influences alluded to in the former part of this letter, you will probably find it useful to ascertain whether any injurious consequences are clearly attributable to certain classes of manufactories surrounded by the habitations of the poor, to the location of slaughter-houses, tanneries, ancient burial grounds, &c., amidst dense masses of the population.

In the course of this inquiry it may be found necessary to distinguish the extent of disease caused by physical or removable agencies, by malaria created by defective drainage, or the bad construction of the dwellings of

the labouring classes, from disease caused by destitution of the proper means of subsistence arising from poverty. It may be expected of the medical practitioners from whom the Commissioners hope to obtain reports, that they will make the distinction wherever it is found to exist.

The Commissioners will value any suggestions you may have to offer respecting the removal of the injurious agencies which may fall under your observation. You are probably well acquainted with the nature of the powers confided to the municipal authorities or other local bodies respecting the paving, sewerage, and drainage of the town, and especially of those parts of it which are inhabited chiefly or solely by the working classes. The Commissioners request you to observe whether those powers enable the municipal or other local body to complete the sewerage, and to enforce the paving and drainage of the streets partially or wholly at the expense of the proprietors of these houses.

The spread of contagious diseases is greatly facilitated in many towns by the extreme filth of lodging-houses to which mendicants and vagrants resort, and of the habitations of certain of the lowest portion of the poorer class; measures of medical police have been resorted to on the occurrence of epidemic fevers, and at the period of the invasion of cholera, for cleansing and white-washing these habitations at the expense of the inhabitants. The Commissioners request you to state under what circumstances you conceive such measures might be usefully resorted to, and under what superintendence, and whether the expense should fall on the owners of such habitations or on the inhabitants generally, and whether this interference should be habitual or casual.

Suggestions have been made to the Commissioners that the nature of the thoroughfares, and the structure and internal arrangement of the buildings in districts inhabited by the working classes in large towns would be greatly improved if subject to the regulations of a Building Act enforced by the municipal authorities, or by a local board of health; they invite you to reflect on the provisions of such a law, and to state under what circumstances and to what extent you conceive such interference desirable.

Generally the Commissioners are desirous to receive your impressions respecting the means of improving the sanitary condition of the working classes, especially in those parts of your town in which contagious febrile diseases most frequently prevail.

Copies of the forms and exemplifications of the mode of entering the particulars of the information sought in the returns circulated in England, and the reports on the sanitary condition of the labouring classes in the metropolis, are herewith transmitted for your use. The Commissioners have not asked for returns in any prescribed form from the medical practitioners in the towns of Scotland, because they are uninformed as to the nature of the existing records of facts relating to medical statistics in the towns, and they wish to consult the practitioners' convenience, and be guided by them as to the best use to be made of the local circumstances for obtaining information.

I have the honour to be, Sir,

Your very obedient Servant,

EDWIN CHADWICK, *Secretary*.

To

6.—*Form of General Queries addressed to Medical Practitioners and others for Information as to the Condition of the Labouring Classes in Scotland.*

1. Have diseases of the various forms of continued fever, and other contagious febrile diseases, been prevalent in any, and what, parts of your

parish or district, and do such diseases recur at regular intervals, or are they rare and occasioned only?

2. What are the seasons at which such diseases appear amidst any part of the population, and what their characteristics?

3. Did the cholera at the time of its general prevalence prevail to any, and what, extent within the district?

4. What is the *external* condition, in the following respects, of the residences of the population amidst which such diseases occur?

(a.) As to the contiguity of vegetable or animal substances in a state of decomposition, stagnant pools or undrained marshes, accumulations of refuse, either thrown from houses or otherwise?

(b.) As to the means adopted or the means available for the *removal* of such substances, or the prevention of the generation of malaria; whether there are sufficient drains or sewers, adequately well supplied with water to dilute, and sufficiently sloping to carry off all such refuse; whether such drains are sufficiently *closed* to confine noxious exhalations from them; whether there is any regularly appointed service of scavengers or otherwise for the removal of such substances; whether there is such ventilation around the residences of, as to dissipate the noxious vapours apparently irremovable?

5. Describe the *internal structure and economy* of the residences of the population amidst which contagious febrile diseases arise,—

(a.) State whether they, as well as the surrounding land, are drained or undrained?

(b.) Whether they are properly supplied with water for the purposes of cleanliness of the houses, persons, and clothing?

(c.) Whether there are good means of ventilation with a due regard to warmth?

(d.) Whether there are proper receptacles for filth in connexion with the cottages?

6. As to the internal economy of such residences, describe further,—

(a.) Whether they are unduly crowded, and several families or persons occupy the space which would properly suffice only for a less number?

(b.) Whether there are any inferior lodging-houses crowded by mendicants or vagrants?

(c.) Whether there is gross want of cleanliness in the persons or habitations of certain classes of the poor?

(d.) Whether there is a habit of keeping pigs, &c., in dwelling-houses, or close to doors or windows?

(e.) Whether there is an indisposition to be removed to the hospitals when infected with contagious disease?

7. Of the diseases described in question 1, are any or what proportion ascribable to other causes than those specified in questions 4, 5, and 6? if so, distinguish those other causes so far as you are able, and the extent of diseases resulting from them.

8. What is the common cost of erection and average cost of repairing each description of the tenements or cottages inhabited by the labouring classes?

9. What are the rents paid by the labourers for each description of tenements or cottages?

10. What is the general proportion of the rent paid by the labourer to his total expenditure?

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

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

13. Have any, and what, voluntary exertions been made to improve the

external or internal economy of the residences of the labouring classes within your district? and if so, describe their nature and effects.

Name of the parish or district to which the }
preceding answers refer.

Name of the medical practitioner or other }
person by whom the answers are given.

NOTE.—Where the space opposite to any question does not suffice for the full answer which it may be desirable to give, it may be written on the blank space at the back of the sheet, or on a separate sheet, reference being made to the number or letter of the question.

Any general observations may be hereunder annexed.

It is requested that the answer may be transmitted by the post to "The Poor Law Commissioners," according to the address on the inside of the envelope which may be used for the purpose.

REPORT

ON THE

SANITARY CONDITION OF THE LABOURING
POPULATION OF GREAT BRITAIN.

BY

EDWIN CHADWICK, ESQ.,

BARRISTER AT LAW, AND SECRETARY TO THE BOARD OF POOR LAW COMMISSIONERS.

CONTENTS.

GENERAL PREVALENCE OF EPIDEMIC, ENDEMIC, AND CONTAGIOUS DISEASES.

	PAGE
Return of the number of deaths in 1838, in each county, from epidemic, endemic, and other diseases, most powerfully affected by the physical state of a district	2
Extent of evils which are the subject of inquiry	3

I. GENERAL CONDITION OF THE RESIDENCES OF THE LABOURING CLASSES, WHERE DISEASE IS FOUND TO BE THE MOST PREVALENT—

In Tiverton union, Cornwall	5
In Truro, Cornwall	6
In Cerne union, Dorset	8
In Axbridge union, Somerset	10
In Chippenham union, Wilts	11
In Bedford union, Bedford	12
In Woburn union, Bedford	12
In Ampthill union, Bedford	12
In Bishop Stortford union, Hertford	12
In Witham union, Essex	13
In Windsor, Berks.	13
In Epping union, Essex	14
In West Ham union, Essex	14
In Bromley union, Kent	14
In Bilston, Leicester	15
In Stafford (town of), Stafford	16
In Macclesfield union, Chester	17
In Heaton Norris, Stockport union, Chester	17
In West Derby union, Lancaster	18
In Wigan union, Lancaster	19
In Durham (city of), Durham	20
In Barnard Castle, Durham	20
In Carlisle, Cumberland	21
In Gateshead, Durham	21
Condition of the Border peasantry	22
In Lochmaben, Scotland	23
In Glasgow and Edinburgh	23

II. PUBLIC ARRANGEMENTS, EXTERNAL TO THE RESIDENCES, BY WHICH THE SANITARY CONDITION OF THE LABOURING POPULATION IS AFFECTED—

Drainage.

Town drainage of streets and houses.

Instances of the effects on the public health of the neglect of town drainage—	
At Derby	26
At Stockport	28
Comparative mortality in two similar towns, one drained, the other undrained—	
At Beccles and Bungay, Suffolk	28
State of town cleansing at Leeds	29
At Tamworth	30
At Knutton and Chesterton, Staffrd, &c.	30
At Liverpool	30
At Brighton	31
At Birmingham	32

	PAGE
At Edinburgh	33
At Tranent and Ayr	33
At Stirling	34
At Clitheroe, Lancashire	35
<i>Street and road cleansing—road pavements.</i>	
Defective from want of skill or proper combination of means	36
Different influence on the public health of paved and unpaved streets, instance of, in Portsmouth	37
Instance of the effect on the public health of street cleansing in Macclesfield	37
Instances of the neglect of street cleansing—	
In Manchester	38
In Leeds	39
Instances of the consequences on the public health of the neglect of road cleansing in rural districts in England and in Scotland	42
Discipline in respect to cleanliness of the army superior to the civic economy of the towns	44
<i>House cleansing as connected with street cleansing and sewerage.</i>	
Instances of the sanitary condition of houses in the metropolis where the cesspools do not communicate with the drains	45
Small value of refuse in London, in consequence of the expense of cartage	46
Effects on the health of the accumulation of refuse near the residences of the labouring classes: examples in	
Greenock	46
Leeds	47
Cleansing by means of water-closets applicable to the poorer districts as being the most economical	48
Instance of the removal of the refuse of the city of Edinburgh by sewerage, and of its application to agriculture by irrigation	48
Objections by the citizens of Edinburgh to irrigation by sewers in the immediate vicinity of the city	49
Value of the refuse of London, on the scale of value of the refuse of Edinburgh	51
Modifications of the mode of sewerage of Edinburgh, to make a system of cleansing innoxious and profitable, and extend it to the residences of the poorer classes	52
Expense of street cleansing in Manchester	53
Defects of the prevalent mode of removing the refuse of houses by cartage, or otherwise than by sewerage	54
Instances of defective construction of sewers	55
Evidence on the action of improved modes of sewerage	55
Effects of different descriptions of streets upon the public health	59
Proposed mode of cleansing streets by sweeping the refuse into the sewers	60
Similar mode proposed of cleansing Paris	61
<i>Supplies of water.</i>	
Necessity of improved supplies of water for house and street cleansing	63
Instances of the want of water in the houses, and of the effect on the personal and domestic habits of the lower classes of the population in towns	
In Manchester, 64; in Truro union, 65; in Audley district of Newcastle-under-Lyne union, 65; in Dunmow union, 65; in Bishops Stortford union, 65; in Loxden and Winstree union, 65; in Wootton, Bedford, 66; in Edinburgh, 66; in Glasgow, 66; in Aberdeen, 67; in Stirling, 67; in Dundee, 67; in Greenock, 67; in Ayr, 67; in Arbroath, 67; in Renfrew, 68; in Dunfermline, 68; in Tain, 68; in Tranent.	68
Inapplicability of the supplies of water to be obtained by fetching from the public wells	69
The supplies of water in London by machinery and pipes, and in Paris by cartage and hand carriage, compared	70
Cost of laying on water in labourers' tenements and the economy of supply in such a mode	71
Supplies of water by private companies, not applicable to rural districts of small population	72

	PAGE
Complaints against the modes of supplies of water by private companies	72
Private companies do not ensure the best practicable supplies to the public	73
Instance of supplies of water obtained by the public without private companies	74
Necessity of general provisions of supplies of water	77
Unwholesome effects of bad water	77
<i>Sanitary effect of land drainage.</i>	
General land drainage, effects of, on the health of the population, instances of in—	
The Isle of Ely, 80; the Newhaven union, 81; the Ongar union, 81; the Gravesend and Milton union, 81; the Eastry union, 81 and 82; the Dunmow union, 82; the Epping union.	82
Instances of—	
In Scotland	83
Instances of the effect of land drainage upon the health of cattle	83
Instance of the effects of land floods and deficient land drainage in—	
The Langport union, 85; the Chesterfield union, 87; the Dore union, 87; the Bicester union, 88; the Leighton Buzzard union, 88; the Foleshill union, 89; the Malton union, 89; Lochmaben, Scotland	90
Foreign illustrations of the effect of drainage upon the health of the population	90
Interests opposed to the cleansing of Paris	93
Class similar to the Chiffoniers found in English towns.	94
Their personal habits	95
Collateral benefit of more effectual cleansing of towns in diminishing degrading employments	96
III. CIRCUMSTANCES CHIEFLY IN THE INTERNAL ECONOMY AND BAD VENTILATION OF PLACES OF WORK; WORKMEN'S LODGING-HOUSES, DWELLINGS, AND THE DOMESTIC HABITS AFFECTING THE HEALTH OF THE LABOURING CLASSES.	
Various effects of overcrowding places of work, as shown in the case of one class of workmen	98
Comparative ease and economy of measures of prevention rather than of relief	104
Sanitary effects of ventilation on workpeople at Glasgow	107
Effects of defective ventilation on the health of milliners and dressmakers in the metropolis	107
Instances of the effects of defective ventilation of sleeping rooms of the working classes	103
Effects of the defective economy of lodging-houses and places of repose exemplified in the duration of life of one class of workmen	112
Instances of errors in respect to the sanitary effects of particular occupations	113
Injurious effects of deficient ventilation in schools	119
<i>Bad ventilation and overcrowding private houses.</i>	
Great apparent increase in the proportionate number of houses according to the last census attributable to a different mode of making the return.	120
Instances of great overcrowding in cottages in—	
Greenock, 121; Tranent, 121; Sleaford union	122
<i>The want of separate apartments and overcrowding of private dwellings.</i>	
Effects of the overcrowding of private dwellings on the morals of the population, instances of, in—	
The Ampthill union, 122; the Leighton Buzzard union, 123; the Bicester union, 123; the Romsey union, 123; among the border peasantry, 124; in Manchester, Liverpool, Ashton-under-Lyne, and Hull, 124; in Leeds, 126; in Nottingham, 126; in Clitheroe	126
Instances of the injurious influences of bad tenements upon the personal condition and moral habits of the inmates	128
Effects of noxious agencies in preventing frugality and promoting intemperance	129
In preventing the influence of education	132
Force of habits of intemperance in the use of spirituous liquors against all habits of decency, or frugality, or morality	133

	PAGE
Misconceptions as to casualties occurring among the indigent or profligate	134
Intemperance the cause of fever	136
<i>Domestic mismanagement a predisposing cause of disease.</i>	
Mismanagement of earnings obstructive to the domestic improvement of the sanitary condition of the labouring classes.	
Instances of in—	
Derby, 137; Birmingham 138; Manchester, 139; Preston union, 140; Ayr, 141; Tranent, 141; Dundee	142
Attacks of fever most frequent on workmen in full employment and ordinary health	145, 147
Irrelevancy of controversy on the generation of fever, in respect to practical means of prevention	148
Concurrence of medical opinions as to the most efficient means of preventing fever	150
IV. COMPARATIVE CHANCES OF LIFE IN DIFFERENT CLASSES OF THE COMMUNITY.	
Instances of the comparative chances of life amongst the gentry, tradesmen, and working men—	
In Truro, 154; in Derby, 155; in Manchester, 157; in Rutland, 157; in the Bolton union, 158; in Bethnal Green, 159; in Leeds Borough, 159; in Liverpool, 159; in the Whitechapel union, 160; in the Strand union, 160; in the Kensington union, 161; in Wiltshire, 161; in the Kendal union	161
Tabular views of the ages at which deaths have occurred in different classes of society	162
Comparative mortality of differently circumstanced districts of the metropolis	164
Comparative prevalence of fever in different districts of Leith	167
High mortality not essential to towns	167
Comparative mortality in three classes of the community at Bath	168
Corroborative experience from Paris as to the influence of local circumstances on mortality	170
Improvements in the health of large towns chiefly confined to improved districts	171
Instance of progressive improvement in the social condition of the population concurrently with its increase in numbers	175
Prevalence of disease no evidence of the pressure of population on food	177
Variations of the proportion of deaths and births in different districts of the same town	178
Proportion of births to the population greatest where there is the greatest mortality	179
Proof that pestilence or excessive mortality does not diminish population	182
Numbers merely not the test of strength or prosperity of a community	185
Deterioration of the strength of the population by disease without diminishing its numbers	185
Increase of food or production concurrently with the increase of population	188
V. PECUNIARY BURDENS CREATED BY THE NEGLECT OF SANITARY MEASURES :—	
Cost of remedies for sickness and of mortality which is preventible	188
Average ages of death of the heads of families of widows and orphans chargeable to the Manchester, Whitechapel, Bethnal Green, Strand, Oakham and Uppingham, Alston with Garrigill, and Bath unions	190
Table of the number of widows and dependent orphans chargeable in eight unions	191
Table of the chief cause of death producing widowhood and orphanage in eight unions	192
Detailed instances of the causes of widowhood and orphanage in Alston with Garrigill	193
Examples of the sanitary effects of superior care in the residences and the places of work of labourers—in the Reeth union, North York, 196; in Gwennap, Illogan, and Camborne, Cornwall, 198; in Great Bradford and Horton, West York	199

	PAGE
Comparison of a young population under favourable and a mature population under unfavourable circumstances	200
Effects of noxious physical agencies on the moral and intellectual condition of the working classes	202
Jurisprudential measures for the prevention of deaths from accidents	205
Cost of disease as compared with cost of prevention, instances of in Glasgow and Dundee	206
VI. EVIDENCE OF THE EFFECTS OF PREVENTIVE MEASURES IN RAISING THE STANDARD OF HEALTH AND THE CHANCES OF LIFE :—	
Former health of gaols as compared with the present state	211
Effects of sanitary measures of prevention on the health of prisoners	214
Comparison of the experience of sickness amongst different classes of people	216
Amount of sickness experienced by the labouring classes	217
Defects of Insurance tables	218
Effects of sanitary measures in the prevention of disease in the army and navy	219
<i>Cost to tenants and owners of the public measures for drainage, cleansing, and the supplies of water, as compared with the cost of sickness :—</i>	
Cost of measures of prevention as compared with the cost of sickness and mortality	222
Means of payment for improved accommodation	227
Impolicy of exemptions of tenements from proper charges	229
Injurious effects of exemptions of labourers' tenements	230
Inability of workmen to improve their own condition	231
Necessity of extrinsic aid for the improvement of the condition of the working classes	232
<i>Employers' influence on the health of workpeople, by means of improved habitations :—</i>	
Advantages to labourers of holding tenements in connexion with their employments	233
Instance of a superior moral and sanitary condition enjoyed by workers in a cotton factory	236
Elevation of a manufacturing population by improvements in the condition of their dwellings	238
Most advantageous construction of manufactories for the health of the workpeople	240
<i>The employers' influence on the health of workpeople—</i>	
By modes of payment which do not lead to temptations to intemperance	245
By the promotion of personal cleanliness	253
By the ventilation of the places of work and the prevention of noxious fumes, dust, &c.	256
By promoting respectability in dress	261
Employers' or owners' influence in the improvement of habitations and sanitary arrangements for the protection of the labouring classes in the rural districts	261
Instances of, in the Bedford Union, 262; Stafford Union, 263; in Norfolk and Suffolk, 264; at Harlaxton, Lincolnshire, 266; at the Earl of Rosebery's estate, Scotland, 266; at Closeburn, Dumfries, 266; Turton and Bollington, Lancashire, 267; Birmingham	267
Instances of the influence of the materials used in building upon the health of the inmates in Cheshire, Lancashire, Buckingham and Berkshire	267
Instances of efficient improvements in the detail of labourers' dwellings in Scotland	270
Improvements proposed for the construction of the dwellings of the lower classes in towns	272
Effects of public walks and gardens on the health and morals of the lower classes of the population	275

VII. RECOGNISED PRINCIPLES OF LEGISLATION AND STATE OF THE EXISTING LAW FOR THE PROTECTION OF THE PUBLIC HEALTH:—	PAGE
Necessity of legislative interference for the protection of the health of the population	279
Spread of old evils in unprotected new districts by inefficient legislation	280
Dangers of increased charges for inefficient sanitary measures shifting without improving the population	282
Expulsion of labourers from old tenements without providing appropriate new ones, not invariably beneficial	286
Advantages in the regulation of the sites of dwellings	287
<i>General state of the law for the protection of the public health:—</i>	
Medical police in Germany	288
Existing laws for the protection of the public health in England	289
Early state of the law for the protection of the public health	291
<i>State of the special authorities for reclaiming the execution of the laws for the protection of the public health:—</i>	
General desuetude of the laws for the protection of the public health	296
State of the administration of the laws for the protection of the public health, by court leets and local trusts	299
<i>State of the local executive authorities for the erection and maintenance of drains and other works for the protection of the public health:—</i>	
State of the obstructions to land drainage and works of private profit redounding to the public health	302
Injuries to private property as well as to the public health, occasioned by defective administration	305
Continuance of the causes of disease in the face of representations of their effects on the population	307
Areas of jurisdiction for drainage inconsistent with efficient operations	309
Prevalent misconceptions as to the objects and state of management of existing sewerage	311
Objections made to the existing local administration of the sewers' rate	315
Securities requisite to obviate opposition to new expenditure for sewerage	316
Necessity of the subordinate drainage of private tenements being comprehended as part of one system	319
Disturbing local interests opposed to efficient management of expenditure in new districts	322
Obstacles arising from defective local arrangements for efficient expenditure in local public works	323
Inconveniences of legislation on details, and the want of scientific and trustworthy direction	328
High rates of charges, by fees, for superintendence of imperfect structural arrangements	329
Extent of waste in expenditure on local public works, and on separate collections	333
Public facilities for private land drainage afforded by consolidation	337
Grounds of unpopularity and distrust of new local expenditure	339
<i>Boards of Health or public officers for the prevention of disease:—</i>	
Inefficiency of Boards of Health, as ordinarily constituted	340
Failure of Boards of Health in Ireland	342
Importance of the functions of medical officers in connexion with the executive authority	343
Means and economy of skilled services for the prevention of diseases	348
Administrative measures for the prevention of disease amongst the labouring classes	349
Administrative means for promoting the extension of medical science	352
VIII. COMMON LODGING-HOUSES THE MEANS OF PROPAGATING DISEASE AND VICE:—	
State of the common lodging-houses in the Barnet union, 357; in Birmingham, 357; in Brighton, 358; in Manchester, 358; in the Stockport	

	PAGE
union, 360; in the Macclesfield union, 360; in Durham, 361; in the Teesdale union, 361; in the Tynemouth union, 361; in Newcastle-on-Tyne, 362; in Tranent, Haddingtonshire, 362; in Tain, Ross-shire, 362; in the borough of Warwick, 363; in Chelmsford	364
Grounds for subjecting common lodging-houses to the responsibilities of public-houses and beer-shops	364
Practical illustration of the regulations of common lodging-houses	366
IX. RECAPITULATION OF CONCLUSIONS:—	
Recapitulation of the chief conclusions deduced on the information obtained in the course of the inquiry	369
Conclusions as to the available means of prevention	370
Grounds for uniformity of legislation	372

APPENDIX.

1. Evidence of Mr. John Roe, civil engineer, on the practical improvement in sewerage and drainage tried in the Holborn and Finsbury divisions of the metropolis	373
2. Evidence of Mr. John Darke, contractor for cleansing, as to the obstacles to cleansing, and the conversion of the refuse of the metropolis to productive uses	379
3. Evidence of Mr. John Treble, contractor for cleansing, as to the obstacles to cleansing, and the conversion of the refuse of the metropolis to productive uses	380
4. Extract from the report of Fourcroy and others, showing the calculation of the extent of pollution of the Seine from the discharge of the refuse of the streets of Paris	381
5. Communication from Captain Vetch, of the Royal Engineers, on the structural arrangements of new buildings, and protection of the public health	382
6. Evidence of Mr. George Gutch, district surveyor, on shifting and building inferior tenements in the suburbs, to avoid the provisions of the Metropolis Building Act	394
7. Estimate by Mr. Howell, of the cost of structural arrangements of sewerage, drainage, water-tank, and means of house cleansing for labourers' tenements in the metropolis	394
8. Description of specification of Mr. Loudon's agriculturists' model cottage	395
9. Statement of the requisites of cottage architecture, by Mr. Loudon	396
10. Specification of the cost of erection, weekly rents, interest on the capital invested, and the numbers of the tenements and cottages occupied by the poor and labourers; taken from returns made by the relieving officers of their respective districts in 24 unions in the counties of Chester, Stafford, Derby, and Lancaster	400
11. Tables of the expense of building cottages and repairs, in England and Scotland	401
12. Examination of the Rev. Thomas Whateley, Cookham, Berks, on cottage allotments and the keeping of pigs by cottagers	403
13. Arrangement of public walks in towns: plan of the arboretum at Derby, laid out by Mr. Loudon	405
14. Boards of Health: report on the labours of the "Conseil de Salubrité," of Paris, from 1829 to 1839, by M. Trebuchet	409
16. Qualifications of officers of public health: statement by M. Duchâtelet	423
17. Instance by MM. Duchâtelet and D'Arcet, of the erroneous medical inferences as to the insalubrity of particular trades	424
18. On the habitations of the lower orders of Paris	426
19. On the habitations and lodgings of the lower orders in Paris	428
20. Extract from the report of the commission appointed by the Central Board of Public Health, to ascertain the condition of the dwellings of the working classes in Brussels, and to suggest means for their improvement	429
21. Principles of sanitary police in Germany: extracts from Professor Mohl	431

	PAGE
22. A report on the statements of Dr. Mauthner, regarding the sanitary condition of the operatives in the new cotton manufactures, Vienna, given at the monthly meeting on the 2nd of November, 1841. By Herr L. M. Von Pacher	432
23. Typhus fever, the vast amount of, produced amongst the poor of Liverpool, from want of ventilation and cleanliness: extract from Dr. Currie's medical reports	441
24. Extract from Dr. Ferriar's "Advice to the Labouring Classes in Manchester," given in 1800	441
25. Principles of jurisprudence and responsibility for accidents: extract from the First Report of the Commissioners of Inquiry into the Labour of Children in Factories.	442
26. Extract from the report of Mr. John L. Kennedy, barrister-at-law, to the Commissioners for inquiring into the Labour of Young Persons in Mines and Manufactories	445
27. Tables of Sickness in prisons	449
28. Tables of Sickness in the wynds of Edinburgh	452
29. Suggested form of notification to owners or occupiers, for the distribution of the expense of permanent alterations and the avoidance of overcharges on persons enjoying only portions of the benefit	453
30. Extracts from evidence as to the moral and physical evils that may be created by defective arrangements for hiring and paying workpeople	454

LIST OF PLATES.

Map, exhibiting the track of fever and cholera, and the badly-cleansed portions of the town of Leeds	160
Map, exhibiting the numbers and places of death from epidemic and other diseases affected by locality, in the parish of Bethnal Green, during one year	160
Linear representation of the comparative numbers and progress of deaths from consumption, from epidemics, and other classes of disease, in the metropolis, during the two years ended the 1st of January, 1842	167
Plans and views of habitations for the labouring classes	266
Group of Northumberland cottages, copied from a view given by Dr. Gilly, canon of Durham;—Group of cottages at Harlaxton, erected by Gregory Gregory, Esq.;—Plans and elevations of cottages, erected by the Rev. Benyon de Beauvoir, at Culford, Suffolk;—Plans of labourers' cottages, erected by the Earl of Leicester, at Holkham; by the Earl of Rosebery, in Scotland;—Plan of a new form of labourers' cottages, erected by Sir Stewart Mont-teath, at Closeburn;—Plan of labourers' cottages, erected by Messrs. H. and E. Ashworth, at Turton; by S. Greg, Esq., at Bollington.	
Plan, by Mr. Sydney Smirke, of lodging-houses for workmen in towns	274
Section of the chief forms of sewers used in the metropolis	378
Plan of the arrangement of the future increment of towns for the protection of the sanitary condition and convenience of the population, by Captain Vetch, of the Royal Engineers	384
General plan of house and street sewerage, and of the construction of streets favourable to cleansing and dryness, by Captain Vetch	389
Isometrical view of a model agricultural labourer's cottage, by Mr. Loudon	396
Isometrical view of a mechanic's model double cottage, by Mr. Loudon	398
Furniture of cottages: plans of construction of beds and windows	399
Plans and elevations of labourers' cottages erected by the Messrs. H. and E. Ashworth;—Plans and elevations of houses in Birmingham	402
Plan for the arrangement of public walks in restricted space in towns, as shown in the arrangement of the Arboretum, in Derby, by Mr. Loudon	406

REPORT
ON THE
SANITARY CONDITION OF THE LABOURING POPULATION,
AND ON
THE MEANS OF ITS IMPROVEMENT.

London, May, 1842.

GENTLEMEN,—Since my special attention was directed to the inquiry as to the chief removable circumstances affecting the health of the poorer classes of the population, I have availed myself of every opportunity to collect information respecting them. In company with Dr. Arnott I visited Edinburgh and Glasgow, and inspected those residences that were pointed out by the local authorities as the chief seats of disease. I also visited Dumfries. An inspection of similar districts in Spitalfields, Manchester, Leeds, and Macclesfield, and inquiries formerly made under the Commission of Poor Law Inquiry, and inspections of the condition of the residences of the poorer classes in parts of Berkshire, Sussex, and Hertfordshire, had supplied me with means of comparison. Abandoning any inquiries as to remedies, strictly so called, or the treatment of diseases after their appearance, I have directed the examinations of witnesses and the reports of medical officers chiefly to collect information of the best means available as preventives of the evils in question. On the documentary evidence of the medical officers, and on the examinations of witnesses, aided by personal inspections, I have the honour to report as follows:—

Partial descriptions of the condition of the labouring classes, in respect to their residences and the habits which influence their health, afford but a faint conception of the evils which are the subject of inquiry. If only particular instances, or some groups of individual cases be adduced, the erroneous impression might be created that they were cases of comparatively infrequent occurrence. But the following tabular return made up from the registration of the causes of death in England and Wales, which is the most complete yet attained, will give a sufficiently correct conception of the extent of the evils in question, when illustrated by the evidence of eye-witnesses, the medical officers whose duty it has been to attend on the spot and alleviate them. The table comprehends the abstract of the returns of the deaths from the chief diseases, which the medical officers consider to be the most powerfully influenced by the physical circumstances under which the population is placed—as the external and internal condition of their dwellings, drainage, and ventilation.

To the Poor Law Commissioners.

[1.]

B

COUNTIES.	Number of Deaths during the Year ended 31st December, 1833, from										Proportion of Deaths from the preceding Causes in every 1000 of the Population, 1841.	Proportion of Deaths from all Causes of Mortality in every 1000 of the Population, 1841.
	1				2			3	4	Total Deaths from the four preceding Classes of Diseases.		
	Epidemic, Endemic, and Contagious Diseases.				Diseases of Respiratory Organs.			Diseases of Brain, Nerves, and Senses.	Diseases of Digestive Organs.			
	Fever: Typhus, Scarlatina.	Small-pox.	Measles.	Whooping Cough.	Consumption.	Pneumonia.	All other Classes.					
ENGLAND.												
Bedford .	155	75	40	66	457	97	57	304	131	1382	13	22
Berks . .	204	288	21	86	739	231	162	467	201	2399	15	25
Bucks . .	256	85	61	27	575	131	61	348	152	1696	11	19
Cambridge	231	136	57	90	686	156	70	318	189	1933	12	21
Chester .	592	279	178	87	1742	366	345	1442	421	5452	14	21
Cornwall .	443	135	168	491	1270	342	124	631	228	3832	11	18
Cumberland	165	188	11	83	562	75	142	278	169	1673	9	21
Derby . .	394	77	79	71	905	200	205	777	268	2976	11	18
Devon . .	615	460	287	312	1649	564	298	1237	471	5893	11	18
Dorset . .	137	255	80	58	571	146	106	380	159	1892	11	19
Durham . .	347	316	139	304	1007	352	207	1138	274	4094	13	21
Essex . .	417	460	83	163	1250	276	234	782	268	3933	11	19
Gloucester	352	457	440	244	1395	578	476	1142	510	5594	13	20
Hereford .	84	83	17	36	333	56	57	238	62	966	8	18
Hertford .	160	116	45	48	620	107	90	453	155	1794	11	20
Huntingdon	61	18	1	17	216	45	42	140	72	612	10	18
Kent . .	955	510	169	214	1701	564	526	1650	651	6940	13	21
Lancaster .	2866	1628	898	910	8124	2660	1916	7457	3231	29690	18	25
Leicester .	273	98	17	70	941	243	154	668	314	2778	13	21
Lincoln .	370	138	29	88	874	248	242	1090	358	3437	9	17
Middlesex	4422	3359	487	1749	6220	3097	2334	6643	2492	30803	20	27
Monmouth	328	321	49	91	481	163	78	550	100	2181	16	24
Norfolk .	515	126	63	109	1388	325	281	793	395	3995	10	19
Northampton	348	148	36	36	762	192	124	503	212	2361	12	21
Northumb ^d	366	149	46	113	715	287	240	709	338	3013	12	21
Nottingham	222	73	18	80	911	225	201	901	287	2918	12	20
Oxford .	222	81	51	59	655	108	152	389	180	1897	12	21
Rutland .	11	2	..	13	64	14	8	56	28	196	9	17
Salop . .	213	154	112	138	995	242	168	550	284	2856	12	21
Somerset .	560	710	401	46	1446	426	373	982	473	5417	12	21
Southampton	454	164	78	148	1222	338	331	881	372	3988	17	19
Stafford .	610	249	182	268	1809	539	419	1251	597	5924	12	18
Suffolk .	480	325	53	158	1306	315	184	538	275	3634	12	20
Surrey . .	1348	814	177	565	2196	978	700	2325	763	9866	11	25
Sussex . .	391	80	159	88	1047	222	181	863	295	3326	11	18
Warwick .	454	415	153	164	1495	678	361	973	638	5336	13	20
Westmorel ^d	41	40	6	41	248	33	44	154	46	653	12	21
Wilts . .	246	259	263	140	869	268	212	606	241	3104	12	20
Worcester .	381	305	122	258	990	353	235	645	446	3735	16	29
York, E. R.	194	92	167	149	725	194	176	1009	251	2957	13	21
,, N. R.	123	28	69	114	550	102	135	553	187	1861	9	17
,, W. R.	1298	993	799	507	4253	1202	848	4374	1494	15768	14	21
WALS.												
North . .	660	575	4	210	1227	102	223	1311	198	4510	13	18
South . .	1613	1004	199	398	1834	129	277	1200	380	7034	14	21
Total, 1838	24,577	16,268	6514	9107	59,025	17,999	13,799	49,704	19,306	216,299	14	22
Total, 1839	25,991	9131	10,937	8165	59,559	18,151	12,855	49,215	20,767	214,771	14	21

The registration of the causes of death for the year 1838 is selected, as that was the year when the report was made on the sanitary condition of the labouring population in the metropolis, which has served as the foundation of the extended inquiry.

There are no returns, and no adequate data for returns, to show the proportion in which deaths from the several causes above specified occur amongst the population of Scotland, but there is evidence to which reference will subsequently be made tending to prove that the mortality from fever is greater in Glasgow, Edinburgh, and Dundee than in the most crowded towns in England.

The registered mortality from all specified diseases in England and Wales was, during the year 1838, 282,940, or 18 per thousand of the population. These deaths are exclusive of the deaths from old age, which amounted to 35,564, and the deaths from violence, which amounted to 12,055. The deaths from causes not specified were 11,970. The total amount of deaths was 342,529 for that year. In the year following the total deaths were 338,979, of which the registered deaths from old age were 35,063, and the deaths from violence 11,980. The proportion of deaths for the whole population was 21 per thousand.

It appears that fever, after its ravages amongst the infant population, falls with the greatest intensity on the adult population in the vigour of life. The periods at which the ravages of the other diseases, consumption, small-pox, and measles take place, are sufficiently well known. The proportions in which the diseases have prevailed in the several counties will be found deserving of peculiar attention.

A conception may be formed of the aggregate effects of the several causes of mortality from the fact, that of the deaths caused during one year in England and Wales by epidemic, endemic, and contagious diseases, including fever, typhus, and scarlatina, amounting to 56,461, the great proportion of which are proved to be preventible, it may be said that the effect is as if the whole county of Westmoreland, now containing 56,469 souls, or the whole county of Huntingdonshire, or any other equivalent district, were entirely depopulated annually, and were only occupied again by the growth of a new and feeble population living under the fears of a similar visitation. The annual slaughter in England and Wales from preventible causes of typhus which attacks persons in the vigour of life, appears to be double the amount of what was suffered by the Allied Armies in the battle of Waterloo. It will be shown that diseases such as those which now prevail on land, did within the experience of persons still living, formerly prevail to a greater extent at sea, and have since been prevented by sanitary regulations; and that when they did so prevail in ships of war, the deaths from them were more than double in amount of the deaths in battle. But the number of persons who die is to be taken also as the indi-

cation of the much greater number of persons who fall sick, and who, although they escape, are subjected to the suffering and loss occasioned by attacks of disease. Thus it was found on the original inquiry in the metropolis, that the deaths from fever amounted to 1 in 10 of the number attacked. If this proportion held equally throughout the country, then a quarter of a million of persons will have been subjected to loss and suffering from an attack of fever during the year; and in so far as the proportions of attacks to deaths is diminished, so it appears from the reports is the intensity and suffering from the disease generally increased. It appears that the extremes of mortality at the Small-pox Hospital, in London, amongst those attacked, have been 15 per cent. and 42 per cent. But if, according to other statements, the average mortality be taken at 1 in 5, or 20 per cent., the number of persons attacked in England and Wales during the year of the return, must amount to upwards of 16,000 persons killed, and more than 80,000 persons subjected to the sufferings of disease, including, in the case of the labouring classes, the loss of labour and long-continued debility; and in respect to all classes, often permanent disfigurement, and occasionally the loss of sight.

In a subsequent part of this report, evidence will be adduced to show in what proportion these causes of death fall upon the poorer classes as compared with the other classes of society inhabiting the same towns or districts, and in what proportions the deaths fall amongst persons of the same class inhabiting districts differently situated.

The first extracts present the subjects of the inquiry in their general condition under the operation of several causes, yet almost all will be found to point to one particular, namely, atmospheric impurity, occasioned by means within the control of legislation, as the main cause of the ravages of epidemic, endemic, and contagious diseases among the community, and as aggravating most other diseases. The subsequent extracts from the sanitary reports from different places will show that the impurity and its evil consequences are greater or less in different places, according as there is more or less sufficient drainage of houses, streets, roads, and land, combined with more or less sufficient means of cleansing and removing solid refuse and impurities, by available supplies of water for the purpose. Then will follow the description of the effects of overcrowding the places of work and dwellings, including the effects of the defective ventilation of dwelling-houses, and of places of work where there are fumes or dust produced. To these will be added the information collected as to the good or evil moral habits promoted by the nature of the residence. These will form so many successive sections of the report, and will be followed by information in respect to the means available for the prevention of the evils described, and an exposition of the present state of the law for the protection of the public health, and of modifications apparently requisite to secure the desired results.

I. GENERAL CONDITION OF THE RESIDENCES OF THE LABOURING CLASSES WHERE DISEASE IS FOUND TO BE THE MOST PREVALENT.

The following extracts will serve to show, in the language chiefly of eye-witnesses, the varied forms in which disease attendant on removable circumstances appears from one end of the island to the other amidst the population of rural villages, and of the smaller towns, as well as amidst the population of the commercial cities and the most thronged of the manufacturing districts—in which last pestilence is frequently supposed to have its chief and almost exclusive residence.

Commencing with the reports on the sanitary condition of the population in Cornwall and Devon, *Mr. Gilbert*, when acting as Assistant Commissioner for those counties, reports, that he found the open drains and sewers the most prominent cause of malaria. He gives the following as an instance of the common condition of the dwellings of the labouring classes in Devon, where it will be observed that the registered deaths from the four classes of disease amounted in one year to 5893 cases.

“In Tiverton there is a large district, from which I find numerous applications were made for relief to the Board of Guardians, in consequence of illness from fever. The expense in procuring the necessary attention and care, and the diet and comforts recommended by the medical officer, were in each case very high, and particularly attracted my attention.

“I requested the medical officer to accompany me through the district, and with him, and afterwards by myself, I visited the district, and examined the cottages and families living there. The land is nearly on a level with the water, the ground is marshy, and the sewers all open. Before reaching the district, I was assailed by a most disagreeable smell; and it was clear to the sense that the air was full of most injurious malaria. The inhabitants, easily distinguishable from the inhabitants of the other parts of the town, had all a sickly, miserable appearance. The open drains in some cases ran immediately before the doors of the houses, and some of the houses were surrounded by wide open drains, full of all the animal and vegetable refuse not only of the houses in that part, but of those in other parts of Tiverton. In many of the houses, persons were confined with fever and different diseases, and all I talked to either were ill or had been so: and the whole community presented a melancholy spectacle of disease and misery.

“Attempts have been made on various occasions by the local authorities to correct this state of things by compelling the occupants of the houses to remove nuisances, and to have the drains covered; but they find that in the present state of the law their powers are not sufficient, and the evil continues and is likely so to do, unless the legislature affords some redress in the nature of sanitary powers. Independently of this nuisance, Tiverton would be considered a fine healthy town, situate as it is on the slope of a hill, with a swift river running at its foot.