

Minutes of evidence taken before the Sub-Committee of the Health Committee appointed to inquire and report as to the causes of the excessive mortality of the borough, and as to the means to be adopted for mitigating the same / ordered by the Health Committee to be printed, 18th January, 1866.

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BOROUGH OF LIVERPOOL.

MINUTES OF EVIDENCE

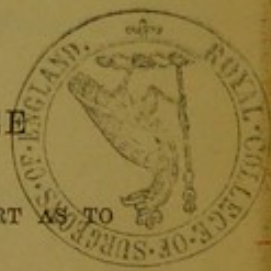
TAKEN BEFORE

THE SUB-COMMITTEE

OF THE

HEALTH COMMITTEE

APPOINTED TO INQUIRE AND REPORT AS TO



THE CAUSES OF THE EXCESSIVE MORTALITY
OF THE BOROUGH;

AND AS TO

THE MEANS TO BE ADOPTED FOR MITIGATING THE SAME.

Ordered by the Health Committee to be printed, 18th January, 1866.

LIVERPOOL:

PRINTED BY HEWSON AND PROCTER, LEATHER LANE, DALE STREET.

1865-G.

BOROUGH OF LYNN

MINUTES OF THE

THE SUB-COMMITTEE

WALTHAMSTON

THE CHAIRMAN OF THE WALTHAMSTON

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At a MEETING of the SUB-COMMITTEE of the
HEALTH COMMITTEE, appointed to inquire
and report as to the causes of the excessive
Mortality of the Borough, and as to the means
to be adopted for mitigating the same, held on
Saturday, the 25th day of November, 1865,

PRESENT :

JAMES R. JEFFERY, Esq., CHAIRMAN.

EDWARD LAWRENCE, Esq.

C. T. BOWRING, Esq.

EDWARD SAMUELSON, Esq.

JAMES WHITTY, Esq.

THOMAS DOVER, Esq.

DR. TRENCH, and

MR. MCGOWEN.

MEMORANDUM FOR THE RECORD

DATE: [illegible]

TO: [illegible]

FROM: [illegible]

SUBJECT: [illegible]

[The remainder of the page contains several paragraphs of extremely faint, illegible text, likely a memorandum or report.]

ON DIARRHŒA.

The CHAIRMAN :—The first thing, Gentlemen, we have to do, is to mark out our course of procedure. I think the evidence of our officers would be very valuable; we should enlist also, the assistance of the town missionaries, and the services of the bible readers. We will begin with the Officers of the Council. I would suggest, however, that we take care that what auxiliary aid we seek and obtain, the same is made subservient to this Committee.

Mr. DOVER :—I would rather, Mr. Chairman, have information from Officers of the Council. I have not so very high an opinion of the judgment of scripture readers in these matters.

The CHAIRMAN :—Probably, we had better first deal with the information that the Doctor can afford us; we can then judge as to what further aid, we shall require, when we see whether disease is wide spread or confined to any particular locality.

Dr. TRENCH :—This schedule of the deaths registered in Liverpool, from all causes, as well as from Typhus Fever and Diarrhœa, during the first three quarters of 1865 (*i.e.* from January 1st to September 30th), arranged into Wards and Districts, will afford to the Committee many facts of great interest in their inquiry.* It shows the periods of the year, and the localities in which the greatest mortality prevailed; but as all investigations into increased death-rate, should begin with the history :—firstly, of existing epidemics, and secondly, of diseases dependant on extraneous or removable causes, I have added to the schedule, a list of the streets, in which Typhus and Diarrhœa were most fatal; these being the prevailing epidemics of the year. The Committee will please also, to understand, that what I purpose to say on causation

* The Schedule now shows the deaths in the fourth quarter.

of disease refers now solely to epidemics or to that abnormal and excessive mortality, which is beyond the usual and unavoidable death-rate of towns, and has no allusion to deaths from accidental, structural, or organic causes.

The schedule illustrates the very distinctive characteristics in the natural history of these two diseases—Diarrhœa and Typhus. It shows that during the wintry and cold months, the deaths from Typhus were largely in excess; amounting from January 1st to March 31st to 750, and from July 1st to September 30th to 436. It is true that even during the third quarter, though the weather was mild and genial, the death-rate was in excess of former years—denoting thereby the continued presence of some extraneous or exceptional agency, either contagion, epidemic constitution or general distress,—but still as compared with the first quarter, the diminution was marked. On the contrary, we find Diarrhœa almost absent from the death-registry during the winter, and only excessive during the bright and sunny months of summer; the registered deaths from this disease increasing from 51 between January 1st and March 31st, to 613 between July 1st and September 30th. This contrast which is constant and not fortuitous may probably lead the Committee to certain conclusions respecting causation. In winter we have a low temperature, which depresses vitality and encourages the over-crowding and closeness of apartments; but which, per contra, checks the emanations or miasms from drains, external filth, and decaying animal and vegetable matter. We have also then abundant falls of rain, which injuriously affect the health of persons exposed thereto, by deranging the equilibrium of the circulation, inducing chills and internal congestions; but which also, per contra, remove by floods, the refuse of streets and cleanse by flushing, the accumulations of sewers. In the summer we have the

sunshine, the warmth and heat which give elasticity to the spirits and vital excitement to the body ; which permit families to live during the day in the air and to sleep at night with their windows open and their apartments ventilated ; but which, per contra, also hasten vegetable and animal matter to putrefactive fermentation, and develop rapidly the poisonous gases from drains, cesspools, and manure heaps. We have also then very little rain, and therefore no adequate flushing of sewers, the traps or grids of which are also, at that dry season, liable to be deranged ; while the temperature, which promotes the functional vitality of organs, also, renders the mucous system of the body peculiarly susceptible to suffer from irritating causes. If I ask the Committee to remember these contrasts of seasons and epidemical diseases, it is not for the purpose of inducing them to preconceive opinions and conclusions, but simply as a means of connecting facts which will be brought before their notice in relation with the mortality of the Borough.

The CHAIRMAN :—We shall, I think, arrive better at facts if the Medical Officer's evidence be taken on separate and distinct questions of inquiry, and I will, therefore, ask him to confine his remarks, during this day's meeting, to Diarrhoea.

DR. TRENCH :—The Committee will be good enough to cast their eyes over those figures of the schedule which illustrate the mortality from Diarrhoea in Scotland and Vauxhall Wards ; in the former of which, the deaths rose from 13 in the first to 162 in the third quarter, and in the latter Ward from 4 to 64.

MR. BOWRING :—Were the 64 in Vauxhall Ward ?

DR. TRENCH :—Yes ; the numbers were 4 in the first, 6 in the second, and 64 in the third quarter.

MR. SAMUELSON :—That does not take into consideration the recent deaths ?

DR. TRENCH :—No ; it only includes the deaths to Oc-

tober. To give them for less divisions of time than quarters would, in my opinion, confuse the comparative results; but I may mention that usually the epidemic Diarrhœa begins to wane in the fourth quarter; and that it did not do so during last October was due to an absence of those rains which generally precede the autumnal equinox.

The CHAIRMAN:—Do I understand you to be now talking of Diarrhœa generally or only of Diarrhœa as an epidemic.

Dr. TRENCH:—The statistics embrace Diarrhœa of all kinds, whether Sporadic or Epidemic; but my observations will refer to the Epidemical, or what is known as Infantile Diarrhœa.

The CHAIRMAN:—What proportion are Infantile?

Dr. TRENCH:—I don't suppose that of the whole 613 cases, which occurred in the Borough during the third quarter, more than 39 were persons above the age of five. Indeed the greater number will be found to be Infants below one year of age, or during the period of life when they depend chiefly for nourishment on the milk of the mother.

The CHAIRMAN:—Would the dirty condition of a woman's body, with a child at her breast, produce Diarrhœa?

Dr. TRENCH:—No.

The CHAIRMAN:—Would the intoxication of the mother at the time of giving the child the breast, produce Diarrhœa?

Dr. TRENCH:—No.

The CHAIRMAN:—Let us confine ourselves to one Ward. We have in Scotland Ward, during the three months of the third quarter, 162 deaths. What do you consider to have been the causes of this excess?

Dr. TRENCH:—Heat and the poisonous emanations from filth and from decaying vegetable and animal substances. I will endeavour to prove this by some remarks on the localities of the places where the disease was most prevalent. There is added to the schedule a list of streets in which four or more deaths occurred

from Diarrhoea. The number of such streets amount to thirty-three, of which twenty-two are situate in Scotland and Vauxhall Wards. It may be mentioned that the whole of those streets are in what may be justly termed the low and dirty districts of the town, and that of the twenty-two in Scotland and Vauxhall Wards, fourteen, viz. : Bond-street, Portland-street, Hornby-street, Hopwood-street, Tatlock-street, Burlington-street, Athol-street, Slade-street, Clement-street, Blackstock-street, Paul-street, Gascoyne-street, Chartres-street, and Oriel-street, are either in near proximity to or receive the emanations from the muck wharves, the manure factories, and chemical works of Pumpfields and the canal side.

MR. LAWRENCE :—Are there not other streets in which the conditions of the locality, as respect filth and impurities, were very similar to the fourteen you have mentioned, and yet where the deaths from Diarrhoea were not in excess ?

DR. TRENCH :—Certainly it is so ; but I may mention that the deaths only show a per centage of the sufferers from disease. There are, as far as I am aware, no published data to prove what that per centage is in the case of Epidemic Diarrhoea, but as a physician I may state it as my experience that Infantile Diarrhoea is common, during the summer, in the low and dirty districts of the town, to a degree much greater than in airy and clean districts. I beg also to call the attention of the Committee to another feature in the comparative prevalence of Epidemic Diarrhoea, viz., its relation to the fall of rain, as influencing the removal of filth. In my Annual Report for 1864 I remark that the death rate of that year from Diarrhoea had been exceptionally high, and that the most notable circumstance connected with its meteorological phenomena had been the extreme dryness of the season, unaccompanied, however, by any great exaggeration of the heat of the

atmosphere. In the same report I prepared a table, showing the number of deaths in the third-quarters of the several preceding five years, with amount of rain fall, duration of rain, highest, lowest, and mean rates of temperature and mean barometrical range of the atmosphere, and I then observed that the fact of the amount of Summer Diarrhœa being in that table relatively proportionate to the quantity and celerity of rain fall in the two months of July and August was something more than accidental. This theory (for we are probably as yet only justified to giving such a qualified expression to what may not admit of positive proof) receives support from the history of Epidemic Diarrhœa during this year. It is usual for Epidemic Diarrhœa to cease at the end of September, but whether from the great paucity of rain fall in August and September (amounting only to 3·8 inches) and the failure of the usual supply from Rivington Water-works, the epidemic went on with accumulating force through the whole of October, in the four weeks of which it numbered 136 deaths, or seventy-seven above the average of the last ten years. I repeat now what I have elsewhere stated, that in my opinion it is by the mere mechanical process of cleansing the gutters of streets and flushing out the sewers, especially at a time when their emanations are most to be dreaded, that summer rains and thunder showers have a favorable effect in mitigating the Diarrhœa epidemic; for mere drizzling or very light rains during hot weather will, by encouraging fermentation, rather increase the evil.

The CHAIRMAN :—Then I understand you, Doctor, distinctly to give it as your opinion that the epidemic of Diarrhœa is caused by the inhalation of bad smells?

Dr. TRENCH :—The term bad smells may be open to cavil, I should say the inhalation of noxious effluvia.

The CHAIRMAN :—Do you also think that if there was

sufficient water to flush the sewers and cleanse the streets frequently and effectually, in the summer, there would be fewer deaths?

Dr. TRENCH :—I believe that the number of deaths from Epidemic Diarrhœa would be thereby reduced one-third, and I have previously used this belief as a reason for employing the water of the Mersey for sanitary purposes.

Mr. DOVER :—Do you mean to say that Diarrhœa cannot occur in the houses of the upper classes when the noxious smells don't exist?

Dr. TRENCH :—I am speaking of Epidemic Diarrhœa. Many circumstances, as cold, errors of diet, &c., may occasion Sporadic Diarrhœa. I am talking of the Epidemic Diarrhœa, which attacks many children in a neighbourhood at one period of the year.

Mr. LAWRENCE :—You appear to attribute some part of the unhealthiness of the fourteen streets in Vauxhall and Scotland Wards, as respects Diarrhœa, to their being near to the effluvia from Pumpfields; are you able to detect the existence of any similar cause in the other streets in your list?

Dr. TRENCH :—Nothing beyond the presence of the cesspools, which are too common in almost all the courts of the Borough.

Mr. LAWRENCE :—Are the streets on your list those in which Epidemic Diarrhœa has been in excess in former years?

Dr. TRENCH :—In the Cholera epidemic of 1849 (and I need not mention to the Committee that between Cholera and Diarrhœa there is a pathological similarity) we find the streets in my list then the highest in the death registry. I do not possess any history of Epidemic Diarrhœa in Liverpool until the years 1863 and 1864, but of the streets wherein Epidemic Diarrhœa was then most fatal, most of them now again appear on the list of 1865.

Mr. SAMUELSON :—You said just now that though the mother was of drunken habits, her milk would not cause Diarrhœa to the child ?

Dr. TRENCH :—Yes.

Mr. SAMUELSON :—Suppose the child to inhale the mother's breath, would that affect it ?

Dr. TRENCH :—Yes it might.

Mr. SAMUELSON :—Would it affect the lungs ?

Dr. TRENCH :—We are talking now of Diarrhœa. I consider that Infantile Diarrhœa may be produced by the poison of foetid breath, filthy and perspiring bodies, emanations from overcrowded rooms, from dirty and damp clothes, the disjecta and decomposing urine in unventilated apartments, and all the other accessories of dirty habits among the poor, as perfectly as from the emanations of sewers and cesspools. I don't, however, believe that practically they are found to influence the prevalence of Epidemic Diarrhœa, because we find children more exposed to the pollution of close rooms, and more liable to be stifled by the breath and perspiration of nurses in winter than in summer ; in fact the inquests on infants, absolutely smothered in the arms of their mothers, show this pretty clearly.

Mr. WHITTY :—There is a popular feeling put forth, that at the time of the new fruit and vegetable season Diarrhœa is more prevalent. Is that so ?

Dr. TRENCH :—Yes, and there can be no doubt that such food produces Diarrhœa ; but I don't think it has much if any effect on Epidemic Diarrhœa, as most of the deaths occur among infants below one year of age.

Mr. LAWRENCE :—Do you hold that if the mother takes anything in the way of fruit or vegetables it will not injuriously affect the milk ?

Dr. TRENCH:—If thoroughly digested it will not, as far as the nutriment of the child is concerned?

Mr. LAWRENCE:—I have heard medical men express the very opposite.

Mr. BOWRING:—I know that ladies who are nursing abstain from the use of fruit, from fear that the child will suffer.

Dr. TRENCH:—There is an old adage which says "Doctors will differ." I think that mothers do right in abstaining from what will, in their opinion, hurt the child, but I feel certain that what, as food, does not disagree with the mother will not injuriously affect the milk as nutriment for the child. In other words, I believe that the food having passed through the functional processes of digestion, absorption, and assimilation retains no longer any of its primary qualities in the secreted milk, and that it is only when one or more of these processes are disordered or disarranged, and the food not completely transmuted in the vital alembic, that it will poison or injuriously qualify the milk. I regard this not only as a physiological fact, but as one of the many instances in which a wise Providence, by the adaptation of means to ends, controls and regulates the functions necessary to life. A lady rejects many things because they will, in her experience, hurt her child. Her experience is probably correct, but the articles of food which she avoids are eaten with impunity by other mothers of stronger and better digestion. In the tropics, the negro mother feeds almost altogether on fruit and vegetables, the Hindoo woman nurses on rice, the Spanish and Portuguese on bread and onions or vegetable messes seasoned with garlic, the people of the extreme north live chiefly on fish or on highly carbonised materials, such as blubber, oil, and fat; the Scottish peasant, at least a very few years ago, lived chiefly on oatmeal, as the Irish now on potatoes. It is not the material but the digestion

which is at fault when certain articles of food are found to injuriously affect the milk.

Mr. LAWRENCE :—How do you account for it that ladies after taking certain kinds of food will find the infant suffer, and yet they themselves do not?

Dr. TRENCH :—I doubt the fact. It is quite possible that the mother may not perceive or may disregard the symptoms of indigestion in herself, but nevertheless I believe that they must have existed if her milk purges the child. I may add, however, that the first process—"digestion"—may be perfectly effectual, and yet the process of assimilation be subsequently deranged by mental emotions, such as temper, anger, hystericks, and the like. These are not worth considering in an enquiry into causes of epidemical disease, but the physician too often sees their effects sporadically.

Mr. BOWRING :—What is the per centage of deaths due to Diarrhoea?

Dr. TRENCH :—The schedule before the Committee shows that of the total deaths in the nine months, six per cent. were due to Diarrhoea, and that of the total deaths during the three months of the third quarter, fifteen per cent. were due to the same cause.

Mr. BOWRING :—What proportion of the deaths were of children under five years of age?

Dr. TRENCH :—I cannot at the moment answer that with exactness, but of the whole deaths, from all causes, I believe there were 43 per cent. below five years of age.

Mr. DOVER :—Then fruit has nothing to do with it?

Mr. MCGOWEN :—The Doctor does not go so far as that.

Mr. DOVER :—That is as to Infants, take people of middle age.

The CHAIRMAN :—We are talking of what produces the Epidemic.

Mr. SAMUELSON :—Do you know any town in England wherein excess of deaths from Diarrhœa may be accounted for by the same causes as you believe to produce it in Liverpool.

Dr. TRENCH :—I have only documents referring to Liverpool.

The CHAIRMAN :—I understand you to say, in answer to a question by Mr. Lawrence, that where the cause exists there will be found the disease. I will put the converse of that question, by asking if you ever found Epidemic Diarrhœa to exist, without the presence of those emanations to which you attribute it?

Dr. TRENCH :—No.

Mr. SAMUELSON :—What becomes of contagion?

The CHAIRMAN :—Do I understand you to say, that Diarrhœa is contagious?

Dr. TRENCH :—No.

Mr. SAMUELSON :—Still, I am under that impression.

Dr. TRENCH :—It is classed as a Zymotic in the nosology of the Registrar-General, but that does not necessarily imply that it is contagious. I would respectfully ask the Committee not to discuss a question, so hypothetical as the contagion or non-contagion of Diarrhœa.

Mr. DOVER :—We have said a great deal about houses, but have really dwelt little upon personal cleanliness; the people out of doors, think we don't consider the subject sufficiently. I think also the mode of living an important question.

Dr. TRENCH :—My evidence has had reference only to Epidemic Diarrhœa, that is to a disease chiefly affecting Infants.

Mr. DOVER :—Would not one baby being washed and the other not washed affect the predisposition to Diarrhœa?

Mr. BOWRING :—Neglect in that way would weaken the constitution.

Dr. TRENCH :—Weakness produced in any way, or by any means, will predispose to disease ; but when working out the causation of Epidemics, we don't dwell on the predisposing or distant causes of diseased action in general, but on the proximate and immediate cause of the particular disease. I don't think that not washing a baby would in this sense, produce Diarrhœa.

The CHAIRMAN :—We have proceeded very satisfactorily so far. What shall we take at the next sitting ?

Mr. BOWRING :—Before we break up, I will suggest that we take steps to ascertain the amount of population of any district, which the Doctor recommends as being most unhealthy.

The CHAIRMAN :—I think you are getting now to another subject, I should have no objection if Mr. Bowring will move that hereafter, we visit some of these places ; but I submit that at present it is premature, because we may have to see the locality twice over, when we enquire into the causes of Typhus. I consider we have concluded as far as Diarrhœa is concerned. At our next meeting, we will take Typhus. The Doctor will give us the localities where the Typhus is to be found, and then we may accept Mr. Bowring's motion, select the localities and enquire into the causes of the two epidemics at one and the same time.

Dr. TRENCH :—Your personal visit, gentlemen, will be necessary to enable you to judge properly of the social condition which plays so important a part in the causation of Typhus. It will also enable you to judge how far nationality accounts for those personal habits and that indigence which I believe has more to do with Typhus than mere external physical causes. I am aware, that to draw inferences from the accidents of nationality is invidious and ungracious ; but

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I may be supposed to speak without prejudice on the subject, and I think that you will see what has often painfully struck me, that there are streets so open and so free from glaring physical defects of construction, that I could not include them in my presentment to the Grand Jury, and yet such streets, because of their being inhabited by poor Irish, are the foci of Typhus. The fact is, the poor creatures come to us in want, live in want, and die in want.

The CHAIRMAN :—The want of substantial nourishment.

Dr. TRENCH :—Yes.

Mr. BOWRING :—My object is to obtain facts and for subsequent meetings to draw inferences.

The CHAIRMAN :—Is it your pleasure to enter upon another subject ?

Mr. DOVER :—I move that we adjourn.

The CHAIRMAN :—You had better not enter into a fresh subject until you are prepared to go through with it.

Mr. WHITTY :—The Doctor is to be complimented for the able manner in which he has propounded the causes of Diarrhœa to the Committee. Ought we not to have other medical testimony upon this subject, besides our medical officer.

The CHAIRMAN :—I am anxious that we should not bind ourselves to any fixed rule, but receive evidence and dispose of one section of our inquiry before beginning another.

Mr. MCGOWEN :—And in doing so, bring in scientific parties before the Committee.

The CHAIRMAN :—We now know our course of procedure, and we will first make our inquiry as complete as we can, from the evidence of our own medical officer.

The Committee then adjourned.

SECOND HEAD.—TYPHUS.

At a MEETING of the SUB-COMMITTEE of the HEALTH COMMITTEE, appointed to inquire and report as to the causes of the excessive Mortality of the Borough, and as to the means to be adopted for mitigating the same, held on Wednesday, the 29th day of November, 1865,

PRESENT :

JAMES R. JEFFERY, ESQ., CHAIRMAN.

C. T. BOWRING, ESQ.

THOMAS DOVER, ESQ.

THOMAS CHILTON, ESQ.

EDWARD LAWRENCE, ESQ.

EDWARD SAMUELSON, ESQ.

JAMES WHITTY, ESQ.

DR. TRENCH.

TYPHUS.

The CHAIRMAN :—Now, gentlemen, if you please I would like to ascertain from you whether you agree with me that, in the present stage of our proceedings, it would be an unnecessary waste of time to read over the proceedings of the last week. It appears that we are rather sitting in a sort of extra-judicial position, and it is not necessary to go over the evidence. I suggest that when the notes are transcribed they be forwarded to the Doctor for his perusal, in order that he may add to those notes as he thinks necessary.

Mr. SAMUELSON :—It would be very desirable that every Member of this Committee should have an opportunity of reading the notes.

The CHAIRMAN :—I would suggest that each Member do have a copy of them.

The CHAIRMAN :—So far as I remember, at our last meeting we considered that we had closed the first head of our inquiry—that of Diarrhoea; we now go to the second head of our subject—that of Typhus. If the Medical Officer will be kind enough to proceed with this case as in the former, I think we can thus make great progress; our time to-day is limited, seeing that the Doctor has to attend elsewhere.

Mr. BOWRING :—I think it would be desirable that the minutes of these Meetings be left in the charge of the Clerk, and that they be accessible to every Member of this Committee.

The CHAIRMAN :—I thought the Committee would not require the ordinary course of reading over the minutes of proceeding of former Meetings. We are sitting as an extra-judicial inquiry, and when the evidence is written out in full it will be placed before us.

Dr. TRENCH :—I beg to place on the table two charts; the one illustrating the daily mortality from Typhus Fever in

all the separate Wards of the Borough ; the other the daily deaths from the same disease in thirteen of the worst streets of the town. The Committee will, however, please to remember that under the generic term "Typhus," as employed in the Nosology of the Registrar-General, and adopted by me in the Annual Reports, are comprised Typhus Fever, Typhoid Fever, Relapsing Fever, and Infantile Remittant Fever.

The CHAIRMAN :—You include Infantile Fever ?

Dr. TRENCH :—Yes ; it is the opinion of many of the profession, and my own, that Infantile Remittant is, at least in this country, only a modified type of Typhus, and therefore, though separating it for the advantages of reference in my weekly returns, I have, in these charts, included it under the same heading.

Mr. LAWRENCE :—Is Infantile Fever a very fatal disease ?

Dr. TRENCH :—Yes ; it is generally preceded by errors in diet, and ushered in with gastric and abdominal irritation, and then come the head symptoms which too frequently terminate in death.

Mr. LAWRENCE :—Is it confined to Infants ?

Dr. TRENCH :—Yes ; for the symptoms which characterise it are due, in great measure, to the extreme constitutional mobility of children. It is, properly speaking, a type of Typhus, only observed in Infants.

Mr. BOWRING :—Is it to that you attribute so many deaths of Children ?

Dr. TRENCH :—No. The cases registered as Infantile Fever during the whole of 1864 were only 34. I may mention also, that relapsing or what is frequently termed Famine Fever, has played no important part in the epidemic of the last four years, and that there is reason to believe that it has scarcely appeared, even sporadically, in Liverpool since 1847. I will

now proceed, with the permission of the Committee, to state some facts, connected with the natural history of pure Typhus. Typhus Fever is recognised by irregular pink and reddish brown eruptions, which are converted into petechæ in the advanced stage of the disease. They do not, except at the first onset, disappear on pressure. The functional symptoms accompanying the disease, indicate great derangement of the sensorium with marked vital debility. It is this Fever which has since 1862 been epidemic in Liverpool. It is never, even in the most healthy years, altogether absent from the town; but is chiefly prevalent in localities where over-crowding and the attendant evils of squalid poverty, bad ventilation, mephitic and confined air, dirt of rooms and personal uncleanness are also found. It is under these circumstances highly contagious; but the power and intensity of its poison are so mitigated by removal of the patient to open and freely ventilated apartments, that it is seldom observed to spread in well-regulated hospitals, or in the families of the rich. It is essentially a disease of the poorer classes, and is as a rule confined to them, or to those of the better ranks, who as clergymen, district visitors, physicians and nurses, work in the dwellings of poverty, or to those who as victuallers, undertakers, pawnbrokers, and small shopkeepers, are brought by business into direct communication with the affected. An Epidemic of Typhus always indicates the existence of some cause of unusual distress—whether from the failure of crops, the dearness of provisions, the slackness of trade, the tightness or irregularity of the labour market, the follies of strikes, or of personal vices and reckless improvidence—by which the people as a whole, or in large numbers, are so reduced below the normal standard of health and strength as to become the easy victims of contagion. The periods or seasons in which it is most

prevalent, are the cold inclement months of the first and fourth quarters of the year. This is shown by the charts. In the first quarter (January, February, March,) the deaths amounted to 750, and were reduced in the third quarter (July, August, and September) to 446; while in the present quarter the number is again on the increase. It is well to keep this fact in view, because firstly, of a characteristic difference in that respect from Typhoid Fever, and secondly, of the apparent connection between climate and causation. Frost while it checks the miasm of putrescent, vegetable and animal fermentation, and lessens thereby the noxious emanations from sewers and cesspools, also, tends "pari passu" to augment indigence, intensify over-crowding, and depress vitality. When therefore we find that cold weather favors the prevalence and fatality of Typhus, we are enabled in a certain degree to arrive at a knowledge of causation and are led to infer that the prophylactic of the disease will be found in some reform of the home condition of the poor, rather than of external accidents in the vicinity of their dwellings. I have referred to the charts, as illustrative of the natural history of pure Typhus, although those charts really represent, as I before stated, at least four distinct heads or species of Fever; but the present Epidemic has been so unexceptionally pure Typhus, that the other varieties will not, by their sporadic and comparatively infrequent cases, modify our conclusions. I may also mention that the effects of climate in influencing the prevalence of Typhus would have been more apparent in a chart of its progress in a non-epidemic year; because what physicians term "Epidemic constitution" (as designating the increased activity of contagion) is then absent. Indeed, so sensitive an index is Typhus of any weight which unduly or injuriously presses on a community, that I believe it possible in the retro-

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spect of years to detect by the variations of the death registry, the existence of disturbing causes affecting local or general prosperity. Every one acquainted with the proceedings of the vestry, must have observed the great and sudden increase among the claimants of parochial relief by any long continuance of east wind, and the consequent delay in the arrival of homeward bound vessels. Now this increase of pauperism is always accompanied by an increase of Typhus, and thus the records of a meteorological phenomenon, of an economic effect, and of a contagious disease are all imprinted on one and the same line of the death register. And what is true of the temporary distress occasioned among the laboring population of our port, by the east wind, is equally so when the distress succeeds public calamities or personal vices.

MR. DOVER :—Is the Typhus you are speaking of the same as that called “Spotted Fever?”

DR. TRENCH :—Yes.

MR. WHITTY :—When a Member of the Vestry I have observed the effect of the East wind in increasing the number of applicants for relief so far as to double it.

MR. LAWRENCE :—Are your remarks restricted to the history of Typhus as observed in Liverpool?

DR. TRENCH :—Though I draw my illustrations from Liverpool, the conclusions are to be accepted as, in my opinion, true in respect of the general history of the disease. Liverpool presents, in the condition of its laboring population, certain peculiarities, social and economic, which predispose to the generation and extension of Typhus. I shall have, on a subsequent occasion during your inquiries into overcrowding, to bring before your notice the radical defects in the position and construction of houses, and the want of adequate accommodation for laborers. At present I restrict myself to some

remarks on their economic condition. The demand for unskilled labor is always great at seaport towns, but has been peculiarly so in Liverpool, on account of the extension of its Docks on both sides of the Mersey, and the vast increase of its Shipping and Trade. Now the interests of unskilled workmen are not protected either by the restrictions imposed by the duration of apprenticeship, or by the dexterity of knowledge and experience; nor are they guarded by those rules and trade combinations which check competition and enhance wages. The consequence of this is that the unemployed, whether experts or untaught, whether tradesmen or laborers, whether from town or country—seek in the great marts of unskilled labor the means of occupation and of maintenance, and hence also as a result, not merely accidental or theoretical, but absolutely constant and practically demonstrable, the supply of such labor is ever beyond the demand. To say that such supply has no limits might appear paradoxical; but it may be asserted that as water flows till it finds its level, so the stream of the indigent unemployed will not cease to press on the chief marts of unskilled labor until the wages have reached the lowest scale compatible with the maintenance of life, or at least been depressed to the level of other places. I am aware that it may be said that the wages of unskilled laborers, such as of cotton and dock porters, are not less than one pound per week; but then it must be remembered that competition and other circumstances render work uncertain, and that it is in Liverpool the exception to find such persons in anything like constant employment. I have made frequent inquiries into this subject, and my conclusion is that the average wages do not exceed Twelve shillings a week, out of which have to be paid house rent and maintenance of wife and family.

Mr. DOVER :—It is not more than 9s. The porters

get 3s. 6d. a day, or 21s. a week when in full work. I made a calculation some years since, when I was in business and employed much of that labour, and I found that they only earned on an average 9s. a week.

Dr. TRENCH :—The system is just as the Alderman has described it; when I speak of 12s. I do so simply on the evidence which came under my own observation. But I would ask the Committee to weigh the full meaning of this word “average,” as applied to the wages of the Liverpool laborers. In a manufacturing town, the men work in large bodies, and thus they are known to each other, and there is among them a *solidarité* of interests. They may not be always occupied full time and obtain full wages, but at the worst there is only a lessening, never a total cessation of income, and their diminished time, though on the verge of “clamming,” never reaches to absolute want. Of course I am talking of ordinary times, and not of years so exceptional as that of the cotton famine. Now, *per contra*, the unskilled laborers of our port have no fixed place or combined unity of work; there is much of chance and little of certainty in their employment; a man goes from Toxteth Park to the extreme northern Docks, and “*vice versa*,” in search of work; a westerly breeze or a spurt of commercial speculation may for a few weeks give him full wages, but then comes the period of total stoppage for which no provision has been made. The transition is almost immediate from abundance, or at least sufficiency, to absolute pauperism. This uncertainty, like the rapid changes of gambling, tends to demoralise the men and almost to preclude any steady household economy by the wives; hence we find among them an amount of reckless improvidence, drunkenness, and squalid wretchedness greater than among the same class in manufacturing towns. I have stated that the indigent unemployed

flock to the town; unfortunately many of such Immigrants bring with them not only the burden of poverty but a capacity of submitting to privations which acts as a pernicious example to other laborers; and hence we find in this town of commercial prosperity and wealth, large sections of the people in the lowest scale of social, physical, and moral degradation. There can thus be no difficulty in understanding why, 1stly, Typhus Fever is never absent from Liverpool; 2nd, why among a population so reduced by overcrowding and privations below the normal standard of health and strength, the slightest increase of public distress quickly converts sporadic Typhus into the gravity of a fatal epidemic; 3rd, why seaports like Liverpool and Glasgow—the resort of unskilled laborers, and especially of poor Irish—are so unfavorably placed on the lists of the Registrar-General's Returns of Annual Mortality.

The CHAIRMAN:—When you say that they make no provision for the period when work is scarce, may they not as a custom pay in good times for the necessaries of life received on credit when out of employment?

Dr. TRENCH:—To a certain extent that is, no doubt, done.

Mr. BOWRING:—Then you consider that the nature of employment in Liverpool is such as to draw to it the lowest class of labour, and that such labour is underpaid?

Dr. TRENCH:—It is unskilled labour, with uncertain occupation. I do not state that labour is underpaid, for that might bear an interpretation unjust to employers, but I think that there are too many men for the work to be done, and that thereby wages are reduced to the very lowest scale compatible with the maintenance of life.

The CHAIRMAN:—I take it that the demand for labour is very fluctuating, and that if an east wind lessens it, a west

wind, by bringing a fleet of vessels at one time to the port, may also increase it beyond the available supply.

Mr. CHILTON :—In your report of last week you told us that at this season of the year numbers of people, who had been working during the summer in the country, flock to the town and increase overcrowding. Could you not by the provisions of "The Nuisances Removal Act" prevent this overcrowding?

Dr. TRENCH :—That is one of the most difficult social problems with which we have to deal, and I must confess that I do not see any practical mode of solving it.

Mr. CHILTON :—My idea is that the wages are not so much ruled by what employers pay for full labour, as by the condition in which the people themselves are content to live, and that if, by the operation of sanitary laws or otherwise, we can insist on a higher condition—such as is incompatible with very low wages—we shall virtually prevent the influx of Immigrants, who overcrowd the town and bring whole classes to the lowest level of wretchedness consistent with bare existence.

Dr. TRENCH :—In theory I perfectly agree with you, but practically it is full of almost insurmountable difficulties. Its discussion will come more legitimately before you when inquiring into overcrowding; but I may mention, firstly, that to check overcrowding by coercive means you must be prepared to act, on the whole districts so placed, at once and simultaneously, otherwise your efforts will only disperse the people from one place to intensify the evil in another; secondly, that you must begin to raise the social basis by moving those who are on the lowest level. Now I believe the first to be impracticable, because of the magnitude of their numbers, and with regard to the second I may

remind you that the tenants of overcrowded rooms are not on this lowest level, but have below them a numerous host of outcasts, who sleep nightly on brick kilns, in privies of courts, in sheltered nooks of streets and alleys, or where there is the chance adjunct of a baker's oven under the pavement. I have been told that on account of a fatal accident to three men, the police were, some years since, directed to arrest and imprison the night dwellers on brick kilns, but the number was so great as to fill the bridewells to overcrowding, and the system of such raids was necessarily discontinued. I fear that if the principle of forcible repression failed in the minor it would not succeed against the major evil.

Mr. WHITTY :—I wish to know if you think that there is anything in the atmosphere, any germs of disease, that cause only Typhus ?

Dr. TRENCH :—I assume that your question refers to the action of atmospherical influences, apart from local physical causation. This is perhaps one of the most abstruse problems of medical science. We know for instance, that Typhus has its geographical boundaries, and so far its atmospherical limits. It has not, for instance, been hitherto observed in tropical latitudes, under any combination of accidents and circumstances which generate, or develop it in these temperate regions ; but we are obliged to accept this as an ultimate fact, for the explanation of which no reasonable theory has yet been suggested. On the contrary, we find the disease comparatively dormant for years in one large town, and then suddenly springing into activity from various centres of the kingdom, although there had occurred no apparent alteration in the material condition of the people. I am not now speaking of its epidemic prevalence, but rather of its more extended endemial manifestations. We also

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observe that in some years other specific diseases, as small-pox, influenza, measles, scarlatina, rule in the ascendant, and then again disappear; and this gives force to the belief that certain conditions of the air—but whether chemical or electrical, I cannot say—do tend to develop and spread by contagion one kind of specific disease more actively and widely than another.

The CHAIRMAN:—One of these charts on the table refers to Typhus in 13 streets. Was there anything in these places to account for its extreme prevalence?

Dr. TRENCH:—I mentioned on a previous occasion that in some of the places where Fever was most fatal in 1864, such as Kew, Newsham, Bostock, and Burlington streets, if regard were had solely to the construction or overcrowding of houses on superficial area, the want of the means of adequate ventilation, or the existence of external nuisances, it was impossible to understand their relative position on the Death register. Indeed so free were they of palpable structural defects, that I was not able, with propriety, to include them in my second presentment to the Grand Jury under the Sanitary Amendment Act. The same may be said of some of the Streets which are most prominent in this year's mortality from fever; and this curious anomaly—somewhat, I confess unexpected by me—will be likewise remarked in that part of the chart which contains the list of courts where three or more deaths from fever have occurred in this year. You will see that a short description of each Court is given, and it is remarkable that with the single exception of No. 4 Court, Edward street, all are open and good. I do not hence conclude that no explanation of the reason of the extreme prevalence of Typhus in these places can be given, but that its causation will be found in the habits and inner homes of the residents, in the sub-letting and over-crowd-

ing of rooms, in the occupation of cellars, and in the non-ventilation of sleeping apartments, rather than in the defects of the structural arrangements of houses, or of external nuisances in their vicinity. If, however, the air be poisoned by noxious effluvia from middens, or rendered stagnant by the enclosed position of streets and courts, it will powerfully aid the debilitating effects of over-crowded rooms; and hence we find that the Fever districts, as a rule, are accompanied, and to a great degree dependant on defects of structural arrangement, or on neglect of external sanitary precautions.

Mr. SAMUELSON :—You have not mentioned contagion as a cause.

Dr. TRENCH :—Contagion is rather a quality or inseparable accident of Typhus than a cause, and when I state that certain physical circumstances promote the extension of the Disease, I mean that they either increase the virus of contagion or render the patients more susceptible to its attacks; for, as I mentioned before, if there be a sufficient and free circulation of air in the sick room, the power of the contagion is very slight. I believe that the spreading of Typhus among the residents of a house, or a locality, is an unmistakable proof of the existence of a Sanitary defect.

The CHAIRMAN :—I think we have exhausted the question of Typhus Fever. Has any gentleman any question to put in that respect?

Mr. BOWRING :—I don't think the Doctor can explain his views more fully.

Mr. DOVER related the circumstance of a gentleman in his neighbourhood, of course having plenty of food, clothing and fresh air, who had died of Typhus.

Dr. TRENCH :—There is no rule without an exception, and it is probable that he had come in contact with a person

suffering from the Fever. But I have now to bring before your notice a Fever from which the rich are supposed to suffer more than the poor, viz. : Typhoid Fever. It is recognized by pink or rose colored eruptions, which undergo no change until they fade, are isolated and few in number, and disappear on pressure. The functional symptoms accompanying the disease indicate abdominal irritation. Though frequently confounded with Typhus, and indeed placed together in our Nosology, it is very distinct in many particulars, and those the most important in a sanitary point of view. 1stly, Its origin and propagation are quite independent of overcrowding with defective ventilation, and are so intimately connected with noxious effluvia as to have induced Physicians to designate it by the term "Pythogenic," or born of filth.

2nd. It is not confined to the poor, or to the dwellers amidst squalid indigence, but is seen in the families of the rich. Indeed there is some foundation for the belief that the well fed are more prone to be attacked by it than the destitute, and that a whiff of bad air will suffice to prostrate the one while the other vegetates unharmed in an atmosphere of impurities. It is this Fever which killed the Prince Consort.

3rd. It is not, in my opinion, contagious; but this is a vexed question in medical science, and probably I should be found in a minority of my professional brethren on the subject.

4th. It is like Epidemic Diarrhœa, most prevalent in the warm months of August and September, and almost disappears during very cold weather and after severe frost. Practically this is an important fact, since a line of separation is not only thereby drawn between Typhoid and Typhus Fever, but a connection evinced between climate and causation.

Mr. CHILTON :—Of the 1715 cases, which in the charts

on the table are described as Typhus, how many were Typhoid?

DR. TRENCH :—I may mention that, of course, my facts all depend on the medical certificates in the Registrars' returns. These were, in the three quarters of this year, as follows : under Infantile Fever 35 ; under Typhoid 56 ; under Gastric (by which is probably meant Typhoid) 33.

MR. CHILTON :—I should like to know whether the effluvia from drains or cesspools, occurring at the same time, and concurrently with the over-crowding and indigence, would strike the patient with Typhoid or Typhus Fever?

DR. TRENCH :—I have no data upon which to form an explicit opinion of that point ; but I may mention that in Paris—where cesspools are general—the Fever most common among the residents of the lower districts is Typhoid, while in the courts and alleys of Liverpool it is Typhus. In both instances it would be difficult to determine which was the most intensified—the stinking effluvium or the over-crowding.

MR. CHILTON :—Are the cases registered as Typhoid during the three quarters of this year to be considered as about the normal rate as contra distinguished from the excessive rate of epidemic Typhus?

DR. TRENCH :—Yes, I think it may be so considered.

MR. CHILTON :—Does Typhoid Fever ever become Epidemical?

DR. TRENCH :—Yes ; though not in the same way or by contagion as Typhus. The only epidemic which I remember of the Disease in Liverpool occurred in 1844, and is well described in a monograph by Dr. Watson, of Chester, then a practitioner in this town. Among its first victims were members of some of our best families residing in Everton. It began in September and did not totally cease until the end of

December. During September the mean reading of the Thermometer was 59°, with an occasional maximum rise to 77°; and it was only towards Christmas that it fell as a mean to the freezing point. But the most interesting features in its history were—1stly, that its ravages were confined, with few exceptions, to Everton, Kirkdale, and West Derby, and did not extend to what may be rightly termed the perennial fever districts of the Borough. 2ndly, that those enfeebled by anxiety, or deficient food, were very seldom affected, and that the destitute and unemployed were neither the originators nor promulgators of the Disease. 3rdly, that the general conviction of the profession was that the Fever was not contagious.

Mr. BOWRING:—Did the Fever follow the course of any Sewer?

Dr. TRENCH:—In 1844 the whole of Everton, Kirkdale, and West Derby was unsewered. The best houses were accommodated with cesspools, and the drainage of middens and the refuse water found their way to the surface or to ditches. In fact it was a very pretty example of that primitive plan which some would even now adopt of doing away with sewers in large towns.

Dr. TRENCH here apologized for having to leave the Committee, as he had been summoned to give evidence before the Coroner, on the cause of death of three ship-keepers who had died suddenly at the Canada Dock, and the Committee then adjourned until Saturday next, at the Town Hall, at 12 o'clock.

THIRD HEAD.—OVER-CROWDING.

At a MEETING of the SUB-COMMITTEE of the HEALTH COMMITTEE, appointed to inquire and report as to the causes of the excessive Mortality in the Borough, with the best means to be adopted for mitigating the same, held at the Town Hall, on Wednesday, the 17th day of January, 1866,

PRESENT :—

EDWARD WHITTY, Esq.

EDWARD SAMUELSON, Esq.

THOMAS CHILTON, Esq.

C. T. BOWRING, Esq.

JOSEPH ROBINSON, Esq.

EDWARD LAWRENCE, Esq.

MR. NEWLANDS, DR. TRENCH, AND MR. MCGOWEN.

In the absence of the Chairman, it was moved by Mr. BOWRING, and seconded by Mr. SAMUELSON, and

Resolved—

That Mr. WHITTY do take the Chair.

The Chair was therefore taken by him.

The CHAIRMAN :—Gentlemen—There is a letter from Mr. Jeffery which I think had better be read and recorded on our minutes.

The following letter was then read and ordered to be recorded :—

Woolton Hall, near Liverpool,
16th January, 1866.

My dear Sir,

It is with extreme regret that I pen this note, but circumstances oblige me. I find it impossible to attend the Mortality Committee to-morrow, and I fear some weeks must elapse ere I dare undertake any public duty involving continuous occupation of time and thought. I am deeply sensible of the very kind and indulgent consideration the Committee have given to me since my calamity, and I must ask of you kindly to convey to them my grateful acknowledgements. And further, as a consequence, to ask them to do me the favour to elect some other member of the Committee to occupy the Chair. As I read Dr. Trench's weekly report I am the more and more impressed with the necessity for prompt, vigorous and probing action. There is some hidden and mysterious cause, for the continued high rate of mortality, that must be disembowelled. The work is before the Committee. I do beseech of them to grapple with it at once, and

to delay no longer. I will most cheerfully give to my successor the programme of proceedings that it was my intention to have submitted to the Committee, if he desire it, with any aid it may be in my power to render.

I am,

My dear Sir,

Very faithfully yours,

(Signed)

JAS. R. JEFFERY.

C. T. Bowring, Esq.

Dr. TRENCH :—Mr. Chairman—I think it will facilitate the labors of the Committee, or at least prevent in your future consideration of the total question, or of matters subsidiary to it, anything like interrupted or discursive discussion, if I at once proceed to lay before you, in a continuous form, all the most important facts bearing on Over-crowding in Liverpool, which are in my possession.

Over-crowding may be considered under two heads :—

- 1st. The Over-crowding on superficial area.
- 2nd. The Over-crowding in apartments of houses.

There are very few reliable documents by which to estimate the density of the population in the worst districts of the town ; but I beg to place before the Committee a short report of the result of some inquiries made into the condition of Henderson street, Ashley street, Albert street, Bell street, Fisher street, Prophet street, and Russell street, Toxteth Park. As in respect of comparative density, these several streets may be considered as holding a medium place between the "very worst" and the "tolerably good" streets of the Borough, some idea may thence be obtained of the structural position of the residences of our labourers. The average area for each person (including therein not only the land occupied by buildings, but also the street, courts, yards, and all open spaces) is

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in these streets 54 feet; that of Russell street being (77,) the highest, and that of Albert street (44), the lowest. The average number of inhabitants in each house is 6·2. The houses generally contain a cellar, not habitable in court houses, a kitchen, and two bed rooms. The cubical area of the rooms is between 700 and 900 feet on an average.

I also place on the table a memorandum of the position of some Courts between Vauxhall road and Hornby street, which came before the notice of the Health Committee on my certificate for alteration of middens. Here the superficial area for each person was 72 feet, and the average number of residents in each house 8.

I also place on the table a calculation of the number of persons on the built area in the various Municipal Districts of the Town, according to the census of 1861. It would have been interesting and instructive if the Table could have been framed to illustrate the comparative scale of houses and population on superficial area in London and other large cities of the Kingdom; but unfortunately though the census gives the *total* areas in statute acres, it is silent on the most important particular—the *built* areas. There however can be no doubt that, as maintained by Dr. Duncan, in 1843, the density of the population in Liverpool exceeds that of Manchester, Birmingham, Leeds, and London; for upon making a calculation of the *total* areas and population of Boroughs, as given in the census tables of 1861, I find that the number of persons to the statute acre was, 10 in Leeds, 36 in London, 38 in Birmingham, 83 in Manchester, and 85 in Liverpool.* Also, as

* The population of the parish of Leeds was 117,566 on the area of 2,100 statute acres, which is equal to 56 on the statute acre; the population of the parish of Liverpool was 299,742, on area of 2,220 acres, which is equal to 122 on the acre; the population of the town of Birmingham was 212,621 on an area of 2,660 acres, which is equal to 80 on the acre; the population of the city of Manchester was 185,410 on an area of 1,848 acres, which is equal to 125 on the acre.

shown by Dr. Duncan, in his monograph on the physical causes of the excessive mortality of Liverpool, there are districts containing double the number of inhabitants than what was estimated by Dr. Farr to be the maximum density of London. Nor, in considering the effects of density of people on the superficies, ought the position and construction of the houses to be overlooked. In Liverpool the long narrow streets running north and south, and shutting off the entrance of the sea breezes; the courts with their covered passages impeding the circulation of vital air; the open cesspools, poisoning the stagnant atmosphere and destroying its ozone; and lastly, the want of due height in the dwellings of the poor, all add materially to the injurious results. As the Council well considered the bearings of this important question, before applying for the Sanitary Amendment Act, 1864, I need not dwell on it further; but will proceed to mention some facts relating to the Over-crowding of Apartments.

OVERCROWDING IN HOUSES.

Overcrowding of apartments in Liverpool is not, as is said to be the case in London, Glasgow and Edinburgh, merely observed in certain rookeries or in certain districts, which are definable and distinct; but it exists generally over the whole town in those streets wherein the poorer classes reside. The causes of this overcrowding may be classified under five heads:—

1st. The construction of the cottage houses, the cubic areas of whose rooms do not, on an average, exceed 700 to 900 feet.

2nd. The indigence of families whose means oblige them to live in single sublet rooms.

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3rd. The ignorance, neglect and bad home arrangement of parents and others, who, without the compulsion of necessity, huddle families in one room, while others are unoccupied.

4th. The desire of gain which prompts the chief or landlord's tenant, to sublet single rooms to more than one family.

5th. The abject and squalid pauperism which must associate with others in paying the charges of a single room.

As to the first cause or the nature of the construction of cottage residences. In the 3,173 courts of the Borough, there are 18,610 houses which, on an average, contain three habitable rooms, whose cubical dimensions run from 700 to 900 feet. But this by no means represents even an approximate total of such houses; for according to the Treasurer's rate-book there were in 1864, 40,934 houses rented at £10 and under and 13,658 at £11 to £13. The difference between the houses at £11 and £13, and those at £10 and under, is *position*; the former representing the houses in moderately good streets and modern courts: the latter those in old courts or narrow streets. The number and dimensions of rooms are the same. The rental of court houses on an average is 2s. 6d., 3s. 6d. and 4s. a week, but the houses on either side of common cesspools are let for sixpence a week less; the rental of similar straight up and down houses in streets is, on an average, from 4s. to 5s. 6d. a week. It may be taken as an average that each of these houses will contain 6.2 persons and therefore the population thus accommodated will amount to 338,470.

The peculiarity of the 54,592 houses below the rental of £13 per annum is this—that they are seldom tenanted by only one family. The usual practice is for the landlord's

tenant to sublet the middle room to another family. Sometimes both bedrooms are thus sublet and three separate families live and sleep in single rooms of the house. Hence it will be seen not only how general must be overcrowding but how exceptional must be its non-existence in the cottages of the poor; for a room of 900 cubic feet only allows three residents even according to the space considered necessary for the mere night reception of lodgers in a licensed lodging house. But persons living constantly in one room, by night and day, and carrying on therein all domestic offices, require for each individual more than 300 cubic feet. If the scale said to be enforced by the Marylebone Justices were required here—that is 400 feet for each person—then only two persons could be allowed to live in the single room of a Liverpool cottage. If the prison or workhouse scale was adopted (500 feet) only one and a half or an adult and child; if the army scale (800 feet) only one person would be allowed to sleep in each room. I mention these contrasts because in any inquiry, either as to the extent or remedy of the evil, it will be necessary "*in limine*," to determine what shall in the opinion of the Committee be considered as coming within the meaning of injurious overcrowding.

Besides the above mentioned 54,592 houses, there were in the Treasurer's Rate Book 11,041 houses at a rental of from £14 to £20. These houses contain on an average five or six habitable rooms, viz., a front and back kitchen, and four bed rooms. The average cubical dimensions of the front bed rooms will be from 1,000 to 1,100 feet, and of the back bed rooms from 800 to 900 feet. Such houses are also as a rule sub-let by landlords' tenant in single apartments, and as the motive of this practice is income rather than mere lessening of personal liability, we find therein many of the worst

cases of what will be afterwards referred to under the fourth head of causes, or of what I venture to term "vicious Over-crowding." Such then being the magnitude of the encouragement given to the system of Over-crowding, by the circumstances that the houses of the laborers are not adequate in number, or sufficiently economical in rent, to meet the requirements of the population, nor spacious enough in their apartments to admit of safe sub-letting to separate families, it will readily be perceived by the Committee that warring against the evil here is a very different affair to what it would be in the large houses of the Canongate, of Edinburgh, or the Salt Market of Glasgow.

The second cause of Over-crowding is Indigence. I do not here mean absolute pauperism, which will be considered under the fifth head of causes; but simply that indigence of the unskilled laborer, which is the result of the competition of industry in large towns. The Committee will remember that I placed the average receipts of such persons at 12s. a week; but even suppose that they reach 15s., it will still be difficult to conceive how a laborer, having a wife and three children dependent on his wages, can afford to pay more than 2s. or 2s. 6d. for house rent;—in fact, how he can manage to live otherwise than in a single apartment.*

* I have frequently endeavoured to try how 12s. could be appropriated in support of a man, wife, and three children, which is about the average number of dependants on a laborer's wages. Thus—

Rent.....	2s. 0d.
One cwt. of Coals.....	0 7
Bread—24lbs. of flour, at 1s. per 8lbs., 3d. for baking, and 1½d. for barn..	3 4½
Potatoes, two pecks, at 6d. each, equal to a meal of six pounds per day....	1 0
Tea, two ounces.....	0 5
Coffee, four ounces.....	0 3
Sugar, one pound and a half.....	0 6
Butter, dripping, treacle, salt, and pepper.....	1 3
Candles, or lamp oil.....	0 6
Soap, half a pound.....	0 1½
Meat, or fish during the week.....	1 0
Sunday—meat for dinner.....	1 0

12 0

When the laborer has no children he may afford 3s. 6d. or 4s., and his wife will probably be also a wage receiver, but then he only requires a single room. As his family increases the necessity of more accommodation, so it proportionately lessens the means of acquiring it. I hope the Committee will weigh well this question of wages as influencing Over-crowding; for if the laborer can only afford to inhabit one room, and if the single rooms of the Liverpool cottages, or court houses, wherein the laborers' class is accommodated, are so small as only to admit of three persons; then I submit that repression, by turning out all larger families, is not a remedy. I am perfectly aware that in theory it may be correct to assert that wages are not so much ruled by what employers pay for full labor, as by competition among the laborers themselves, and therefore that indirectly, but effectually, the wages are ruled by the condition in which the laborers are content to live—since that alone arrests the competition in the market of unskilled labor. It therefore follows as a corollary from this admitted theorem, that if by sanitary or police regulations or by any other means, the laborer be prevented from living, as at present, on 12s. or 15s. a week, then the competition in the labor market must be arrested at a higher scale, and Immigrants, the needy claimants for work, prevented from flocking to the town. If such halcyon results could be realised; then also, no doubt, both employers and employed would be more justly satisfied, and great moral and social improvements effected in the condition of the people. It will be for the Committee and the Council to determine whether an effort shall be made to carry into force this theory of repression; but I trust they will not forget that to be even hypothetically successful, it must not be local or intermittent, but be general and persistent. It will be easy

to harrass and disturb the families of the labourer, but in order to compel a number to leave the town, and thereby lessen competition, poverty, and over-crowding, the repression must be unmitigated and constant. It is highly problematical whether it could even be effected at all by the machinery of the Nuisance Removal Act; but to that I hope to be allowed to draw the attention of the Committee after having considered the other causes of Over-crowding.

The third cause, or that dependant on the wilful neglect of good home arrangements in families occupying the whole house, can only be met by the diffusion of knowledge and the inculcation of right principles.

The fourth cause of overcrowding, viz.:—the desire thereby to increase the rental of sublet rooms, is one which tends more than any other to produce that occupancy of single apartments, by two or more families, which is so pregnant with the worst sanitary and moral evils, and it is, in my opinion, the one over which it is desirable to institute the most vigilant and repressive surveillance. Nothing but detection and punishment will ever arrest this vicious overcrowding; for the increase of buildings and lessening of rents—if these desirable results could in any way be obtained—would only serve to enlarge the extent of the wretched trade and swell its profits. This kind of overcrowding does not appear to me, to be very extensive in Liverpool; but no doubt it is difficult at all times to detect. The poor family occupying a single room, makes no secret of its position, but it is different where two or more families are huddled together. Here the evidence of the fact can only be obtained by night inspection. If the Committee should elect to endeavour to repress this kind of overcrowding, I think much good may be done by a very few

special Inspectors, aided by information from the Police, and the sanitary house to house Inspectors. Here there need be no scruples about harassing the people; for the offence is patent and eminently injurious to society. But as without the active assistance and co-operation of landlords it would be impossible to effect any good, a proper interest in the mode in which property is used should be insisted on, by making the owners partly answerable for that mode. Thus, it would be well to determine, that in the instance of a first offence, it be an instruction to proceed against the chief tenant; but in the second and all subsequent cases, to direct the prosecution solely against the owner or agent. Also, that wherever the tenant of one house proved guilty of the offence, becomes the lessee of another house under the same owner, the owner be considered the person causing the over-crowding.

The fifth cause of over-crowding is pauperism. There are at present in the *Parish* of Liverpool alone, 16,877 persons receiving parochial relief, or in other words, one in every sixteen of the population is a pauper.* Of these, 11,731 are out-door recipients of charity. The amount which they receive is too small, to enable them to do otherwise than live in squalid wretchedness, of which the first fruits are over-crowding. It is undoubtedly the just right of the rate-payers to demand that paupers receiving out-door parochial relief, shall not be so placed, as to generate or spread contagious disease in the community; but I have asked myself frequently of what use is prosecution or persecution against these weaklings of the social system, if the vestry, by reason of their numbers, is unable to find accommodation for them. To place them like shuttlecocks

* The estimated population of the Parish of Liverpool in 1865 is 274,408.

between two kinds of corporate officials would be cruelty rather than policy.

EXAMPLES.

Having now furnished all that I thought it necessary to say on the causes, I beg to place on the table some examples of overcrowding, taken from the reports of the lodging-house Inspectors, though not occurring in registered lodging-houses. The visits upon which these reports are framed were paid under my written directions, either upon complaints received, or upon strong suspicion of the existence of vicious over-crowding. After reception of the Report a printed circular (a copy of which is placed before the Committee) is immediately sent to the owner or agent, requiring him to abate the nuisance, and the place is again visited within six or seven days. If no abatement has occurred, it is then the duty of the Inspector to take proceedings, and for that purpose there is a printed summons, a copy of which is also placed on the table. But since last January, when four cases were brought before the Justices and fines obtained against two, it has not been necessary to carry any into court; for in every instance it has answered the purpose to threaten.

The Committee will please to understand that this action against overcrowding, by means of the lodging-house staff, is no test of either the difficulties or of the benefits of a general measure; but it shows clearly to my mind that "vicious over-crowding" could, at least in its worst phases, be in a great degree counteracted by the united assistance of the Police, the sanitary officers, and a few special

Inspectors. There is no difficulty in turning out the people, who know full well that they are offenders, not only against sanitary regulations but against decency and morality; indeed they are a migratory race, and like the wicked fly when no man pursueth.

THE NUISANCE REMOVAL ACT.

The Nuisance Removal and Disease Prevention Act, 1855, under the provisions of which over-crowding is to be put down, directs that "whenever the Medical Officer of Health, if there be one, or if none, whenever two qualified Medical Practitioners shall certify to the local authority, that any house is so over-crowded, as to be dangerous or prejudicial to the health of the inhabitants, and the inhabitants shall consist of more than one family, the local authority shall cause proceedings to be taken before the Justices to abate such over-crowding, and the Justices shall thereupon make such order as they may think fit, and the person permitting such over-crowding, shall forfeit a sum not exceeding forty shillings."

Now, I need scarcely point out to the Committee, that if the local authority, as in the instance of my certificates respecting middens—be the Council; then this machinery of the bill will require great time and prove in practice very inefficient towards carrying out any general system of repression; for after the Council has confirmed my certificate with the other proceedings of the Health Committee, it will be always necessary to make a further inspection, to see that the nuisance has not been abated before going to the Justices.

REGISTERING OF ALL SUBLET-HOUSES.

I shall very cordially co-operate in any measures the Committee may determine upon to put down overcrowding; but I may be allowed to state that in my opinion, the best plan would be to get an act to render compulsory the registration of all sublet-houses, with power to adopt bye-laws in respect of their management. Then, the machinery of prosecution would be summary and quick in action. There would be no necessity for certificates to be confirmed by the Health Committee, weekly, or by the Council, monthly; but the offender would be at once brought before the Justices. But in my opinion, the effect of registration would be chiefly preventive, and like all preventive measures of the kind, would be general, gradual and beneficent, instead of being fitful, uncertain and restricted.

You are all aware that the Health Committee give to the Lodging-house Act, the widest possible interpretation and consequently, contrary to the practice of London and other large towns, insist on the registration, where even one room is occupied by nightly or weekly lodgers, although all the other rooms of the house are sub-let. In London, they are proud of shewing large model lodging-houses. I wish the enterprise of people here would give me that chance; but I am able through means of the Lodging-house Act, not only to insist on the maintenance of the bye-laws in the registered apartments, but also, to keep a *quasi* supervision over a number of sub-let rooms, occupied by separate families. I place on the table the last list by the Inspectors of 382 such rooms. In 346 the arrangements are very good; in

22 they approach over-crowding; in 14 they are over crowded.*

The Committee may naturally ask why don't I proceed against the fourteen for the offence, under the provisions of the Nuisance Removal Act. Well, I can only say that the pressure of that law would drive them to worse places, where the influence of Inspectors would not be felt. I mean the moral influence, for they have no direct authority in regulating sub-let rooms in a registered lodging-house. Indeed I feel assured that in a week all these cases of over-crowding will be in a great degree abated by other arrangements, such as shifting the larger families into the larger rooms of the house. Every lodging-house keeper

* THE FOLLOWING REFERS TO THE OVER-CROWDED ROOMS.

No. of House.	Street.	Occupier.	No. of room on the Plan.	Persons Found.	Cubic area of room.
15	Sawney Pope	Patrick Griffin	8	5 Persons, of which 3 are Children.	673
23	Harrison	Bridget Connelly	2	4 persons.	889
21	Mason	Ann Moore	1	6 Persons, of which 4 are Children.	934
12	New Hall	John Narey	3	4 Persons, of which 2 are Children.	702
8	Finney lane	Matthew McHale	4	5 Persons, of which 3 are Children.	675
55	Thomas	John Deacey	6	5 Persons, of which 3 are Children.	650
61	Athol	Ellen Gorman	3	3 Persons, 1 being a Child.	501
37	Circus	William Fisher	4	5 Persons, of which 3 were Children.	735
26	Hodson	Catherine Canning	2	5 Persons, of which 4 are Children.	680
2, in 6 Court.	Hodson	Owen Sweeney	2	6 Persons, of which 4 are Children.	816
5, in 8 Court.	Grosvenor	Hugh Tunna	2	4 Persons, of which 2 are Children.	739
30	Combemere	William Murphy	4	5 Persons, of which 3 are Children.	683
120	Henderson	Fanny O'Boyle	2	7 Persons, of which 5 are Children.	911
42	Caryl	A. W. Davies	6	4 Persons, of which 2 are Children.	493

knows that if infectious disease breaks out in the family occupying a sub-let room, that it will immediately occasion the withdrawal of the license given for the registered room, and he has thus an interest in keeping his tenants healthy.

IMPROVED DWELLINGS FOR THE POOR.

It is, perhaps, out of place to refer to the necessity of improved dwellings for the poor, as the chief and most effectual means of putting down over-crowding; for the consideration of this important question was last year delegated by the Council to a specially appointed Committee. Suffice it to say, that the minds of social economists and philanthropists are anxiously turned to this enquiry. The Corporation of the City of London has set apart a valuable plot of ground, near Farringdon-road, Clerkenwell, and voted £120,000 towards the erection of houses expressly for working men. The buildings comprise shops, and separate and distinct tenements for families. Each tenement has a wash-house, with water supply, sink, water-closet, coal place, copper, and dust shoot. All the rooms in the building are provided with fire places; and the living rooms have ranges, oven and boiler, cupboards, dressers, &c. The rules for the tenantry are simple and excellent; thus, the fifth rule directs that "no tenant will be permitted to under-let any of the rooms in his occupation, unless he shall first obtain the permission of the Committee." The tenements are let by an agent of the Improvement Committee of the Corporation, and preference is given to the artisan class. The rent charges are fixed, but their amount varies, according to position from 6s. to 7s. 6d. per week for

three rooms and separate wash-house, and from 4s. 6d. to 6s. for two rooms. The returns are very satisfactory, and already indicate that 4 to 5 per cent. will be realized on the outlay. The Municipality of Glasgow has, I understand, determined this session to apply to Parliament for large powers to re-construct districts of their town where the labouring classes live. Committees have also been appointed in Lambeth, Newcastle-on-Tyne, and other towns, to adopt means for erecting Model Lodging-houses and Cottages. These are all good signs, and make me regret that Liverpool does not take the lead in a matter in which Liverpool is more interested than any other town in the kingdom. I think, however, that I see in Mr. Robertson Gladstone's notice of a motion to memorialize Her Majesty's Government for the repeal of the stage coach duty, a first and a very important step to some movement of providing facilities for the erection of workmen's dwellings, in the environs of our own town. It was in furtherance of a design, which I hope to accomplish, of inducing some gentlemen to form a joint company (limited), for the purpose of purchasing and re-constructing cottages, and for erecting improved workmen's dwellings, that, some months since, I requested Mr. John Cunningham to draw a plan of dwellings, applicable for the working classes, so as to combine all the sanitary conditions of adequate space and thorough ventilation, with proper domestic conveniences, and capable of being erected at a cost, not only, to meet the requirements of artisans, but also, to pay a fair per centage upon the money invested. Mr. Cunningham was kind enough to comply with my request, and the plan which he forwarded to me was a block of buildings, five storeys high, with a capacious common stair to twelve separate dwellings on each storey, or

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to sixty separate dwellings. Forty of the dwellings contain three rooms each, and twenty have two rooms each. The block stands on 1,107 superficial yards, which at 40s. a yard, is equal to £2,214. The building, in the construction of which Cunningham's patent fire-proof flooring is used, is estimated to cost £7,290 or at the rate of £122 for each dwelling. Taking the cost of all in round figures at £10,000, or £500 per annum, at 5 per cent; we have, per contra, for income, say £2 2s. a-week, for the twelve dwellings in each storey (which is for the three room dwellings, 4s. each, and for the two room dwellings, 2s. 6d. each), or £10 10s. a-week for the dwellings of the whole block, equal to £546 a year. But Mr. Cunningham tells me that at no expense there might be four shops erected in the lower storey, worth at least £25 a year. The block is supplied with a large water tank, and each house has a water-closet, a coal place, and an ash shoot. There is light and ventilation all round the building, and the average cubic space of each room is 1,400 feet. The block is so arranged that a continuation or repetition of similar buildings could be carried on, to any extent required, and the plan admits of modification, to meet the greater or smaller requirements of the tenants; for indeed, we cannot shut our eyes to the fact, that to provide for the working man, we must have sometimes only a single room, and scullery or coal place. In conclusion, I beg to state it as my opinion, that unless further and larger provision be made for the accommodation of the working classes, all efforts to check overcrowding will be fruitless; and Liverpool, notwithstanding all that has been done and well done for sanitary improvements, will still continue to show a death-rate higher than other towns; this death-rate being proportionate to its comparative

position in the scale of over-crowding. No other remedy can reach the core of the evil,

"And, till the core be found,
The secret vice is fed and gathers ground."

Mr. BOWRING :—Mr. Chairman—We have all heard the very full and valuable statement of the Medical Officer of Health on the important subject of Over-crowding, and I beg to move that the same be printed, together with the minutes of the former Meetings of this Committee, and a copy thereof be sent to each Member of the Committee.

Mr. CHILTON :—I have much pleasure in seconding the motion.

The motion, having been put from the Chair, was agreed to.

Mr. ROBINSON :—Mr. Chairman—I should like to know whether it is in our province to ascertain how far drink is the cause of Indigence in the town. I believe that such a return would be very valuable; and can be obtained, seeing that there is not a single public house in Liverpool can sell spirits, and even raspberry, without a Permit from the Excise.

Dr. TRENCH :—I should like to have the return amazingly.

Mr. ROBINSON :—Mr. Chairman—With your permission I will move—

"That the Borough Members be requested to apply to the Board of Inland Revenue for a Return as to the quantity of Spirits entered for Home Consumption in all places Licensed to Retail Spirits in the Borough of Liverpool, for the last ten years, from 1855 to 1866, distinguishing the amount for each year. Also, the quantity of Malt ground during the same period, including the concerns of Mr. Peter Walker, of Wrexham, Mr. Lascell, of Wrexham, and Messrs. P. Walker and Sons, of Warrington, distinguishing the amount in each year."

Mr. SAMUELSON :—I will second that motion ; and the same being agreed to,

Mr. SAMUELSON moved—

“ That the Watch Committee be asked to authorise the Head Constable to furnish the Committee with the number of Public-houses, Beer-houses, and Pawnbrokers'-shops in the various Wards of the Borough, and that the same be attached to the Report submitted by the Medical Officer in relation to the subject of Over-crowding.”

Mr. ROBINSON :—I second that motion.

Which was agreed to.

The CHAIRMAN :—I presume the fact of obtaining these returns will not delay the progress of printing the evidence and report.

Mr. MCGOWEN :—I will undertake to get the information from the Police in a week or so.

The CHAIRMAN :—Then we had better now adjourn, and when the reports are printed and circulated the Law Clerk can call us together again.

The meeting then broke up.

His Worship the Mayor has written to the Borough Members, asking them to obtain the return mentioned in Mr. Robinson's resolution, at foot of page 52. He has received replies from those gentlemen, promising to move for the return as soon as Parliament meets.

The Watch Committee have requested the Head Constable to obtain the information mentioned in Mr. Samuelson's resolution, at page 53. The Head Constable is collecting the particulars, and they will be printed as soon as his inquiry is completed.

POPULATION AND HOUSES ON THE BUILT AREA OF THE BOROUGH OF LIVERPOOL.

WARDS.	Area of Buildings and Streets.		Population, 1861.	Persons on acre.	Space to each person.	Houses in 1861.	Houses on acre in 1861.
Scotland.....	A.	R. P.	81,228	233	20 8	11,767	33 7
Vauxhall.....	348	2 36					
St. Paul's.....	132	2 29	24,816	187	25 9	3,523	26 5
Exchange.....	58	2 21					
St. Ann's.....	63	3 18	29,078	237	20 4	4,110	33 5
Lime-street....	101	2 25					
Castle-street....	111	2 2	41,241	194	25 0	6,966	32 7
St. Peter's.....	54	1 37					
Pitt-street.....	76	1 36	16,827	127	38 1	2,465	18 8
Gt. George.....	62	3 3					
Rodney-street..	89	2 27	29,142	192	25 2	3,843	25 2
Abercomby.....	191	2 17					
Parish.....	175	2 23	47,410	129	37 5	7,313	19 9
Everton.....	1467	2 34					
Kirkdale.....	548	0 30	269,742	184	26 3	39,887	27 2
West Derby....	272	1 37					
North Toxteth	443	3 0	70,983	87	55 6	13,371	16 3
South Toxteth	344	2 30					
Out Townships	237	1 38	36,527	82	59 0	6,868	15 5
Borough.....	1846	2 15					
	3314	1 9	66,686	115	42 0	11,452	19 7
			174,196	94	51 5	31,691	17 2
			443,938	134	36 1	71,578	21 6

Weymouth	13,371	16	3
Weymouth	6,868	15	5
Weymouth	11,452	19	7
Weymouth	31,691	17	2
Weymouth	71,678	21	6

Weymouth	70,083	57	66	6
Weymouth	36,527	82	59	0
Weymouth	66,686	116	43	0
Weymouth	174,196	94	51	6
Weymouth	445,038	134	36	1

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