

show that  
connected on those of Sir Wm Petty from 1700 to  
1752 inclusive enabled Dr C. to forecast the  
prevalence of Cholera for 1853 at the latest

Vide Page 8

*Curran & Mitchell*

THE

# HEALTH OF THE METROPOLIS

DURING THE YEAR OF



THE GREAT EXHIBITION.

( of Collier )

26.11.67.

8

HEALTH OF THE METROPOLIS

REPORT FOR THE YEAR 1851



THE GREAT EXHIBITION

(See also)

# THE HEALTH OF THE METROPOLIS DURING THE YEAR OF THE GREAT EXHIBITION.

BY THE AUTHOR OF "THE PHILOSOPHER'S MITE."

(Reprinted from the February number of "Tait's Edinburgh Magazine.")

It is recorded, in the "Life of Nelson," that while he was in command of the Channel Fleet, he received from the Naval Secretary a despatch containing a reprimand for the expenditure of certain moneys, defrayed for sanitary improvements on his own mere authority. That truly great man, in the presence of his officers, throwing down the letter with contempt, thus relieved the honest indignation of his heart: "There, gentlemen, read that! They taunt me with extravagance; but I will dare to tell these economising lords that it is impossible for any expenditure to be extravagant that is successfully incurred for the health and comfort of the brave fellows under my command." It were well for the population of London, and for that of the entire kingdom, if this generous sentiment could find an echo in the breasts of our political commanders at the helm of state. In each single week, more public money is expended by them, in the present Caffre war, than would suffice to arrest the formidable progress of taint-of-blood disease, in this our huge metropolis of London:—"Whip me such economists, thou great God of nature." It is the object of the present statement to show, by conclusive and unanswerable statistics, that for seven years, *making all due allowances for real increase of population, zymotic or blood-taint-disease has notably and alarmingly increased; is notably and alarmingly increasing; and, unless we be content to renew the horrors of 1849, ought, by every human means, to be diminished.* The object is no less than to arouse and instruct authority; to enlist the philanthropist and the statistician; to withdraw the film from the eyes of the blind, and the veil which has been thrown over a subject second in importance to none. Will the public believe that 3000 persons died of cholera last year, within the districts comprised in the metropolitan returns—little more than 200 only being recorded in the registrar's weekly returns? The reader, indeed, will find the larger proportion under the head of diarrhoea; but let him ask his medical adviser if this so-called diarrhoea be not the same disease in essence. Nay, let him refer to the registrar's own published opinion of the identity of the two diseases.

The superficial thinkers, the gossips, and therefore the many, are content to say, "Oh, it is no new malady! it is only the usual summer disease!" Let them look to the winter returns, week by week, and they will find more deaths occasioned by this so-called summer disease, with the thermometer at an average mean of 35 deg., than are recorded in the earlier weekly returns of the summer. So much for calling it exclusively a summer disease. Some of the faculty in London were schooled by the deputy-registrars not to use the word cholera, but many of them were too independent to truckle

to authority. Again, they were told, if they used the word at all, to preface it with the prænomen "English;" though, in point of fact, the registrar himself dates it, no matter from what cause, from a period of only a few years past. Nothing can well be more puerile than a studied concealment of this sort. The beardless boy may be pardoned for pernicious secrecy in his first troubles, but not an adult and overgrown nation.

Obsta principiis, sero medicina paratur  
Cum mala per longas convaluere moras.

The fifty-two weekly returns ending December 27th, 1851, shows in the aggregate a mortality within the London districts of 55,359. The deaths in 1849 were 48,579. The year last expiring presents us with an increase of nearly one-sixth upon the total of its predecessor. But to state the matter more plainly, the mortality of 1851 exceeds the mortality of any and every preceding year, save and except that of the two years which prefaced the calamity of 1849, and that of 1849 itself. If we exclude the year 1849, and make a proper allowance for real increase of population, whether we calculate upon a sexennial, decennial or duodecimal aggregate, we shall find the deaths of 1851 exceeding any fairly-deduced annual average. But it is not merely by reference to such a mean that the true character of the future is to be fore-shadowed. If we find that blood-taint diseases generally are taking on the same character, and increasing numbers respectively as they did in 1847-48, and that their march responds in all their chief movements and courses to the progress characteristic of those specified years, we shall be led unmistakeably to look out for an outburst parallel with that of 1849. By reference to the official tables it will be seen that it took five years, namely, from 1844 to 1849, to develop that growing intensity of blood-taint which at last crowned the years of incubation. We no longer require a quinquennial incubation. With a condition of health by comparison cheering and satisfactory in 1850, we have managed somehow or other to do five years' work of deterioration in twelve months. Let him who doubts look at the tables. We will not stop to inquire how this has happened. What is done cannot be undone. Only let us know and understand the truth, the whole truth, and nothing but the truth; and though it is impossible to obtain indemnity for the errors of the past, let us at least look out for some security for the future. To those who would inquire in what proportion the deaths of the transitory visitors of 1851 were ingredient in the totals, it may be answered, not more than a few, perhaps two or three hundred. Before the general reader can comprehend the various important truths it is our business to supply, it will be expedient to enlighten him on the subject of the

census of 1851. We imagine him prepared to say, "Oh, we know very well that the population of London was declared in 1831 to be a million and a half, last year to be 2,362,236, and in the census of 1841 it was declared to be 1,948,417, showing an increase upon the last decennial period of 413,819."

Softly, softly, my single-hearted reader; do not be too sure of your calculation. Government authorities have another sort of arithmetic. Hear the truth. The census of 1851 includes the population of Hampstead, 11,986, not included in 1831; the population of Wandsworth, 50,764, not included in 1831; that of Lewisham, 34,835, not included in 1831; and the immense population of our docks and of our river, not included in 1841.\* Add to this many of the straggling outside portions of the suburban parishes, lazily excluded in 1841, with an immense enlargement of the area; and no inconsiderable portion of parishes in the very heart of the metropolis, where the blank forms for return were left, indeed, but never called for: in a word, they have enlarged their area at each census, and the word London has therefore three different meanings. What was the extent of the neglect of subordinate agents, occasioned by the pitifully cheap system of taking districts by contract, and letting out the work again to untrustworthy persons, can only be known by reference to the returns of 1841 in detail; or, rather, by ascertaining the extent of the deficiency. Hundreds of housekeepers can testify that, even at open shops, the forms were left and the returns never called for. The period at which the census was more rigidly taken, in the third month of the Exhibition year, would also tend to increase the deception. The greatest approximation to the truth is that there has been, during the decennial period, a gradual increase of little more than 1 per cent. per annum. Now see the fallacy of taking a decennial weekly average of our weekly mortality, and then deducting for the docks and river population. At all times throughout the ten years, the deaths derived from the docks or the river must have found their way to the bills of mortality just as surely as if the floating population had been included in the census of 1841. They do not bury in the docks; they do not bury in the river.

If the increase of population has only been two hundred thousand in ten years, why put it down at four hundred thousand? Is it to bolster up the prosperous character of the port and metropolis of London? As well might we saddle our noses with magnifying spectacles, that our cherries and small fruit may appear larger to the eye. With all deference to our officials, to use the language of the East, "they make us eat dirt." Never was a more gigantic error diffused among the people, at the expense of the people, with a tendency, if not with the object, to deceive the people. These observations are not voluntarily made in a malign spirit of cavilling with authority. It will be seen

that they are unavoidably forced upon us. The traveller whose progress is arrested by erratic brambles must either cut them away or be content to quit the path of his induction. It will be obvious that it is only upon a tolerably near approximation to a correct census that any inferences as to the improving or deteriorating condition of a community can be safely grounded; although mere numbers only, without reference to other matters, will be found to be unavailing.

Amid the shuffling conflict of jarring interests, which in city phraseology are called gigantic, because banded, but which, when correctly analysed, and contrasted with the interests of society at large, will be found to be peddling and selfish, ministers rise and fall, successively assailed, puzzled, stupified, and palsied, leaving, as the vestiges of their creation, some half-and-half lopsided measure of abortive legislation, sufficient, indeed, to show to posterity that their attention has been turned to the public health, but plainly betraying that they have never been brought to an adequate conviction or conception of its true importance. Hence want of zeal, want of energy, and the utter absence of any broad, intelligible basis, or of harmony in their legislative enactments. The sanitary bills brought into Parliament, as recorded in the public inventory, and the parsimonious authorisation of expenditure to work them out, have usually crept in at the fag-end of a session. Contrasted with the sums lavished in the budget of state vagaries, the amounts voted must remind thousands of certain items of mine Hostess' bill against the big-belted Knight:—

	s.	d.
Item, sack, two gallons . . . . .	5	8
Item, anchovies, and sack after supper . . . . .	2	6
Item, bread . . . . .	0	0½

Oh, monstrous! but one halfpenny worth of bread to all this intolerable deal of sack! The contrast, in spite of ourselves, forces upon us a very unfavourable idea of the morals and habits of the consumers, as it does also of the character of the house itself, notwithstanding that we hear so often vaunted through parliamentary committees that we are the first moral nation in the world.

But we pronounce each and all of these halfpenny items in the public expenditure to be extravagant, because the measures are inefficient. Wellington was looked up to as wisdom personified, when in his place as a peer he remarked that this great country ought to have no petty wars. We know well that he meant to say that they are of all the most extravagant. He did but apply a general truth to one department of the State, which is equally applicable to measures for the public health. Magnificence on a scale ample enough to insure success is real economy. Insufficient powers, petty ways, and contracted means, whether exerted against an enemy in the field, or directed to arrest a great social evil, will, in the end, be equivalent to senseless extravagance. We confess that although we can see clearly the magnitude of the evil, and can indicate the only effective remedy for it, we, for the present, despair of finding a state-physician of capacity sufficiently enlarged, of humanity suffi-

\* The districts here named were not included by the Registrar-General till the year 1845.

ciently general, with firmness, zeal, power, sagacity, and knowledge sufficiently tempered to enable him to take that lofty and magnificent attitude at the right hand of the throne which shall avail to dismay the selfish and overawe the turbulent representatives of jobbing speculators on the public health and the public credulity. When such a man, Heaven's best gift to society, shall appear in the ascendant, and, throwing his heart into his acts, shall feel and diffuse the holy flame of benevolence and true patriotism throughout the ranks of the many, class-legislators shall hide their diminished heads, and banded companies shall be taught that to render their operations more wholesome is a charity even to themselves, though the change be effected at some reduction of their yearly dividends. When such a man shall have completed his task, what an exhaustless legacy shall he leave to the world? Millions shall admire the impression of his expanded soul, everywhere appearing in the memorials he shall have left for the alleviation of their miseries. In them still shall his genius breathe; in them still shall burn the consecrated Promethean fire of true knowledge; thence shall it dart into the breasts of succeeding statesmen, and infuse new life into posterity. Would that we could arouse the exanimate statesmen of our own time, and awaken their regret for having lost an opportunity so precious! Would that we could inflame their hearts with a noble emulation of the grandeur and magnanimity of the by-gone sanitary "Magnificents" of Europe, Popes, Emperors, Kings, Grand Dukes and humbler philanthropists, the Atlases who still support the name and dignity of State Hygeia, though it be now ranked among the *inferior* cares of modern statesmen, among whom, however, there is not one who has the eye to contemplate the sublime eminence once so advantageously occupied for the good of mankind, and from which they and their predecessors have lamentably fallen, generation after generation. If no arguments are to be tolerated by the moneyed-interests of our House of Commons, except those which show them how to grasp their present or to enlarge their future profits, let them recollect that the scale of magnificence for which Sir Hugh Middleton was reproached as a mad spendthrift projector, ultimately brought to every hundred-pound shareholder upwards of ten thousand pounds; and let them refer to those rich proprietors who still reap the harvest of his exertions. When a strong ministry shall be headed by such a premier as we desiderate, with the fire and energy of a Chatham, exerted for the purposes of peace instead of war, then we shall no longer be pestered, session after session, with fruitless speeches and abortive bills on the supply of water, with tirades on the known deleterious effects of gas and of smoke, with lamentations about crowded lodging-houses and the foul condition of our river, with disgusting details of intramural interment, or of the inadequate construction or deficiency of our common sewers, or on the seeming discrepancies and contradictory testimonies of the magnates of chemical philosophy; for the statesman's eye, glancing from subject to subject, piercing through the darkness and

clouds attempted to be thrown over them, shall recognise the great truth that all these matters constitute only integral parts of the difficulty with which he has to grapple, and that as "it is the last keystone makes the arch," so all must be designed and constructed in harmony, before we can have the bridge that will carry us safe over.

With respect to the Cabinet as at present constituted, the amount of their intelligence, their capacity, and their sanitary exertions to lessen the growing sum of human misery presented to us in the form of zymotic diseases, is about on a par with that of the London costermonger who, under the wholesome dread of the vigilant eye of the peripatetic humanist, eases the collar of his shoulder-galled ass, and liberally expends a halfpenny for flour to cover the sores of the overworked brute, his chief productive spring of industry and emolument. The working men of the two Boards of Registration and Health would do good, if they could. Their present ministerial employers could not, if they would; for they lack the requisite conception for the undertaking, without which no set of men can ever be in earnest, and they lack the humility indispensable to their enlightenment. "Tell me, gentlemen," says the nominal chief of their staff to sombre deputations complaining of the social evil—"tell me what plan you have got—what practicable scheme by way of remedy, and I will give it my best consideration. In other words, teach me my business as the prime ædile officer of health, and in process of time I will not fail to consider upon the eligibility of setting up practice for myself." Meanwhile onward flies time, and onward flows the formidable current of pest, while listless at its margin reclines the Registrar-General, counting the ripples, and numbering the putrid bubbles as they burst, with the same credulity and the same solidity of hope with which the simple swain of the fable awaited the exhaustion of another stream. Verily, verily, for anything he or the worthies at the corner of Parliament-street are allowed to effect, "labitur et labetur in omne volubilis ævum." Labouring in his vocation, the portly President of the London Physicians stumbles on the group, and approaching them with an air of offended dignity, thus, in his wonted suavity, expresses his disgust: "Gentlemen, why be content listlessly to repose on this unwholesome bank? What a beastly mess you are making with your swishings and swashings, your chlorides, your pumps and your hoses! *Quid ad rem?* Don't you see the current flow faster and stronger? What says your Registrar? Does not the poor, unhappy man tell you, that out of fifty-two weekly returns for 1851, forty-seven are unfavourable?—Oh, there he is—Please, sir, to attend to me.—You find health deteriorating for twenty-five or six weeks, and then, if your numbers be favourable but for fourteen days, you announce to your fellow-citizens that the health of London is favourable! In the present state of your knowledge, you will have to do this twice or even thrice a year, be the annual mortality however great. Don't you see why? Were you ever at the sea-side? Do you know what is a tide? As

there is a tide in the affairs of men, so is there one in those of pest. These weeks you vaunt of are the weeks of transition. Pray, now, study the doctrine of epidemic transitions. We know the awkward bashfulness which induces grown-up gentlemen who have neglected to learn to dance to stipulate for taking their lessons in private. For the honour of English state medicine, pray send for some smart scion of the London University to give you a grind. The thing is easily done. Every pupil's medical primer will tell you, 'When the body corporate becomes suddenly and temporarily healthy beyond its wonted bearing, such phenomena are suspicious, and indicative of danger.' And the English Hippocrates gives you the reason. One autumnal epidemic always stamps its dominion over all the rest of the year: when it rages, it has the mastery—when it declines, but never wholly disappears, other maladies severally come in to play their parts. Between the two phases there are two, or at most three, weeks of transition with a diminished mortality; and 'priore scilicet diathesi confecta nova ne dum satis stabilita,' &c. &c. You know, gentlemen, that your predominant tyrant in our time is 'London Blood-taint'—call it cholera, call it diarrhoea, or, when the weather gets cold, call it bronchitis. In various forms it is now poisoning five thousand per annum. They cannot be said to die of natural disease. When the weather is hot, you tell the people it is English old-fashioned summer flux; when it is cold, you can trace never less than two hundred deaths per week by it; and placing twenty under the two flux heads of your catalogue, you know the rest escape public animadversion. When matters get very bad, you enlarge your figure for correcting your average, and taking in periods of pestilence, you put the best face you can upon your miseries. By-and-by, you will have to retreat on the numbers of 1665, with a round allowance of two per cent. per annum for increased population; a decrease upon the average, or, at all events, the smallest increase, you *will* have, if you can get it. Extracted, however, as you extract it, such an occasional exposition of the smallness of the public sore tempts a parody on the old couplet—

Your wound is great because it is so small?  
Then 'twill be greater when there's none at all.

So now, gentlemen, I wish you good morning. You are all too old to be whipped, but not too old to be laughed at; and if your Grand Master, Lord John, has the same confidence to direct you how to avoid an evidently approaching national calamity, as he would have in manœuvring a Channel fleet or cutting for the stone, at least do not next, on the inevitable recurrence of cholera, advise folks to salivate themselves with calomel and opium, or to exclude from their tables even a moderate proportion of good wholesome vegetables. If he and Sir George disdain to consult us, at least do you avoid making English Hygeia the laughing-stock of the *savans* of Europe. Rest upon your oars if you like—take your pitiful salaries, with smothered resentment at your crippled condition; but have the wisdom just to hold your tongues for the future;

look grave, and read Rochefoucault. Meantime, at parting, let me do the Registering-officer the justice to say, his weekly returns are not useless; for, when he gives two favourable weekly reports of London health, the faculty confidently prepare for increase of business."

We have an imperfect recollection of an anecdote told of that eccentric political constellation, Richard Brinsley Sheridan, whom we rejoice to have had as our godfather, maugre the fine which our Stafford paternity paid for that honour, in unison with the mishaps of most of his general friends who had the honour of his acquaintance, an example of which occurs in our autograph-book, in the form of a dishonoured check on Hammersley's, marked "No effects." Walking down St. James's, two young brothers, noblemen, each took an arm, and, after the usual inquiries after health, foppishly demanded his opinion of the virtues of asses' milk; which, it should seem, had been recommended to them both as a remedy for their delicate chests.

"My dear young friends," replied Sherry, "I am not competent to interfere in such matters; but by all means, if you want to avoid the sad inference of domestic infirmity which the public appearance of these animals at your door never fails to indicate, go home and suck one another."

Our faith, not otherwise very implicit in the genuineness of the anecdote, received strength from our investigations of the school whence he derived his political creed. We can trace in it the principle inculcated at the light and soap-taxing academy where such men as Fox, Pitt, and, at a later period, Canning and Henry Brougham imbibed their prejudices against any interference in matters of hygeia. The founder of that school taught his pupils that these *inferior cares* belonged to the many, and not to state geniuses; and poet-laureats of the time embodied the opinion in their regal odes. Do thousands pine from over-work, foul air, and the effluvia of factories? Society has plenty of benevolence, let them all suck one another. Does famine stalk over the land? Society has plenty of wealth, let the members of it suck one another. Are the many condemned, in a huge metropolis, to try to feed like Ghoules, on putridity, and like spiders, on poison? There are plenty of round, rosy-faced, rich citizens, let the community suck one another. Do the many complain that they are three in a bed? "The last rose in summer" of this political school pronounced that Government had better leave emigration to private philanthropy; by all means let them suck one another. Does the population complain of a general water dread, and of having to swallow down a Noah's Ark-full of newly discovered lilliputian organics, animal and vegetable? The answer is still ready. Social efforts and social competition are the best remedies; if thirsty, let them suck one another. Are the gas-collectors instructed to impress on the consumers that forty-six per cent. of their horrible mixture of sulphureted hydrogen, hydrogen, light carbureted hydrogen, bicarburet of hydrogen, quadricarbureted hydrogen, escapes unconsumed, partly ascending to poison the air we breathe, and partly, through their pipe-seams,

dissolved by the rains descending to poison the waters of our old town and suburban wells—what is that to your statesman of the oratorical school? Let society rectify the error; and, still, we say, let them suck one another.

Do the faculty complain that they are utterly without order, without law, in a chaotic state of confusion, without protection, and without being able to define their own qualifications to practise—

*Monstrum horrendum, informe, ingens, cui lumen ademptum?*

Oh, says Sir James Graham, let them agree or go with their eyes out. Do they complain that society is poisoned by quacks and licensed patentees of injurious universal nostrums, with whom the successive Governments have been leagued? Do they complain that Government, so far from repressing, has shared in their spoils by their stamps and licenses, to the amount of millions sterling, diverted from the legitimate current of honest, scientific labour? Oh, says the same worthy,

Doubtless the pleasure is as great,  
Of being cheated as to cheat.

There are plenty of them deriving a large income from the residuary practice, with which we do not meddle; let the asses suck one another! Do the philosophers of the art utter piercing regrets that new hospitals, in the face of evidence given to the committees of the House, are so built, so instituted, and so wretchedly managed, that the mortality has been one hundred and twenty-five per cent. of the average number of inmates, according to the authority of the Registrar General? What's that to us? Let private benevolence see to that; and for the funds to do it with, let them suck one another. Besides, the idea pleases us. A dawn of new light at last pierces the dark political horizon. We recognise a new method of applying private benevolence to a cheap system of everlasting emigration, and one much more effective both to diminish surplus population and to relieve the gorge of our thoroughfares, than any yet proposed by Mr. Charles Pearson.

Does any Christian philosopher urge upon the Government, that while in some parishes of the metropolis the mortality of workhouses is less than

eight per cent. of the average number of inmates, looking to others we find them reported by the same officer to respectively present all intermediate degrees of mortality up to thirty per cent.? Let the successful edify the unsuccessful and not plague us. Let the guardians settle it, and for information let them suck one another. Do the rural, most industrious, and, in the aggregate, by far the most important members of the healing art, absurdly called general practitioners, but really the general physicians of the public, do these, we say, in a mixed tone of sorrow and indignation, declare that the scales of their remuneration will not allow of their discharging their duty to the poor commensurately with progressed science? Still comes the convenient answer; they have only to refer to my Lord Brougham's speeches on the Poor-laws, and to suck one another! Verily they have sucked one another, and a pretty devil's mess they have made of it!

*Ohe! jam satis!* Boy! give us our bottle of eau-de-Cologne, and sprinkle us with roses!

Wherever our professional avocations call us, still the great social evil stares us in the face! If haply we are led to the enlarged suburbs which modern proprietors choose to call a something "New-Town," we pretty generally find a new church, or Catholic chapel; and, while we rejoice at the charity that points the way to heaven, we heartily desiderate as we move through the organic mud of the footpaths and contemplate the gulfs of knee-deep slough sarcastically called streets, that some consideration is not given to making more pleasant the ways on earth; for a march through filth to godliness, even in the "Pilgrim's Progress," seems to us most unnecessary.

We now have to solicit attention to our investigation into the history of the extraordinary new malady which from year to year appears under the various forms of flux-disease and bronchitis, and which might not be inaptly called "London blood-taint." We will perform this task with a simplicity and truthfulness that shall challenge and secure at once the comprehension and conviction of the miscellaneous reader. But first we must ask a careful notice of the table below:—

EXTRACTS FROM THE SUMMARY OF THE LONDON RETURNS OF MORTALITY FOR THE TWELVE YEARS 1840—1851.

CAUSES OF DEATH.	Exhibition Year, 1851.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	1850.
1. All causes . . . . .	55359	46281	45284	45272	48574	50423	48332	49089	60442	57628	68432	48579
2. Zymotic Diseases (exclusive of Bronchitis) . . . . .	12658	8399	7909	7729	10046	11189	9594	9596	14039	18113	28313	9875
3. Bowel-flux on London Blood-taint . . . . .	2531	522	543	855	1105	830	940	2308	2283	2247	3833	2066
4. Typhus . . . . .	2340	1262	1151	1174	2083	1696	1361	1796	3184	3569	2479	1923
5. Bronchitis on London Blood-taint . . . . .	3972	497	665	679	809	1172	1686	2431	4343	3030	3243	3282

NOTE.—Fifty-three weeks were included in the weekly returns of 1847. The figures of the third head represent the mortality by diarrhoea and dysentery, exclusive of summer cholera, which we do not take into account. We call diarrhoea bowel-flux on London blood-taint. The parallel progress of the two forms of blood-taint is modified by the weather in the summer and winter of any two years, but in the aggregate it is sufficiently striking to show the connexion. Such progress is in an inverse ratio with respect to the seasons of summer and winter, the climax of the one occurring after the descensus of the other; but in their annual aggregate, allowing for modification by reason of intensity of either season, they have ascended together.

The reader will compare the relative mortality of each year from 1840 to 1851 inclusive. The diseases there selected for illustration are those in which such new blood-taint are most obvious; but, as might be expected, the many other heads under which fatal maladies are comprised are found to be swelled out in a minor degree during the years when such blood-taint is most rife. When we were young men, it was a very unusual thing in London for persons to die merely of flux or looseness, unless consecutive on some previous chronic decay of vital parts. We ourselves were in practice for years before we saw such a case. It was about the year 1826 when first such instances strewed themselves in our path every now and then. From that period up to 1831-1832, slowly, but surely, bowel-flux gained ground. In these years we were visited by the foreign stranger, malignant cholera; and the impress left on the general character of disease in this country permanently gave a somewhat greater impulse to the home product. Yet, up to 1841, we find that in the third week in August, the rifest period for bowel-flux, it destroyed only at the weekly rate of about twelve persons of all ages. Year after year it proceeded by gradual increments up to 1846, when, as the table will show, it suddenly pushed on its virulent energies to the extent of destroying 2,308, independently of those cases located by the Registrar under the head of cholera, which are not here included. 1846 was followed by nearly a similar extent of destruction occurring in 1847 and 1848; and these three years gave unmistakable forewarnings of what might be expected in 1849, the year of the great calamity. In that year the Asiatic cholera was superinduced on our now yearly social evil, and its impress on the existing blood-taint of London increased the joint numbers of diarrhoea and dysentery to 3,833, and of the more virulent form of cholera to 14,125. Its utmost hebdomadal ascent in the summer of 1841 did not exceed 28, and occurred in the week ending October 2. Its lowest descensus of the same year was in the week ending November 27, when only 3 persons died of it. Please to observe that zymote, or ferment disease, is tidal; and, like the tide, has its highest and lowest point. In 1846 the tide of London blood-taint flux rose highest in the week ending August 8th, when it carried off 201; and in the same year it completed its utmost fall in the week ending November 28, the lowest figure being 13, exclusive of three cases of dysentery. The tidal points in 1847 were—highest 171, in week ending August 14; lowest 14, in week ending December 25. In 1848—highest 187, in week ending July 29; lowest 15, in week ending December 23. In 1849—highest fatal tidal point indicated, 263, and this in the week ending August 25; the lowest was 11, in week ending December 29. In 1851, its highest tidal point of fatality was 200, in week ending September 6; and its lowest 19, in week ending December 20. We again repeat, that we above represent only London blood-taint flux, and exclude those more violent cases enumerated by the registrar under the term cholera, which was superadded in 1849, a

year prefaced and foreshadowed by the phenomena of 1846-47-48, as it will again be superadded in a year, or two years, because again foreshadowed by the same phenomena. Let any man look at the tides, and he cannot fail to see what is coming. We have happily escaped the greater calamity in the year 1851, and, for the honour of an illustrious person, no man is more gratified than ourselves. Still it looks more like an escape than a cure. The form of the blood-taint invariably gives way at the end of autumn, to be replaced by another form, that of bronchitis, in the winter. We are the first to enunciate this fact, although we can imagine no one looking at the table we supply without being convinced of it. The form is only determined by the season. In hot weather the tainted blood is determined to the bowels, in cold to our air-tubes. The extreme of heat aggravates the one, as the extreme of cold the other. Doubtless we have always had summer flux,\* but in former years it was rarely fatal. Doubtless we have always had cholera. Yes; but the old English disease was wont only to take off at the rate of about 50 in the year from a population of 1,800,000, and we exclude it from our reckoning. Doubtless we have always had winter bronchitis; but not the fatal type which in 1846 suddenly lifted up its head as a winter continuation of the summer blood-taint. Again we say, look at the table. The experienced physician will discover the same essence, the same vital prostration by secret poisons, and the same microscopical condition of the blood. We have had no scarcity to account for our sudden increase of mortality; no severe winters, such as we know, notwithstanding vulgar prejudice, are the most destructive to animal as to vegetable life. If we include the relative increase of bronchitis fatal to our blood-tainted population, we shall find that 5000 were cut off by the summer and winter forms of bowel and air-tube flux. The first severe winter will show how mercifully we have hitherto been spared in this particular. The mortality of the Exhibition year, great as it is, had probably been greater, but for the efforts made by all who wished well to the undertaking:

*Forsitan et nostrum nomen miscabitur istis.*

But whether or not, we shall always feel to our dying day a serene satisfaction, not unminged with thankfulness, that all our suggestions were carried out to a tittle. Were we one of the chief philanthropists at the Board of Health we would rouse our whole staff, and say to the Minister, "Give us the power to serve the public; dismiss us, if you like, but you shall not degrade us. Either make us effective, or take our resignation and all the responsibility along with it. What great and enlarged system of operation can we carry out when we are so straitened as hardly to have authority to pay for a cab to follow out the suggestions of our registrar?" The witches of Macbeth boasted of a deed without a name. The gentlemen of Parliament-street and Somerset House can only vaunt in their establishment of health "a name without a deed;" for it is a resting-board, watching the

\* Under twenty deaths per annum from all forms up to 1820.



unchecked progress of death by poison rather than by natural disease.

No new natural epidemic was ever recorded in the annals of medicine as having dogged the steps of the victims, like the hound that never quits the scent, with the silent but sure increase of pace from year to year, and with the invariable uniformity observable in London blood-taint. Every novice of our academic reads in the works of the fathers of medicine that it is the Protean changes of natural epidemics, their inflections, their chameleon-like transitions, both as to symptoms and degree of admissibility of cure, that constitutes their greatest difficulty. Such is the characteristic of natural disease. But arsenic, mephitic gases, and all other poisons, ever have acted, and ever will act, in the ratio of dose and resisting power of the body corporate, the same yesterday, to-day, and for ever. Infinitesimal doses will purge, gripe, taint the blood and destroy life. This is the grand test whereby natural disease may be distinguished from death by poison. The evil cannot be rectified by the course taken by our Registrar-General in 1851. In vain will he augment his allowance for increase of population. In vain, after wriggling with slow increments, will he boldly approach to a duplication of his figures for allowance for increase of population, as he has done only within a time very recent. The laudable object of these changes, to show an average decrease, still escapes his grasp, as if to mock his pursuit. It will be a source of melancholy amusement to pursue him in his awkward attempts to put the best face upon growing disease during the Exhibition year. After giving twenty-seven unfavourable weekly returns expressive of his regret, surprise and alarm; in his twenty-eighth (July 12) he takes courage and announces a favourable aspect; in his twenty-ninth, again raising his allowance for increase of population, he again finds material on which to repeat his favourable opinion. Here ends his fortnight's triumph. The Chairman of the Board of Health was then told what was seen clearly, that these two weeks were the weeks of natural transition, agreeably with a law of epidemics well understood. Accordingly, out comes his return for July 26, and with it an increase of mortality from 873 to 956, and onward flowed the tide of death till the next weeks of transition, which began in the week ending November 1; although it will be seen that by increasing his figure for supposed increases of population, just in proportion as town had become empty, he tries to anticipate nature by several weeks. Again he has his fortnight's period of transition and rests. Again he congratulates his readers; but on the 15th of November he is again compelled to announce a sudden and formidable increase, which week by week maintains the character for the remainder of the year, and will go on maintaining it. Now this is pitiful, and the more so from men who have the presumption to criticise Sydenham, a perusal of whose pages would save them for the future from such humiliation. The reader, if conversant with the nature and spirit of evidence, will observe a feverish anxiety in the reports (amiable perhaps), inducing

him to overprove his case. Thus he commences the present year, 1852, by announcing 1,297 deaths; and not content to deduce in his own way an agreement in amount with the corrected average, he adds, moreover, by way of clinching his assertion, that he has included various deaths in which coroners held inquests, which properly belong to previous weeks, as if such additional numbers did not usually come in at the first week of the year.\* Supposing his second view to be correct, then his average is wrong. If the average be correct, the sentence which follows is a mere delusion. Let the reader refer to the first week of the previous year, and he will find the same inquest-items, and let him recollect that the comparison and average is upon the first inquest-items—including weeks of ten years. Thus he will discover the value and object of this supplementary official remark.

In these remarks we have no desire to derogate from what has been done in former years, but to exclaim against official indifference at the last year's alarming retrogress of health. The history of former and earlier years, from the first organisation of their board, will convince any person who has patience to make the research that the increased mortality of London has never so much depended on increase of population as it has on sanitary neglect; and that, under sanitary exertions, the largest diminution of it has occurred under the greatest increase of population. Can we forget that when the census of London the less stood at 1,594,890, the annual mortality of 1837-38 presented (independently of the cholera of 1832) 53,597? Assuming the rate of mortality of earlier periods before and in the infancy of the existence of the Board of Health, with such a corrected average for increase as that adopted by our Registrar, the mortality of London ought to be 70,000 a-year. If such a system of altering their scale for increase, almost to a duplex, be their only remedy, God help the inhabitants of London!

To use their own words, "The metropolis has in itself all the elements of a healthy city. If the tides leave the banks of the Thames exposed, that great river sweeps through the city from west to east, and the winds rush fresh over its waters. The land rises in undulations to Hampstead-heath and the Surrey hills; PURE water is abundant (?), and would flow under almost every street; the artificial heat and gas, noisome as it sometimes is, ascends in a vast column to the sky, and is replaced by under-currents from the surrounding country. Their wealth enables the citizens to take advantage of all the suggestions, discoveries and resources of modern science; so that the metropolis need neither be fatal to so large a portion of its inhabitants, nor *undermine* or damage the health of those who are collected every year within its circuit." (Vide Hare's Letter in the Second Annual Report of the Registrar-General, 1840.) So far as Nature's bounty is concerned, all he says is true; but as to the purity of the water, or the successful riddance

\* He does not tell his readers, what his table will show, that he has struck out the lightest year from his decennial average.

of the gas, or any confidence in the wealthy of the metropolis being able, even, if willing, "to secure the discoveries and resources of modern science," &c. &c., *credat qui vult*. When our sanitarian officer wrote thus, all to him appeared *couleur de rose*. Newly-installed and newly-salaried, he had no gloomy reflections that it is to the wealthy projectors and manufacturers, in a word to the marriage of enormous wealth to that productive but mischievous bride, that artful hand-maiden, Modern Chemistry, that we owe more than half the mischief. The reporter seems to have been enjoying that *félicité parfaite*, rudely but frankly expressed in the happy man's song :

The smoke is good, and the gas is good,  
And the winds are good in hot weather ;  
The water is good, and our river is good,  
And we're all good fellows together.

*Parody on Old Song.*

When we read his eulogium we are tempted to exclaim, By Heaven! we have deceived ourselves this livelong time! We had thought that in our long experience of external agents on the body-corporate, we could recollect public wells tainted by the gas—ourselves, for example, insisting upon the poisonous character of that which erst graced the foot of the statue at Charing-cross, and to the south of that statue, where it is seen no more ; for the once-celebrated pump is removed and replaced by one at the north. We thought we could recollect, whenever we have examined the disturbed earth of the streets, finding it uniformly saturated with street gas! and year after year we thought we had heard complaints in the suburbs, of roads noisome with it, of ornamental plantations destroyed by it, of pipes, when replaced by those of larger calibre to meet increased demand, being a cause, *inter alia*, of local outbreaks of flux and cholera. We had thought that our own well at our suburban residence, and several public wells founded by charity, had been thus tainted, and that there existed irrefragable proofs that the London street surface is one mass of poisonous earth. "That great river, too, that sweeps through the city from west to east, with the wind rushing fresh over its waters," we thought it had smelt of rotten eggs; and for the abundant supply of pure water—how this world is given to error! The eels were said to get used to being skinned, and the apprehensions here expressed in the Registrar-General's Report, in a sickly year, indeed, but yet at a time when by all the three forms of blood-taint, London folk only died at the rate of ten a week, the year round, are converted, as the gentleman grows older and less sensitive, to a serene satisfaction in the year 1851; when, from their own figures, as here shown, the destruction by London poisons, independently of natural disease, amounts to 5000 deaths per annum, or about 100 per week, to say nothing of the other thousands, whose health being *undermined* become less able to resist the various maladies which flesh is heir to. The ordinary ills are bad enough; but we, no more than legitimate heirs, are bound to accept and act upon the fatal legacies of jobbing companies and smoke-and-filth-

eliminating factors, nor constrained to act upon their will to our own destruction, *contra bonos mores*. The Registrar-General may get used to it, and so may the Board of Health; but we will tell them it were better for society if both boards, instead of singing their own pœans, and magnifying the superiority of numerical arguments over Sydenham's natural method, would first learn the laws of epidemics, as inferable from that great authority. It would enable them to see a little further than a fortnight, as it enabled one to tell their noble chairman, at the earlier part of the year, that flux-disease would necessarily be severe; and the deaths rose one-fourth accordingly, by the bowel-flux alone, on the yearly aggregate amount of 1851, compared with that of 1850. The law was extracted and supplied, and a pledge given for the result. Lord Seymour and Professor Owen, an ex-Commissioner of Health, have the vouchers. These laws have for years been before the scientific world, and we know that not one has ever yet been disproved. We extract a paragraph from that code as being illustrative and instructive of the nature of London blood-taint flux :

The atmosphere of organic matter thrown off insensibly by every population, more or less dense as a district may be more or less open or close, and rendered more poisonous by the exhalation from common sewers, churchyards, vaults, slaughter-houses, cesspools, factories, gas-illumination, &c. &c., all commingling therein, may be sufficient to impress destructive force on the living, so as to receive and impart the processes of reaction in the zymotic principles necessary to the spread of typhus fever; but it is insufficient to develop epidemic disease, unless aided by that epidemic influence to which all progressive epidemics have been traced.

In the capricious visits of an exotic, as in sweating-sickness, the earlier visitations may prove fatal to the poor: in the latter the poor shall escape altogether, and the highest classes shall be the victims. Thus in the three first visits of the sweating-sickness the rich escaped; in the fourth they began to suffer; in the fifth severely; and in the sixth extensively and exclusively, the poor escaping universally. So, in our own time, this capricious character of new epidemics is still preserved. The Irish typhus, a new epidemic, which first appeared in 1816, was for many years limited to the poor; but in the progression of its unhappy naturalisation it has found its way to the upper classes, and when contagiously introduced among their families it is growing proportionably more fatal to them than to the poor themselves.\*

As in common poisons some, as for example tobacco, hydrocyanic acid, foxglove, and the ancient state poison of Athens, subdue and extinguish the powers of life without exciting reaction; others equally fatal excite violent inflammatory reaction and excessive heat; as corrosive sublimate, arsenic, cantharides; so it is with atmospheric poisons developed by chemical and epidemical forces in manufacturing towns—some are remarkable for their relaxing and prostrating effects on the nerves and tissues, as cholera superadded on London blood-taint, others for rapidly developing violent, active, and destructive inflammations, as plague; and some forces also, like common poisons, produce mixed effects, as that of violent influenza.

Reference to the registry of disease all over the world, just as special reference to the registry of disease in Great Britain, and to our army and navy medical returns from all our possessions, will show that bowel-flux when epidemic arrests catarrh; and, *vice versâ*, the number of cases

\* The mortality (according to a Government report) has been much greater among the higher ranks of society whom the disease has attacked, than in the labouring-classes; and the physicians and other attendants, as well as the clergy, have felt its destructive force in much more than an ordinary proportion.

of catarrh or bronchitis will gradually ascend in an exact ratio with the descent of bowel-flux. In all epidemics, ordinary and extraordinary, naturalised and exotic, in proportion as the forces relax the bowels they will manifest less energetic action on the skin and on the air-passages; not excepting the poisonous epidemic forces of small-pox, for this last has at one time manifested its influence by inducing all ordinary febrile symptoms, except the eruption, for which in 1668 a diarrhœa or spontaneous salivation was substituted. This explains why, in Asiatic cholera superadded upon its ally epidemic diarrhœa, the fever of reaction is languid and indistinct.—From "*The Laws of Epidemics, or Code of Safety*, by G. F. Collier, M.D."

It is but reasonable that as we have spoken so freely of the extent of a great social evil, and of the reprehensible listlessness with which it is allowed to spread, that we should be prepared with hints for the correction and remedy.

We will do this with the confidence and facility that can only result from long acquaintance with the subject in all its bearings. We speak with the ease of an emeritus professor. Happy the Government, if they will listen and receive knowledge. Thus, if we had their ear, we would address them:

My lords and gentlemen,—Thirty years ago not twenty people died annually of diarrhœa. Now, near 3000 die of it, not from natural disease, but undermined and poisoned.

The appearance of a new epidemical disease in any country ought not to excite surprise; for good reasons were proffered by John Hunter, and by others after him, for believing that under the modifying force of epidemical influence new poisons are constantly produced among the poor of great cities. A collection of causes concurring produce malignant and fatally acute disease, simulating epidemical disease, without epidemical influence; but it is contrary to the experience of ages that such disease should permanently spread itself over a great extent of country, unless aided by meteorologic influence, and developed by the like *combined poisonous forces*.

These poisonous forces have more than doubled since 1846, and they are undermining your manufacturing population. The remedy is not in a single panacea, but in the judicious use of the state *Materia Medica*. In 1776 the evil was anticipated by Dr. Samuel Johnson, and his friend Dr. Brocklesby. Even then (*Vide Gentleman's Magazine* and the *Annual Register* for 1776) the Government of that time were told that they could not for many years longer be allowed to remain blind to the evil, or deaf to an appeal for the remedy. We do but repeat the advice then given without any considerable enlargement or merit of our own. Create your proper ædilian officers, incorporate their duties with those of the inspectors of buildings of all kinds above and below the street earth, as Greece and Rome did in their best times. Let all public buildings, whether for worship, amusement, or utility, be erected agreeably with the laws of health, and not at the lawless caprice of wealth or fanaticism. Abolish and prohibit all intramural

interment, and let the numerous places hitherto appropriated to that use be converted, after being treated with a stratum of quick-lime, into lawns, walks, gardens, squares, and such-like useful and ornamental objects; but by no means let them be built upon. Replace your foul street-earth with a more salubrious material.

To supply the defect of burying-places, other grounds should be chosen, at proper distances, on the north side of a city, as southern winds are more sultry and likely to convey to the inhabitants any noxious exhalation; the diffusion of which, it is well known, northern winds tend rather to check than to promote. See that the increase of trade, and crowded assemblage consequent thereon, be allowed to produce the least possible damage, whether where merchants most do congregate or in the more fashionable atmosphere of a court. Control, as far as you can, the extent and impurities of illuminations and lighting; encourage early closing; supply an ædilian prosecutor to compete with the companies who saturate our street-soil and our wells with noisome gas—our water with organic *debris*. Lose no time in purifying our river; let the chemistry of manufacture be compelled to make obeisance to the Goddess of Health. Trust not the duties of an ædile to a mock analysing commission, with one commissioner doing his own duty, and secretary besides, at his own solitary board, not entirely useless under the premiership of Mr. Thomas Wakley, M.P. In short, neither let your army, nor your navy, nor the civil population, be poisoned with unwholesome food. Condescend to think for the many, and supply them with some guarantee that they be not dearly and generally supplied with unwholesome liquids. Bear in mind that tainted air is poisonous, as well as tainted food. Look to your hospitals, and to all your benevolent and parochial institutions, and see that they be not made hot-beds of pest, as some of them are now, without the slightest sanitary control, and with a mortality of 130 per cent. Give the mechanics more room for recreation; give them ball-courts to their baths and wash-houses; and do not be afraid of driving them mad, even if they have music and reading-rooms there; it would be better for them than the hot, reeking coffee-shops, where they seek relaxation, and more worthy of a great nation. In short, my lords and gentlemen, look to fire, earth, air and water. The first is hourly made an instrument for poisonous evolutions; the second is a mass, saturated with poison, which we daily tread upon; the third is tainted; and the fourth is corrupt. Learn that, as twelve pence make a shilling, a sufficing number of causes create pest; and do not amuse and stultify the people with brass-farthing, abortive, and, because abortive, expensive attempts at sanitary legislation. Again we say, "it is the last key-stone that makes the arch."



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