### 1855–1860

THE Act "for the better Local Management of the Metropolis" which was passed by Parliament in 1855 was the turning point in the sanitary history and evolution of London.

It put a term to the chaos of local government in "greater London" and swept away the three hundred trumpery and petty existing local governing bodies. It created a legally recognisable metropolis by defining its component parts and boundaries. It established a definite system of local representative government in that metropolis for the administration of its local affairs. It conferred upon the new authorities not only the powers vaguely possessed and imperfectly, if at all, acted on by their predecessors, but a considerable number of new ones. It laid the basis of an organisation for the sanitary supervision of the inhabitants of each parish of greater London.

And with the object of making provision for the effective treatment of some of the numerous matters affecting London as a whole—matters of a general and not of a local character—with which smaller local authorities could not possibly deal, and with the further object of securing a certain uniformity of administration by the new local authorities, it founded a central governing body for the metropolis.

Simultaneously Parliament passed a new "Nuisances Removal Act for England" † which was made applicable to

\* 18 and 19 Vic. cap. 120. † 18 and 19 Vic. cap. 121.

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London, and which, coupled with the health provisions in the Metropolis Local Management Act, bestowed upon the metropolis a sort of code of sanitary laws in some degree similar to those enjoyed by other parts of England.

And also an Act\* making stricter provisions as to the construction of buildings in the metropolis.

Though three Acts were thus passed, they formed but separate parts of one general plan of reform.

Some little detail must be gone into as regards the system of local government thus initiated.

For government in purely local matters—in each of the twenty-three largest parishes, definite Vestries, as distinguished from parishioners meeting in open Vestry, were constituted, the members thereof being elected by the householders of the respective parishes rated to the relief of the poor. The total number of members on any Vestry was not to exceed one hundred and twenty, and each year one-third of them were to retire, and an election to be held to fill their places.

And as there were many parishes so small that to have constituted them separate local governing authorities would have perpetuated all the evils of small areas of local government, these small parishes were grouped together into "districts" of a fairly large size, for each of which—some fourteen in number—there was to be a governing body entitled "The Board of Works for the — District," the members thereof being elected, not directly by the electors, but by the smaller Vestries constituting the District.

These new local governing bodies were thus representative bodies, the Vestries elected directly by the ratepayers, the District Boards indirectly elected; but both were constituted "the sanitary authority" for their respective areas, both were charged with the administration of local affairs, and so the term "Vestry" and the "District Board" may be taken as synonymous.

The central body which was constituted for dealing with matters affecting London as a whole was named "The Metropolitan Board of Works."

\* 18 and 19 Vic. cap. 122.

It was not directly elected by the ratepayers of London, but was elected by the aforesaid local authorities and by the "City."

It consisted of forty-five members. Three were elected by "the Mayor, aldermen, and commons of the City of London

in common council assembled."

Each of the six largest Vestries elected two of their members to it; the other Vestries one each, and the District Boards of Works elected the remainder.

It was thus representative of the whole of London—City and Metropolis included. Each year one-third of the members were to retire, and one-third to be elected in their place.

This central Board was charged with many important duties affecting London as a whole. Foremost amongst them was the first essential of any sanitary well-being—the improvement of the sewerage and drainage of London.

This new body superseded the Commissioners of Sewers, and was specially charged with the task of designing and carrying out "a system of sewerage which should prevent all or any part of the sewage within the metropolis from passing into the river Thames in or near the metropolis: and also make all such other sewers and works as they may from time to time think necessary for the effectual sewerage and drainage of the metropolis."

It was also given general control over the sewage works, and power to make orders for controlling Vestries and District Boards in the construction of sewers in their

respective parishes.

Furthermore it was given power to make, widen, or improve, any streets or roads in the metropolis for facilitating the traffic, and certain powers of prohibiting the erection of buildings beyond the regular line of buildings. It was given power, too, to make bye-laws—for regulating the plans, level, and width, &c., of new streets and roads; for the plans and level of sites for building; for the cleansing of drains, and their communication with sewers; for the emptying, closing, and filling up of cesspools; for the removal of refuse, and generally, for carrying into effect the

purposes of the Act—all which bye-laws were to be enforced by the Vestries and District Boards.

Thus it was given large powers to deal with many of the matters which most affected the public health. But in some other such matters—essential for the effectiveness of the whole scheme—it was left strangely helpless. It was given no power to appoint a Medical Officer of Health for the metropolis to advise it as to matters affecting the health of London as a whole; or to appoint Inspectors of Nuisances to ascertain information upon sanitary matters and to carry out various sanitary duties.

But, gravest and most deleterious defect of all, no authority was conferred upon the Board to compel any negligent or recalcitrant local authorities to carry out the duties imposed upon them by Parliament or by bye-laws of the Board. Those authorities might with absolute impunity neglect to carry out even the imperative directions of Parliament as embodied in the Act, and thus what Parliament emphatically enacted "shall" be done might be left undone, with the most disastrous consequences to the public health, not merely of the particular parish, but to the great community of London.

The omission of some such provision made the Vestries practically independent bodies, and arbiters as to the administration or non-administration of various important provisions of existing or future Acts of Parliament, and afforded them the opportunity, so freely and widely availed of, of not performing duties against their own opinions or interests.

As regarded these newly created local authorities—the "Vestries" and the "District Boards of Works"—the powers and duties conferred upon them were extensive.

All the powers and duties of the previous local authorities as regarded paving, lighting, watering, and cleansing, or improving any parish, were transferred to them.

The sewers, other than the main sewers, were vested in them, with the contingent duty of maintaining, repairing, and cleansing them, and they were given power to put sewers in every street. Also, they were given power, under certain circumstances, to compel owners of houses, "whether built before or after the commencement of this Act," to construct drains into the common sewer.

Furthermore, no house was to be built without drains constructed to the satisfaction of the Vestry, or without sufficient sanitary conveniences, and they were directed to cause open ditches, sewers, and drains of an offensive nature, or likely to be prejudicial to health, to be cleansed, filled up, and covered. And they were required to appoint scavengers to collect the dirt and rubbish, or to contract for its removal.

And each of the authorities was to appoint one or more Medical Officers of Health, whose duty it should be to inspect and report periodically upon the sanitary condition of the parish or district, and who would act as medical adviser to the Vestry in all matters relating to the public health, and was also to appoint one or more Inspectors of Nuisances to report as to the existence of nuisances or disease, and perform various other duties in connection with the sanitary condition of the parish.

Provision was also made for the prevention of the sale of food unfit for human consumption.

The Sanitary Inspector "might at all reasonable times inspect and examine any carcase, meat, poultry, game, flesh, fish, fruit, vegetables, corn, bread, or flour exposed for sale," and in case the same appeared to him to be unfit for such food it might be seized, and the magistrate might order it to be destroyed, and the person to whom it belonged, or in whose custody it was found, should on conviction be liable to a penalty of £10.

By "The Nuisances Removal Act for England" the word "nuisances" was so defined as to include any accumulation or deposit which was injurious to health, "any premises in such a state as to be injurious to health, any pool, ditch, water-course, cesspool, drain, or ashpit, &c., so foul as to be a nuisance or injurious to health."

The right to give notice to the sanitary authority of the existence of a nuisance was extended, and the process was facilitated. Notice might be given to the sanitary authori-

ties by the person aggrieved, by the sanitary inspector, or by a constable, or by two inhabitant householders of the parish; and certain powers of entry were given to the local authority or their officer. The justices who heard the case might require the person offending to provide sufficient sanitary accommodation, means of drainage, or ventilation, to abate the nuisance, or to whitewash, disinfect, or purify the premises which were a nuisance, and could inflict a fine for contravention of the order of abatement; and, if the nuisance proved to exist were such as, in their judgment, to render a house unfit for human habitation, they were given authority even to prohibit the using thereof until it was rendered fit.

Furthermore, as regarded certain noxious trades, including slaughter-houses and manufactories causing effluvia, which were certified by the Medical Officer of Health to be a nuisance, or injurious to the health of the inhabitants of the neighbourhood, the owner or occupier of the premises might be proceeded against, and, on conviction, fined.

Against the monster evil of "overcrowding" Parliament made an attempt to legislate specifically, thus formally recognising the necessity for dealing with it.

"Whenever the Medical Officer of Health shall certify to the local authority that any house is so overcrowded as to be dangerous or prejudicial to 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 overcrowding, and the justices shall thereupon make such order as they may think fit, and the person permitting such overcrowding shall forfeit a sum not exceeding forty shillings."

And an effort was also made to curtail the practice of living in underground rooms and cellars by defining what such a room or cellar was, and making liable to a penalty "whoever let, occupied, or knowingly suffered to be occupied, any room or cellar contrary to the Act."\*

As money was essential for the working of the Acts, over

\* Section 103 of Metropolis Local Management Act.

and above that for which rates could be levied, power was given both to the Metropolitan Board of Works and to the Vestries and District Boards of Works to borrow money on the security of the rates, and repayable by instalments, "provided always that no money should be so borrowed by Vestries or District Boards without the previous sanction in writing of the said Metropolitan Board."

There were to be auditors of the accounts of the local authorities, who were to be annually elected at the same time and in the same manner as members of the Vestry.

Finally, each Vestry and District Board of Works was to make to the Metropolitan Board of Works an annual report of its proceedings, including a report from the Medical Officer of Health; and the Metropolitan Board was to make an annual report of its proceedings, and present a copy to one of Her Majesty's Secretaries of State.

The third of these Acts, "The Metropolitan Building Act, 1855," amended the existing laws relating to buildings in the metropolis, and laid down an elaborate code for the regulation and supervision of all new buildings. Most of this code related to the structure—the thickness of walls, &c., &c.—and had primarily in view the security of the house from destruction by fire. Only a few sections in the Act related to the infinitely more important matter of adequate provision for the health of the inhabitants, and those dealt with it in the most niggardly way.

A minimum of one hundred square feet was laid down as satisfying the requirements of open space for air and ventilation around a dwelling; a minimum of seven feet in height was held to satisfy the requirements of any room in a house.

And the supervision of every building, and every work done in or upon any building, was entrusted to the "District Surveyors"—officials taken over by the Metropolitan Board from the previous body, appointed under the

Building Act of 1844, which had distinguished itself by its incapacity.

These Acts practically laid down the framework of the machinery of the sanitary government of London, and struck the first real blow at the roots of the insanitary condition of the metropolis.

The callous indifference and inaction of generations had left not a mere Augean stable to be cleansed, but a great city over 100 square miles in extent and containing two and a half millions of people, and the new authorities, when they came into existence, had not only to meet the daily needs of a vast existing population, but to make good the neglect of centuries, and to build up a sound and effective working system of sanitary administration.

The task lying before them was one of enormous proportions, for on them rested the responsibility of effecting the sanitary redemption of the millions of the metropolis—as well as the infinitely greater duty of safeguarding future generations from similar sufferings and wrongs.

It was, moreover, a task of almost superhuman difficulty, for arrayed against reform and amelioration were the powerful forces of "vested rights in filth and dirt." And adding to the difficulty was the huge inert mass of ignorance, and poverty, and helplessness of masses of the people.

One principle contained in these Acts was of pre-eminent consequence—namely, the responsibility of "ownership." Hitherto owners had effectually escaped all responsibility as regarded the sanitary state of their property, and had dealt with their property exactly as they pleased, and regardless of the consequences to any one but themselves.

Parliament now formally recognised and definitely laid down the principle that the "owner" was the person responsible for the insanitary condition of his property; and in addition declared that individuals would not in future be allowed to deal with their property in such a manner as to cause injury to the public health.

But declaration of principles was one thing—their

enforcement was another. Unfortunately, those who were charged with their enforcement were too often the persons directly interested in resisting reform, and in very many instances, where even a partial enforcement of these principles was attempted, the action was resented and vigorously resisted.

The Metropolis Local Management Act came into force on January 1, 1856, and the Central Authority—the Metropolitan Board of Works—and the local authorities—Vestries and District Boards—having been duly elected,

entered upon their duties.

The first and most urgent work which the Metropolitan Board was charged to carry out was the main drainage of the metropolis, and at the outset, the new Board directed its efforts almost exclusively to the highly technical task of devising and considering and adopting plans for the construction of a great system of sewerage which should intercept the flow of sewage into the Thames, and should convey it by other means to a safe distance below London, whence it might flow into the sea.

Any plan had, however, to be approved by the Chief Commissioner of Works. To him the Board submitted three plans, but none of them received such approval, and the matter was at a deadlock until 1858, when an Act was passed removing the veto of the Chief Commissioner of Works, and at the same time giving the Metropolitan Board power to raise a loan of £3,000,000, which up to that time it had no power to do.

Within a week from the passing of that Act, the Board determined on a plan, and began arrangements for carrying it out.

The plan adopted was to intercept all the sewage flowing into the Thames within the area of the metropolis, and to convey it by sewers to a distance, and to discharge it into the river at such a condition of tide as should take it still further out, so as not to return and become a nuisance to the metropolis. The proposed interception on the north side was by three main sewers, discharging at Barking—the upper, the middle, and the lower, with branches; on

the south side, by two main sewers, discharging at Crossness.

As the result of the Act there had been transferred to the Board 106 miles of main sewers on the north side of the Thames with 33 outlets into the river, and 60 miles on the south side with 31 outlets. A considerable number of these were offensive open sewers, others were defective in design and construction, whilst all required reconstruction to make them effective, and to fit them for connection with the new system.

The Central Authority had thus a heavy task before it, and one which it would take years to perform.

The local authorities, with simpler duties to perform, were able to get quicker to work.

They appointed "Surveyors" in each parish to look after the multifarious duties in connection with the paving, lighting, and cleansing of the streets, with scavenging, and the removal of house and trade refuse, and with the construction and maintenance of local sewers and drains. In a sort of way some of this work had been done by the previous petty authorities; parts of it, therefore, were more or less familiar, and so not wholly new.

But wholly new, and of very great importance, were the appointments which the new local authorities had to make for their districts of a Medical Officer of Health, and of one or more Inspectors of Nuisances to help him.

The duties of the Medical Officer of Health were carefully prescribed by the Act. He was to inspect and report periodically upon the sanitary condition of the parish; to ascertain the existence of diseases increasing the rate of mortality; to point out the existence of any causes likely to originate or maintain such diseases, as well as to suggest the most efficacious mode of checking and preventing their spread, and various other important sanitary duties.

These appointments were duly made, and some appointments also of Inspectors of Nuisances.

Herein was involved the clear recognition of another principle of the utmost consequence—that of inspection—a principle very naturally held in abhorrence by all sanitary

misdoers. It had previously been put spasmodically into operation, and with the best effects, on the occasions when Asiatic cholera was approaching or raging in the country, but when the panic had subsided it was promptly dropped, and every one was practically left free to commit any sanitary enormity with impunity. Henceforth, however, there would be the contingency of being found out for breaches of sanitary laws, and the eye of the law would, at least theoretically, be upon sanitary law breakers.

The majority of the Medical Officers of Health entered energetically on their work, and thenceforward a constant light was thrown upon the sanitary condition of various parts of the metropolis by men who lived in the closest and most unceasing contact with the devastating evils afflicting the masses of the people. All were not equally efficient or energetic—all were not equally communicative—but the reports of many of them are full of interesting facts, of acute and instructive comment, and of wise counsel; and though holding office at the pleasure of their employers, many of these officers were courageously independent and outspoken in their criticism and advice.\*

Unfortunately, the reports had practically no circulation beyond the members of the bodies to whom they were made, if even they were read by them, and the recommendations made therein were too often absolutely ignored by those bodies, or, for reasons of self-interest, opposed.

To us now, however, these reports are of the greatest value, being in many respects the most valuable official records existing on the subject. We learn from them, better than we do from any other source, as regards the various parishes of London, the nature, and in some measure the extent of the evils which existed, and the causes of those evils; we find in them opinions expressed and reiterated as to the best way of remedying those evils, and

accounts of the results of the efforts made to remove or cure those evils.

The reports set forth facts demonstrating the appalling misery which the great masses of the people of the metropolis endured; the loathsome foulness in which vast numbers of them habitually lived, and were allowed to live; the dreadful hardships they had to suffer; the fearful moral and physical contamination they underwent; the terrible death-roll—in great part preventable—and the ten or twenty-fold larger roll of victims of preventable illnesses and epidemics, with the consequent poverty which sickness entailed.

We can bit by bit piece together from these reports a realistic picture of the sanitary condition of London as a whole during the successive periods of the latter half of the nineteenth century, and we can discern the action of the silent, steady, and irresistible economic forces which unintermittently dominated that condition. North and south in the metropolis, east and west, it was all the same, varying only in intensity, in extent, and, in some degree, in form; a harrowing and almost incredible story. And the remarkable concurrence of testimony from men acting independently of each other, and resident in wholly different parts of London, justifies the fullest confidence in statements uniformly harmonious.

The metropolis is so large a place, with such marked differences between its component parts, differences in situation, and physical characteristics, and degree of development—differences in wealth and poverty, and in the occupations of their inhabitants—that the attempt to trace any special branch of its history is beset with the greatest difficulties.

Especially is this the case when the subject treated of is so complex and comprehensive as that of the public health.

It is manifest that all parts of the metropolis cannot be described simultaneously—whilst to go "seriatim" into the history of the public health in each separate locality would, by the very weight of detail, fail to convey an impression of the subject as a whole.

<sup>\*</sup> There is in the library of the London County Council an almost complete set of these annual reports inherited from the Metropolitan Board of Works. Unless those sent to the Secretary of State, as directed by the Act, have been preserved, there is no other collection in existence.

The same objections apply to a "seriatim" historic treatment of the different branches of the public health.

Moreover, the action of the central authority has also to be described in its proper place.

And, still more important, the action of Parliament, and the principal Acts of Parliament relating to matters affecting the public health, either directly or administratively.

How then can the subject be best treated with the object of presenting the main facts of the sanitary evolution of London, and deducing from them the lessons of experience and guidance for the future?

Probably by a sort of compromise between these two methods—taking groups of districts instead of separate districts—and groups of matters pertaining to the public health, instead of separate subjects—and, furthermore, dealing with the whole subject in certain definite periods. Groups of parishes have already, for certain health purposes, been classified into central, eastern, northern, western, and southern. That classification can be adhered to here.

And inasmuch as almost the only reliable statistics as to many matters relating to the public health are those afforded every decade by the census, the narrative can best be treated by taking decennial periods, and utilising the reliable information of the census for the deduction of conclusions which on any other basis might be unsound. This method, then, though in many respects imperfect, is adopted as probably the best for tracing the sanitary evolution of the great metropolis.

Foremost among the central group, but standing by itself, and in the main outside the scope of the legislation, was the "City." To the description of its condition already given nothing need be added beyond the statement of the fact that the great economic forces at work therein were displaying their results in the "City" itself in very striking manner.

Under their potent influence the population there had begun to rapidly decline. In 1851 it had been 127,533. In 1861 it had come down to 111,784. The number of inhabited houses was likewise rapidly declining. In 1851

there had been 14,483; in 1861 there were 13,218. Under the irresistible demands for greater business and trading accommodation, the inhabited houses there were being rapidly converted to the more profitable purpose of business offices, or warehouses.

As the number of business premises and shops increased in a locality, so did the better-to-do residents leave it, and migrate to pleasanter or more healthy localities. Some of the houses thus vacated became promptly tenanted by numerous families of a lower, or even the lowest classes; until they too were converted to business purposes, and their inhabitants once more turned adrift to seek other habitation. Some of these people secured in the neighbouring parishes residence in one or part of one of those jerry-built and insanitary constructions which landowners and builders were erecting as rapidly as possible upon any unbuilt ground which they owned, or which they could lay hands upon—the majority contented themselves with squeezing somehow into tenement houses already overcrowded.

It cannot be too constantly borne in mind that this was one of the great forces in unceasing action in the metropolis, extending its sphere of action step by step, and stage by stage, and that as years went on, the various districts of the metropolis were, one and all, in varying degree, subject to the accompaniments and consequences of its different stages of growth. And the transition was further aggravated by the natural increase of population, and by another great force—the unceasing flow of immigrants into the metropolis, the majority in search of work, others of food given by charitable people, or of any other chance good thing or adventure that might turn up.

And so, on January 1, 1856, the new local authorities of the metropolis began their great task. And about forty Medical Officers of Health began to examine into and inspect their respective districts, and to inform or advise their respective authorities.

What did these men find when they got well into their work? What opinions did they form as to the fearful facts

with which they were promptly brought face to face, and the great social problems with which they were confronted? And what did they and their employers, the Vestries and District Boards, do to carry out the legislation which Parliament had at last enacted?

The first impression of one of them was that the possessor of the office of Medical Officer of Health\* could never become popular, "his functions bringing him into constant collision with the apparent interests of many influential persons;"—in other words, with vested interests.

Others took a less personal and wider view of their duties.

Thus one of them † wrote:—

"We have to remodel an old system—a system on which has been for centuries engrafted by slow degrees all the undesirable elements we now wish to eradicate."

Another ! was impressed by the vast amount to be done even in his own parish:—

"From what I daily witness, I make bold to state that this Vestry has a Herculean task to perform to abate all the nuisances of Rotherhithe; nuisances which have grown uninterrupted for ages, and have become inveterate customs with many."

If it was a Herculean task in one parish, and that a small one, what was the task for the whole of the metropolis?

Another, § after a few years' experience of the working of the Act, summed up the actual position—the very kernel of the case—when he wrote:—

"The working of the Metropolis Management Act might often be characterised as a war of the community against individuals for the public good."

And that is what, undoubtedly, it amounted it. Hitherto the "individuals" had had their own way unchallenged and unchecked, and countless thousands of the community had been sent to their doom. Now, in a sort of way, it was to be a war—a very just and necessary, and on the part of the community a bloodless war—to enforce upon land-owners, and house-owners and house-middlemen, obedience to the principle that "property has its duties as well as its rights,"

\* St. Giles. † Fulham, ‡ Rotherhithe. § Hackney.

and that those individual rights should not be exercised—as they had hitherto so cruelly been—to the mortal injury of vast numbers of the community.

And there was yet another aspect of their work being a war. It was war against disease and filth, and all the causes of insanitation, and against the consequent human suffering and misery, and degradation, in some of the very worst forms.

That, unfortunately, was a never-endable war. Great successes might be won—complete and final victory never.

The central group of parishes and districts outside the "City"—and lying to the north and west of the "City," consisted of St. Luke, Clerkenwell, Holborn, St. Giles', the Strand, and St. Martin-in-the-Fields, with a population of close upon 288,000—about one-ninth of that of the metropolis. Already in four of these, under the influence of the economic forces already described, the population was decreasing. Every portion of this central group was densely populated, and it contained two of the most crowded of all the areas of the metropolis-the Strand, which stood highest, and St. Luke's, which had "the questionable distinction" of being the second most densely populated parish. In St. Giles', which was "amongst the oldest, most densely peopled, and most deteriorated portions of London," the population in 1851 "did not appear capable of further increase, the district being incapable of expansion either by packing closer or by the addition of new houses."

The eastern group consisted of the parishes or districts of Shoreditch, Whitechapel, Bethnal Green, Mile-End-Old-Town, St. George-in-the-East, Limehouse, and Poplar.

In Whitechapel the population was stationary; in all the others increasing.

The northern group of parishes and districts consisted of Hackney, Islington, St. Pancras, St. Marylebone, and Hampstead.

In every one of these the population was on the increase, slightly in St. Marylebone, very rapidly in most of them, notably so in St. Pancras and Islington.

The western group consisted of Westminster, St. James',

St. George (Hanover Square), Paddington, Kensington, Fulham, and Chelsea.

In St. James' the population was decreasing (having reached its apogee in 1841); in Westminster it was slightly increasing; in all the others rapidly increasing.

The southern group, with a population roughly of about 700,000, consisted of the whole of that portion of the metropolis which was situate on the south side of the river. Beginning on the west, there was Wandsworth (which included Battersea), then Lambeth, Camberwell, Lewisham, with Woolwich and Plumstead on the extreme east, then Greenwich, Rotherhithe, Bermondsey, St. Mary,

Newington, St. George-the-Martyr, Southwark, St. Saviour, Southwark, and St. Olave, in Southwark.

Many of these were still mostly country. The various parishes and districts of the metropolis differed remarkably in their rate of increase of population In all, the number of births was in excess of the number of deaths, but as this excess in no way accounted for the increase in many of them, the rest of the increase could only be accounted for by immigration—immigration either from other parishes or from outside London.

And as it was with population so it was with the houses in which the people dwelt.

In most of the central parts of London, houses crowded every available scrap of land, squares and open spaces being few and far between. Where there should have been streets of good width, there were narrow lanes of houses; where there should have been thoroughfares, there were cul-de-sacs; where there should have been space for through currents of air and for light, there were brick walls stopping both light and air.

Figures giving so many houses to the acre convey little actual idea of the density of houses. Far more suggestive is such a statement as that made by the Medical Officer of Health in Limehouse (1861) that: "There would be 10 difficulty in marking out courts and alleys where the problem would seem to have been with the originators, how to enable the greatest number of people to live in the

smallest amount of space." Or the description of St. Giles',\* where, "exclusive of mews, there may be counted on the map upwards of seventy streets, courts, and alleys, in which there is no thoroughfare, or which are approached by passages under houses." Nor is it a matter of surprise that this state of things should have come about, when hitherto there had been practically no check whatever upon building.

"It is to be regretted," wrote the Medical Officer of Health for Mile-End-Old-Town about his own district (1856), "that the great increase in the number of habitations should have been allowed to take place without some municipal direction, or some supervision competent to supply its place; the general salubrity of the district would certainly have been better secured. . . . But every owner of a piece of ground has had the opportunity of making the most of it for his own advantage and in real opposition to the public good."

In nearly all the non-central parts of London houses were increasing rapidly.

"Bricklayers are spreading the webs and meshes of houses with such fearful rapidity in every direction that people are being gradually confined within narrow prisons only open at the top for the admission of what would be air if it were not smoke.

"Suburban open spaces are being entombed in brick and mortar mausoleums for the suffocation as well as for the accommodation of an increasing populace." †

Thus in Islington there were 13,500 houses in 1851, and 20,700 in 1861; in Kensington 6,100 in 1851, and 9,400 in 1861.

But what evoked comment was, that the evils of one sort or another connected with the crowding of houses together were being perpetuated.

"Not only is it to be deplored," wrote the Medical Officer of Health for Whitechapel, "that the houses in most of the poor neighbourhoods are already too closely packed together,

\* Medical Officer of Health, 1856. † "Lungs for London," Household Words, vol. i. p. 45, 1850.

but the evil is increasing: for wherever there is a vacant spot of ground, more houses are built, thereby still further diminishing the healthiness of those already existing" (1860-1).

From Hampstead—still but little built on—came a complaint of "the tendency among builders to cover the new ground as thickly and at as little cost as practicable."

In Wandsworth "houses were erected and new streets formed without due regard to sanitary requirements, and in situations where good drainage seems impossible."

In Fulham, "cottages out of number were constructed in the excavations of old brick fields with the soft refuse of bricks, habitations run in swamps and quagmires, and their foundations three parts of the year sopped with surface water."

Efficient sewerage was so manifestly the basis of all wise sanitation that the want of sewers, and the abominable condition of those which existed, were general subjects of complaint.

The Strand boasted of being "one of the best sewered districts in the metropolis," which, however, was not saying much for it. And in St. Giles' the sewerage was stated to be good, and "much above the average of the town."

But such reports were quite exceptional. In Hackney, the principal sewer was the former Hackney Brook, which, from the increase of the population, and the drainage from other sewers, houses, cemeteries, and cattle-market, had become a foul open ditch—with very trifling exception wholly uncovered—and "emitting pestiferous noxious effluvia."

In St. Marylebone, the sewers, themselves insufficient for the requirements of a growing population (1858), were, in many cases, so shallow as to cause rather than remove evil, for in certain places they flooded the basements, and in more than one house was witnessed the curious spectacle of the daily use of pumps to remove the foul liquids, as in leaking ships.

In Paddington (1857-8), "the principles of good town drainage were completely ignored. The sewers were those

which had been constructed at intervals, previous to 1846, in a piecemeal and unsatisfactory manner, as the thorough-fares were formed, without any regard to the requirements of the adjoining streets." The general direction of these sewers was "extremely defective. Numbers of them have a fall towards the summit or highest level of the street through which they pass; the bottoms are very irregular, running up and down and forming successions of hills and hollows."

In Fulham, there existed scarcely the trace of a main sewer, open sewers and filthy ditches, conveying some part of the sewage to the river, the rest remaining in the cesspools.

In Hammersmith, not only were sewers and ditches in a most fearful state of nuisance, but there was also "a morass of several acres in extent, having no outlet, which received the sewage from a large area, the noxious emanations from which must be regarded as highly detrimental to health."

On the south side of the river matters were still worse. The greater number of the southern districts were situate nearly on the same level as high-water mark, if not indeed below it, and they differed from the other districts of London in their marshy character, their low level, and in the want of proper drainage dependent on that low level. The whole district suffered under the effects of a tide-locked, pent-up system of sewerage.

In Greenwich, a very large number of streets were without main sewers.

In St. Mary, Newington, "the great fact meeting us at every turn has been the large number of streets without main sewers therein."

Rotherhithe, which lay from four to seven feet below high water, was exceptionally bad. The largest portion of the parish had no drainage whatever. There were about fifteen miles of open ditches which had been converted into open sewers, called in some official documents "Stygian pools," and serving "the double debt to pay of watercourse and cesspool." Among the ditches "one of the foulest in the

whole neighbourhood of London" was the King's Mills stream, about one and a half miles long, which had not been cleansed for ten years. The sewer in Paradise Row was "in reality not a sewer," but "an elongated cesspool a mile in length," and during twenty hours daily it was waterlogged. The very boundary line of the parish for a long distance was "a wide, filthy, black, open sewer."

In part consequent on the lack of sewers, house drainage was either non-existent or fearfully defective. In every part of the metropolis the evil was evident.

In Clerkenwell the "drainage was either none or very imperfect. Numberless houses do not drain into the sewers." In St. Martin-in-the-Fields, "in the old streets and courts the drainage was the same as it was when the houses were built, some as far back as the reign of Elizabeth, and many in that of Charles I."

In St. George-in-the-East (1856), "it is astonishing how few houses have availed themselves of the sewers."

In Paddington, "the condition of the house-drains is far worse than that of the sewers. They include every possible variety of geometrical construction, from a circle to a square. Some have fallen in; others are choked with filth."

In Lewisham (1856-7), "in several places there are reported to be nuisances of the usual character . . . cesspools, no water, &c.—stinking ditches filled with sewage which can get no further—every abomination, and people apparently doing what they pleased as regards getting rid of their filth."

Nor was it only in the poorer parts of London that the house-drainage was bad. In St. James' (Westminster) the Medical Officer of Health wrote (1861):—

"For the last two or three years the worst cases of neglected drainage have not been in houses inhabited by the poor, but in those inhabited by the wealthier classes of the community. It is to me frequently a matter of great astonishment to find how regardless those classes are, whose circumstances can command every comfort of life, of the sources of disease and death. This is not only seen in neglect of attention to drainage, but also in the neglect of ventilation."

Nor was care being taken to provide drainage even to houses which were in course of erection. The Medical Officer of Health for Hackney, which was a growing district, reported (1858-9):—

"Building operations have recently been carried on with considerable activity, numerous new streets have been laid out and built on. . . . Unfortunately there have not been, and there are not at the present time, any means whereby the construction of proper drainage works could be enforced before the erection of buildings along the line of new streets, and the consequence has been that, to avoid the heavy cost of constructing effective sewers, the drainage works have been almost everywhere but very imperfectly carried out, and in many cases not even a brick has been laid for these purposes."

The internal condition of the houses was very bad.

In Clerkenwell, where there were over 7,000 houses, many of them were "quite unfit for human habitation"; not more than one-third were "in a satisfactory state." In Bethnal Green there were "disease-inviting houses"; in Whitechapel, such was the bad condition of many of the 2,734 houses which were inspected, that "they ought to be condemned as unfit for human habitation."

In St. George-in-the-East, "the sanitary condition of the dwelling-houses is deplorable."

Lambeth contained a greater number of inhabited houses than any other parish in the metropolis—nearly 22,000. The Medical Officer of Health, after the very limited inquiry possible within the first year of work, reported the unwholesome condition of 1,638 of them.

From figures such as these—and they related to only a tiny fragment of the whole—one can get some measure of the way the sanitary condition of the houses throughout London had been neglected, and the indifference of the owners to the condition of the premises they let.

Mention has been made of the vast number of cesspools which existed in London before the passing of the

Metropolis Local Management Act. The investigations of the various Medical Officers of Health soon demonstrated that the previous estimates of their prevalence, and of the disastrous consequences they entailed, had been in no way exaggerated.

Their disastrous results were at once recognised.

The Medical Officer of Health for Whitechapel, in his report for 1858, wrote:—

"I must now direct your attention to the most important subject, in a sanitary point of view, which can be brought before you. I allude to the existence of cesspools, more especially such as are situated either in the cellars of inhabited houses, or in the small backyards, which are surrounded by the walls of houses filled with lodgers . . .

"No cesspool ought to be allowed to exist in London, for wherever there is a cesspool, the ground in its vicinity is completely saturated with the foul and putrefying liquid contents, the stench from which is continually rising up and infecting the air which is breathed by the people, and in some instances poisoning the water which is drawn from the public pumps. . . .

"I am thoroughly convinced by the result of experience, that the existence of cesspools and overcrowding are the chief causes of ill-health."

And the Medical Officer of Health for Camberwell wrote:—

". . . Of all the abominations which disgrace and pollute the dwellings of the poor, the imperfect, rarely emptied, and overflowing cesspools are by far the worst . . . they not merely poison the atmosphere without, but pour their emanations constantly, silently, deadly, into the interior of the houses themselves."

Upon the quality and supply of the water which was essential for the life of the people, and upon which their health, and cleanliness, and sanitation absolutely depended, the information supplied by the Medical Officers of Health as to their respective districts brings home, far more than any general descriptions do, the full import and actualities of the great evils endured by the people, and the disastrous consequences entailed upon them.

As to the water from the surface and tidal wells, which large numbers of them used and consumed, the opinion, though expressed in various terms, was unanimous.

OF LONDON

From Shoreditch (1860), the Medical Officer of Health wrote: "I have hardly ever exposed a sample of town spring water to the heat of a summer day for some hours without observing it to become putrid."

In St. Giles' (1858-9), "the water of the wells was not deemed good enough (on analysis) for watering the roads." In St. Marylebone "44 public wells supplied water which was for the most part offensive to taste and smell." In Kensington (1860) "all the well waters of the parish were foul." In Rotherhithe (1857), "The water from the tidal well smelt as if it had recently been dipped from a sewer."

The Medical Officer of Health for Lambeth declared (1856) that "the shallow well waters of London combined the worst features—they represent the drainage of a great manure bed."

The people were driven to the use of the water from these wells owing to the deficient and intermittent supply of water by the various Water Companies-water supplied for less than an hour a day by one single stand-pipe in a court containing hundreds of people—water supplied only every second and third day, and none on Sundays, the day of all others on which it was most wanted; and the house-owners had provided no cisterns or reservoirs of proper capacity, and the Vestries had not compelled the house-owners to do so.

In some parishes hundreds of houses had no supply at all. In some houses which had a supply the tenants were deliberately deprived thereof by the Water Companies, because the house-owner had not paid the water-rate.

The defective supply had the disastrous effect of putting a constant premium upon dirt-dirt of person, of room, of houses, and their surroundings. And such drains and sewers as there were, were insufficiently flushed.

Time after time the consequential evils were pointed out, and Water Companies and house-owners were vigorously censured. But the censure had little practical effect.

The great inconveniences and evils, however, evoked the expression of opinion that the duty of supplying water to the community ought to be in the hands of the community.

Even in 1844 it had been pointed out that:—

"Water is as indispensable for many purposes as air is for life itself, and its supply ought not to be allowed to depend on the cupidity or caprice of landlords or Water Companies."

And the Metropolitan Sanitary Association had enunciated the principle:—

"That inasmuch as water is a prime necessity of life, attainable in large cities by combined effort only, and not to be denied to any without injury to all, its supply should not be dependent on commercial enterprise, but be provided at the expense of the community for the common benefit."

And the Medical Officer of Health for St. George-in-the East wrote in 1856:—

"The water supply of your Parish is in the hands of a Joint Stock Company, called the East London Water Company, and is managed by persons who represent solely the interest of the shareholders, whose only anxiety is of course the dividends—the consumers are not represented at all. This appears to me to be a strange anomaly, a false position, and a monstrous inconsistency—as great as if the sewerage of London were committed to a Joint Stock Company. But so it is, and however great the danger, the Vestry has no available remedy whatever in its hands."

The principle had been conceded by Parliament so far as England was concerned—the large cities and even small towns having been authorised to undertake the supply of water; but London, the capital, was denied the power to do so—the duty was given to private companies, and the population of London was left to undergo untold sufferings.

The quality of the water supplied by most of the Water Companies after the intakes had been removed to above Teddington Lock, and the filtration thereof before distribution for domestic use had been made compulsory, was considerably improved.

But the filthy and dangerous character of the receptacles provided in many houses for it undid much of the good which would have come from the improvement in quality.

The description given by one of the Medical Officers of Health was in the main true:—

"There is disease and death in the tanks, wells, and water-butts."

Thus, in the great primary necessities of the public health—efficient sewerage and drainage, decent houses, good ventilation, pure air, a pure and ample water supply—the general conditions were almost inconceivably bad.

These evil conditions, however, were far from constituting the whole of those under which the people of London suffered.

Over and above them all was one which compelled the attention of the Medical Officers of Health the moment they had entered on their duties—"the gigantic evil," "the monster evil" of overcrowding. Not the mere crowding of houses together, evil though that was, but the overcrowding of people in those houses, and still worse, the overcrowding of the rooms of those houses by human beings. In every part of the metropolis there was overcrowding; worst in the centre, and the parts nearest the centre of London, but existing in the outer districts where houses still were comparatively few and population small. Centre, East, North, West, South, there was overcrowding, differing only in extent and acuteness of form.

"Soon after I was appointed as Sanitary Adviser to your Board," wrote the Medical Officer of Health for Holborn (1856-7), "I found, dwelling in houses which were undrained, waterless, and unventilated, whole hordes of persons who struggled so little in self-defence that they seemed to be indifferent to the sanitary evils by which they were surrounded.

"It is too true that among these classes there were swarms of men and women who had yet to learn that human beings should dwell differently from cattle, swarms to whom personal cleanliness was utterly unknown, swarms by whom delicacy and decency in their social relations were quite unconceived. . . . "

He mentions some instances too horrible to quote, and says: "Such were instances that came within my own knowledge of the manner and of the degree in which persons may relapse into habits worse than those of savage life, when their domestic condition is neglected, and when they are suffered by overcrowding to habituate themselves to the lowest depths of physical obscenity and degradation."

In St. Luke "the houses swarmed with their human tenants." In Bethnal Green "our crowded streets and courts are becoming more crowded." In St. Pancras "in many houses the overcrowding is very great, each room being occupied by a family."

In Islington, so overcrowded were some of the houses that the Medical Officer of Health had met with as little as 220, 190, 170, down to 135 cubic feet of air available for each occupant of a room.

In Rotherhithe "almost all the houses were overcrowded with inmates."

In Westminster, the Medical Officer of Health gave (in 1858) fifty examples of overcrowding in his district. In one house, in a room 13 feet long by 9 wide, and 7 feet high, there were 5 adults and 3 children; and in a lower room in the same house, 10 feet long by 9 wide, and 8 high, there were 4 adults and 5 children.

There are no statistics whatever showing even approximately the number of cases at that time in which a single room was occupied by a family, but it is certain that vast numbers of families had to be content with that limited accommodation. Nor was that even the worst—for, in very many cases, more families than one lived in a single room, or the single family took in one or more lodgers.

Life under such circumstances must have been, and was, awful. The Medical Officer of Health for St. Giles' wrote:—

"The houses whose rooms are occupied by single families

were last year in a condition of squalor and overcrowding which it is difficult to conceive surpassed. . . .

"In Lincoln and Orange Courts, the most glaring violation of the laws of health and of the requirements of civilised life was found. For instance, there are several small rooms in the backyards of Church Lane. . . . Each of the rooms measures about 10 feet by 8, and between 6 and 7 feet high. Each of them serves a family for sleeping, cooking, and all domestic needs.

"... The air of these rooms was unbearable to a visitor, and to open the window was only to exchange one foul emanation for another."

And the Medical Officer of Health for Clerkenwell wrote (1856):—

"In thousands of instances in this district, living, cooking, sleeping, and dying . . . all go on in one room. . . .

"If a poor man gets married he is pretty sure to have a large family of children, and at the present rate of mortality several will die of zymotic disease.

"Hence, when a death occurs, the living and the dead must be together in the same room; the living must eat, drink, and sleep beside a decomposing corpse, and this in usually a small, ill-ventilated room, overheated by a fire required for cooking, and already filled with the foul emanations from the bodies of the living and their impure clothes.

"This is an everyday occurrence in Clerkenwell, and constitutes a formidable evil."

So great was the pressure for accommodation of some sort or kind, that even the cellars and kitchens in the basements of the houses were occupied as dwelling-places and overcrowded.

In St. James', "the worst feature of the overcrowding was the very common practice of residence in cellars or kitchens. In the majority of cases the places are quite unfit for human residence.

"... A cellar in St. Giles'," wrote the Medical Officer of Health for that district in 1858, "has been the by-word

for centuries to express a wretched habitation unworthy of humanity.

"Dating from the time of Charles I., the underground dwellings of our district attained the acme of their miserable notoriety from the pen and pencil of Fielding and Hogarth.

"... The Building Act of 1844 contained stringent clauses against the use of such rooms unless they possessed requisites of area and ventilation, such as were out of the question in the cellars of St. Giles'.

"The Metropolis Management Act (1855) repeated the prohibition of 1844, and in defence of the public health the Board have lately put this statute in force. This has been done without compromise. As separate habitations for occupation by human beings at night 'a cellar in St. Giles' is no longer to exist."

This was written in 1858, but in the following year he wrote:—

"The profit derived from letting the basement of these houses as dwelling-rooms was too strong a temptation for their owners, and many of the kitchens were let again as soon as the Inspector had reported them emptied."

In the Strand (1856) underground rooms and kitchens were inhabited "notwithstanding that District Surveyors are numerous, and that the Metropolitan Building Act is in operation."

In Westminster, "an examination of various portions of the parishes shows that large numbers of the poor occupy premises whereby they are not only deprived of the required quantity of air, but being situated below the level of the street, the ventilation is insufficient, the rooms generally damp, and when closed for the night the atmosphere is perfectly insufferable—mostly kitchens and cellars, evidently never intended to be used as sleeping rooms" (1858-9).

The causes of the dreadful overcrowding which existed so extensively were many and deep-seated—springing from the very roots of the social and economic system. And they were of great force and widespread in effect.

The cause to which the various authorities and Medical Officers of Health directly attributed it was the one immediately before their eyes—namely, the pulling down of houses which hitherto had afforded shelter, of a sort, to the people.

As the Medical Officer of Health for St. Olave, Southwark, said (1860-1):—

"To effect street improvements—to build warehouses, or for some other purpose—the habitations of the working classes are broken up without any provision being made for them elsewhere. They are therefore driven by necessity to crowd into other houses in the same neighbourhood perhaps already overcrowded."

An actual illustration was the case reported by the Medical Officer of Health for Limehouse:—

"The London Dock Company have, for the purpose of enlarging and improving their docks, pulled down not less than 400 houses in the parish of Shadwell, the homes of not fewer than 3,000 persons of the poorer classes.

"... The neighbouring parishes are now suffering from an augmentation of their already overcrowded population."

The District Board of St. Saviour, Southwark, stated that the evil of overcrowding "can scarcely be exaggerated, whether it be regarded in a physical, mental, or moral aspect."

The principal of the causes are:—

"(1) The arbitrary power exercised by railway companies in ejecting the labouring classes from their homes without any obligation to provide for their domestic convenience.

"(2) The existing law of (poor law) removal, any break in the three years' residence in the parish rendering them liable to removal to other distant parishes."

The latter had, however, most probably, but very small effect.

A great cause was that described by the Medical Officer of Health for Shoreditch:—

"There is a constant and rapid flow of population into Shoreditch. It is in this circumstance that I see one of the most alarming dangers to the health of the district.

"The area does not enlarge, and yet year after year dense crowds of human beings are packed and squeezed into that limited area. The growth of the population has far outstripped the growth of the house accommodation.

"The immense majority of the immigrants are precisely of that class which most largely increases the dangers of disease by thickening the population. You are largely burdened with the pauperism of other and wealthier districts. The burden is doubly grievous; for it taxes your property, your labour, and gives strength to the elements of disease amongst you.

"It is probable that there is no spot in London more crowded with life than many places in Holywell or St. Leonard's.

"Typhus—a disease more terrible than cholera—has made itself at home in the parish."

And the Medical Officer of Health for Fulham wrote (1857):—

"... The daily necessities of the labourer's family draw so heavily on his earnings as to leave only a very small sum for the payment of rent, and hence the most limited house accommodation is sought for and endured..."

The most powerful cause of all, however, was, undoubtedly, the overpowering instinct of self-preservation, or, in other words, the need of working, no matter under what conditions, for the only means of obtaining food for themselves and their families. That, as a rule, necessitated their being near the work to be done—and rather than lose that work any conceivable hardship or abomination would be put up with.

Another of the great causes of overcrowding was high rent.

"It must not be imagined," wrote the Medical Officer of Health for the Strand (1858), "that this system of overcrowding is altogether a direct consequence of a state of poverty. It certainly does not appear to be so, for among the Metropolitan Districts the Strand ranks seventh in order of wealth.

"The overcrowding seems to be partly a result of the

high rental which the houses and rooms of many parts of the district—so peculiarly well situate for business purposes—command, and partly of the 'middleman' system, in which so many of the houses in the occupation of the poorer residents are let.

"The 'middleman' system, which obtains so largely in this metropolis, in the letting of houses of the kind referred to, is ruinous in its action upon the working classes. The rent paid for a single room often exceeds a sixth or fifth of the total income of the family. . . ."

In a case in Bow Street Police Court it was given in evidence that 21, Church Lane, St. Giles', was rented of the owner for £25 a year—that the rents recovered from the sub-tenants were £58 10s.—and the rents received by these sub-tenants from lodgers £120 per annum.\*

Overcrowding was not confined to the sleeping places of the people, for the same causes which cramped the available space for people at night, cramped also the space for very many of them during the day when they were away from their so-called homes.

Of the overcrowding in factories and workshops, where so many of the working classes spent their days, and of the insanitary conditions in which they there worked, no mention is made in these earlier reports of the Medical Officers of Health, not because there were not any, but because the inspection or regulation of factories and workshops did not come within the sphere of their duties. Evidence in plenty there is on this branch of the subject in later years from those who could speak with authority in the matter, and it will be referred to hereafter, and that the state of things then described is equally applicable to this period is an inference so legitimate as to be tantamount to a certainty. That the bad conditions under which the workers worked were a great contributing factor in the insanitary condition of the people is a fact as to which there can be no question.

Mention is made, however, of the overcrowding which existed in another large section of the community—

\* P.P. 1852-3, vol. lxxviii. p. 327.

namely, the overcrowding of children in some of the schools. The Medical Officer of Health for Whitechapel reported that there was much overcrowding, and in his report for 1857 gave some instances of it in his district:—

18, Charlotte Street.—In a room 8 feet high, 7 wide, 10 long: 14 children and 1 mistress = 37 cubic feet each.

17, Charlotte Street.—Matters still worse; the room was underground; 10 feet wide, 10 long; about 7 feet high; 35 children and 1 mistress = 20 cubic feet each.

2, Gorelston Street.—672 cubic feet; 31 children and 1 mistress = 20 cubic feet each.

In such cases the atmosphere must have been a rapid poison to those breathing it.

There was another powerful contributory cause to the general insanitation of London, namely, the defilement of the atmosphere which people had to breathe. As one of the Medical Officers of Health said some years later:—

"We should remember that the air we breathe is as much our food as the solids we eat and the liquids we drink, and as much care should be taken that it is free from adulteration."

London was already the greatest manufacturing city in the world, and the great volumes of smoke proceeding from the numerous factories undoubtedly deteriorated the quality of the air. But it was the noxious vapours proceeding from the various processes of manufacture classified as "noxious trades" which rendered the atmosphere in many parts of London dangerous to health.

Many were the descriptions given of the almost intolerable evils. Thus the Medical Officer of Health for Rotherhithe reported in 1857:—

"In the mile length of Rotherhithe Street there are no less than nine factories for the fabrication of patent manure, that is to say, nine sources of fœtid gases. The process gives out a stench which has occasioned headache, nausea, vomiting, cough, &c. Many complaints have been made by the inhabitants."

From St. Mary, Newington, "the terrible effluvium of bone-boiling is freely transmitted over the district."

Some manufacture in a yard in Clerkenwell (1856-7), which had existed until lately, was "one of the most abominable, exceeding anything that the imagination could picture."

And in every parish or district of London there were slaughter-houses.

"There are too many slaughter-houses in crowded districts," wrote the Medical Officer of Health for St. Pancras (1856-7). "It is impossible that slaughtering of animals can be carried on amongst a dense population without proving more or less injurious to the public health.

"This it does in several ways—by occasioning the escape of effluvia from decomposing animal refuse into the air and along the drains, and by the numerous trades to which it gives rise in the neighbourhood which are offensive and noxious, such as gut-spinning, tallow-melting, bladderblowing, and paunch-cleansing."

Even in the Strand District there were (1856)—

"Nuisances arising from various branches of industry, the slaughtering of sheep and calves in the back-yards, and even in the cellars and kitchens, and the keeping of cows in the basements under private dwelling-houses, conditions which continue to exist in the most crowded parts of this district, and should on no account be permitted in such a district:" whilst in Westminster "pig-keeping existed to a very considerable extent."

In some of the outer parishes the "fœtid emanations" caused in the process of brickmaking added to the general impurity of the air.

There were many other local causes of impurity of the atmosphere, some even caused by the Sanitary Authorities themselves. Thus the more thorough scavenging and removal of the filth of streets and houses, vitally necessary as that was, resulted in the accumulation of great heaps of filth in crowded centres.

Thus the Medical Officer of Health for Fulham reported that:—

"The collection of dust heaps, and dust contractors' depôts, constitute a most injurious and offensive nuisance—enormous quantities of animal and vegetable matter are heaped together, from which the most noxious effluvia constantly arise."

And the Medical Officer of Health for Rotherhithe pointed out (1858) that:—

"It is little use causing our own dust to be carted away if Rotherhithe is to become the receptacle of all the ashes and offal of a large neighbouring parish (Bermondsey). On a piece of land near the Viaduct there stands an immense heap of house refuse, covering an acre of ground at least, and forming quite an artificial hillock, the level of the surface having been raised 12–14 feet. The bulk of the heap is composed of ashes with a due admixture of putrefying vegetable matter and fish."

A little later he reports it as  $1\frac{1}{2}$  acres in extent, averaging 15 feet high, in one place as high as 20 feet.

How to deal with these noxious or offensive trades was felt by some of the Medical Officers of Health to be a great difficulty.

"We have the health of the community on the one hand," wrote the Medical Officer of Health for Lambeth; "the great manufacturing interests on the other. . . . We have all a common right to an unpolluted atmosphere, and it is our bounden duty to withstand any encroachments on that right. The personal aggrandisement of the manufacturer must not be achieved by the spoliation of the property, the comforts, and the lives of his poorer neighbours. . . .

"But the manufacturing interest is not a thing to be trifled with. Destroy the manufactures of Lambeth, and you starve its population. There are nuisances of more benefit than of injury to the community," and he rather deprecated "a crusade against those interests, the untrammelled prosecution of which has raised this country to its present proud pre-eminence."

Some of the Medical Officers of Health expressed decided views on the subject (1857):—

"Those who follow unwholesome trades led on by the

thirst of gain," reported one Medical Officer of Health, "have no right to poison a neighbourhood and swell its mortality."

The Medical Officer of Health for the Strand wrote (1856):—

"... The protection of the public health which has been committed to your charge is, beyond doubt, of infinitely more importance than, and should far outweigh the interests of, private individuals how numerous soever they should be."

The Nuisances Removal Act, 1855, had given the local authority power on the certificate of the Medical Officer of Health to take proceedings against an offender, and had provided the means for inflicting a penalty. And in some instances it was used, for the Medical Officer of Health for Hackney reported:—

"Several proprietors of noxious trades having omitted to adopt the best practicable means for preventing injury to health, in some cases legal proceedings were taken against them."

The Medical Officer of Health for Whitechapel declared there was no desire on his part to use the powers of the Act to the oppression of any individual or to insist upon the adoption of such arbitrary and stringent measures as shall drive wealthy manufacturers from the district. "All that is necessary to be insisted upon is that the business be so conducted that the health and comfort of the inhabitants shall not be injured."

But whether it was from the unwillingness of the local authorities to prosecute, or the difficulties of enforcing the law, the nuisances continued to the great detriment of the health of the people.

And over and above this combination of nuisances, there was the abominable smell from the river. That still was an evil.

"Rotherhithe," wrote the Medical Officer of Health, in July, 1858, "in common with all other metropolitan riverside parishes, has suffered considerable inconvenience during the last month from the stenches arising from the filthy state of the Thames water. Perhaps in the annals of mankind such a thing was never before known, as that the whole stream of a large river for a distance of seven or eight miles should be in a state of putrid fermentation. The cause is the hot weather acting upon the ninety millions of gallons of sewage which discharge themselves daily into the Thames. And by sewage must be understood not merely house and land drainage, but also drainage from bone-boilers, soap-boilers, chemical works, breweries, and gas factories—the last the most filthy of all. . . . It is quite impossible to calculate the consequences of such a moving mass of decomposition as the river at present offers to our senses."

As one sums up all these disastrous influences, or rather, these evil powers, unceasing in their work, by night and by day—in the overcrowded dwelling and the street—with their victims unable to escape, one realises somewhat the conditions under which great masses of the people of London were living.

The result was a fearful mortality—an awful waste of human life.

"Death," wrote one of the Medical Officers of Health, "finds easy victims in filthy habits, overcrowded rooms, impure air, and insufficient and ineffective water supply."

The consequences were inevitable.

"Wherever there are crowded apartments, imperfect or no drainage, offensive cesspools, dung-heaps resting against houses or close to inhabited rooms—wherever ventilation is impeded by the narrowness of courts and alleys, and wherever the inhabitants living under these unfavourable circumstances lose their self-respect, pay no regard to personal cleanliness, and consider a state of filth and offensiveness as their natural lot—there we find zymotic diseases in full force and frequency. Those attacked do not simply recover or die. I shall not be exaggerating when I say that all recovering from these complaints are permanently injured."\*

It is impossible to apportion the respective shares which these various causes of insanitation had in bringing about \* Clerkenwell, 1856.

these dire results, but overcrowding was undoubtedly one of the principal. As to its disastrous effects the Medical Officers of Health were of one opinion. There was no single exception to the strong-voiced insistence upon this fact.

"The main cause," wrote the Medical Officer of Health for the Strand (1856), "to which we must attribute the high mortality is the close packing and overcrowding which exists throughout the district. . . . Overcrowding and disease mutually act and react upon each other.

"There is one circumstance of general prevalence throughout the district which, so to speak, almost paralyses these efforts of sanitary improvement—overcrowding—the overcrowding of parts of it with courts and alleys, the overcrowding of these courts and alleys with houses, the overcrowding of these houses with human beings" (1859).

"The overcrowding of dwellings," wrote another,\* "is one of the most frequent sources of sickness and decay at all ages."

"Perhaps," wrote a third,† "there is no single influence to which a human being is exposed more prejudicial to his health than overcrowding in rooms the air of which cannot be perpetually and rapidly changed."

"No axiom," wrote another, the can be more positive than the connection of epidemic diseases with defects of drainage and ventilation . . . the overcrowded localities being especially scourged by disease."

The consequences were not confined to epidemic disease; other fatal diseases were begotten by it.

"All medical writers," wrote the Medical Officer of Health for St. James' (1858), "are agreed that impure air from want of ventilation is the most potent of all causes of consumption."

Not merely directly did overcrowding bring about fatal results. Indirectly it also led thither. It was recognised as a cause of intemperance and of the evils, moral as well as physical, which ensued from intemperance.

"Men whose nervous systems became depressed, and the \*Fulham, 1857. † Whitechapel, 1857. ‡ St. Giles, 1859.

tone of their system generally lowered, became the subjects of a continued craving for stimulants."\*

Dr. Simon, Medical Officer of the General Board of Health, wrote:—

"In an atmosphere which forbids the breath to be drawn freely, which maintains habitual ill-health and depresses all the natural spring and buoyancy of life, who can wonder that frequent recourse is had to stimulants?"

The evils were disastrous enough for the adult population, but they fell with more dire effect upon infants and young children.

"Conditions more or less injurious to health gradually impair the matured energies and slowly undermine the fully developed constitution of the adult; but the self-same conditions, exerting their baneful influence on the infant or young child, nip the tender plant in the bud and speedily destroy its young life." †

Throughout the whole of the metropolis the infantile mortality—that is, of children under five years of age—was very great: Almost without exception it was close upon, or over, 50 per cent. of all the deaths in the various parishes or districts.

In Clerkenwell the infantile mortality, which was "nearly one-half of all the deaths," was characterised as "enormous"; but in Shoreditch it was actually one-half, being 50 per cent. (1858); in Bethnal Greenit was over one-half, being 52 per cent. (1858); in St. George-in-the-East it was  $53\frac{1}{2}$  per cent.—or, to put it otherwise, of 1,351 deaths in the year, 720 were of children under five. In Poplar it was more than half. In Islington, in 1857, nearly half. In St. Saviour, Southwark, 50 per cent. in 1860–1, "a waste of life which appears almost incredible."

In Limehouse (in 1857) of 1,403 deaths 690 were under five.

The Medical Officer of Health wrote:—

"It is when such wretched offspring, ill-nourished, illclothed, and in every way neglected, become exposed to the depressing influences of an impure atmosphere that they

\* St. George the Martyr, 1859-60. † Strand, 1859-60.

sicken, and such children when they sicken they die. . . . When the habitation of such children is an overcrowded, dilapidated tenement in some close, ill-ventilated court or alley, furnished with an undrained closet, surrounded by untrapped drains, and festering heaps of filth, we find ourselves astonished, not that so many die, but that so many survive."

In some special places the mortality was still higher. Thus the Medical Officer of Health for Kensington reports in 1856:—

"In some places the mortality among infants under five years of age was at the enormous rate of 61.3 of the total deaths.

"One of the most deplorable spots, not only in Kensington, but in the whole metropolis, is the Potteries at Nottingdale. It occupies about 8 or 9 acres, and contains about 1,000 inhabitants... the general death-rate varies from 40-60 per 1,000 per annum. Of these deaths, the very large proportion of 87.5 per cent. are under five years of age."

The Medical Officer of Health for Whitechapel (in 1858), after reporting that the total mortality under five years in the Whitechapel district is about 56 per cent., wrote:—

"How to overcome this frightful and apparently increasing amount of mortality of the young is a problem well worthy the attentive consideration of every citizen. The time may be far distant before this problem is solved; nevertheless it is my duty to chronicle facts, and although I may not be able to suggest a remedy to meet this evil, still the knowledge that so large an amount of infant mortality does exist in our district—I may say, at our very doors—will perhaps rouse the attention of the philanthropist, the man of science, and the man of leisure, to investigate its cause, and endeavour to mitigate it."

Once more it must be called to mind that this mortality was not the whole of the evil, for it was indicative of widespread infantile sickness and disease among those who escaped the death penalty—sickness and disease impairing the health and strength of thousands upon thousands of the juvenile population.

The facts set forth by many of the Medical Officers of Health must have enlightened many of the new local authorities as to the nature and extent of the work which it had now become their duty to perform, and the grave problems for which they were expected to find the best solution.

The earlier annual reports of many of the Vestries and District Boards were poverty-stricken in the extreme, and were mostly confined to bald and uninforming tables of receipts and expenditure, which practically threw but little light upon the condition of their parishes.

The Vestry of St. Mary, Newington, evidently anxious to prevent disappointment as to immediate results from its action, stated that:—

"In consequence of the previous want of adequate sanitary powers in the local authorities of this and other suburban parishes, so great an extent of sanitary improvement was required when the Vestry came into operation, that it was impossible the whole could be dealt with at once, at the same time acting with consideration for those who have to bear the effects of many years' neglect of those sanitary duties which are now found to be so essential."

Lambeth Vestry expressed its desire to discover:—

"In what manner a prompt and beneficial execution of the provisions of the Act can be secured without creating any serious increase in local taxation."

One of the Vestries, indeed, gave the quaint explanation that one of the things which somewhat retarded sanitary improvement was "the novelty of applying compulsory powers to landlords."

The desirability of securing parks and places of recreation for the people was one of the matters which first appealed to some of the Vestries and District Boards, and memorials were addressed to the Metropolitan Board urging the importance of their putting in force the powers conferred on them for the purchase of land for such purposes.

Others directed their attention to the promotion in a small way of improvements in their parishes by widening streets and roads, and preserving open spaces—towards

which, in some cases, they received a contribution from the central authority.

A good deal of paving was done, and better measures taken for scavenging the streets and courts, and for the removal of refuse and dirt of all sorts.

To local sewerage, as distinct from main sewerage, they also gave attention, and in 1856 designs for 45 miles of new sewers were sent in to the Metropolitan Board for approval, and £34,700 borrowed for the purpose; and in the following year for 46 miles of new sewers, and loans for £109,000.

A fair amount of drainage work was also carried outthousands of cesspools were filled in and drains made. Also a certain amount of inspection, with the disclosure of an enormous amount of insanitation.

Thus, in the Strand District in 1856—where 813 houses were inspected—in 774, or 91 per cent. of these, works had to be done to remedy sanitary defects. In the following year 1,760 houses were inspected, and in 1,102 sanitary defects were found. In Poplar, of 1,299 houses which were visited, 795 required sanitary improvement. In Paddington 2,201 houses were inspected; in over 1,600 works had to be executed to put them in sanitary order; figures which showed that, roughly speaking, two out of every three houses were sanitarily defective.

"The last year," wrote the Medical Officer of Health for Hackney (1857)—where 1,518 houses had been connected with the sewers—"has been a year of drainage."

Parliament having enacted that the "owner" was responsible for the state of his property, this work had to be done at the expense of the owners; but how many decades had passed in which "owners" had spent nothing on the property, and had been receiving large rents; and how many cases of sickness and death had occurred in their houses, the result of the insanitary condition in which they had been allowed to fall, and in which they were allowed to continue.

In Holborn such works cost the owners about £3,400 in 1857, and in Lambeth about £10,700.

But the work thus chronicled touched little more than the fringe of the matter. Most of the local authorities had, out of a spirit of economy, or for some other reason, appointed only one Inspector of Nuisances; yet in nearly every one of their parishes there were thousands of houses—in Greenwich 11,000, in St. Marylebone 16,000, in Lambeth 22,000—and years would have had to elapse before the solitary inspector could have completed even one round of inspection and got the houses he inspected put in order; whilst the others would inevitably have been existing in, or falling into, a state of insanitation. For years, therefore, the most vile disease-begetting nuisances might not merely exist throughout the parish, but work endless evil without any interference, as indeed they did.

Some of the Vestries put forward their economy as a claim for praise. Thus, the Wandsworth Board said that "a due and careful regard to economy had characterised all their proceedings," and the Vestry of St. Mary Newington said, in 1860, that it had carried out its operations out of current income and had incurred no debt.

The Medical Officers of Health held their offices at the pleasure of the Vestries, and, therefore, if they valued their position, had to be cautious in their criticisms of the management of the affairs of the parishes.

But their reports convey that the work which ought to have been done was not being done as rapidly as they wished.

"I wish I could induce the Vestry to insist more upon having the poorer dwellings cleansed and lime-whited." And again, "The Vestry has the power to restrict the operation of underground rooms, yet it has not moved in this important matter."\*

The Medical Officer of Health for St. Giles' (1857) referred to the—

"Indisposition of the Board to do works and charge the owners"; and, referring to a special case, he wrote, "It becomes your duty to do something to prevent the production of disease among the neighbours."

\* Clerkenwell, 1860-1.

"In many houses the overcrowding is very great. There is a clause under the Nuisances Removal Act by which the Vestry is called on to take proceedings before a magistrate to abate overcrowding, if it is certified to be such as to endanger health. No prosecutions have been taken under this clause."

OF LONDON

And again in 1859:-

"Very little has been done in this parish to abate overcrowding—extreme cases have been proceeded against. No systematic efforts have been made in this direction."

And the Medical Officer of Health for Hampstead wrote (1856):—

"Nothing short of constant vigilance and inspection can keep the dwellings and premises of the people in a tolerably healthy state. I am not sure that your Board is blameless in some of these respects—an amiable, though weak, reluctance to act severely to any."

And in 1857 he pleaded for the appointment of an Inspector of Nuisances, which, however, he did not get.

The local authorities had their difficulties in dealing with many of these matters, even when they were disposed or anxious to do so, owing to—

"The imperfection of the powers conferred on them by the legislature, and to the great and stubborn apathy of a poor population."

And the Medical Officer of Health for St. James' (1858) attributed blame to the public generally:—

"One of the greatest barriers to the practical efficiency of sanitary arrangements is the ignorance and carelessness of the public. It is frequently seen that where infectious illness occurs, little or no attention is paid to its infective character, and an unscrupulous intercourse is carried on between the members of infected families, not only amongst themselves, but amongst their neighbours, and thus these diseases are propagated in spite of every warning and precaution."

"I regret," wrote the Medical Officer of Health for

Whitechapel, "that the powers of your Board are not at present sufficient to compel the owners of small house property to provide an adequate supply of water for their tenants."

The Medical Officer of Health for Westminster wrote:-

"Few of the objects of sanitary improvement can be fairly attained without intrenching upon private interests to an extent which would appear harsh and oppressive. One great obstacle consists in the habits of a great portion of the poor—generally deficient in cleanliness or order; they consider any endeavour to improve their dwelling as an interference, and throw every obstacle in the way. On the other hand, a large number are most grateful for what has been effected."

But in many matters the local authorities would not take action. In only four parishes or districts in London had public baths and wash-houses been established under the Act of 1846, though where they were in existence "the benefits were immense by promoting habits of cleanliness."

In Poplar in 1858-9 nearly 40,000 men, and 3,000 women, and 400 children availed themselves of the baths.

In St. Pancras (1856-7) the laundry department, erected by the "Society for Establishing Public Baths and Washhouses," was of great value in affording the poor housewife an opportunity of washing and drying her linen away from her one room, in which the family had to live night and day.

"I have frequently seen a small room of this kind with from four to eight or even ten inmates rendered doubly unhealthy by these laundry operations, which produce a damp and almost malarious atmosphere."

The Medical Officer of Health for Lambeth had pleaded for such an establishment in his district, but "the idea of erecting them seems quite abandoned by the Vestry."

"I know nothing more objectionable in a sanitary point of view than the washing of foul clothes in the dwellings of the poor, and still worse the drying of them in courts and rooms already deficient of free circulation of air and light."

Nothing, however, was done. But inaction far greater in gravity and infinitely more reprehensible was that relating

to the housing of the people. The Medical Officer of Health for Whitechapel drew attention, in his report of 1857, to their power in this respect:—

"Docks, railways, warehouses, &c., &c., must be constructed for the increase of the trade of this great metropolis, but our construction of them ought not to prevent us from providing better habitations for the working classes whose labours effect these improvements; more especially as it is in the power of parishes by virtue of an Act of Parliament to encourage the establishment of lodging-houses for the labouring classes." \* Not one single Vestry or District Board ever attempted to deal with the evils of bad housing and overcrowding by putting into operation the provisions of this Act.

The occasional statement in the report of a Medical Officer of Health as to what was actually done in his parish, by showing what might have been done in any other one, brings into strong relief the incapacity or deliberate inaction of the local authorities of other parishes. Thus, in some parishes the Medical Officers of Health endeavoured to effect some diminution of overcrowding—for instance, the Medical Officer of Health for Islington reported that—

"In several instances the owners of dwelling-houses had been summoned for permitting the overcrowding of their houses; and the magistrate had fined the offenders."

And the Medical Officer of Health for Holborn in the same year wrote:—

"Your Board has already done much to ameliorate the condition of this class of society (the poor and overcrowded) by compelling the owners to cleanse, drain, and ventilate their dwellings; to close cellars, to provide proper water supply, sanitary accommodation, and in many cases had abated overcrowding."

But few of the Vestries followed, or attempted to follow, these examples, and in many of the most vital matters a deliberate inactivity was the prevailing characteristic of the Vestries and District Boards.

\* 14 and 15 Vic. cap. 34.

"In several Vestries resolutions were actually moved with the view of averting the construction of sewers. It was thought by many persons of influence to be better to live in the midst of overflowing cesspools than to add to the defilement of the Thames." \*

The Medical Officers of Health did not confine themselves to merely reporting what was annually done to ameliorate the existing state of affairs.

As was their duty, they made numerous and frequent suggestions to their authorities as to what it was best to do. And some of them, going further than this, sometimes endeavoured to inspire the members of the Vestries and District Boards with a sense of the gravity of their work, and with lofty views of their duty. Occasionally, even, they did not hesitate to censure their employers for inaction or lethargy.

The Medical Officer of Health for the Strand wrote (1856):—

"To pave streets, and to water roads, to drain houses or even to construct sewers, however necessary these works may be, are among the least important of the duties which devolve upon you. But to improve the social condition of the poorer classes, to check the spread of disease, and to prolong the term of human life, while they are works of a high and ennobling character, are yet duties involving the gravest responsibility. Should less care be bestowed upon our fellow creatures than is daily afforded the lower animals? At the present moment the condition of many of the working classes is degraded in the extreme."

The Medical Officer of Health for St. Saviour, Southwark, wrote (1856):—

"In all our efforts at sanitary improvement we are chiefly dealing with persons who in most instances have not the power of helping themselves, and who until of late have had no source to which they might apply for aid in rendering their dwellings clean and wholesome."

The Medical Officer of Health in St. Paneras wrote:—
"All who have made themselves acquainted with the con\* Shoreditch, 1859-60.

dition of many of the poor of London will agree with me when I say that before their moral or religious state is likely to be remedied, their physical condition must be improved, and their houses made more comfortable. On you devolves, to a great extent, the solemn responsibility for carrying out the preparatory work."

The Medical Officer of Health for St. Martin-in-the-Fields wrote to his Vestry in 1858: "To permit such grievous evils as are to be seen in the worst localities of this great city is a contradiction to the teaching of Christianity... such outrages on humanity as many of the abodes of the poor are permitted to remain.

"It is unholy, it is unchristian, that people should herd together in such dens; and so long as such dwellings are allowed to be occupied our assumed religion must be a pretence and a sham. . ."

And thus, the Medical Officer of Health for Bethnal Green:—

"To open out avenues through our cul-de-sac courts, to promote the sanitary condition of every house, to arrest by thorough drainage and removal of refuse the elimination of aerial poison, are the great duties that we have day by day to do. Though the task before us be great, the objects in view are immeasurably greater—to exalt the standard of life, to economise rates, and above all to decrease the sum of misery, disease, and death. . . . To supply the arm strong to labour, to substitute productive for unproductive citizens, to decrease the death-roll of the young, and to protract life beyond the present span, these are the tasks that sanitary science imposes on us."

The Medical Officer of Health for Clerkenwell pointed out that—

"The poorer classes have not the means of remedying the defective sanitary conditions under which they are living. But the Vestry has this power."

The Medical Officer of Health for St. Pancras made a calculation that nearly 1,200 deaths in the parish in 1858 were due to causes which might have been prevented by sanitary improvements. "To every death we may safely

assume more than thirty cases of illness. This gives us 36,000 cases of preventable disease in the year."

"You will see," wrote the Medical Officer of Health for St. James' (1856), "that by diminishing death and disease, you are diminishing poverty and want. . . . The sanitary question lies at the root of all others. It is a national one and a religious one. It is true that in the exercise of your powers you will often be met by the assertion of the rights of property, but the right of life stands before the right of property, and it is this recognition of the sacredness of human life that lies at the foundation of sanitary legislation."

The Medical Officer of Health for Whitechapel wrote:-

"I have in this report, as in duty bound, spoken plainly; if in the opinion of some members of the Board too plainly, my apology is—the deep sense I entertain of the importance of sanitary progress; for upon the success that shall attend the labours of those engaged in this most sacred cause depends the improvement of the social, moral, and intellectual condition of the people."

And the Medical Officer of Health for St. Giles' made this pathetic appeal for action:-

"While you are listening to the remainder of this report, I trust you will hold in your mind how many lives are being sacrificed every month to deficiencies in sanitary arrangements."

It is only here and there in the earlier reports of the Medical Officers of Health that specific mention is made of intemperance, but every reference to the subject showed how largely "drink" affected the sanitary condition of the people and intensified and complicated the evil conditions in which the people were placed, and rendered any amelioration, physical, moral, or religious, infinitely more difficult.

It was becoming more and more generally recognised that a very large proportion of the deaths and of disease were preventable.

"Any skilled eye glancing over the mortality tables will observe that a considerable number of deaths might have been prevented."

"We are now to a great extent aware," wrote the Medical Officer of Health for St. Saviour's (1856), "of the physical conditions on which the lives of individuals and communities depend."

The Medical Officer of Health for Fulham wrote in 1857:--

"Sanitary science and experience have full clearly proved to us how great an extent the prevention of disease and its extension rests with us."

But against contagion and infection no precautions whatever were taken, and so disease was sown broadcast throughout the community, and death followed.

As to suggested remedies and action there was a chorus of

absolute unanimity upon some points:-

"The principal cause of the extent of zymotic disease," wrote the Medical Officer of Health for Mile-End-Old-Town, in 1859, "is the defective state of the habitations of the poorer classes. The remedy for the evil is only to be secured by a systematic house visitation.

"... Without a general house inspection it is impossible to secure the proper entry to and use of the expensive sewers which have been and are being constructed.

"Having done so much for the streets, pavements, and drains, the improvements will lose half their salutary effect if the interior of the dwellings are not placed in a corresponding condition of wholesome cleanliness."

"It is," wrote the Medical Officer of Health for Whitechapel, "to the interior of the houses that our attention must be directed, for it is here that the source of disease is usually found. . . . An habitual and detailed inspection of the houses occupied by the poorer classes is therefore essential."

A house-to-house visitation was, indeed, the first essential. By no other means could the actual condition of the abodes of the people be ascertained, and the breeding places of disease be discovered, cleared out, and rendered innocuous. And as there was a never ceasing tendency on the part of the poorer classes to sink into a condition of uncleanliness, and on the part of their abodes to fall into dilapidation, or, as it was expressed, "a pertinacity for dirt," so was constant

inspection and supervision of vital necessity for the maintenance of any improvements made.

"There are," wrote the Medical Officer of Health for St. Pancras (1858), "many parts of the parish densely crowded. Some of the people have become so used to filth, they appear to prefer it to cleanliness; at any rate, they have not the energy to get rid of it and improve their condition. Such houses—perfect hotbeds of infectious diseases—ought to be visited two or three times a year. . . ."

The Medical Officers of Health had one valuable object lesson before them in the common lodging-houses, which, regulated and inspected by the police under the Acts passed by Parliament, had shown that even the very worst conditions of life could be ameliorated, and that the very lowest and most miserable classes of society were not beyond improvement.

"The chief points which are regulated by the authorities (the Police) are cleanliness, drainage and water supply, the separation of the sexes, and the prevention of overcrowding. The testimony of all who are acquainted with the dwellings of the poor is concurrent as to the immense sanitary advantages gained by the provisions of the Common Lodging Houses Act, and the results had been to improve in a marked degree the health, habits, and morals of the persons using these places." \*

"The cleanliness, comfort, and ventilation of the licensed rooms in common lodging houses offer a very marked contrast to those which are unlicensed." †

To more than one of these officers the idea occurred that similar benefits would follow if tenement houses were similarly inspected.

"I believe considerable good might be accomplished by a legislative enactment placing every house let out in weekly tenements to more than one family under similar regulations to those affecting common lodging-houses, and rendering landlords liable for permitting overcrowding to exist upon their property."

The success of the common lodging houses was due to the \* St. Giles', 1857-8. † St. Olave, Southwark, 1856.

enforcement upon the owner of the first essentials of sanitation in the house he let to occupants, and to the regular "inspection" of his house to secure that those essentials were maintained in a state of efficiency.

But it was just these two things that were most held in abhorrence by the majority of tenement-house owners in London.

The Medical Officer of Health for the Strand, after describing the overcrowding of tenement-houses, wrote (1858):—

"No remedy it is feared will be found until all houses of the class alluded to, the rooms of which are let out as separate tenancies, shall be compulsorily registered under the supervision of the Local Authority of the District in which they are situate, as fit for the accommodation of a certain number of persons, and no more."

"This suggestion will doubtless excite the sneers of the ignorant, the fears of the weak, and the ridicule of the selfish, coupled with the usual expressions about interference with the liberty of the subject; but the upright and unprejudiced will not fail to perceive that it is the liberty and the health of the working classes, forming, as they do, so large a proportion of the mass of the people which it is sought to protect from the tyrannical and grasping covetousness of an avaricious few who care little whether the health of the working man be destroyed, or whether his children be reared up in such a way that disease and vice must almost necessarily result, provided they succeed in obtaining for themselves an additional percentage upon their investment."

And the following year he again forcibly adverted to the subject.

"When it is borne in mind that in some of the small courts in this District there are packed together as many persons as almost equal in number the soldiers congregated in a commodious barracks, is the high death-rate a matter of surprise? But what can be done? The authorities, general or local, cannot surely be expected to provide suitable dwellings for the people! Undoubtedly they cannot; but it is incumbent upon these authorities, in the interest of the well-being

of all classes of the community, to place a prohibitive limit in regard of overcrowding upon the class of houses the rooms of which are let out as separate tenements, which would without hardship upon their occupants, speedily produce the desired effect. Such a condition, practically speaking already exists in regard of most of the Public Institutions of this country in which large numbers of persons reside; such a condition is enacted by law in regard of our emigrant ships: such a condition is enforced by Act of Parliament in regard of Common Lodging Houses: and in all these instances the principle works well. Is it reasonable, then, that in relation to the influence of over-crowding upon health and life, less care should be taken of the people who occupy the densely populated districts of our great towns and cities than is already provided by law for the inmates of our Common Lodging Houses, or for the paupers admitted into our Work. houses, or for the emigrants who leave our shores? Surely the injustice cannot but be apparent."

Other suggestions were also made.

The Medical Officer of Health for Whitechapel wrote (1859):—

"If the public is to enjoy health, and a freedom from the ravages of epidemic disease, a stop must be put to the present scheme of erecting houses in crowded situations; for although the rights of property are to be respected, yet, in my opinion, such rights are of secondary consideration when compared with the public health and the increased burdens which must be borne by the ratepayers to support those whose sickness occasioned by the unhealthiness of the localities where they reside."

Several urged the vigorous enforcement of the existing law. To the Vestry of Lambeth the Medical Officer of Health wrote in his report in 1856:—

"You must proceed actively against those who have raised the value of their possessions by ignoring the value of human life, who wilfully multiply disease by neglect of their pestiferous property."

The Medical Officer of Health for Hackney wrote (1858):—
"I feel assured that it cannot be too widely known that

individuals will not be allowed to deal with their property in such a manner as to cause injury to the public health. For although individual liberty has long been the boast of England, yet there is a point beyond which it cannot be tolerated with safety; and private good should always be made to give way to the public welfare."

The greater the light thrown upon the sanitary condition of the people of London, the clearer became the fact that the principal blame therefor rested upon the house-owner, lessee, or middleman, or as Parliament defined him, "the owner."

Many of the Medical Officers of Health were outspoken and unhesitating in their opinion as to the responsibility of the house-owner for the existing condition of the dwellings of the people.

"The enemies of the poorer classes," wrote the Medical Officer of Health for Clerkenwell, "are the landlords, who know well that proper lodgings for the really poor do not exist. They know also that if they buy at a cheap rate any old premises not fit for a pig-sty and let them cheaply they will be sure to find tenants."

If it was not the real owner of the house, it was the middleman or person or persons between the owner and the tenant. Rents were high in most parts of London where there was urgent demand for accommodation, and "the yearly rental is unfortunately in many cases still further increased by the 'middleman system'; many of the houses being rented by an individual who sub-lets them in separate rooms as weekly tenancies, and this at an increase of 20 per cent. (Strand 1856):—

"And thus it is that health and life are daily sacrificed at the shrine of gain."

What sort of property some of them held, and the condition in which they allowed it to remain, whilst they drew their "gain" from it, is graphically illustrated by the Medical Officer of Health in St. Olave's, Southwark (1856).

He thus described the houses in three small courts:—

"The whole of these houses are held by one person, and it is impossible to imagine any state much worse than the condition of everything connected with their drainage, &c. 136

"Here, within a small area, are thirty-nine houses, all having open foul privies, cesspools all filled, and many overflowing. The yards are foul, dirty, damp, and wretchedly paved with small, loose, broken bricks—most of them are daily filled with the overflowing of the drains and cesspools, the drains are all untrapped, and scarcely a house has a proper receptacle for water; they are mostly broken, dilapidated, uncovered tubs, placed close to the cesspools, so as to absorb the foul gases emanating from them. The effluvium on entering any of these places is abominable, and greatly complained of. . . .

"These three courts are thickly inhabited."

In the following month he reported nineteen houses in two streets very much the same as above. In the next month twenty more—in the month after, thirty more. He might almost have had the general description printed, with blanks for filling up the number of such houses and where situated.

If it had not been for the new Acts passed in 1855, this condition of things would doubtless have continued indefinitely. That condition had been reached under absence of inspection, or regulation, and freedom on the part of the owner to do as he liked; and had no laws been enacted to terminate it, no change would ever have been effected.

And when efforts were made by the local authorities to remedy similar places, strong opposition was met with. Thus in Hackney (1856-7):—

"1839 nuisances have been rooted out. In very many cases prosecutions have been ordered by the Board. They were almost invariably opposed by the offenders, generally people of substance, with the advantage of able legal aid, in the most pertinacious and resolute manner. . . ."

The novelty of enforcing upon the owners the improvements deemed necessary naturally raised in the minds of some of the Medical Officers of Health the question as to the justice of such a proceeding. Those who discussed it were clear upon the point.

Thus the Medical Officer of Health for Shoreditch (1856-7) wrote:—

"The question of putting houses into a condition fit for habitation has two bearings. It is, first, a question between the landlords and the tenants, whose health is sacrificed by neglect. It is, in the next place, a question between the landlords and the ratepayers.

"If the landlords neglect to make the necessary outlay in improving their property, the expense of maintaining that property in its unhealthy condition is thrown upon the ratepayers, for these have to bear the burden of supporting the sick and the destitute."

And the Medical Officer of Health for Clerkenwell:-

"At present the poor rates are raised by the parish having to pay the expenses of afflicted poor persons, whose misery has in most instances arisen from defective sanitary arrangements, the remedying of which ought to have been effected at the expense of the landlords, who derive their substance from the miseries of the poor."

And the Medical Officer of Health for St. George's, Hanover Square:—

"I am compelled to say that the number of dingy and dilapidated houses is a proof either that the owners of house property do not exercise sufficient control over their tenants, or that they themselves are grievously neglectful of their duties to their tenants and to society at large. The health of the Parish should not be allowed to suffer through the default of either landlord or tenant. . . . Here there need be no scruple about interference with private property.

"No man is allowed to sell poisonous food, and none should be allowed to sell poisonous lodgings, more especially as the effects of poisonous food are confined to the persons who eat it—the effects of unwholesome apartments may be diseases that may be spread."

On the equity of compelling the owners to put their houses in order, there are many insisters.

"It is but right," wrote the Medical Officer of Health for Fulham (1857), "that those who have hitherto fed their own resources by impoverishing others, should now in their turn make good the damage."

The Medical Officer of Health for Poplar (1856), wrote:—

"While on the one hand we must not proceed in a reckless manner so to burden property as to render it entirely unproductive, yet on the other we cannot allow the labouring man, whose health is the only property he can call his own, to live in unwholesome places to the destruction of that capital, by which alone he is enabled to support himself and family."

And the Medical Officer of Health for Mile-End-Old-Town (1856):—

"... To charge such property (viz., in bad condition and heavily encumbered) with the costs of thorough repair, would leave the owners in some instances, I am fully aware, destitute, but life is more sacred, and possesses higher rights than property, and it cannot be just to inflict or continue a public injury while endeavouring to spare and sympathise with the inconvenience of an individual."

That the evil state of the dwellings of the poorer classes entailed a charge upon the public was also pointed out by the Medical Officer of Health for Bethnal Green, who, referring to the miserable homes in the parish, wrote:—

"From the cradle to the grave their inmates are a direct charge upon our funds."

Happily the law was beginning to be enforced, and beginning to create a little alarm among some house-owners.

"As landlords are now aware that their property will be visited in rotation by the Inspector, the necessary alterations and improvements are frequently effected by them in anticipation." \*

Others did the necessary work when ordered to do it by the sanitary authority.

Others, however, not until legal proceedings were taken, and they were ordered by the magistrate to do it—and even then some would not obey the magistrate's order, and the work had to be done by the sanitary authority, and the cost thereof levied from the owner.

One case was recorded by the Medical Officer of Health for St. Giles', in 1858-9, in which the authority of the law was more strongly asserted.

\* Whitechapel, 1857.

"While speaking of the resistance met with in enforcing sanitary requirements, it may be here mentioned that the extreme step of imprisoning the owner of a certain house has been had recourse to for his obstinate refusal to comply with a magistrate's order."

That disease and sickness among the people entailed a great loss and heavy burden upon the community appears scarcely to have received any recognition up to this, and yet it was a truth of far-reaching importance. That individuals suffered was of course clear, but that the community did was by no means realised.

Several of the Medical Officers of Health promptly discerned how true it was, and in their earlier reports dwelt upon it, pointing out the effects, and emphasising their great importance.

"It cannot be too often impressed upon our minds," wrote one, "that sickness among the poor is the great cause of pressure upon the rates; and everything that will tend to diminish the number of sick will be so much saved to the ratepayers." \*

"The greater the amount of disease," wrote another, "the larger the proportion of pauperism."

"Of the causes of pauperism, none are so common as disease and death," wrote another.

Indeed, a little consideration must have demonstrated its truth. Difficult as it was for the individual in health to earn a livelihood—when sickness fell upon him there was the instant and complete cessation of his wages, and there were expenses incurred by his sickness. If he recovered, there had been a long disablement from work, and a heavy loss. If, however, he died, the community suffered by the loss of his productive labour, and, where the victim was the bread-winner of a family, his widow and children but too commonly became a charge upon the rates.

"High mortality in a district," wrote the Medical Officer of Health for Clerkenwell (1858), "especially among the poor who are the principal sufferers, does not relate simply to the dead; the living are also deeply concerned. Every

\* Whitechapel.

death in a poor family causes an interruption to the ordinary remunerative labour, and produces expenses which have to be paid out of scanty wages. Hence the living suffer from want; the parish funds must be appealed to; families become parentless, and next comes crime."

The Medical Officer of Health for Whitechapel (1858) wrote:—

"In the course of time the public will learn that sickness, with its concomitant evils, viz., the loss of wages, the calls upon clubs and friendly societies, the increased amount of charitable contributions, a heavier poor rate, &c., entails more expense upon the community than would be required to carry out sanitary improvements in widening streets, converting the culs-de-sac into thoroughfares, and in erecting more commodious houses for the poor."

And the Medical Officer of Health for the Strand wrote:—

"Of every death which occurs in this district over and above the ordinary rate of mortality, the number of cases of illness in excess must be a high multiple. And during every attack of severe illness the patient, whatever his position in life may be, must be maintained—if wealthy, at his own expense, if poor, at that of the community at large. And in the latter case, the community at large must thus suffer a direct loss. Health is money, as much as time is money, and sooner or later sickness must be paid for out of the common fund. . . ."

And the Medical Officer of Health for Shoreditch (1856) wrote:—

"To communities as well as to individuals there is nothing so expensive, so fatal to prosperity, as sickness. To a productive and labouring community, health is the chief estate. . . . A community is but a system of individuals—if one portion of that system be disabled by sickness, every other portion will feel the blow; the whole community will be taxed to support that part which is rendered incapable of supporting itself. It is then a plain matter of self-interest, as well as of solemn obligation, to exercise the most vigilant care in preserving to the poor

their only worldly possession, their health and capacity for self-support."

Nor did the danger to the great community of London, from the prevalence of sickness in any particular district,

appear to have received the faintest recognition.

And yet, in the matter of health, and protection from infection, all classes from the highest to the lowest had equal interest; for disease commencing or raging in one district is not long in spreading to other districts.

The Medical Officer of Health for Chelsea (1857-8)

wrote:

"It cannot need any argument to prove that diseases of an epidemic or infectious nature cannot be arrested in their progress by the imaginary line drawn around the boundaries of the parish—that the smoke from the furnaces in Lambeth and Vauxhall must be wafted across the Thames and influence the health of the inhabitants of Chelsea, if not kept in check, and that evils of minor importance in Pimlico, on one side, and Kensington on the other, may be quite as prejudicial to the health of the neighbours residing on this side of the boundary as to those among whom they are generated."

That any one locality had a duty to its neighbours, still less to London as a whole, as well as to the people of its own area, was beyond the range of the ideas of the vestries and district boards. Indeed, if their sense of duty did not induce them to look after and safeguard the people for whose sanitary condition they were immediately responsible, how could it be expected of them to be influenced by considerations as to those residing outside their area, and residing many miles away.

And yet, by the very condition of things, this greater

responsibility did exist.

But the great fact that in the vital matter of the public health London was one great community, the various parts thereof being indissolubly welded together into one great whole, had not as yet apparently dawned upon the minds of the newly-created local authorities; nor, indeed, had Parliament even realised it, for it had left the forty and more of those authorities full freedom to scatter disease of the deadliest type from one end of London to the other, and to imperil the lives of London's inhabitants.

The reports of one of the Medical Officers of Health give such an exceptionally complete and vivid description of the condition of the parish to which he had been appointed, and in which he worked, that a series of extracts from them are

given.

The parish was the parish of St. George-the-Martyr in Southwark, on the south side of the river, just opposite the City; "low-lying and flat, and about half a foot below Trinity high-water mark," with an area of 282 acres, and a population of about 52,000 persons, and the Medical Officer of Health was Dr. William Rendle, who speaks of himself as "an old parish surgeon."

"If a loose drain conducts stenches into a man's house instead of out of it, if the concentrated filthiness of a gully is blown into a front door or window, if a house often visited with fever has not been cleansed or whitewashed for many years, if there is no water but putrid water filled with disgusting living creatures, and no butt except a rotten one, not even the most enthusiastic lover of things as they are can find fault with us if we try to alter these things for the better. . . .

"Let us picture to ourselves the man of the alley come home from work.

"The house is filthy, the look of it is dingy and repulsive, the air is close and depressing; he is thirsty: the water-butt, decayed and lined with disgusting green vegetation, stands open nigh a drain, and foul liquids which cannot run off are about it, tainting it with an unwholesome and unpleasant taste; the refuse heap with decaying vegetable matter is near, and the dilapidated privy and cesspool send up heavy, poisonous, and depressing gases. Such are the homes, may I say, of thousands in this parish?"

He contrasts the public-house with that, and says: "The surprise is not so much that one man here and there reels home drunk and a savage, as that for every such a one there are not twenty. Gentlemen of the Vestry who have seen

these things can bear me witness that I do not exaggerate.
This is no fancied statement. . . .

"This parish has always been remarkable for its deathly pre-eminence. Hitherto there has been no sufficient law. After this we shall stand without excuse. . . .

"... Who is to say, when the question is improvement, as to where we shall stop? No doubt there is a question of more or less rapid progress, so as to hurt existing interests

as little as may be. . . .

"Our intrusive visits, as some would call them, into filthy and diseased houses, benevolent as they are, on behalf of those who cannot always help themselves, have example even in the most remote times and from the highest authority. The ancient authority was more imperative, and made it more a matter of conscience. In the ancient Jewish law it was ordained 'that he that owneth the house shall himself come and tell the Priest, saying: "It seemeth to me there is, as it were, a plague in the house." 'The Priest was then to command the emptying it, so that "all in the house be not made unclean." He was then to cause it to be scraped within and about, and finally he was to pronounce when the house was clean, and might be again inhabited.

"The Priest was, you perceive, the Medical Officer of Health under the Jewish law, and this text of Leviticus is the 13th section of the Diseases Prevention Act. . . .

"From what I see of the parish we cannot without incon-

veniently close packing hold many more.\*

"The growth of our parish is not from births alone; some persons of course immigrate from other parts of England, but the greater part come from Ireland, bringing with them disease and poverty. . . .

"I am afraid that the poor of other parishes are forced upon us. We increase in poverty, and, paradoxical as it looks, the poorer we get the more we shall have to pay.

"There are now from 6-7,000 cases of illness per year attended by the poor-law surgeons.

\* Population went up from 51,824 in 1851 to 60,278 in 1896.

"Our poor work at the waterside, in the city, and at the docks; their productive labour helps to pay the rates of other parishes, but in difficulty and sickness they live and lean upon us.

"Now as to overcrowding:—

In Lewisham there are 2 persons to an acre.

13	"	"	,,
21	,,	,,	,,
30	,,	,,	,,
104	,,	,,	"
184	,,	,,	,,
244	,,	"	,,
	30 104	21 ,, 30 ,, 104 ,, 184 ,,	21 ,, ,, ,, 30 ,, ,, 104 ,, ,, ,, ,, 184 ,, ,,

"Our parish is now almost completely built over.

"In 1850, out of 1,169 deaths 565 (or one half) were under 5 years.

"In Bermondsey, 506 out of 983.

"Our parish and Bermondsey are quite ahead (of others) in this unenviable race towards death."

"The contents of our sewers can only be discharged 4 hours each tide—8 hours each day—the remaining 16 hours daily they are reservoirs of stagnant sewage."

"We are sadly deficient in sewers. At least 100 courts, alleys, and back streets are entirely without drainage. . . . Some of our sewers have remarkably little incline. That in Friar Street, a most important one, is so level from Bean Street to Suffolk Street that it has a most curious quality for a sewer, that of flowing either way equally well.

"One very prevalent evil is loose brick drains which let the deadly gases into houses."

"... We are a most melancholy parish, low in level and low in circumstances. The lowest and poorest of the human race drop from higher and richer parishes into our courts and alleys, and the liquid filth of higher places finds its way down to us. We receive the refuse as well as the outcomings of more happily situated

His report for 1857 continued his description:—

"We lose annually 30 per 1,000—there are only two parishes worse than we are. Some at least of this mortality is preventable. If we could keep to the average of all London we should lose 300 less a year; or even to that of Bethnal Green we should lose 200 less.

"Few people believe we are so bad as we really are, and if we do not believe we shall not of course try to mend it, but it cannot be denied.

"The rich Londoners pay a low poor-rate. The poor Londoners pay a high poor-rate. This bears hardly upon us; it stifles us: more and more packed, more and more impoverished; with very little space between the poor ratepayer and the pauper, there is more sickness and death.

"Density of population brings you more deaths, more

sickness, more expense.

"The dreadfully vitiated air of our courts and close rooms produces and fosters consumption."

Commenting on the common lodging-houses, he wrote:-"The police regulations for order, cleanliness, and prevention of disease are in the highest degree satisfactory. . . . The benefits are so great that the employment of the same regulations in the more crowded and filthier houses of the poor can only be a question of time. It is the highest humanity to quicken the progress.

"Vestries have power sufficient for the purpose. The need is so great, so undoubted by those who have seen the evils with their own eyes, and the benefit to be obtained so certain, that if the local authorities do not enforce the im-

provements, the police will have to do it.

"As to the overcrowding, I have brought many cases before you, each from illness resulting difficult of cure, constantly recurring. 'I can never get out of that house,' said the district surgeon of one of them. The eight rooms in this house were always full, the receipts £2 2s. a week, yet it was dirty, neglected, and overcrowded. So the poor live, and I may say, so they die."

"As to some manufactories, some of them are very bad, and their pernicious influence spreads widely. I do not think any manufacturer should be obliged to leave; trades must, of course, be protected; but one man must not, to save a little expense in his building and machinery, be allowed to poison a neighbourhood, containing as this does some 30,000 people.

"There are various ways of making almost all of them bearable."

"In this parish are at least 4,000 houses rated under £10 a year, and containing 30,000 persons."

1858. 1st Quarter:—

"Of smallpox and vaccination there are some who neglect this great precaution, and so not only imperil themselves but others. Here is the evil, and indeed, I believe, the reason why the disease is not altogether banished."

"... A case registered as diphtheria occurred and died; it began in one of the very worst localities and then extended to opener and better places. Thus it is that modern society neglects the social condition of its poor, and the poor with a well-ordered revenge bring disease and death as a consequence."

Referring to some tables he compiled, he said:—

"In this table appear 42 deaths from consumption; it has but recently become prominent how very preventable a disease this is . . . the principal causes have here been made obvious enough: sleeping closely in ill-ventilated rooms, overcrowding, and bad ventilation."

"It is now quite established that, with close overcrowded rooms—that is, by assiduously causing the continued breathing a tainted atmosphere—you may insure consumption in the most healthy.

"3,500 years ago the Jewish legislator promulgated laws and duties almost identical with those we are now engaged in carrying out as new in the nineteenth century—but so it is."

"... There is a great deal of carelessness touching human life, and a great want of common sense or serious thought in the preserving it. Much is left to chance. There is either fatalism or stolid indifference upon the matter pervading highest society, and the poor, driven as they are from

richer districts into poorer neighbourhoods, can scarcely help themselves; they lose at last all healthy communication with richer or better neighbours, and all taste for pure air and healthy pursuits; they pack close, they descend a little, often a great deal, toward the lower animals, and so live neither for this world nor the next."

"There are 7,000 houses in this parish. 890 of these have been visited this year, and in 756 the work ordered has been carried out—sometimes in a most slovenly manner—an apparent compliance with your orders. In the poorer districts the most incompetent men are employed to plaster over, patch over, whitewash, or cover over the evils ordered to be not covered but amended. Still a great amount of good work has been done.

"... Overcrowding is the normal state in our poorer districts. Small houses of four rooms are usually inhabited by 3 or 4 families, and by 8, 16, or 24 persons, e.g., 133 inhabitants in 8 houses . . . a filthy yard generally implies a filthy house and unclean habits" . . . "this parish with its thousands of refuse heaps."

"I know that we are on the right track. May Pole Alley, a cul-de-sac with its 23 houses and 180 people, was once a nest of infectious diseases. I attended some 10 cases of typhus there, some of them malignant enough to destroy life in 48 hours. With great trouble this court has been cleansed and amended. It is very much more healthy."

1858. 2nd Quarter:—

"June—an exceedingly hot and dry month. You may judge of the effect of such temperature upon exposed dung-heaps, wet sloppy yards, and rotten, filthy, uncovered water-butts; three characteristics of this parish. . . .

"The Surgeon of the District writes thus to the Board of Guardians: 'The smell is very bad from a horse-boiling establishment in Green Street, which causes a great increase of sickness near that part.' This of course refers to the bone boiling and other like establishments, of which there are, in this one small street, three cat gut manufacturers, one soap boiler, one horse slaughterer, and four bone boilers

—all very offensive trades. I am receiving complaints in all directions as to this matter. I am inclined to think that this is not altogether just to the 20,000 inhabitants who live within the effluvia circle of Green Street."

As to infantile mortality he writes: "I confess I see but little difference between that sanguinary ancient law that directly destroyed weakly and deformed children, and that modern indifference that insures at the very least an equally fatal result"... "these disturbing truths involving so much trouble and expense, and giving us painful reminders of new duties, as well as of old ones neglected."

He complains of having to neglect a great many cases of insanitation owing to want of staff. "... Of those upon whom orders come to remove nuisances, &c., a large number are objectors, and not a few positive obstructors. ... "

"The items in this last table merit attention, and throw a sad sort of light upon the condition of the poor of this parish. We have visited 73 unclean and ruinous houses; 118 in which the water was stored in a most unwholesome manner; 163 in which the drains were defective enough to be disease producing; 72 in which the w.c.'s were more or less unfit for use; 110 yards sloppy, not paved, or ill-paved; and 138 in which there was no sufficient provision for house refuse. . . .

"We are packing more and more closely.

"In the great mass of our poorer habitations the allowance of breathing room is not more than 200 cubic feet per head—often as low as 120. In one house reported to me there were 30 in four rooms with only 2,410 cubic feet, or 80 cubic feet per individual. This must, of course, be premature death to many of them. . . .

"We cannot overlook what is going on: improvements are being effected elsewhere, the dwellings of the poor are being destroyed, a few parishes are fast becoming pre-eminently poor, over-crowded, and filthy. I need not tell you that this parish is one that gets in this respect steadily worse from the improvement in others.

"The temptation is very great to overcrowd; the poor family, however large, by crowding into one room, and by

even taking a casual lodger in addition, obtains a sort of home at a cheaper rate, and the owner gets a much larger revenue out of what I must, I suppose, call human habitations. The resulting illness and death are considered inevitable, or are viewed with a stolid indifference."

1858. 3rd Quarter:—

Of the greatness of the mass of prevalent evils he wrote: "I have often reported it here, but the very enormity of the evil blunts our appreciation of it. . . ."

There had been a high mortality in the Quarter. "We are once more, I believe, the worst parish in London. . . ."

"The back districts of this parish require relief, as much as Ireland ever did, from a class of middlemen who, with some few most honourable exceptions, grind out all they can from the most squalid districts, and carry nothing back in the way of cleanliness or improvement."

He gives a long list of streets and courts and places where disease was rampant and deadly owing to the insanitary conditions.

"It may perhaps be said that all this is in the order of nature, and cannot be prevented. My experience of a quarter of a century among these diseases points quite the other way. Providence does not intend that reservoirs of stinking putrid matter shall stand so close to the poor man's door as to infest him at bed and board. . . . In the Jewish scriptures the places for the purposes here mentioned are ordered to be without the camp, as far from the breathing and eating places as possible; and among us, as you see, when we tolerate such abominations, He visits us with death. It is the result of the irrevocable laws of nature often averted by what appear as happy accidents, but at last, when disregarded, deadly. Gentlemen, you are the trustees for life and death to a population of well-nigh 30,000 people, who from the force of circumstances are more or less unable to help themselves. . . ."

"Of course it cannot be expected that we can provide the homes of the poor with the orderly arrangements and benefits of these Institutions (Dispensaries, &c.)—that, however, will form no excuse here or hereafter for not carrying out

the improvements we can easily achieve, and which a wise legislature has given us full authority to do."

"Total deaths in Quarter ended October 2nd, 1858—369, of which 225 were of children under 5 years=61 per cent!!"

The whole tone of this report was such that he could not possibly continue as Medical Officer of Health to a then existing Vestry, and he resigned.

He was succeeded by another very able man, Dr. Henry Bateson, from whose reports may be continued the description of this parish up to the census of 1861.

"The onward moral and intellectual progress of the human race depends far more upon the sanitary state which surrounds it than has ever yet entered into our imaginations to conceive. . . .

"We have suffered severely from the ravages of smallpox. Smallpox is a disease over which we have perfect control, and which, were vaccination thoroughly carried out, might be banished from these dominions."

"... Men whose nervous systems become depressed and the tone of their system generally lowered, become the subjects of a continued craving for stimulants."

"... Our wells are but the receptacles of the washings from our streets, the off-scourings from our manufactories, the permeations from our cesspools, and the filterings from our graveyards."

1860-1861. After five years' local government:—

"The circumstances are various and complicated, which contribute to prevent the improvement of the district, and even make the endeavour seem at times hopeless. No one can know the fertile sources that exist for producing in the mind this feeling of despair save those engaged in sanitary labours; or those perchance whose duty it may be to visit our poorest and lowest localities." . . . "It is no light and easy work to remove the aggregate evils of centuries which, like the coral reefs of the ocean, have grown up silently and continuously to their present magnitude. . . . There are hindrances all around, some of which are unsurmountable, such as those arising from the imperfections of

the law itself . . . there are also vested rights, customs, ignorance, stupidity, and avarice, all of which have to be dealt with and overcome if possible."

"Nature never pardons. Obey and it is well; disobey

and reap the bitter consequences."

Referring to some houses "of the worst description, having no yards, nor even windows behind, so that ventilation was impossible," he says: "I am sorry to say that there are numbers of similar houses still standing, and occupied by the most ignorant and degraded of our population—a class living almost in the neglect of laws human and divine; and as heedless about the present and the future as the very heathen themselves. . . ."

"The state and condition of the dwellings of the poorer classes are a stain upon our civilisation."

"... No one can conceive, nor would they believe, unless eye-witnesses, the wretched circumstances in which vast numbers of families have to spend their lives. It is indescribable."

"The daily task of keeping clean their houses and families, once a pleasure to them as well as a duty, having to be performed amid overwhelming obstacles on every side, from which no hope of escape remains to cheer them on, is gradually neglected and ultimately abandoned, their spirits become torpid and depressed, and this is necessarily followed by the derangement of the functions of the body. Finally they become reckless, and this recklessness increases the evil which gave it birth. There is action and reaction. What marvel then that, like unto those about them, they float down the ebb tide towards the dead sea of physical dirt and moral degradation. It has been truly said by Dr. Southwood Smith, 'The wretchedness being greater than humanity can bear, annihilates the mental feelings, the faculty distinctive of the human being.'"

"The heedlessness shown in the building of houses is astonishing. No care is taken about the nature of the subsoil, the position, the ventilation, and means of cleanliness. They are run up anywhere and almost anyhow, and too often become the prolific source of disease." And he

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quotes: "No man has a right to erect a nuisance, and the public has clearly as good a right, as great an interest in enforcing cleanliness to prevent the outbreak of an epidemic as in requiring walls to prevent the spread of fire. Yet, where one is destroyed by fire, how many thousands are there destroyed by disease, the indirect result of such erections?"

"We are desperately careless about our health, and apparently esteem it of small value. A great modern writer has truly said: 'The first wealth is health. No labour, pains, temperance, poverty, nor exercise that can gain it must be grudged. For sickness is a cannibal which eats up all the life and youth it can lay hold of, and absorbs its own sons and daughters."

The descriptions here given enable us to realise how terrible and pitiable a state of things had been reached, and the depths of filth, and misery, and abomination into which the people had been allowed to sink through the indifference of Parliament, the absence of any local government, and the neglect or avarice of the "owners."

One hope there now was. Parliament had at last made laws to remedy these evils, and local governing authorities had been created to administer and enforce the laws.

In 1858 a Public Health Act was passed by Parliament, which put an end to the existence of the Board of Health, and transferred to the Privy Council the administration of the Diseases Prevention Act. And the Privy Council was authorised to cause inquiry to be made in relation to matters concerning the public health. In 1861 a medical department of the Privy Council was formed which has in many ways been of immense service to the cause of public health, and which, as time went on, developed towards a true Ministry of Public Health.

All things considered, by the end of the first five years of the working of the new local constitution conferred upon the metropolis, a real beginning had been made in the sanitary evolution of the great city. Some of the grossest evils had been attacked, and a start made in lifting London

out of the depths of the appalling slough of abominable filth in which it had become submerged.

In some of the vitally important matters progress was material. The improvement in the water supply was considerable, the main drainage works had been started; the construction of many new sewers, the abolition of great numbers of cesspools, and the better drainage of houses, were all events of a decidedly satisfactory character.

And the death-rate of London as a whole showed a slight decrease—from 23.38 per 1,000 in 1851 to 23.18 in 1861. In some districts there was an increase—in the majority, however, there was a decrease.

But most encouraging of all was the direct evidence afforded by experience as to the effects of sanitary improvements.

Thus, in Whitechapel, the Medical Officer of Health, in reporting that the cases of fever had diminished from 1,929 in 1856 to 190 in 1860, said:—

"This diminution may be fairly attributed to the additions made to the sewerage of the district, the improvements effected in the drainage of 2,172 houses, the abolition of 3,002 cesspools, the better paving of many of the courts, the systematic inspection, &c., of houses where fever occurred, the removal of 37,607 nuisances, and to the abolition of several offensive trade nuisances."

And the Medical Officer of Health for Shoreditch wrote, in 1861:—

"That the diminished mortality and the lesser frequency of epidemic diseases are really due in great measure to sanitary works and inspection is proved by the diminution and even disappearance of certain forms of sickness from streets, courts, and districts where sewers have been constructed, ventilation provided, and other improvements effected; whilst, on the other hand, the districts still requiring those necessary reforms furnish far more than their proportion of the epidemic sickness and mortality."

Philanthropic individuals were increasing their efforts for the improvement of the people; and societies, working on a self-supporting basis, were taking more active interest in

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the housing problem, and erecting model lodging-houses and more healthy habitations.\*

Public opinion was more interested than before in sanitary matters, and it was thought that the working classes had also in some degree awakened to the care of their own health.

"Altogether," wrote the Registrar General, in his report on the health of London after the census figures of 1861 were known, "there is abundant proof of that increased regard for human life that attends civilisation."

\* "The moral and social benefits conferred by these buildings has been immeasurable," wrote one Medical Officer of Health (St. Pancras).

"They are institutions whose larger acceptance would save the lives of hundreds, and reclaim the morals of thousands," wrote another.

### CHAPTER III

#### 1861-1870

THE Census of 1861 disposed of the various estimates of the population of London, and of the death-rates in its various parishes, and gave authoritatively the actual figures.

From 2,363,341 persons in 1851, the population had gone up to 2,808,494 in 1861—an increase not very far short of half a million; and the number of inhabited houses had increased from 306,064 to 360,065.

The natural growth of the population, or in other words, the excess of births over deaths, accounted for but part of this increase. The rest was due to the great stream of immigrants into London, which, notable previously, "continued to flow thither with unabated force."

The increase was not equally distributed. The population of the central parts showed a decline. There the great economic forces were most powerful, and under their influence the population of the "City" had decreased by more than 15,000: that of Holborn and St. Martin-in-the-Fields by nearly 2,000 each: that of St. James', Westminster, by about 1,000, and two or three others slightly.

But elsewhere—east, north, west, south—the increases had been great, and in some instances remarkable. Poplar had increased in the decade by 32,000; Islington by 60,000; St. Pancras by 32,000; Paddington by 29,000. And on the south side of the river, Wandsworth had increased by 20,000; Newington and Camberwell by 17,000 each; and Lambeth by 23,000.

The rate of growth in the various wards or parts of the parishes showed, both as regarded persons and houses, great