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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

differences, the most rapid increases being in the parts nearest to the centre of London.

A most material factor in the sanitary evolution of any great city, and especially so of London, is the introduction into its population of fresh elements from the outside.

The returns collected by successive Census Commissioners gave considerable information upon this point.

"London is the metropolis of the Empire," wrote the Commissioners of 1861, "and thither the representatives of other nations, of the Colonies, and of Scotland and Ireland resort; but it is chiefly the field in which the populations of the several counties of England find scope for their talents and their industry."

The majority of the inhabitants of London in 1861 were indigenous, for 1,701,177 were born within its limits; 1,062,812 were born elsewhere.

Of these 1,062,812, close on 36,000 were born in Scotland, 107,000 in Ireland, 19,000 in the Colonies, and 48,000 were foreigners. The remainder — amounting to about 893,000—were born in the extra-metropolitan counties of England and Wales.

"Proximity to the metropolis, and the absence of manufactures at home, first drew the natives of these counties to London. The stream of immigrants from the south-western counties was large: Cornwall, Devon, Dorset, Somerset, and Wiltshire having sent 128,422 of their natives to be enumerated in London."

Likewise the stream from Norfolk and Suffolk was large. But the great bulk of the immigrants came from the counties immediately around London.

To put the figures in simple form — of every 1,000 inhabitants of London, 606 were born in London, the remaining 394 were born elsewhere.

And the census provided also the means for ascertaining as correct a death-rate as could be arrived at. In 1851 the death-rate was 23.38 per 1,000; in 1861 it was 23.18—not much of a decrease, but satisfactory in showing that some of the evil powers of insanitation were stayed.

It is, however, always to be borne in mind that either

the death-rate, or the number of deaths, gives but an imperfect and incomplete picture of the sanitary condition of a population. It tells but the tale of those who have died of disease—it leaves uncounted and untold the far greater number of those who have been either temporarily disabled or maimed for life by disease. Estimates vary considerably as to the number of persons who suffer from disease and recover; and the proportion of recoveries to deaths varies in different diseases, some diseases being so much more deadly than others. But the sick-rate is always, and under all circumstances, very much greater than the death-rate.

The mere taking of a census could have no visible or actual effect; the routine of life and the action of the various economic and social forces continued unchanged; but the information gained was of the utmost value.

The figures and the facts recorded afforded startling demonstration of the immensity of London, and of the growing gravity and complexity of the great problems of London life.

London was huge before—appalling almost in size and population; now it was shown to be huger than ever. Everything was on a more enormous scale. The masses of population were far larger, and were rapidly increasing; and with this increase everything concerning their existence became more and more complicated, and every reform more and more difficult. The removal of evils affecting their physical and social being would be a heavier task, the supervision of their conditions of life more onerous and exacting, and the provision of a government to secure their well-being a graver problem than ever.

One of the great forces unceasingly at work, and one of the great contributory causes to insanitation and to the maintenance of a high death-rate was, undoubtedly, drink. It led to poverty and overcrowding, it led to ill-health and greater susceptibility to disease; and the evils acted and reacted upon each other indefinitely—a vicious circle from which there was no escape, overcrowding leading to a craving for drink, and drink resulting in poverty and there-

fore overcrowding with its attendant evils and high mortality. Since the unfortunate moment in 1830 when Parliament deemed it expedient "for the better supplying the public with beer" to give greater facilities for the sale thereof, and scattered broadcast throughout the nation the seed of unlimited evil, facilities for drink not only of beer but of spirits have been practically unlimited. Against this source of evil, which is often mentioned in their reports, neither Medical Officers of Health nor Vestries could contend, and had no power to contend. But all through the history of the sanitary evolution of London this deep underlying curse was present, acting as a perpetual clog upon sanitary and social progress—a horrible, all-pervading and tremendous power for evil.

In the earlier years of this new decade of 1861-70 the central government—the Metropolitan Board of Works—was demonstrating the great utility of a central governing authority for London, and a task was nearing accomplishment which was absolutely the first essential, the very foundation of an improved state of the public health.

It was engaged in pressing vigorously forward the great system for the sewerage and drainage of London designed for taking off the sewage and refuse waters of a prospective population of three and a half million persons, and the rainfall of a drainage area of 117 square miles. Until those works were completed no great degree of sanitary improvement could be expected.

In 1861 the Board reported that a portion thereof had been finished, and as the work gradually progressed the Vestries were able to avail themselves of the deeper outfalls afforded, and to undertake drainage works in their several areas.

By 1865 the great task was virtually accomplished. Eighty-two miles of main intercepting sewers had been constructed, and the sewage was being conveyed away by them several miles distant from London.

Their completion enabled the Metropolitan Board to fill in the open sewers, which had so long polluted the atmosphere, and been such a fertile source of disease in the

districts where they existed, and took away from the Vestries any excuse for delay in carrying out the construction and putting in order of the local sewers for which they were responsible.

The central authority had thus brought into existence a gigantic system of sewerage by which the river near London ceased to be the main sewer of London, and the whole of the metropolis was relieved of many of the most powerful causes of fever, cholera, and other destructive diseases. It was a great work, admirably and expeditiously carried out, and it cleared the way for other sanitary reforms which were impossible without an effective general system of sewerage, yet which were essential if a satisfactory condition of the public health were ever to be attained.

The central body also proved its great utility by securing uniformity in the sewerage and drainage works which fell to the duty of the local authorities to carry out. All plans by the Vestries had to be submitted to the Board so that the Board might see that they were consistent with the main system.

Both main drainage and house drainage were thus steadily being extended and improved, but in many places things were still outrageously bad. Nor had the creation of fresh evils been effectually prevented, for from Bromley came the complaint that several new estates were rapidly being covered with small house property which drained into cesspools.

And the Medical Officer of Health for Fulham wrote (1866):—

"The active operations of your Board have fortunately relieved the Fulham district to a large extent from that pregnant source of mischief—want of drainage; still there are large tracts of building land yet unprovided for, on much of which houses by dozens are being squatted without any regard to this great essential by the builders, save the horrid cesspool system. It is enough to have to counteract the evils of past imprudence without perpetuating them by such wilful recklessness. . . "

The supply of water to the inhabitants of London was of equal importance to an efficient system of sewerage. The problem had by no means been solved by "The Metropolis Water Act" of 1852, which had enacted that within five years after the passing of the Act a constant supply should be given by the companies. Unfortunately, the supply was in the hands of various public companies over which the local governing authorities had practically little or no control, and, like all sanitary legislation of this period, the results were not commensurate with the intentions of the Legislature.

An illustration of how insufficient the supply was, was detailed in a report of the Medical Officer of Health for Whitechapel in 1862:—

"A return has been made by the Inspector of 133 courts in the district.

"Of these—in 48 which contain 388 houses and have a population of 3,233 persons the water supply is by stand taps only, from which the water flows daily (Sundays excepted) for a period varying from quarter to half an hour.

"This intermittent supply is totally inadequate to the wants of the people."

Parliament made an effort in 1862* to amend the law, and enacted that where a house was without a proper supply of water the owner or occupier might be required by the Vestry to obtain such supply, and if such notice was not complied with, the Vestry might do the necessary work and recover the expenses from the owner, and then require the water companies to supply the water.

But the Act was of little practical value, and was made of less value by the inaction of the local authorities.

A few extracts from reports of Medical Officers of Health show how thoroughly unsatisfactory and disastrous to the health of the people the existing condition of affairs was.

The Medical Officer of Health for Fulham wrote in 1864:—

* 25 and 26 Vic. cap. 102.

"The powers at present given by Statutes for enforcing a supply of water for domestic use are, within the Fulham district, all but inoperative. The cry amongst the cottagers is still for water—water without which all other sanitary appliances are at best abortive, without which in ample and continuous flow no community can be preserved in healthfulness. On this essential will depend the perfect working of our deep and costly sewers, on this alone will hang success in minor drainage matters. Water, that first and most important element of health and cleanliness, exists in name alone in masses of our cottage property here, and consequently neither purity of person nor of dwelling can be ensured."

The Medical Officer of Health for St. Martin-in-the-Fields wrote in 1864 deploring that the new laws of the water companies did not provide for water being supplied on Sunday. "It is to be lamented that people should at any time have to go about begging water, and more especially so on Sundays, the very day they most require it."

And the Medical Officer of Health for Westminster wrote (1864):—

"The water supply to many of the courts and alleys is very unsatisfactory. No Sunday supply.

"It does seem a monstrous arrangement that for 52 days in the year the public should be deprived of that which they pay for, but have no means of substituting by anything else."

And to complete the hardships which the people suffered under in the matter of water supply, if the house-owner did not pay the water rates when called upon to do so, the water company might cut off the supply of the people in the house. This was frequently done, and the Medical Officer of Health for Whitechapel recorded how for four months—

"The inhabitants of Tuson's Court, Spitalfields, had been entirely deprived of water in consequence of the water company refusing to continue any longer the supply, as the landlord had not paid the water rate."

The housing of the people was the problem which, above all others, was more and more forcing itself upon the attention of those whose work brought them into actual contact with the conditions of life of the great mass of the people who were in their charge; not merely the construction of the houses or their situation, but the accommodation afforded and the conditions of life therein.

"Our forefathers," wrote one of the Medical Officers of Health, "knew nothing about the public health, and cared less. They added house to house, and street to street, according to their own will and apparent benefit, and so have left us this mingled heritage."

And there were streets and courts and alleys which were not fit for human habitation, and which could never be made so; and thousands upon thousands of houses where "nothing short of a hurricane would suffice to displace and renew the air."

London had enough to suffer under from the state of the existing houses, and an appalling task before her to remedy them, but not alone was this enormous evil practically unattacked, but fresh sources of evil were allowed to be created, and new houses were being erected which would carry into the future the evils which efforts were now being made to put an end to.

"A house may be built anywhere," wrote one of the Medical Officers of Health in 1862, "and almost anyhow,

* See P.P. 1866, vol. xvii. Report of Royal Commission.

provided all the rooms can be lighted and ventilated from a street or alley adjoining. The object of the builder is to save as much ground, materials, and expense as possible. The result is not difficult to foresee. . . ."

No regard, moreover, was had to the ground on which new houses were being built, though that was all-important for a healthy dwelling.

"... Some of the new houses are built upon garden mould or old 'slop shoots,'" wrote the Medical Officer of Health for Paddington in 1870-1; "these thin and flimsy shells of lath and plaster truly merit the term 'slop buildings.' A dangerous moisture and miasma arises from houses built upon such an unhealthy foundation."

How disastrous the results were to the inhabitants is pointed out by several Medical Officers of Health.

The Medical Officer of Health for Mile-End-Old-Town wrote (1866):—

"... Many open places now built upon, or being built upon, have been for years the receptacles for all kinds of animal and vegetable refuse, and have become thoroughly impregnated with the products of their decomposition. . . . The result to the health of the occupants is daily realised by the excessive number of zymotic diseases and deaths which occur in them."

The Medical Officer of Health for Limehouse wrote:—

"Ask about the general health and the houses. 'Never been well since coming in, and the children always ailing; and my husband says he feels more refreshed when he comes from his work than after he gets up in the morning. And then everything spoils; meat put into a cupboard is musty in a night. One can keep nothing.'

"These are all new houses."

And a few years later, referring to this same subject, he wrote:—

"A half mile off, a few years ago, there were some acres of gravel pits. The gravel had gone for road-making, &c. The large pit was then filled up on invitation of the owner, with the aid of the scavenger and others, with all the slush and filth of a large circle of contributors. When this fund

of abominations became consolidated, it was built over in the usual style. They were soon occupied by tenants and lodgers. Now this site during the epidemic (of cholera) has been a great slaughter field—the mortality was shocking."

And he added, "there are thousands of such houses built about London."

The Building Act of 1855 was very far from being an effective prevention of such devices as these. It required a notice to be given to the Vestry before any new building was commenced, and a plan to be submitted for approval showing the proposed drainage and the levels of the building; but this requirement appears to have been by no means universally complied with, and some local authorities had great difficulty in getting notices of new buildings commenced within the district. And its restrictions were not sufficient to prevent the speculative builder in places from raising his block of houses in the fields with neither road or sewer for their accommodation, and with the frequent result of fever-stricken tenants.

With the increasing knowledge of their districts gained by the numerous Medical Officers of Health distributed over the whole metropolis, the widespread prevalence of overcrowding in London, and the virulent evils, physical, social, and moral, consequent thereon, come into greater prominence and more vivid light than ever before.

Throughout the central parts of London the process of demolition of houses of all sorts and sizes, inhabited by the well-to-do or by the poorest, was continuing. The street improvements which were being carried out in some places entailed extensive demolitions; whilst the construction of railways and the erection of large stations necessitated the destruction of hundreds of others, mostly those inhabited by poorer persons. Thus, in the improvements in the Holborn Valley, 348 houses, accommodating 1,044 families and 4,176 persons, were taken down and not replaced. And in St. Pancras, and many other districts, the dwellings of the poor were constantly being removed by railway expan-

The subject of the displacement of labourers in consequence of great public works in the metropolis was brought before the House of Lords in 1861 by Lord Derby.*

"It affects," he said, "in the most vital manner the interests of a large portion of the population who are utterly unable to protect themselves against legislation, however unfavourably it may bear upon them.

"In the metropolis and its suburbs sixty to seventy miles of new line (railway) are proposed—a great portion of these passing through the most crowded streets."

He described specially the parish of St. Bartholomew's, in Cripplegate, with a population of about 5,000 inhabiting 500 houses.

"Throughout it, there are not ten families who occupy a house to themselves, although the bulk of the houses contain only three rooms. The incumbent tells me the aristocracy of his parish consists of families who are able to indulge in the luxury of two rooms. But the greater number have one room, and one only, and this is sometimes divided between more than one family.

"Half of these houses are under notice for the railway." And Lord Shaftesbury described a great demolition of houses which took place a few years previously in the neighbourhood of Field Lane, City: "1,000 houses were pulled down; 4,000 families, comprising 12,000 individuals, were turned out and driven into the surrounding tenements."

Lord Granville suggested, as a remedy, the provision of cheap trains to carry artisans from healthy dwellings in the suburbs to the scene of their work, and Lord Redesdale said he had introduced clauses into the Railway Bill providing that the companies should run a cheap train every day. But, as Lord Shaftesbury pointed out,† that would not be sufficient, as—

"In some cases the men are under an engagement to their employers not to live more than a certain distance from the warehouse," in order that no time might be lost in executing orders.

^{*} Hansard, vol. elxi. p. 1061.

The remedy, moreover, could only be very gradual in its operation, and was quite inadequate to meet the existing emergency.

This demolition of houses had thus the twofold result of at once intensifying overcrowding in the remaining houses in the localities affected, and in extending the area of overcrowding by causing a migration to other localities, many of which were themselves rapidly becoming overcrowded. And this, combined with the natural growth of the population and the constant stream of immigration into London, resulted in overcrowding on a far larger scale than had hitherto prevailed.

In Mile-End-Old-Town the West Ward had received in the decade 1851-61 an addition of 3,094 persons, whilst but 84 new houses had been built—the South Ward 1,372 persons and 71 new houses built.

In Shoreditch, in 1863, "The tendency to overcrowding was increasing year by year.

"Being mostly operatives, &c. . . accustomed to live near their places of employment, they were naturally unwilling to travel further than necessary, and so have accepted the readiest accommodation for their families."

Of Whitechapel, the Medical Officer of Health wrote in 1865:—

"The evil of overcrowding is annually increasing, and if means be not adopted to check it, the overcrowding will soon become of an alarming extent. . . .

"Houses formerly occupied by single families are let out in separate tenements, and every room now contains a distinct family; and to such an extent is this separate letting of rooms carried out, that from information given me there is not a single street in the parish of Whitechapel that is not more or less a nursery of pauperism in consequence of this sub-division of tenements."

Away in the west, in Fulham, there had been a "flood of immigrants," chiefly of "the lower and labouring classes." The population had increased 30 per cent., and the Medical Officer of Health wrote (1865):—

"In watching the enormous accession of population to

the Fulham district, one cannot otherwise than observe the constant tendency to overcrowding amongst the labouring people, whilst there seems every possibility of this human tide increasing. The tremendous demolition of the houses hitherto occupied by the working classes more immediately in London itself has dislodged thousands of families, whilst no systematised provision has been made for their reception."

In Westminster the Medical Officer of Health wrote in 1865:—

"The dwellings of the poor were never in a worse or more unsatisfactory state than they are at present from the large number of houses that have been already demolished. The poor are now driven into the most wretched apartments, and which, in consequence of the increased demand, can only be obtained at the most extravagant rates. They are consequently compelled to herd together in one room, usually barely sufficient for half of those it is now made to hold."

The south side of the river was much in the same plight as the north; but there, there was more room for expansion.

The Medical Officer of Health for St. Saviour, Southwark, wrote in 1865:—

"The numerous improvements which continue to be made in and about the heart of London have so increased the value of house property that overcrowding has been almost inevitable.

"... In a vast number of instances families numbering four to seven persons, ill or well, live, cook, wash, and sleep in rooms the dimensions of which are not greater than is now demanded for each sick person in the workhouse."

The Medical Officer of Health for St. George-the-Martyr, Southwark, wrote:—

"In many of the districts of the metropolis between 60 and 70 per cent. of the population are compelled to live in one small overcrowded room, and in which every domestic operation has to be carried on; in it birth and death takes place; there plays the infant, there lies the corpse; it is lived in by day, and slept in by night."

In the necessity for house accommodation all sorts of places were being pressed into use, and people driven into "places that are themselves unfit for habitation, not having the elements of life and health about them."

The Medical Officer of Health for Paddington described, in 1867, how mews had been thus utilised:—

"In fact these back streets, originally built and intended for horses and vehicles, and only those persons without encumbrances who are engaged attending to them, have now become the resort of persons with large families following all kinds of business—rag, bone, and bottle stores, shops of various kinds, including beer-houses, builders, carpenters, smiths, tailors, sweeps, find accommodation here. Inhabiting the rooms above, too small, and unfitted with proper domestic accommodation for a family, live a vast population of all ages. These evils, rather than otherwise, are increasing."

Into such houses and such rooms the people were by stress of circumstances compelled to go, and, as the Medical Officer of Health for St. Giles' pointed out (1863):-

"A larger rent can be obtained for the same room if it is overcrowded by a large family than if it be hired for only as many inmates as it can properly receive. Hence the interests of landlords are constantly on the one side, the health of the poor on the other. . . ."

What this pressure upon accommodation produced may be gathered from a few figures given by the Medical Officer of Health for Whitechapel:—

| _ | | Houses. | Rooms. | Inmates. | |
|------------------------------|----|---------|--------|----------|--|
| In Slater's Court, Whitechap | el | 10 | 31 | 170 | |
| In Marlborough Court . | • | 7 | 20 | 82 | |
| In Hunt Court | | 8 | 32 | 158 | |

"In one room in Swan Court, having one window, seven persons slept—a man and his wife, the daughter aged 24 in consumption lying in bed, and four younger children; the cubic contents of the room were 910 = 130 cubic feet to each person.

"In Bell Court four persons occupied a room with 94 cubic feet each.

"In three rooms in Hayes Court, each $10 \times 8 \times 8$ feet; each with only one window opening into a narrow court; each occupied by eight persons = 80 cubic feet to each person."

The Medical Officer of Health for St. Pancras (1865) described some of the consequences of the conversion of a house, built originally for one family, into one inhabited by several families:-

"... At present these families occupy usually a single room only in a house of six or eight rooms adapted for only one family. The water supply is inadequate, and at some distance from the upper rooms, and there is but one closet, one dust bin, one coal cellar, and one wash house for the whole. No one is responsible for the cleanly condition of the closet, the water tank, the single staircase, the basement, the areas, and the yard, or for emptying the dust bin."

One of the worst forms of overcrowding was when it resulted in what was described as "indecent occupation." For instance, as reported (1861) by the Medical Officer of Health for Whitechapel:—

"In a room in Windmill Court there slept the mother, two adult daughters, and two adult sons.

"In another room in the same court, a man and his wife, the daughter aged 16, and three adult sons."

In 68 instances the rooms were "indecently occupied," that is to say, adult brothers and sisters, or a father and daughter slept in the same room.

And he wrote:—

"We may well inquire how such gross indecency and want of self-respect can exist in this country, which is usually considered to be the centre of civilisation, and where so much money is spent in imparting religious and moral instruction to the people—yet such is the state in which many of the inhabitants of this district live, as is ascertained on a house-to-house visitation."

And in the following year he wrote:—

"On visiting the houses in low neighbourhoods it is by no means of unfrequent occurrence to find an adult brother and sister, a father and adult daughter, a mother and adult son occupying the same bed. What good citizenship can be expected to be manifested by a class in whom the moral feeling is so low?"

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The Medical Officer of Health for St. James', in his report (1862), wrote:—

"This close association of several families in one house is productive of immense evil; it prevents proper parental control; it encourages an association of the sexes which leads directly to one of our greatest social evils; and is one of the most fruitful causes of the spread and fatality of zymotic diseases of childhood, and lays the foundation of the scrofula and consumption which every year carry off a fifth of all who die amongst us. . . .

"It is almost impossible, amidst the filth and stench of dirty houses and imperfect drains, that the working man's family should be able to develop those moral and intellectual qualities which are, after all, more worth to the community than any saving of rates."

The Medical Officer of Health for St. Martin-in-the-Fields, wrote (1865):--

"Rents have become so heavy that few labouring men can afford more than one room. Overcrowding in such rooms must increase, and with it the fearful results of men, women, girls, and boys, all sleeping in the same apartment. Neither religion nor morality can increase under the existing circumstances of our poorer classes. It is almost returning to the habits of our barbarous ancestors or the untutored savages of Africa and Australia."

And the Medical Officer of Health for Holborn wrote:

"Depend upon it, the moral and physical training of the people is more influenced by lessons—whether in health and cleanliness, or in religion and morality—that they are constantly receiving at their own firesides than by any extraneous teachings.

"When a child has been allowed to grow up with a diseased body, and a polluted mind, in a wretched room, without light, without cleanliness, and without any notions of decency, our curative efforts, whether medical, missionary, or reformatory, are as mere patchwork compared with the great preventive precaution of keeping his home as pure, as decent, and as wholesome, as possible."

OF LONDON

No more powerful description can be given of the moral evils of overcrowding than that of Dr. J. Simon in 1865:--

"Where 'overcrowding' exists in its sanitary sense, almost always it exists even more perniciously in certain moral senses. In its higher degrees it almost necessarily involves such negation of all delicacy, such unclean confusion of bodies and bodily functions, such mutual exposure of animal and sexual nakedness, as is rather bestial than human.

"To be subject to these influences is a degradation which must become deeper and deeper for those on whom it continues to work. To children who are born under its curse, it must often be a very baptism into infamy." *

Overcrowding was not confined to tenement-house rooms alone. The great bulk of the working classes left their overcrowded abodes to do their day's work in overcrowded factories, workshops, and workplaces; and in very many such places men, women, and even children were crammed together in rooms where healthy existence was impossible.

A great deal of information on this great branch of the sanitary condition of the inhabitants of London is given in the Reports from the Commissioners on Children's Employment, and in the very valuable reports of special inquiries instituted by the Medical Department of the Privy Council.

One of these inquiries related to Bakehouses, of which there were about 3,000 in the metropolis in 1862.†

As a rule the place in which the bread of London was made was what in houses in general was the coal-hole and the front kitchen.

Very many bakehouses in London were stated to be in a shockingly filthy state, arising from imperfect sewerage and bad ventilation and neglect, and the bread must, during

^{*} P.P. 1866, vol. xxxiii. See P.P. 1863, vol. xxv. Report by H. S. Tremanheere to the Home Secretary, 1862.

the process of fermentation, get impregnated with the noxious gases.

The sleeping places were of the worst description,* some of the men sleeping in the bakehouse itself. Many bake houses were infested with rats, beetles, cockroaches, and noxious smells. The smells from the drains were very offensive—the air of the small bakehouses was generally overloaded with foul gases from the drains, from the ovens, and from the fermentations of the bread, and with the emanations from the men's bodies; the air thus contaminated was necessarily incorporated with the dough in the process of kneading.

Half of the bakehouses in London would, it was stated, require the application to them of the Nuisances Removal Act.

Another inquiry related to the tailoring trade in the metropolis.† The places in which work was done were reported as varying much in their sanitary conditions, but almost universally were overcrowded and ill-ventilated, and in a high degree unfavourable to health. Some were underground, either in the basement of a house, or built like a large kennel in a small enclosed yard, and were such that no domestic servant would inhabit. In exceedingly few shops had there been any attempts at ventilation. The ventilation through the windows was practically inefficient, and instances were given of what had been found in sixteen of the most important West-end shops. In one an average of 156 cubic feet space was allowed to each operative, in another 150 cubic feet, in another 112 cubic feet. Deficient ventilation, heat, and draughts, were the causes of diseases.

A paper read by Dr. E. Symes Thompson (Assistant Physician to King's College Hospital) at the Social Science Association Meeting in London, 1862, described the condition under which printers did their work.

† P.P. 1864, vol. xxviii. Sixth Report of the Medical Officer of the Privy Council (1863).

"Printers often work sixteen to eighteen hours a day in a confined and heated atmosphere; perhaps thirty men and as many gaslights in a low room without ventilation or chimney, where air only enters when the door is opened....

"Printing is only one of the many trades which entail the sacrifice of every hygienic necessity, and the cause of the unhealthy looks of the workpeople cannot fail to strike any observant person who may visit their workshops. The rooms are mostly low, the windows fixed, and there is often no chimney or other ventilation.

"This is the case in large and small factories as well as in workshops—in the workroom of the milliner, the sempstress, or the bookbinder.

"In many occupations, besides the evils alluded to, the air is charged with foreign matters, which are drawn into the lungs at each inspiration; e.g., the sorting and tearing up of dirty rags in paper manufactories. The dust and fluff arising in flax, woollen, and cotton factories, and in furworks, produce similar results—and brass finishers."

And in another paper at the same meeting Mr. George Godwin detailed his experiences as regarded the conditions under which milliners, dressmakers, and other needlewomen worked.

"In an upper room in Oxford Street, not 10 feet square, I have seen a dozen delicate young women closely shut up making artificial flowers; and there when business is pressing they work from 8 in the morning till 12 o'clock at night.

"Many of the workrooms of fashionable milliners are similarly overcrowded, as are those where young girls are engaged in book-stitching."

He gave as an example a house in Fleet Street.

"The staircase is confined and without ventilation—the atmosphere is steaming and smells of glue.

"In the first room looked into, 40 young women and girls were sorting and stitching books. There was a stove but no ventilation. . . . There were more than 200 persons in that house, pent up without provision of the first necessity

^{* &}quot;In a bakehouse in St. Martin's Lane, eight men slept in one room (separated from the bakehouse) which had nothing that deserves the name of a window" (Report of Medical Officer of Health, 1864).

of life—pure air. Poor creatures so placed are being slowly slain.

"Other trades, such as cap and bonnet makers, trimmers, blond-joiners, &c., to which I have looked with some little care, are forced in many places to do just the same thing."

"The extent of suffering entailed, and the loss to the community, it would be difficult to calculate. It is time that legislation should be tried to secure wholesome work places for the people. Interference is needed for thou sands of persons—especially young females—the debilitated mothers in posse, should they live, of our future population. In our infant schools, too, where incalculable mischief is done by overcrowding, it is greatly required. The evil is sapping the strength of the land."

"In several parts of London persons employed in making cheap clothing are boxed up in crowds, . . . some striving

to get a living in a death-giving atmosphere.

"Shoemakers are often as ill-placed. In wretched apartments, in an ill-drained house, may be found men and boys huddled together without room to breathe."

It was under such pitiable conditions that large masses of the working classes of London had to earn their daily bread.

Lord Shaftesbury truly said that "the sanitary condition of these people was of national importance, not only on account of the waste of life, but the waste of health which every year threw thousands and tens of thousands upon the rates.*

And large numbers of children were also employed under insanitary conditions, and were made to do heavy work for long hours, and the consequences to their health were disastrous.† That their constitutions should be undermined and their physical development should be most seriously deteriorated was a necessary result.

There was a chorus from the Medical Officers of Health as to the evil sanitary consequences of overcrowding.

"Overcrowded dwellings are among the most prolific sources of disease, immorality, and pauperism." *

"Overcrowding—one of the elements by which disease is

not only generated but sustained." †

"Overcrowding is a constant source of fever."

"The great difficulty of obtaining lodgment for the working classes has caused overcrowding of the poor in an unprecedented manner, and consequently the development of typhus which is considered to be bred in the pestilential atmosphere of overcrowded dwellings." !

Overcrowding led to numerous, indeed to all sorts and

kinds of diseases.

The Medical Officer of Health for St. Pancras wrote:—

"It has been shown that consumption and the so-called tubercular diseases are developed by want of pure air more than by any other cause."

And not alone did the overcrowding lead to disease, but it rendered it difficult if not impossible to check

disease.

"How is it possible," wrote one of them, "to prevent the spread and fatality of fever and whooping-cough when six or seven persons are shut up in one small room breathing the same air loaded with zymotic poison over and over again?"

"The danger of allowing a deadly atmosphere to be engendered by the crowding together of persons in a small room without sufficient ventilation is unfortunately not confined to the inmates of that particular room, but those diseases which are therein generated extend far beyond its immediate vicinity, and under some circumstances a large portion of a district will suffer in consequence.

Dr. Rendle, previously Medical Officer of Health for St. George-the-Martyr, in his evidence || before a Select Committee in 1866, said:—

"... The overcrowding exists to such an extent that

^{*} Hansard, 1864, June 16, p. 1835. † See Reports of the Commissioners on Children's Employment, 1864-6.

^{*} Shoreditch, 1863. † Westminster, 1861-2. † 1863-4. § Whitechapel, 1861.

P.P., vol. clxxxvi. Select Committee of House of Commons on Medical Local Government, 1866, p. 259.

the poor cannot by any possibility do other than breed disease, and when they breed it they give it to others."

Lord Shaftesbury said:—

"As to the effects of all this overcrowding, can anything be more prejudicial to the human system than the filthy squalor, the fætid air, and depressing influences of these dwellings?

"When you ask why so many of the working men betake themselves to the ale-house or gin-palace, the answer lies in the detestable state of their homes.

"I have had it from hundreds of both women and men that this cause, and this cause alone, has driven them to the use of ardent spirits. . . Nine-tenths of our poverty, misery, and crime, are produced by habits of intoxication, and I trace those habits, not altogether, but mainly, to the pestilential and ruinous domiciliary condition of the great mass of the population of this metropolis and the large towns of the country." *

"No bodily labour induces an exhaustion of the vital powers comparable to that resulting from the habitual breathing of air contaminated by the overcrowding of human beings." †

For children born under such circumstances of overcrowding and filth, and in such insanitary surroundings, birth was mostly followed by an early death.

"Infancy in London has to creep into life in the midst of foes," as the *Times* truly remarked in 1861.

Among the greatest of these foes was overcrowding. The statistics of infantile mortality are fairly reliable, and, so far as there are errors, those errors were in understating and not overstating it.

In St. Giles, in 1861, 43½ per cent. of the total number of deaths were of children under five years of age.

"This enormous infantile mortality," wrote the Medical Officer of Health, "is unfortunately only what is customary in our district."

In the Strand, 1861, the percentage of deaths under five

* Hansard, 1861, vol. clxi. p. 1070.

annually exceeded 45 per cent. of the total deaths. In Westminster, in 1861, there were 1,685 deaths, 770 being those of children under five—of which in St. John's parish, out of 834 deaths, 427 were under five—or over 50 per cent.

In Bethnal Green in 1862 it was close upon 60 per cent. In the Potteries, Notting Dale, with a population of 1,100, the deaths of children in 1870 under five were 63 per cent. of all deaths. In 1871, 72 per cent.

On the south side of the river the same tale was told. In Wandsworth 42 per cent. in 1861; in Battersea 45 per cent. in 1862; in Rotherhithe, in 1862, nearly 50 per cent.; in Bermondsey, in 1863, 57 per cent.

"It certainly," wrote the Medical Officer of Health for Fulham, "could not have been intended by Providence that of all the children born, nearly one-half should die without attaining one-fourteenth part of the threescore years and ten allotted to mankind—and yet we see the yearly realisation of this astounding fact."

Other causes besides overcrowding contributed to this great mortality.

"Poverty," wrote the Medical Officer of Health of Poplar, "with its concomitants—defective nourishment, want of cleanliness and ventilation, malaria, overcrowded dwellings, deficient supply or impure quality of water—these all act with unerring force upon the tender constitutions of the young."

And another wrote:—

"What with overcrowding, insufficient food, and inattention to cleanliness, it is almost impossible an infant can resist an attack of the commonest disorder."

And some places were in such evil sanitary condition that child life was impossible therein. Of two Courts in Islington the Medical Officer of Health reported in 1863:—

"Young children cannot live there. All that are born there, or are brought to reside there, are doomed to die within two years."

The state of the public health generally as the result of all these sanitary abominations was very unsatisfactory.

[†] Report of Commissioners. P.P. 1864, vol. xxii. p. xlix.

In 1863 the mortality of London was unusually high. The Medical Officer of Health for St. Giles' wrote:—

"The year has been conspicuous for a high mortality resulting from the prevalence of epidemics to an unusual degree—smallpox, scarlatina, typhus."

The following year he reported to have been—

"A year of exceptional mortality. . . . Death rate 2974 per thousand, or, if the deaths of parishioners in hospitals be included, 31·10. . . . Tubercular diseases, of which consumption affecting the lungs is the most important, were as usual intensely fatal in our district."

The Medical Officer of Health for Whitechapel drew attention to the increase of mortality in his district. He was evidently puzzled and perplexed by it, and "candidly confessed" his inability to account for it.

"I may, however, venture a few conjectures." Among them was this very suggestive one—"that a change has taken place in the constitution of the people so that they are now less able to bear the effects of disease than formerly."

Suggestions and recommendations for ameliorating this appalling condition of things poured in upon many of the local authorities from their Medical Officers of Health.

Upon several points there was an absolute consensus of opinion.

One of these was that all houses let out in separate tenements and inhabited by many families should be registered by the local authorities—that rules and regulations should be made for their management, and that constant inspection by the sanitary authority was an absolute necessity if the proper conditions of health were to be maintained.

The Medical Officer of Health for Bethnal Green wrote:—

"All sanitary evils fall with greatest force upon those who are unable to quit the scene of their misery or to provide the means for its alleviation.

"Nothing but adaptation of the present houses to the necessities of healthy existence and the demolition of those

houses that are unfit for human habitation can contribute so much to life and strength."

OF LONDON

A Committee of the District Board in Poplar wrote (1866):—

"It would be a satisfactory alteration of the law if no houses were allowed to be tenanted unless a certificate that these premises were fit for habitation were first obtained from the District Board of Works."

And the necessity of constant inspection was even more vigorously expressed.

The Medical Officer of Health for Hackney wrote (1861):—

"The experience of the past year again shows the necessity of keeping up a regular and efficient supervision of the interior of houses. . . .

"It is only by repeated and careful inspection of the dwellings of the poor, and an inculcation at these visits of the necessity for keeping clean their rooms that epidemic diseases can be kept in check."

The Medical Officer of Health for St. James' wrote (1862):—

"The nuisances which are removed, are constantly recurring. It is only by constant inspection and by supervision repeated systematically from day to day, and week to week, that those nuisances can be kept down which are ever ready to destroy the life, and at one and the same time sap the health and undermine the morality of the community."

The Medical Officer of Health for Whitechapel wrote:—

"If it were not for the vigilance of the Inspectors in visiting the houses of the poor, nuisances would remain altogether unattended to; for very few of the poor dare to make a complaint from fear of being compelled to quit their tenements."

The Medical Officers of Health recognised that much of the bad condition of the dwellings of the poorer classes was due to the people themselves.

Thus the Medical Officer of Health for Westminster wrote (1865-6):—

"It is much to be regretted that in certain districts of the parish only a temporary good is effected by a sometimes lavish expenditure on the part of the proprietor. The habits of the people are such that it is almost impossible to do anything for their benefit. Not only are they filthy in themselves, but they take every opportunity to break, destroy, and steal anything that may be of value, and what is even worse they appear to negative any sanitary precaution effected for their benefit."

But the broad truth was that the real, the primary

responsibility rested upon the "owners."

Theirs was the property. And them it behoved to keep that property in a condition which was not a danger to the community and to the State.

The Medical Officer of Health for Whitechapel wrote

(1865) : --

"The duty and interests of landlords appear to be at variance as regards their doing to their houses what is absolutely necessary for the well-being of their tenants. It is unquestionably the duty of landlords to keep the houses which they let out in separate tenements to the poor in a healthy condition; but this is not always done even if compulsory orders are signed and summonses issued.

"Many of the landlords of small house property fully understand and carry out the rights of ownership, but fail to carry out the duties which are enjoined upon them as

owners."

The Medical Officer of Health for Islington, referring to some vile property in his parish, wrote (1863):—

"Landlords of such property as this will rarely do anything out of consideration for the health or lives of their tenants; compulsion alone will extort amendments. What is needed here is the closure of the fatal houses until made fit for human habitation."

How an "owner" could manage his property can be gathered from the following report of the Medical Officer of Health for Paddington (1863), which called attention to "the insanitary condition of a block of houses (about thirty in number) which had been for many years notoriously liable

to the invasion of epidemics and to the prevalence of those diseases which are the known product of sanitary neglect—badly constructed and dilapidated, and wanting in the commonest appliances of cleanliness. All were the property of one individual who had been repeatedly urged to put them in a proper sanitary state."

But it was not until stringent compulsory measures were taken that he began to do so, and some years elapsed before

they were really done.

Here is another dreadful case of overcrowding and insanitation—this time in St. Marylebone (1868).

Edwards Place:-

"Ten six-roomed houses occupied by 84 families, 277 persons, houses very dilapidated, many unfit for human habitation. Orders for sanitary work are continually being sent out by the Vestry to the owner of this wretched property.

"A rental of £10 per annum would be an extravagant sum to pay for either of these miserable dwellings, yet more than three times that sum is expected from the destitute and

indigent people who inhabit them."

Read by the light of the knowledge that insanitary property meant disease, and disablement, and death to a very high percentage of its occupiers, the proper compulsion to have applied to "owners" such as these would have been proceedings before a Coroner's jury for culpable homicide if not for actually deliberate murder.

The community has a right to be protected from the evil

results of the miserable housing of the poor.

Mr. George Godwin said in 1862, at the meeting of the National Association for Promoting Social Science:—

"It should be no answer to the requirement of a certain cubical space for each occupier, that the financial resources of the parties will not admit of it.

"A man is not permitted to poison with prussic acid those who are dependent on him because he is poor; neither should he be allowed on that ground to kill them with bad air and set up a fever-still for the benefit of his neighbours."

Parliament, under the pressure of a slowly-developing

public opinion, and in view of the ever accumulating evidence and proof of the almost incredible insanitary condition in which great masses of the people of London were living, was beginning to show less reluctance to discuss and deal with some of the multifarious matters affecting the public health.

In 1860 it passed an Act which, however well intentioned, was not of much effect. It was an effort to secure more wholesome articles of food and drink for the public by

preventing their adulteration.

The past history of such legislation was rather interesting.* In 1731 an Act has been passed prescribing a penalty

for "sophisticating tea."

"Several ill-disposed people frequently dyeing, fabricating very large quantities of sloe-leaves, &c., in imitation of tea and colouring or staining and dyeing such leaves, and vending the same as real tea to the prejudice of the health of His Majesty's subjects."

"In year 1766-7 a further Act was passed inasmuch as such evil practices were increased to a very great degree to the injury and destruction of great quantities of timber,

wood, and underwoods.'

"Coffee had also been the subject of legislation, 'burnt' scorched, or roasted peas, beans, &c.,' being used to adulterate it.

"In 1816 an Act was passed against the adulteration of beer and porter, and the use of molasses, liquorice, vitriol, quassia, guinea pepper, or opium, and a lot of other ingredients being prohibited."

"In 1836 an Act was passed against the adulteration of bread."

And now in 1860 it was enacted that "every person who shall sell as pure or unadulterated any article of food or drink which is adulterated or not pure," should on conviction be fined.

The Vestries in the metropolis were empowered to appoint analysts. The appointment was voluntary on the

* See P.P. 1874. Report of Select Committee on the Adulteration of Food, &c. Evidence of H. Owen.

part of the local authorities, and, if analysts were appointed, their duties were confined to receiving and analysing articles submitted to them by the purchasers, and certifying the results. The purchasers had to pay the cost. No officer was appointed to obtain samples or to enforce the Act. And the Act is therefore worthy of note more as an illustration of the inaction of the local authorities than for any effect it had as regarded the prevention of adulteration.

In 1863 Parliament passed the "Bakehouse Regulation Act,"* which enacted that every bakehouse should be kept in a cleanly state, should be frequently lime-washed, and should be properly provided with proper means for effectual ventilation, and be free from effluvia arising from any drain, privy, or other nuisance.

Also its use as a sleeping-place was prohibited, and the onus of enforcing the provisions of the Act was imposed

upon the local sanitary authority.

And in 1863 it declared † that the law made in 1855 as to the inspection and seizure of unwholesome food—meat, poultry, flesh, fish, vegetables, fruit, &c., &c.—was defective, and that other and more effectual provisions should be substituted therefor; and others were accordingly substituted.

By an Act in 1864 the main principles contained in previous Factory Acts were carried a stage further, in some instances even to trades carried on in private houses.

"Every factory to which this Act applies shall be kept in a cleanly state and be ventilated in such a manner, &c., as to render harmless dust, &c."

Unfortunately the main breakdown in the metropolis in regard to nearly all the ameliorative sanitary legislation of Parliament was directly caused by the very local authorities who had been specially created for the purpose of administering those laws. Primarily they were responsible for the failure of very much of that legislation, and they never seem to have at all realised, or been impressed by, the gravity of their trust, or by the great responsibility to their fellow-citizens which their position entailed.

* 26 and 27 Vic. cap. 40.

† Ibid. cap. 117.

Even in comparatively small matters their ingenuity in counteracting the intentions of the Legislature was remark. able, as can be seen from the following passage in a report of one of the Medical Officers of Health:-

"I refer specially to the Sanitary Acts, to the Adultera. tion of Food Act, and to the Metropolitan Gas Act, in each of which cases the powers entrusted to them have not been carried out.

"They appointed an examiner under the Adulteration of Foods Act (1860), and also under the Metropolitan Gas Act (1860), but the person appointed had no tools given him with which to perform the work entrusted to him.

"Both the Acts are dead letters in the parish. As to the Metropolitan Gas Act, it conferred a large benefit, both as to purity and cost, on the metropolis, but the Vestries failed to carry out a single effective or important provision of that Act."

In 1860, also, an Act had been passed empowering the local authorities in the metropolis to provide vehicles for carrying persons suffering from infectious diseases to hospital, and so obviating the danger to the public of such persons being conveyed in cabs or other public vehicles. That Act was also inoperative.

The Vestries and District Boards, however, did perform a considerable amount of useful work. Local sewerage and drainage works were on the whole effectively dealt with The rest of the work done was mostly of the routine order, such as scavenging and paving and lighting, though even that was not always done in the most sensible way, as exemplified in Paddington (1866).

"The street sweepings of mud collected by the scavengers are stored in enormous quantities in the middle of the parish in a closely inhabited neighbourhood. Here it is allowed to decompose, &c. If it were intended to contrive an arrangement for developing malaria in the midst of a town population nothing could be better adapted for the purpose."

A few of them had soared to the height of widening a

street, or acquiring some small open space; in most, if not all, of these cases receiving financial help from the central authority.

But as to the main causes of the prevailing insanitary evils, their aversion to active measures was constantly in evidence; equally so where the enforcement of the law would have entailed cost on the owners of insanitary houses.

In some matters the plea of defects in the legislation might have been justifiably urged by them; in others they were often much hampered by the dilatory procedure attending proceedings for enforcing the sanitary provisions of the Metropolitan London Management Act.

One of the Medical Officers of Health gives an illustration:—

"A very great nuisance was reported to us. We visited it, but had to wait a fortnight before the Vestry met in order to get leave to apply for a summons. The magistrate requires a week before hearing the case, and then he gives a week or two to do the work. So for a month or five weeks the nuisance may remain."

The result was that infectious disease was given a long opportunity to spread itself unchecked through a whole district; an opportunity which it freely availed itself of.

Complaints were also made by some of the Medical Officers of Health that in attempts to enforce the law against "overcrowding" the magistrate leant very much to the landlord. This, too, might have acted as a discouragement to them. What, however, is certain is, that the Vestries and District Boards were not attempting to grapple with the most crucial questions of all—the overcrowding, and the housing.

The Medical Officer of Health for Clerkenwell pointed this out, so far as his parish was concerned (1861):—

"The principal sanitary improvements during the last five years related almost exclusively to the drainage, whilst the overcrowding and impure state of the dwellings of the poor have been but little interfered with."

The more serious blemish was pointed out by Dr. Hunter

in his report of 1865 to the Medical Officer of the Privy Council on the subject of overcrowding, and the removal of persons from houses about to be destroyed:—

"There is no authority which can deal with London in these matters as a whole, and they are matters in which uniform treatment is quite necessary. The local authority which finds the whole of its district overcrowded, naturally hesitates before beginning action which may relieve one house only to overfill the next, and may reasonably think that such action, unless done thoroughly, not only through the district, but through the whole capital, might prove hurtful." *

And his opinion is weighty. But the local authorities were very far from doing what they might have done to abate many of the insanitary evils connected therewith.

Dr. William Rendell said †:-

"We have had till now but one Inspector of Nuisances-

an unwilling man . . .

"This is not a question of a defect in the law. These bodies have the power of appointing Inspectors, but when Inspectors are appointed it brings of course a large amount of work in low property, and expense and trouble are incurred. Therefore the easiest way to avoid it is not to have Inspectors enough, so that the work may not be found out."

In fact, the fuller the information on the subject is, the more clear it is that most of them did not want to move in the matter.

The evidence of witnesses, not under Vestry control, examined before the Select Committee on Metropolitan Local Government in 1866, throws some light on this point.

Mr. James Beale, himself a vestryman, said:—

"I have seen a great want both of intelligence and ability among vestrymen.

"I should say you may divide Vestries into divisionsone-third, as a rule, are of the right class of men who ought

* P.P. 1866, vols. xxxiii.-iv.

to be returned, and two-thirds are not of the class who ought to represent the intelligence or the property of the districts from which they are sent.

"The powers of Vestries are administered with too great a regard to economy. Efficiency is always sacrificed to economy. If an Act of Parliament requires them to do

certain things, it is as a rule avoided."

He attributed the failure of the Vestries to the inferior calibre of the persons composing them—"they agree to resolutions, but do not carry them out. The ratepayers take no interest in the elections in our parish. There is a large number of the owners of small house property in the Vestries who regard with great disfavour any increase of the rates, however beneficial the increase might be to the general health of the district."

But some witnesses went further. Dr. William Rendell, who had been Medical Officer of Health for St. George-

the-Martyr, said:-

"I believe, the law being new to the Vestry, they did not quite understand the mode of carrying it out; but it was partly from corrupt motives, for on one occasion one of the principal members of the Vestry, an owner of considerable property in the parish, called me aside and requested me to pass over certain property of his that I found in an extremely bad condition. I did not pass it over, of course. The chairman of the local committee was, as I thought, appointed as a positive obstructer of sanitary measures; at all events he acted as such. The obstructions arose from an unwillingness to incur expense for fear of increasing the rates, and from an interest that the members of the Vestry had in keeping up the present state of things."

Jobbery, and the exercise of influence to obstruct and defeat the law, are hard to prove, especially after the lapse of years, but one fact which stands out conspicuous, and which is incontestable, shows how reprehensibly the great majority of the Vestries and District Boards failed to administer laws which in the interests of the public health, and therefore of the public welfare, it was their duty to administer. Deliberately, and in the light of knowledge,

[†] Select Committee on Metropolitan Local Government.

they would not make adequate arrangements even for the sanitary inspection of their respective districts.

Thus, in Bethnal Green, in 1861, there was a population of 105,000 persons, and 14,731 houses. The Vestry appointed one single Inspector of Nuisances to cope with the insanitary conditions of this city of houses, and of this mass of people. Shoreditch, with a population of 129,364 persons, and 17,072 houses, also one Inspector. St. George's, Hanover Square, with 88,100 persons and 10,437 houses, one Inspector; Paddington, Bermondsey, and several others, all with large populations and thousands of houses, one Inspector each.*

A few had appointed two Inspectors: St. Marylebone with 161,680 persons and 16,357 houses, and Islington with 155,341 persons and 20,704 houses.

Kensington, Lambeth, and Limehouse, had appointed three Inspectors each. St. Pancras headed the list with four, but its population was close upon 200,000 living in close upon 22,000 houses.

How could it be expected that one Inspector could within a year possibly inspect even one tithe of the places which it was his duty to inspect apart altogether from other duties he ought to perform? The Vestries and District Boards had the facts constantly before their eyes (in the returns of work made to them by the Medical Officer of Health)—the numerous insanitary houses unfit for human habitation, the overcrowding, the terrible amount of sickness and misery, and they could calculate from the one man's work, the number of houses in the parish which were in a condition dangerous to the health of their inmates, and to the public health generally. The salary of an Inspector was so paltry that they had no excuse on the ground of economy; and the conclusion is inevitable that either they did not care what the sanitary condition of the people was, or that "vested interests in filth and dirt" were so powerful on those bodies that filth and dirt must not be interfered with at the expense of "owners" upon whom the cost of improvement must fall. And a grimmer light is thrown upon these figures by the following statement of the Medical Officer of Health for Lambeth made in 1889, but referring to 1869.

"The Sanitary Inspector of twenty years ago (that is to say of 1869) was an unskilled workman, holding that which might almost be regarded as a sinecure office; an official recruited into the services of the Vestry from the rank of ex-sailors, ex-policemen, or army pensioners. A knowledge upon sanitary matters acquired from a course of technical training was not expected from him."

The treatment meted out to some of the Medical Officers of Health also showed the hostility of the Vestries to action. Numerous are the passages in their reports complaining of their recommendations being ignored. These officers were miserably paid, allowing even for their being able to take private practice. The Medical Officer of Health for Lambeth was stated to have been the worst paid—receiving only £200 a year for the performance of duties attaching to an area of 4,000 acres with 23,000 inhabited houses upon it, inhabited by 162,000 persons.

Dr. W. Farr (of the Registrar General's Office) said:—

"I believe that in certain districts in London the Medical Officer of Health is under all sorts of restraints. If he is active, they look upon him with disfavour, and he is in great danger of dismissal." *

The Vestry of St. James', Westminster (1866), checked the zeal of their Medical Officer, Dr. Lankester, whose salary was £200 a year, by reducing it to £150 after a year or two when they found he was very earnest in his work.

Dr. Rendell, the Medical Officer of Health for St. Georgethe-Martyr, Southwark, resigned "in disgust that he was not allowed to carry out the duties of his office."

Once more the approach of Asiatic cholera—the nemesis of insanitation, and of "faineant" local authorities—created anxiety.†

It had been widely prevalent in Europe in 1865, and had

† P.P. 1867, vol. xxxvii.

^{*} See P.P. 1867-8, vol. lviii. Return of Inspectors of Nuisances, &c., 1866.

^{*} Select Committee on Metropolitan Local Government, 1866.

even shown itself in England, and it stirred into spasmodic and panicky activity the local authorities of London.

In Lambeth a systematic house inspection was inaugurated; 987 houses were examined—735 of them required sanitary improvements.

In Bethnal Green 2,018 were inspected—955 required cleansing and purification.

In many other parishes and districts extra sanitary work was done. The disease made no further demonstration in the winter, but in April, 1866, a case was reported from Bristol, then one from Swansea—then from other places; and in July the Privy Council issued Orders in Council putting the Disease Prevention Act in force in the metropolitan area.

On July 18th, from Poplar, the first case in the metropolis was reported. Two days later an alarming number of cases in parts of East London.

Regulations were issued by the Privy Council defining and requiring the specific services which local authorities ought to render the public.

Some parishes appointed extra Sanitary Inspectors. Thus in Hackney, where there had been but one, four additional ones were appointed; in St. James' two; in Camberwell two; in Lambeth two; in St. Mary, Newington, five extra were appointed. Some of the work which was reported brings into striking prominence the extraordinary inefficiency hitherto of the authorities in dealing with insanitary houses as well as the neglect into which houses had been let fall, and which was tolerated by those who were responsible for the health of their districts.

In Lambeth 6,935 houses were inspected in 1866; 3,983 improvements were effected.

In Camberwell, 5,594 houses were inspected; in 4,324 sanitary work had to be done.

In St. Mary, Newington:—

"A house-to-house visitation was commenced August 4th, and concluded on November 20th, in which period the Sub-Inspectors called at 12,919 houses.

"A record was thus obtained of the condition of nearly

every house in the parish. The house-to-house visitation was carried out with but little real opposition, and with a great deal of satisfaction. . . . Strict impartiality was the rule of action, and all classes and those in every station were alike subject to inquiry."

As the summer went on, the mortality from the cholera increased—it reached its acme on August 1st, when there were 204 deaths from it, and in the week ending August 4th when the total of 1,053 was reached.*

During the 23 weeks of its prevalence 5,548 persons died —of whom 3,909 died in the East Districts alone, and 702 on the South side of the river.

And by the end of the year it had gone. That the mortality should have been so much smaller than on previous visitations was attributed to the fact that London was unquestionably less filthy at the time of this outbreak.

"A comparison of the mortality with that of former cholera years," wrote the Medical Officer of Health for St. Giles', demonstrates that sanitary work—imperfect as it is—has deprived the disease of much of its power."

"The power," wrote the Medical Officer of Health for Fulham, "of sanitary arrangments to check the progress of such a formidable disease was clearly evidenced."

The Medical Officer of Health for Lambeth wrote:—

"I believe the great sanitary improvements effected in the parish in providing proper drainage, abolishing many miles of open stinking ditches, and the removal of other nuisances, rendered an outbreak of cholera, such as experienced in former years, very improbable. . . . Moreover, by the employment of sanitary arrangements for treating the sick, Lambeth and other parts of the metropolis were saved from the ravages of the pestilence experienced on former occasions."

That the epidemic had been as disastrous as it was, was, however, attributed to "an illegal and most culpable act of the East London Water Company. In contravention of the 4th Section of the Metropolis Water Act of 1852 that company distributed for public use a water (and a most

* P.P., vol. xxxvii. p. 275.

improper water) which had not passed through its filter beds; and strong evidence was adduced to show that the outbreak was occasioned by this illegal and most culpable act."

One result of this epidemic was to demonstrate, at the cost of thousands of lives, that the system of private water companies supplying the community with this necessity of life was absolutely opposed to the interests of the community.

Dr. Simon, in summing up his report (1869) on the water

supply to the metropolis, wrote:

"I have been anxious to show what enormous risks to the public are implied in any slovenly administration of water supplies: yet as regards the London supply, what imperfect obedience to the 'law, and in some cases what flagrant and systematic disobedience was exhibited (at the time of the cholera outbreak in East London in 1866); and above all what criminal indifference to the public safety was illustrated by the proceedings of the Southwark and Vauxhall Company."

As regarded this latter company:—

"Not only had there been the long-standing gross inefficiency of the apparatus of subsidence and filtration, but the administrators of the supply had from time to time dispensed to a great extent with even a pretence of filtration, and during some time had, worst of all, either negligently or wilfully distributed as part of their supply the interdicted tidal water of Battersea Reach.

"It seems to me that the public is hitherto very imperfectly protected against certain extreme dangers which the malfeasance of a water company may suddenly bring upon great masses of population. Its colossal power of life and death is something for which till recently there has been no precedent in the history of the world; and such a power, in whatever hands it is vested, ought most sedulously to be guarded against abuse."

Cholera was once more a blessing in disguise, though it seems hard that the sacrifice of thousands of lives should have been required to move Government and Parliament to fresh measures for the protection of the people from it and

the other deadly diseases which unceasingly worked such deadly havoc among them. But the proof given by it was so overwhelming and decisive as to the insufficiency of the existing sanitary law, and the inefficiency of the local authorities, that Parliament felt forced to take action. The measures taken were of such increased comprehensiveness and stringency, that the passing of the Sanitary Act of 1866 * marked another great step in the sanitary evolution of London.

The Act applied to England and Wales—and this time actually included the metropolis.

The previous definition of the term "nuisance" was enlarged, and "overcrowding" was now for the first time declared to be a "nuisance."

"Any house or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates" was henceforward a "nuisance" and punishable as such. And it was further enacted that "where two convictions for overcrowding of a house, or for the occupation of a cellar as a separate tenement dwelling-place" should have taken place within three months, it should be lawful for the magistrate to direct the closing of such premises for such time as he might deem necessary.

Under another extension of the term "nuisance" the industrial classes got the shadowy boon of all factories, workshops, and workplaces (not already under special Acts), being made subject to the sanitary supervision of the local authorities; and those authorities were given power to inspect such places to ascertain if they were kept in a cleanly state, were properly ventilated, and not overcrowded so as to be dangerous or prejudicial to the health of the inmates.

A section in the Act aimed at the inefficiency and inaction of the local authorities, and made it obligatory (no longer optional) upon them to make inspection of their districts.

"It shall be the duty of the Nuisance Authority to make from time to time, either by itself or its officers, inspection of the district, with a view to ascertain what nuisances exist calling for abatement under the powers of the Nuisances Removal Acts, and to enforce the provisions of the said Acts in order to cause the abatement thereof."

An effort was also made to check the spread of infectious disease by giving the local authority considerable powers as regarded disinfection. It was enacted that the local authority might provide a proper place for the disinfection of clothing and bedding which might have been rendered liable to communicate disease to others; and the authority was empowered to maintain carriages for the conveyance to hospital of persons suffering under any infectious or contagious disease. A blow was struck at the iniquitous but common practice of letting a room where there had been dangerous infectious disorder, until it had been disinfected. And provision was made for the establishment of a hospital for the reception of the sick.

All these were most considerable reforms, and would have been most useful had they been given effect to and properly enforced.

The most important and wide-reaching provision of the Act was that directed against overcrowding.

The 35th Section enacted that regulations might be made by the Sanitary Authority (in other words, the Vestry or District Board) for fixing the number of persons who might occupy a house, or part of a house, let in lodgings, or occupied by members of more than one family. Houses so let were to be registered by the Vestry. The regulations could fix a certain number of cubic feet of air space which should be available for each person. By this means the number of persons who might live in a house, and in the rooms of the house, could be limited.

That was the plan—simple enough in appearance—which Parliament devised for contending with the great evil of overcrowding.

And then, as regarded the sanitation of the houses when registered, it enacted that regulations should contain provisions for their being put into and kept in a clean and wholesome state. And to secure this being done, regulations were made for their inspection.

It was an original and comprehensive scheme of reform.

It struck at the root of the two great evils—overcrowding and insanitary dwellings; at overcrowding, by the limitation of the number of persons inhabiting a house, or part of a house, and at insanitary dwellings by a series of regulations enforcing the necessary measures for a decent standard of sanitation. But it was something far more than this. It was the declaration of principles of the utmost importance. It was a declaration of the principle that the responsibility for the condition of the "houses let in lodgings" should be on the shoulders of the "owner" of the house. It was the declaration of the principle that the "owner" should not be allowed to use his property to the detriment, to the injury of the public. It affirmed, so far as London lodging or tenement houses were concerned, the great principle, abhorred by so many "owners," that "property has its duties as well as its rights."

The Act was, however, even more remarkable for the recognition it contained of another principle of vital importance to the people of London—the principle of central authority over local sanitary authorities who neglected their duties.

Hitherto the local authorities were practically their own masters, and could with absolute impunity neglect to put the provisions of the existing health laws into operation; and "often their inaction had been an absolutely inexcusable neglect of duty."

A power of appeal against this inaction was given. Where complaint was made to a Secretary of State that a nuisance authority had made default in enforcing the provisions of the Nuisances Removal Acts, he could, if satisfied after inquiry that the authority had been guilty of the alleged default, make an order limiting a time for the performance of the duty, and if the duty was not performed within that time, he could appoint some person to perform the duty and charge the costs to the authority. And where the local authority had made default in instituting proceedings against some sanitary law breaker, he could order the chief police officer to institute them. These provisions were a recognition of the fact, long

patent to even the blindest, that local authorities did not do their duty, and of the necessity of devising a means of securing that a necessary public duty should be done.

The fact was emphasised a few years later by the Royal Sanitary Commissioners, who pointed out (1871) that—

"However local the administration of affairs, a central authority will nevertheless be always necessary in order to keep the local executive everywhere in action."

The real underlying truth now beginning to be discerned was that in the matter of health or disease, London could not be treated in bits, each governed by an independent body, but must be regarded as, what it really was, one single entity or whole.

In another way also was the principle of central authority very clearly affirmed. The Vestries were not to have a free hand in making their regulations under the 35th Section. Any they made had to be approved by a Secretary of State.

This was a considerable limitation of the freedom of the Vestries, but it secured more or less uniformity in the powers of the local authorities in this particular matter.

But the vigorous administration by all the local authorities of the laws passed to secure the health of the public, was even more greatly to be desired; for, from force of circumstances, the consequences—one way or the other—could not be confined to the sphere of action of each local authority.

The lives and welfare of the inhabitants of this vast city are so closely, so inextricably interwoven that, in matters affecting the public health, the action or inaction of one authority may vitally affect the health and the lives, not alone of its neighbours, but even of the people of the city as a whole. Disease and death are no respecters of municipal boundaries, and are not hemmed in or restrained by lines drawn upon maps or recorded in Acts of Parliament.

This community of interest of the inhabitants of London was, however, scarcely, if at all, recognised by the general public—it was but seldom the motive to action by the local authorities—but some of the Medical Officers of Health now and then referred to it in their reports.

Thus the Medical Officer of Health for Mile-End-Old Town pointed out (1863) that—

"An untrapped drain, an overcrowded house, an unventilated alley, a rotting dungheap, or a foul closet, may spread disease and sorrow in an entire neighbourhood."

And the Medical Officer of Health for Paddington pointed out (1870-1) that—

"The danger of harbouring a contagious disease is not confined to the individual suffering—it is a matter that concerns the community."

And the Medical Officer of Health for Whitechapel wrote (1865):—

"Here I would remark, that a uniform system of inspection of all the houses in the several districts in London which are let out in separate tenements should be repeatedly and systematically adopted; for if all the Vestries and local Boards do not act together in this important matter, hotbeds of epidemic diseases will remain undiscovered which will serve as centres from whence such diseases may emanate, and extend over the entire metropolis. The whole population of London, therefore, is interested in the prompt removal of nuisances."

Immediately on the passing of the Act some of the Vestries made efforts to deal with overcrowding under the Section which enacted that—

"Any house so overcrowded as to be dangerous or prejudicial to the health of the inmates" is to be considered a "nuisance."

That, however, was only a temporary remedy, and affected only overcrowding. Section 35 went to the root of the matter when it insisted that in addition to the prevention of overcrowding, the house in which the people lived should be kept clean and in sanitary condition.

"The very foundation of our sanitary structure," wrote the Medical Officer of Health for St. George-the-Martyr, "depends upon the right housing of the poor."

The Section 35 was promptly put in force by a few of the Vestries—Chelsea and Hackney being the first to make Regulations and to enforce them.

Under the Regulations, whenever the Vestry deemed it desirable to put them in force in respect to any house let in lodgings or occupied by members of more than one family, the number of persons allowed to live in that house was fixed on a basis of 300 cubic feet of air for each adult for sleeping, or 350 for living and sleeping, and the owner had to reduce the number of lodgers to the number so fixed on receiving notice to that effect.

The Regulations further directed that—

"The owner of such house shall cause the walls and ceilings of every room, and of the staircase and passages, and yards of such house to be well and sufficiently coloured or limewashed, or otherwise thoroughly cleansed once (at least) in every year.

"He shall cause every room and the passages to be ventilated.

"He shall provide such accommodation for washing, and such a supply of water for the use of the lodgers as shall be satisfactory to the Vestry's Officers;" and sundry and numerous minor directions.

The Medical Officer of Health (Chelsea), after the first year's work, reported that the number of houses in the parish inhabited by two or more families was very great, and in many cases their condition was deplorable, and it was found necessary to embrace whole streets as well as courts and alleys in the registration.

By 1869 the registration in Chelsea had been completed, and in 1870 the Medical Officer of Health wrote: "I have seen no reason to alter my opinion of the beneficial action of the measure by which we have been able to bring under direct and constant supervision the majority of the houses occupied by the poorer classes in this parish. . . ."

The most satisfactory results followed also in Hackney.

Its Medical Officer of Health reported in 1867 that nearly 5,000 houses had been measured and examined, and in a large proportion of cases the numbers of persons allowed to inhabit them had been fixed. And as to the result of the enforcement of the Regulations, he wrote (1869): "A very large number of families now occupy two

rooms who formerly lived and slept in one. The gain in health and morality has therefore been considerable."

Poplar was another of the District Boards which made and enforced the Regulations. The Medical Officer of Health for the north part of the District reported (1868):—

"Extensive improvements have been already effected, but the work must still be systematically continued, for even when every house in the district has been put into good sanitary state (which is far from being the case as vet, it will be necessary to maintain a constant and watchful system of re-inspection to ensure their being kept in

"Of the 1,610 houses inspected nearly all required more or less sanitary improvement, and 630 were registered as containing more than one family, and therefore coming under the Board's regulations as to registration."

But if a few of the Vestries made real efforts to utilise the Act, others of them either made only a pretence of doing so, or refused altogether.

The reports of the Medical Officer of Health for St. Giles' (1866-7) present a typical picture of the attitude and conduct of these bodies.

"A most important amendment of the sanitary laws was made by the 'Sanitary Act,' of which Section 35 gives precisely the powers which not last year only, but every year since the constitution of the Board, the Medical Officer has demanded for the efficient discharge of his functions in respect of houses inhabited by the poorer classes. That section has given to the local authority the power of making bye-laws for the regulation of sub-let houses, and of enforcing the observance of its rules by penalties.

"In St. Giles' District, it is this class of houses almost exclusively which need the supervision of the sanitary authorities, and which become without that supervision nests of filth and disease.

"Accordingly, soon after the passing of the Sanitary Act, bye-laws were adopted by the Board, and sanctioned by the Secretary of State for the regulation of sub-let houses. . . .

"The Board proceeded to inform owners of all sub-let

houses that such houses must be registered in conformity with the Regulation. The intention of the Board was to apply with all proper discrimination, but quite universally and impartially, the powers vested in them in regard to sub-let houses. . . . The systematic application of these powers by the Board would have done for sub-let houses what the systematic application of the police of their powers under other Acts had done for common lodging-houses. Cleanliness and decency would have been universally secured, and would have been maintained with a minimum of inspection by a fine for every gross violation of the regulations.

"But against a system that should work thus directly and efficiently to the sanitary good of the district, the interests of numbers of house-owners and agents were at once arrayed, and these speedily organised an influential deputation to the Board.

"The opposite interests, those of the families dwelling in the close and miserable rooms of these sub-let houses, found no organised expression.

"The Board resolved to recall the notices which had been issued for a systematic registration, and to apply their powers, in the first instance, only to selected instances of flagrant and continuous sanitary neglect."

And yet overcrowding in tenement-houses in St. Giles' was dreadful.

Here are some instances of it on the authority of the Medical Officer of Health in 1869.

"These houses have for the greater part a family in every room.

"In King Street ... there are 254 families in 273 rooms.
"Lincoln Court ... " " 164 " " 168 "
"Little Wild Street " " 139 " " 182 "
"Wild Court ... " " 109 " " 116 " "

In Whitechapel (1867), rules and regulations were adopted by the Board.

"Unfortunately," wrote the Medical Officer of Health, the Act was permissive, not compulsory. "I brought under the notice of your Board several houses which in my opinion ought to be registered.

"... The Board having reserved to itself the power of determining as to the propriety of causing any house to be placed upon the register, this enactment, which was framed not only for the improvement of the moral and physical condition of the poor, but for the benefit of the whole community, has been carried into effect in only one instance."

In Islington, draft Regulations were prepared, but it does not appear that they were ever adopted.

In Paddington, the Vestry decided against putting the Regulations in force.

In Westminster, "such obstacles were offered by the holders of small property" to the Regulations that they were not enforced.

And on the south side of the river the story was very much the same.

The sting of the enactment was that it put house-owners to the expense of putting the house into, and maintaining it in, habitable and sanitary repair, and to the expense of annually painting or limewashing it; the provision of proper ventilation—of sanitary and washing accommodation, and for a supply of water: in fact, of doing to the houses that which was essential for the health of their occupants. The Regulations simplified and shortened, and made more effective, the processes for enforcing penalties for breaches of the sanitary laws—all which was of course unpalatable to the sanitary law-breaker.

And so the great bulk of the local authorities would have nothing to do with this 35th Section or its Regulations.

The law was not compulsory, but permissive—and they availed themselves of that permission.

But the Vestries and District Boards who took no action, and allowed the principal provision of the Act to be a dead letter, proved by their conduct their deliberate determination not to impose what was a just expense upon the "owners," even though the not doing so should result in a frightful annual sacrifice of human life, and in an untold amount of

human suffering and misery, and a long train of physical and moral evils of the very worst character.

That the Act had been successfully administered by some two or three Vestries proved that it was quite a workable measure—so no excuse could be raised on that ground by the recalcitrant Vestries.

Their attitude is an irrefutable proof of their selfish in. difference to human suffering where it clashed with the "rights of property," and of their incapacity for the position they held as guardians and trustees of the people.

"The slaughter-houses and cow-houses are ordered to be whited at least twice a year, while the houses of the poor are allowed to remain for years without this important means of purification."

The problem of overcrowding was, undoubtedly, a most difficult one-and some of the Medical Officers of Health were realising how difficult it was to treat with any hope of success.

Thus the Medical Officer of Health for Bethnal Green set forth the state of his parish in 1867:—

"The population of Bethnal Green has now nearly reached 120,000, and we have no more house room than heretofore. The consequence is that overcrowding is as great as ever; and although the Public Health Act of 1866 was framed to obviate this great evil, it is practically un workable, owing mainly to high rents (which in some cases have increased as much as 50 per cent.), dearness of provisions, scarcity of employment, and the imposition of taxes for the first time upon the tenant; and many families who could ordinarily afford to occupy a whole house have been obliged to let lodgings; others who have occupied two rooms have been obliged to put up with one; and where overcrowding has existed, and the law enforced, the people have merely removed to other houses and thus perpetuated the evil which it was the intention of the Legislature to obviate."

But doing nothing while overcrowding got worse was not likely to make the problem less difficult.

Except, then, in a few parishes overcrowding was permitted

to pursue its own course unchecked, to the great benefit of the various "owners," and to the great misery of great masses of the people, and the evil extended itself year by year and became steadily acuter.

And this, too, after Parliament had placed in the hands of the local authorities large powers specially designed for coping with an evil which was eating into the very vitals of

the community.

So rapid was the increase of population that the increase in the number of houses did little to mitigate the overcrowding; nor was the construction of the majority of the houses conducive to the health of those who went to inhabit

London ground was being rapidly covered with buildings. "Many large tracts of our formerly open spaces have been rapidly covered, nay densely packed with buildings.

"The operations of the builder have annihilated acres of

garden ground by the hundred."

"Little garden plots, green spots, open spaces, were being absorbed and swallowed up one after another, and covered with houses. . .

"Apparently each builder does that which seems good in his own eyes."

Paddington afforded an interesting example of this growth. A space near Ranelagh Road, about 25 acres, had almost all been built upon within the last 15-20 years. The streets were 40 feet wide. Here were 900 houses packed with 12,000 people, or 469 persons to the acre (1871). And another example near Paddington Road where 275 houses had been built, and the population was 493 to the acre; showing

"A high density of population such as ought not to have

been tolerated under a wise municipal policy."

The rapidity of the increase was extraordinary. In Lambeth in the year 1866-7, 1,078 houses were erected. In Battersea in 1868-9, 1,530 houses were erected—a large number of which were filled with people within a few days or weeks of their completion.

The newness of a house, however, gave no guarantee of

its sanitary fitness, and a great proportion of them were of the most objectionable and insanitary description. All the art and craft of the speculating builder was too often exercised to evade such legal provisions as there were for the protection of the public, and to get the largest profits he could for the worst constructed house, and the result was that very many of the new houses were little better than the worst of the old ones.

Unfortunately, the law was very ineffective to prevent this. As was pointed out by the Medical Officer of Health for Fulham (1871), the sanitary legislation for the metropolis had never been accompanied by an amalgamation of the Building Act with the general sanitary statutes.

"The Building Act still works an independent course, and it is not too much to say of it that, whilst its provisions deal strictly with the strength and quality of bricks and mortar, they utterly fail to ensure for us dwellings, especially for the working classes, which have the least pretensions to perfection in sanitary conditions. A large number of habitations of this description have been completed and occupied during the last few years both in Fulham and Hammersmith, and take the place of our former fever dens in fostering disease. Unfortunately the Sanitary Authorities see these wretched structures raised before their eyes, and have no power to check their progress. It is truly to be hoped that this anomaly will soon be remedied."

Such as the houses were, however, they were quickly inhabited. The Medical Officer of Health for Paddington gives a graphic description of the result in his parish (1871):—

"There has been for some years a large influx of persons, mostly of the working class, coming from over-crowded and unwholesome houses of other districts of the metropolis. Large numbers of the newly-built houses being let out in tenements and single rooms attract a class of persons barely able to obtain necessaries of life; amongst these are not a few of intemperate and demoralised habits, with feeble vital stamina, consequently there is, and will be, a larger proportion of sickness, chronic pauperism, and death in the parish than formerly.

"This deterioration of race has for some time been recognised by Medical Officers of Health.

"It must be remembered that most of the working people are fixed to the spot, and cannot get a periodical change of climate, or remove from a locality in the event of impending ill-health, or of contagious disease breaking out near them.

"It is of no avail to lament over the laws of absolute necessity, but all parties should combine in a demand for that even-handed justice to the working ranks which, though it may not interfere with a stern destiny which confines them to a life of toil, is bound at least to provide that the theatre of that toil shall be free from the pollutions that endanger the functions of life, and uncontaminated by contagion and death.

"I must say it is a scandal to the present constitution of society that the reverse of this continues from year to year in spite of all suggestions of Medical Officers of Health, and the warnings of experience. In vain does one plague after another ravage the family of industrial orders, and like doomed men they stand amidst the harvest of death looking earnestly, but in vain, to the Legislature for that help which no other power can give. Parents, children, and friends, drop around them, the victims of a

spot, and they cannot flee from the danger."

The Central Authority, the Metropolitan Board of Works, had, during the decade, been doing much useful work affecting the public health, of London, in addition to its

poisoned atmosphere; while they hear and feel successive

warnings, the irrevocable law of necessity fixes them to the

great work, the great system of main drainage.

It had undertaken and had completed several large street improvements by 1870, intended to provide new and improved means of access from one part of the town to

another.

"The Board had to supply the deficiencies resulting from centuries of neglect: it had also to keep pace as well as it could with the wants of the ever-increasing population, and the needs of a traffic which grew relatively even more than the population," and each work contributed to the improvement of the public health, by facilitating and increasing the circulation of air in crowded neighbourhoods.

Another matter, important also in reference to the health of the metropolis, had also occupied their attention, namely, the acquisition or preservation of open spaces in London for public recreation and enjoyment.

A piece of land, of over 100 acres in extent, was acquired and opened to the public as Finsbury Park in 1869; and on the south side of the river, in Rotherhithe, some 63 acres of land were purchased in 1864, and converted into a public park a few years later.

On the outskirts of London there were a number of commons and other tracts of open ground available for public resort, to which the public had no legal rights, and which were rapidly being absorbed by railway companies or builders. London was thus in danger of losing open spaces which were urgently required in the interests of the public health.

Parliament, after an inquiry by Select Committee, passed the "Metropolitan Commons Act" * in 1866, which prescribed a mode of procedure under which the commons in the neighbourhood of London could be permanently procured for the people of London, and the Metropolitan Board set to work to procure them. The acquisition of Hampstead Heath was happily arranged in 1870.

Another great work was also undertaken by the Central Authority—namely, the embankment of the Thames.

The offensive state of the river had been greatly enhanced by the large areas left dry at low water on which sewage matter collected and putrefied; and the only way of removing this cause of mischief was by confining the current within a narrower channel.

Parliament passed an Act in 1863, entrusting its execution to the Metropolitan Board, and the work was soon after commenced.

Thus in these matters, all of which were closely associated with the public health, the sanitary evolution of London was * 29 and 30 Vic. cap. 122.

progressing, and the Board was giving visible demonstration of the necessity of that which had so long been denied to London—namely, a central governing authority to deal with matters affecting London as a whole.

The Board, in their report for 1865-6, stated they were: "Deeply sensible of what remained to be done to remedy the neglect of past ages, and to render the metropolis worthy of its position as the chief city of the Empire;" but they were hampered by the want of means to enable them to carry out desired improvements.

"It cannot be questioned," they wrote, "that direct taxation now falls very heavily upon the occupiers of property in the metropolis. . . . It appears to the Board that the most equitable and practicable mode of raising the necessary funds would be by imposing a portion of the burden on the owners of property. It cannot be denied that the interest of the latter in metropolitan improvements is much greater than that of temporary occupiers, and yet at the present time, the occupiers of property in the metropolis bear almost the whole cost of the improvements effected by the Board. It is hoped that the representations made by the Board will satisfy the Legislature of the injustice of the present state of things, and lead to some equitable remedy."

The visitation of cholera was doubtless in the main accountable for the access of energy displayed by Parliament about this period in matters affecting the public health.

In the same session that the Sanitary Act was passed, a measure of considerable importance to the consumers of water in London was passed, though many years would elapse before its effect would be appreciable. This was "The Thames Purification Act."

"Whereas . . . the sewage of towns situate on the river Thames above the metropolis is carried into the river, and thereby its waters are polluted and the health and comfort of the inhabitants of the valley of the river below those towns of the metropolis are affected," powers were given for the diversion therefrom of the sewage of Oxford, Reading, Kingston, Richmond, &c., &c., "whose cloacal contributions to the stream were distributed to masses of the people of

London." No less than 56 towns, it was said, cast their impurities into the river.

And in the following year the scope of the Thames Conservancy Board was extended and very stringent care exercised to prevent unnecessary pollution of the river. And in 1868 the river Lea, another of the water suppliers, was placed under a Conservancy Board.

In 1867 an Act of far-reaching consequence was passed, making vaccination compulsory. In 1836 an Act * dealing with this matter laid it down that the parent of a child, or the occupier of the house in which a child was born, might, within 40 days, give notice to the Registrar as to the vaccination of the child. There was no punishment for the neglect to do so, and no penalty for refusal to give the Registrar the information.

This new Act, which came into operation on the 1st of January, 1868, enacted that—

"Every child shall be vaccinated within three months of its birth."

The Act was to be administered by the Poor Law Authorities; and Boards of Guardians might appoint public vaccinators and establish vaccination stations.

In 1867, also, another Act of very great consequence was passed dealing with one important element in the sanitary evolution of London, to which no reference has yet been made, namely, the provision of hospitals for the fisolation of infectious or contagious disease, for the prevention of mortality, and for the speedy restoration of the sick to health.

There is, indeed, no part of sanitary work requiring more constant attention than the protection of the community from the spread of infectious diseases, and this is best secured by hospitals affording proper provision for isolation and treatment of infectious cases.

Next to the adoption of proper measures for the prevention of disease, a suitable provision for the speedy restoration of the sick to health is obviously of the greatest importance to the community.

* 6 and 7 Wm. IV. cap. 86.

So far as the absolutely destitute were concerned, all had, by the law of England, subject to certain conditions, right to food, shelter, and medical attendance; and they accordingly received gratuitous medical treatment at workhouses, or dispensaries, and in sick wards.

Indeed, any person suffering from an infectious disease might, if willing to become a pauper, take advantage of such provision as was made by the Guardians of the Poor, the provision being imperfectly isolated wards and buildings attached to the several Metropolitan Workhouses and Infirmaries. Those not so willing were compelled to remain at home, a source of danger to those around them, and if poor, with insufficient medical attendance and nourishment.

For a long time the only special provision for certain infectious diseases for the whole of London was that in the London Fever, and the London Smallpox Hospitals, both of which were maintained by private charity.

Happily, where neither the State nor the local authorities did anything, charity stepped in, and on a larger scale supplied an inevitable want; and medical charities grew up to give relief in time of sickness to those of the working classes of society who were unable to provide for themselves, but this was mostly for non-infectious or non-contagious diseases.

None of the Vestries or District Boards gave any sign of making provision for those who were not paupers, although the duty of giving opportunity for isolation of infectious persons whose dieases made them dangerous to others, be they paupers or not, devolved upon them under the Sanitary Act of 1866 as the Sanitary Authorities concerned in the prevention of the extension of disease.

"Indeed it must be admitted," wrote the Medical Officer of Health for Chelsea some years later, "that the Vestries never recognised their responsibilities (as sanitary authorities) from the very first."

Grievous scandals having occurred in the treatment of the sick in many of the metropolitan workhouses, the Government of 1867 decided on a great measure of reform. Once more the necessity of central government had to be

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recognised, and by the Metropolitan Poor Act of 1867 a Board—elected by the Poor Law Guardians, who them selves were elected bodies—was created as a central authority to relieve Poor Law Guardians of the care of and treatment of paupers suffering from fever and smallpox who could not be properly treated in workhouses, and to provide for their treatment and accommodation, as well as that of the harmless insane of the metropolis.

The Board was entitled the Metropolitan Asylums Board, and consisted of 73 members; 55 of whom were elected by the various Boards of Guardians in London, and the remaining 18 being nominated by the Home Secretary.

In the early stage of its existence its duties were strictly confined to those of the pauper class suffering from these diseases.* Admission to its hospitals could be obtained only on orders issued by the relieving officers, and those admitted became, if they were not so already, "pauperised" by admission and ipso facto paupers; but later its scope was extended, and it became the Hospital Authority for infectious diseases in London, and afforded another illustration of the necessity for having one central authority for matters relating to the public health of the inhabitants of the metropolis.

The erection of hospitals was at once commenced. The first was opened in January, 1870, and the isolated treatment of many cases of infectious disease was of great benefit to the community.

In 1867, too, Parliament again dealt with the condition of the workers in Factories and Workshops. The legislation dealt with the kingdom as a whole, but inasmuch as London was so great a manufacturing city, it affected also the masses of the working population of the metropolis.

The Commissioners on Children's Employment, who had been at work since 1862, had completed their inquiry, and made many recommendations, and in the concluding part of their fifth report, dated 1866, they wrote:—

"We heartily trust that we may have thus, in some degree, contributed to bring the time nearer when so many

hundreds of thousands of your Majesty's poorer subjects of the working classes—especially the very young and those of the tenderer sex—will be relieved from the totally unnecessary burden and oppression of overtime, and night work; will be confined to the reasonable and natural limits of the factory hours . . . will perform their daily labour under more favourable sanitary conditions, breathing purer air, amid greater cleanliness, and protected against causes specially injurious to health and tending to depress their rigour and shorten their lives."

Only in 1867 was factory legislation at last of an

approximately general character.

"Fully two-thirds of the century in which England's industrial supremacy swept to its climax was allowed to pass before even an attempt was made to regulate on sound general principles the recognised and inevitable workings of unchecked individualism in the industrial field." *

The Act of 1867 † made better provision for regulating the hours during which children, young persons, and women, were to be permitted to labour in any manufacturing process conducted in an establishment where fifty or more persons are employed—the regulation being in the direction of less onerous conditions of labour.

And by another Act passed at the same time—"The Workshop Regulation Act, 1867," ‡ the protection afforded to workers in factories was extended to workers in smaller establishments, so far as regarded the regulations relating to the hours of labour to children, young persons, and women.

"Workshop" was defined as-

"Any room or place whatever (not a factory or bake-house) in which any handicraft is carried on by any child, young person, or woman, and to which the person employing them had a right of access and control."

No child under 8 was to be employed, and none between 8 and 13 was to be employed more than six and a half hours a day—and sundry other directions. The workshops, moreover, were to be kept in a proper sanitary state, and

^{*} See Report of the Metropolitan Asylums Board for 1886-7.

^{*} See the Edinburgh Review, January, 1903. † 30 and 31 Vic. cap. 103. ‡ 30 and 31 Vic. cap. 146.

the administration of the sanitary provisions of the Act was placed in the hands of the local authorities—the Home Office Inspectors having concurrent jurisdiction.

These Acts had a two-fold effect in the direction of sanitary evolution: the improvement of the sanitary conditions under which the people worked, and the prohibition of work entailing consequences detrimental to the physical well-being of the workers.

Their effect would have been of the greatest value in London had they been vigorously enforced. Some of the Medical Officers of Health endeavoured to enforce the Act.

Thus the Medical Officer of Health for the Strand reported to his employers (1868-9):—

"During the past year the provisions of the Workshops Regulation Act, 1867, have, so far as practicable, been enforced."

And the Medical Officer of Health for St. George, Hanover Square, wrote (1870-1):—

"I have endeavoured to carry out the Workshops Act by the abatement of overcrowding, by enforcing due ventilation, and closing at the legal time, so as to prevent the scandal and suffering of dressmakers still being compelled to toil for 16 hours."

But the silence of others on the subject told its own tale and pointed its own moral. Active inspection was essential for success, but inspection was not encouraged by the Vestries or District Boards, and the intentions of the Legislature were once more frustrated by the failure of the local authorities to do their duty.

After four years Parliament took the duty away from their incapable hands and transferred it to the Factory Department of the Home Office.

One other Act of importance Parliament also passed about this time, "The Artizans' and Labourers' Dwellings Act, 1868."

Sanitary legislation has as yet done little more for old property, and the whole of Central London was old property, than to improve the drainage, and occasionally to cleanse or whitewash some small fraction of it; and there

remained the fact that numerous districts or conglomerations of houses were unreformable, and when the most was done to them that could be done under the law were still unfit for human habitation.

In the previous year a Bill had been introduced into Parliament by Mr. Torrens:—

"The objects of which were, first, to provide means for taking down or improving dwellings occupied by working men which were unfit for human habitation; and secondly, for the building and maintenance of better dwellings instead. But the Act of 1868 retained the former only; the latter having been struck out of the Bill during its progress through Parliament.

"The intention of Parliament was to provide the means whereby local authorities might secure the effectual repair of dilapidated dwellings, or, when necessary, their gradual reconstruction." *

The Act conferred powers far exceeding any heretofore possessed by the local authority for effectually dealing with houses unfit for human habitation.

"On the report of the Medical Officer of Health that any inhabited building was in a condition dangerous to health, so as to be unfit for human habitation, the Vestry, after certain inquiries, &c., was to have power to order the owner to remove the premises, and, in default, themselves to remove them; or they might order the owner to execute the necessary structural alterations, and in default, might either shut up or pull down the premises, or themselves execute the necessary work at the owner's expense." t

The Act proceeded upon the principle that the responsibility of maintaining his houses in proper condition falls upon the owner, and that if he failed in his duty the law is justified in stepping in and compelling him to perform it. It further assumed that houses unfit for human habitation ought not to be used as dwellings, but ought, in the interests of the public, to be closed, and demolished, and to be subsequently rebuilt.

^{*} Report of Select Committee on the working of the Artizans' and Labourers' Dwellings Improvement Act, 1882, p. iii. † Ibid., p. iv.

Use began to be made of the Act soon after its passing, but the operations under it can be more conveniently described in the following chapter.

The energy of Parliament had a most beneficial effect, and many of the Medical Officers of Health bore testimony to the encouraging sanitary progress which was being made.

Thus the Medical Officer of Health for Fulham wrote (1868):—

"Our district is gradually and most manifestly improving in all those great features of hygiene which are truly essential where such masses of people congregate together."

And the Medical Officer of Health for St. Martin-in-the-Fields, who wrote in 1864 that:—

"The spread of sanitary knowledge is slow"—Wrote in 1868:—

"Upon the whole, I am of opinion that all classes, even the very poorest, are much more alive to their own interest in supporting measures for the maintenance of health."

The Medical Officer of Health for St. Mary, Newington, wrote (1871):—

"The knowledge of a compulsory power, as well as the spread of sanitary knowledge, and a greater appreciation of it, has led to a vast amount of sanitary improvement.

"I can but express a strong conviction that the sanitary measures carried out are working slowly but steadily a vast improvement in both the morale and physique of the inhabitants of this metropolis in particular . . . a great work is progressing, the effects of which will be seen more and more as years roll on, and will be recognised in the greater comfort, better health, and augmented self-respect of the people, and in an increased and increasing improvement in the homes of those on whose strength or weakness must depend in no slight degree the position for better or worse of the English nation."

The Medical Officer of Health for St. George the Martyr, in his report for 1870, makes a retrospect of fifteen years:—

"When the Vestries began (1856) their mighty task they had to contend against evils and prejudices which had their origin in far away back generations, and which have cast

down their roots deep and intricate into our social system. . .

"The Acts under which the Vestries had to work were very imperfect. Opposition was strong on every hand, the magistrates sympathised with the defendants. Property and its rights were apparently invaded; and property and its rights have always claimed more support than property and its duties.

"What was our physical condition? (in 1855).

"In every yard were one or more of 'the foulest receptacles in nature,' namely, cesspools; these gave off, unceasingly, foul effluvia, filling meat safe, cupboard, passage and room. The smell met you on entering the house, abode with you whilst you remained in it, and came out with you on leaving it. The parish was burrowed with them, and the soil soddened with the escape of their contents. The emptying of them proved a true infliction. They have now been emptied for the last time, filled up with coarse disinfecting materials. . . . They would not now be endured for a moment, yet with what difficulty they were abolished. They were clung to as if some old and honoured relic was about to be ruthlessly torn from its possessors."

Dr. Simon, the Medical Officer to the Privy Council, gave, in his report of 1868,* a view of sanitary progress in the country generally, much of which applied equally to London:—

"It would, I think, be difficult to over-estimate, in one most important point of view, the progress which, during the last few years, has been made in sanitary legislation. The principles now affirmed in our statute book are such as, if carried into full effect, would soon reduce to quite an insignificant amount our present very large proportions of preventable disease. It is the almost completely expressed intention of our law that all such states of property and all such modes of personal action or inaction as may be of danger to the public health, should be brought within scope of summary procedure and prevention. Large powers have

* P.P. 1868-69, vol. 32.

been given to local authorities, and obligation expressly imposed on them, as regards their respective districts, to suppress all kinds of nuisance and to provide all such works and establishments as the public health preliminarily requires; while auxiliary powers have been given, for more or less optional exercise, in matters deemed of less than primary importance to health; as for baths and wash. houses, common lodging-houses, labourers' lodging-houses, recreation grounds, disinfection-places, hospitals, deadhouses, burial grounds, &c. And in the interests of health the State has not only, as above, limited the freedom of persons and property in certain common respects: it has also intervened in many special relations. It has interfered between parent and child, not only imposing limitation on industrial uses of children, but also to the extent of requiring that children shall not be left unvaccinated. It has interfered between employer and employed, to the extent of insisting, in the interests of the latter, that certain sanitary claims shall be fulfilled in all places of industrial occupation. . . .

"The above survey might easily be extended by referring to statutes which are only of partial or indirect or subordinate interest to human health; but, such as it is, it shows beyond question that the Legislature regards the health of the people as an interest not less national than personal, and has intended to guard it with all practicable securities against trespasses, casualties, neglects and frauds.

"If, however, we turn from contemplating the intentions of the Legislature to consider the degree in which they are realised, the contrast is curiously great. Not only have permissive enactments remained for the most part unapplied in places where their application has been desirable; not only have various optional constructions and organisations which would have conduced to physical well-being, and which such enactments were designed to facilitate, remained in an immense majority of cases unbegun; but even nuisances which the law imperatively declares intolerable have, on an enormous scale, been suffered to continue; while diseases which mainly represent the inoperativeness of the nuisancelaw, have still been occasioning, I believe, fully a fourth part of the entire mortality of the country. And when inquiry is made into the meaning of this strange unprogressiveness in reforms intended, and in great part commanded, by the Legislature, the explanation is not far to seek. Its essence is in the form, or perhaps I may rather say in the formlessness, of the law. No doubt there are here and there other faults. But the essential fault is that laws which ought to be in the utmost possible degree, simple, coherent, and intelligible, are often in nearly the utmost possible degree, complex, disjointed and obscure. Authorities and persons wishing to give them effect may often find almost insuperable difficulties in their way; and authorities and persons with contrary disposition can scarcely fail to find excuse or impunity for any amount of malfeasance or evasion."

To this review by one of the ablest and most experienced of men of the time in matters relating to the public health, it must, however, be added that so far as the metropolis was concerned, "the meaning of this strange unprogressiveness" was not so much the formlessness of the law, as the fact that the interests against the enforcement of many portions of the law were predominant, and the non-administration of the law was due far more to that circumstance than to any ambiguities or obscurities in the laws. "Vested interests in filth and dirt" were all powerful on the greater number of the local authorities of London, and so the law which would have interfered with those interests was left severely unadministered.

Against these interests it was difficult to struggleespecially when there was no compulsion upon the administrators of the laws to administer them. Sheltered under a permissive, they would not exercise a compulsory power—a power entrusted to them with the control of public money for public good.

The true cause of the inoperativeness of the law was, in a way, pointed out by the Medical Officer of Health for St. James', Westminister, when he wrote (1869-70):—

"The great deficiency of the Act of 1866, as of all other

English legislation on sanitary matters, is that no public prosecutor is appointed. If Vestries neglect to prosecute and individuals do not see their way to it, people may be killed by infectious diseases to any extent."

And the Medical Officer of Health for St. Giles' expressed a similar opinion when he wrote (1870):—

"The duty of making these sanitary improvements should be imperative instead of permissive. It was wise, at first, perhaps, that our sanitary legislation should be tentative and experimental; but experience having proved its necessity it should be made more stringent."

But neither of them got so far as to see the natural and simple remedy, that where a local authority for one reason or another would not administer the laws made by Parlia. ment, the central authority should step in and do the work at the cost and expense of the recalcitrant local authority.

If one set of people failed in their duty to the public, it was but right that where such tremendous issues were at stake as the health and physical well-being, not merely of the people of one parish but of over three and a quarter millions of people—and all that their health and well-being implied—the administration of the law should be placed in hands that would administer it.

That, however, was but part of the great problem, though it would have gone a long way in ameliorating things. The other necessity was the strengthening and altering of the law which itself stood in need of many and large changes before a sure foundation could be laid for the future health of the great community resident in the great metropolis of London.

And other matters which ultimately were to have great influence towards the solution of some of the worst of the health difficulties in London were coming into view, and assuming form and substance.

Tramways, with their facilities of traffic, were about to be started.

In 1869 three private Acts were passed, authorising the construction and working of tramway lines in the metropolis, and in the following year several more private

Acts and "The Tramways Act, 1870," which was a general measure. Its main object was to provide a simple, inexpensive, and uniform mode of proceeding in obtaining authority for the construction of tramways, and to give the local authorities the power of regulation and control.

In London the Metropolitan Board of Works was constituted the "local authority" under the Act; and that Board was empowered to apply for a Provisional Order itself to construct tramways, and lease them to other persons, and was given, with the approval of the Board of Trade, a compulsory power of purchase after a period of twenty-eight years on certain conditions.

And in 1870 another Act of the most far-reaching importance was passed, "The Elementary Education Act," which prescribed the establishment of a School Board for London, and which in process of time would exercise vast influence towards a cleaner, brighter, healthier life than any hitherto within the reach of the masses of the population of London.

But though progress was being made in many ways, the progress had not affected infantile life.

"The dreary catalogue of human misery" given in the statistics of infantile mortality was as dreary as ever.

In every part of London those statistics were appalling.

In 1867, in the Whitecross Street District of St. Luke, no less than 64.4 per cent. of the mortality for the district consisted of deaths among children under five years of age. In 1868 it was close upon 61 per cent.

In Bethnal Green, in 1869-70, of 3,378 deaths, 1,900 were under five = 56.3 per cent.

In a sub-division of Whitechapel, in 1865-6, close upon 58 per cent. were under five; in Poplar a fraction short of 47 per cent.

In Kensington, in 1866, 40.6 per cent. were under five.

Each year the Medical Officer of Health for Fulham drew attention to, and protested against, the high rate, nearly 50 per cent. of infantile mortality under five, in 1867-8.

In Wandsworth, in 1870-1 = 47 per cent.

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In Camberwell, in 1868 = nearly 50 per cent.

In St. Mary, Newington, and in Rotherhithe = 50 per cent.

In Bermondsey, in 1869-70 = 56 per cent.

In certain streets the percentage was much higher. Thus in Paddington (1870-1):—

 Woodchester Street
 ...
 56 per cent.

 Cirencester
 ,,
 ...
 65
 ,,

 Clarendon
 ,,
 ...
 72
 ,,

The high infantile mortality betokened high infantile sickness, but of it no records have ever been kept.

CHAPTER IV

1871-1880

In 1871, the decennial Census once more afforded reliable information as to the population of London, and gave the means of ascertaining much else of the greatest value.

The population had gone up to 3,254,260 in 1871, from the 2,808,862 it had been in 1861, an increase of 445,398. But the rate of increase was declining. The decennial increase of population which had been 21.2 in 1841–1851, 18.7 in 1851–1861, had further declined to 16.1 in 1871.

The returns showed that London contained 2,055,576 persons born within its own limits, and 1,198,684 persons born outside its borders.

"Whence came these multitudes of both sexes, equal in themselves, without counting those born there, to a number greater than the inhabitants of any other European city?"

More than 607,000 of them came from the chiefly agricultural eastern, south-eastern, and south-midland counties surrounding the metropolis.

A large contingent of 147,000 was drawn from Devonshire, Wiltshire, Somersetshire, and the other southwestern counties.

The west-midland counties sent up 84,000.

41,000 persons had come from Scotland, 91,000 from Ireland, 20,000 from the Colonies, and 66,000 from foreign parts.

In fact, over 37 per cent. of the population of London in 1871 were immigrants into the great metropolis—a great rushing river of humanity.