

BOOK EIGHT
THE CHOLERA

CHAPTER I
THE CHOLERA

I

CHOLERA—the very name spread panic ! Its symptoms were frightful, its suddenness appalling. Attacked by violent stomach pains, vomiting, and diarrhoea, the victim rapidly sank into collapse ; his breath came short, his body turned cold, his pulse fell away, his skin grew shrunken and blue. Some attacks lasted several days, while others which struck terror killed the sufferer within two hours. Who could forget ' Mrs Smith, young and beautiful ' who ' dressed to go to church on Sunday morning when she was seized with the disorder and died at eleven at night ' : ¹ or the Earl of Clarendon's maid-servant who ate gooseberry-fool in the evening and was carried off in a pitched and sealed coffin next morning ? ²

It had first come in 1832, a hitherto unknown pestilence. It had swooped on the island, carried off 18,000 victims and as mysteriously departed. During its stay no cure had ever been discovered. It struck both high and low, and for every two cases it bore off one victim. Quarantine had proved useless and flight seemed the only recourse. Those who were too poor to flee had come into the streets proclaiming ' Bread the true cure for cholera ', attacked the doctors, and snatched their stricken comrades from the hospital ambulances.³ In 1848, as soon as the fearsome news got about, these memories of 1832 revived.

Cholera morbus is endemic in India, and this was the source of the five pandemics which shook the West during the nineteenth century. The cause of cholera in one individual is cholera in another. The carrier's intestine holds the cholera *vibrio*, and the disease is transmitted by the vibrio finding its way into the intestine of another person. This may occur by direct contact. For example, in filthy overcrowded dwellings, it would not be difficult for lodgers to bring their clothes and fingers in

¹ C. Greville, *Journals*, 25th July 1832.

² G. A. Sala, *Twice Round the Clock*, p. 146.

³ C. Greville, *Journals*, 1st April 1832.

contact with the carrier's excrement. Once this is carried to the mouth, the disease is passed on. Sometimes the contact is made by flies moving from the infected stools to food. Sometimes it is made by the carrier's fingers touching vegetables and fruits. The slums of England and Scotland multiplied such direct contacts with infected excrement. Let one example suffice, for it is typical of all:

'CHRISTOPHER COURT, ROSEMARY LANE, WHITECHAPEL:

'The court is a cul-de-sac; the entrance is narrow, and covered over by the houses in Rosemary-lane; at the upper end is a large dust-hole, full of filth of every description. Out of the inhabitants, 60 in number, 13, or 21 per cent, were attacked with cholera. There were, on the first floor of one house, eight cases of cholera, of which three were fatal; the door at the foot of the stairs was shut, and on opening it I was repeatedly driven back by the horrid odour and stench from a privy down stairs. This was one of the dirtiest places which human beings ever visited; the stench, the horrible stench which polluted the place, seemed to be closed in hermetically among the people; not a breath of fresh air reached them, all was abominable. After getting up stairs my head reeled in the sickening atmosphere; and on reaching the top, and surrounded by the dead and dying, I was compelled to rush to the window and open it. I threw off the contents of my stomach, and supported myself on the miserable, rotten straw bed. . . . In the same court, on the opposite side, were several cases of cholera. In one house, on the ground floor, were three cases; the smell from the privy down stairs was fearful, and it required some courage to go down and search for the plague-spot. I found the privy overflowing directly below the beds of the sick persons, and the cellar containing an immense quantity of excrement, bones, urine, and straw. The worst sewer in London could not have been more dangerous to life. A fatal case occurred next door.'¹

When the epidemic spreads through such direct contact, the curve of new cases is flattened, as the cases occur in single groups and 'cholera-houses'. But sometimes the epidemic spreads through pollution of the drinking water. Here the curve of cases is of the 'explosive' type with steep banks. The vibrio does not live long in water—not more than about fourteen days; and the steep descent of the 'explosive' curve is partly explained by the gradual dying off of the vibrio in the water-supplies. Often the contact and the water-borne types of epidemic are interlocked, and this creates a multiplicity of *apparent* correlations between cholera and water-supply, cholera and certain foods, cholera and overcrowding, cholera and direct contact. It also creates an appearance of capriciousness in the disease, which first attacks a court or alley, then appears in another quarter of a town, and then perhaps rages with fury along a waterfront.

¹ Report of the General Board of Health on the Epidemic Cholera of 1848 and 1849. Appendix B, p. 42 (Parliamentary Papers, 1850, xxi).

This eccentricity baffled early-Victorian medicine. In the visitation of 1848-9 it produced a crop of fanciful theories; but to Chadwick, the one medical issue of practical importance was whether or not cholera was contagious. There was much evidence for this: it travelled along highways and rivers, it broke out in camps where new troops arrived, it attacked sick-bed attendants. Many medical men were 'contagionists'; and the enforcement of a strict quarantine had been the chief endeavour of the Privy Council in handling the outbreak of 1832.

This was not Chadwick's view at all. This evidence showed that while the spread of cholera was rarely due to *personal* contacts, it invariably struck in low and damp communities and, most important of all, it followed the track of typhoid fever. He concluded that cholera observed the same laws as ordinary epidemics, was influenced by the same physical conditions and could therefore be prevented in the same way—that is, by removing deposits of filth. Cholera was an atmosphere which 'impended' over a region. Whether it would strike and where it would strike was determined by 'predisposing causes'. These were established empirically, and included any well-marked circumstance attending any large number of cholera cases. Thus overcrowding, filth, putrescent deposits, dampness, polluted drainage, emanations from foul sewers and cemeteries, impure water, certain types of food were all set down as predisposing causes alongside fatigue and intemperance. As soon as cholera was reported in 1848 Chadwick urged immediate action on the basis of the First and Second Reports of his Metropolitan Sanitary Commission. These were strongly anti-contagionist. They recommended the thorough cleansing of fever nests by special 'Boards of Health' containing representatives of all local commissions and corporations, grouped around the medical machinery of the Poor Law Unions. His initiative was wrecked by the point-blank opposition of Sir William Pym, the Superintendent of Quarantine at the Privy Council Office.

'Sir William Pym has been over to me to urge remonstrances against appointing these Boards on account of the work it will occasion.

'The fact is that Sir William Pym's plan will be reversed.

'He is now a strong contagionist. We declare against the doctrine, so do nine-tenths of the Medical Men in Europe—so does Russia at the present time.

'Sir William recommended Cholera Hospitals; we declared against them—so do the Russians now.

'We got from the Council office a report from Swedish physicians in Russia sent to observe the Cholera: it is curiously corroborative of our report.

'Sir William was for acting with the parochial machinery; we were for proceeding with the Union Machinery.

'With these differences I do not see how we shall be able to get on although it will be necessary to include Sir William in the Board.'¹

Chadwick therefore resolved to wrest the administration from Pym. As soon as the cholera reappeared at Moscow in May 1848, he urged Morpeth to insert his suggestions as new clauses of the Public Health Bill and to transfer authority from the Privy Council to the new General Board.² Morpeth decided to introduce a special Cholera Bill,³ in order not to delay the main measure. Chadwick opposed this course until Morpeth got Lord Lansdowne (Lord President of the Council) to agree that cholera jurisdiction should be transferred to the General Board.⁴

It seems unbelievable that a man already controlling the main drainage of London, and about to control the public health of all the provincial towns of England and Wales, should demand to control also the cholera precautions of the whole United Kingdom! It was 'empire building', but of a peculiar sort. It was not undertaken for self-aggrandizement or for money but sprang from Chadwick's insufferable conviction that he was right and that for the public good he must oust those who were wrong. He may be accused of uncommon presumption but it must be admitted he showed extraordinary devotion and courage. He never shunned the thick of battle.

II

The 'Cholera Bill', called the *Nuisances Removal Act*, was introduced on the 7th August and received the royal assent on 4th September. Its first six clauses revised the powers of local authorities to abate nuisances. This section merely replaced the Nuisances Removal Act of 1846, but the remainder gave extraordinary powers to the General Board. An Order in Council put the Act in force on the approach of an epidemic. Thereafter the General Board became exclusively responsible: it might appoint a medical commissioner as an additional member, and issue regulations for nuisance-removal and 'generally for the prevention or mitigation' of epidemic diseases and 'in such manner as to the said Board may seem convenient.'

This Act was sloppily drawn and badly conceived. In the first place it did nothing to consolidate the local cleansing functions under one authority. The executive authorities were to be that numerous

¹ E. Chadwick to Lord Morpeth, 24th January 1848.

² Idem., 24th May 1848.

³ Idem., 10th July 1848. Lord Morpeth to E. Chadwick, 19th July 1848.

⁴ Lord Morpeth to E. Chadwick, 19th July 1848.

brood of Trustees, Commissioners, Highway Surveyors and Poor Law Guardians. The Board received no authority to create Boards of Health containing representatives of all these interested authorities. Instead the Act gave general superintending power to the Guardians and empowered them to act in default of any of the others. This was altogether inadequate. There were areas—notably in London—where the rival bodies squabbled like cats and dogs:

'Cesspools may be emptied: but stinking dust heaps are left, because the scavenger removes them when it suits his convenience. The cesspools may be cleansed and the dust removed but heaps of old dung are left which it is neither the business of the dust contractor, nor of the sewers men to remove. By a fortunate concurrence the night soil, the coal ashes and the dung may be removed and the court would smell sweet but for some dead cats, or a dead dog, or fish garbage which the dustmen and the sewer men under some contracts declare it is not "their place" to remove. The Inspector of Nuisances is sent for and he says it is not his place to do it, he has no allowance for paying anybody to take it away: the overseer wont allow it and overseer says he would not mind but the Poor Law Commissioners wont allow it. The Inspector of Nuisances says his place is to prosecute the parties who left the animals there—if he could only find them.'¹

In the second place, the General Board received no power to enforce its regulations. Presumably it was felt that since all local authorities were answerable to the Poor Law Guardians and the Guardians to the Poor Law Board, all regulations would necessarily be obeyed. This no doubt is what modern critics of the 'over-centralized poor law' would also expect. If so, never was there greater miscalculation. The Guardians had rebelled in 1841 and what central control existed since then, existed on their sufferance. They were about to be asked to *spend* money: the event was to show that to avoid this they would defy any authority even in the midst of a national emergency.

¹ E. Chadwick to Lord Morpeth, 20th August 1848.

CHAPTER II THE GENERAL BOARD OF HEALTH

I

DESPITE the cholera, and although both Public Health Act and Nuisances Removal Act had become law, Chadwick could do nothing until the General Board was gazetted. Morpeth would clearly be President, Chadwick the paid Commissioner: who would make the third? Lord Ebrington, whom Chadwick would have preferred, was now President of the New Poor Law Board. For some time there was a rumour that Lord Minto was to have the post.¹ Chadwick was chafing at the delay and its unwholesome effect on public opinion,² when he received the astonishing news that his new colleague would be none other than Lord Ashley.³ The exchange of letters between the two is instructive: each had a respect for the other, and each was clearly wondering how far it would survive colleagueship.

'MY DEAR MR CHADWICK,—Morpeth announced to me your approval of my appointment as your Colleague on the Health of Towns Act—I am gratified that you think me a worthy co-adjutor—God grant that we may effect all the good that we have so often imagined—'

To this Chadwick replied:

'MY DEAR LORD,—For more reasons than I could express to you in a letter of moderate compass, it gave me extreme pleasure to hear of your appointment. It afforded to the country a guarantee of earnestness, sympathy for suffering, singleness of purpose in labouring for its relief.

'I hope I may be spared to see the accomplishment of some of our objects such as the expulsion of Typhus from the dwellings of the labouring classes, as complete as it has been from the prisons. I still labour under a deep feeling that I have no time to lose. You, I hope, may look to more years and to see more of success.

'It will be my duty to labour at the details and this I am doing. For the sake of the general measure I am compelled to look anxiously to the reform of the Metropolitan drainage. From the unavoidable division of labour I am driven to make omissions, and I must prepare you to find them, and for a time to hear complaints of them, which may appear to be well founded, but which cannot be helped.

'The Queen's speech expressed satisfaction not at the commencement of

¹ *The Lancet*, 9th September 1848.

² E. Chadwick to Lord Morpeth, 11th September 1848.

³ Lord Morpeth to E. Chadwick, 14th September 1848.

⁴ Lord Ashley to E. Chadwick, 25th September 1848.

Sanitary legislation, but at having laid the foundation of a commencement. To begin with half-legislative powers is bad enough but the present pressure on the revenue is pleaded for restricting us as to greater means of staff. For the present we begin with a provisional establishment with Mr Austin as Secretary and Professor Bain as Assistant Secretary, the staff with which the Sanitary Commission was worked. We shall feel our way with this, and make appointments from time to time as use may require. Dr Southwood Smith will be appointed as medical assistant.

'Pray let me know of the extent to which you would wish to be kept informed of our proceedings. I shall labour to have the facts on which we may have to decide fully placed before you that you may help with your own independent judgment. I propose to have our minutes so kept as to enable you during temporary absences to preserve the thread of the proceedings. I shall abstain from sending papers to you for the present or until I hear your wishes.'

There was still Dr Southwood Smith to be taken care of. Chadwick was always a little contemptuous of Smith, who for all his earnestness and capacity was a rather bumbling creature at office work and who thought at a much slower pace. He was also a little jealous, for Smith had admirers who made no secret that he and not Chadwick was the originator of the 'sanitary idea'.² These claims, recently revived by Dr Gavin, and by *The Examiner*,³ very much raised Chadwick's anger. But although he refused Smith the post of Secretary, on the ground that he was too dilatory, Lord Morpeth and he decided to make Smith the Chief Medical Inspector and then, if the cholera did come, annex him to the Board as its Medical Commissioner.⁴

II

By the time the General Board was gazetted, on the 23rd September, the pace of events had quickened. Chadwick had asked the Poor Law Board to prepare regulations for the Guardians: he had, with Professor Owen and Southwood Smith, wrung from the Treasury the appointment of two observers, Drs Sutherland and Grainger, to report on the disease at Hamburg.⁵ For a month no minutes were kept at the Board as the urgency of cholera precautions, the need to send out forms and circulars, and the numerous local petitions for application of the Public Health Act, drove the puny staff without respite.⁶

¹ E. Chadwick to Lord Ashley, 28th September 1848.

² Cf. *The New Spirit of the Age* (R. H. Horne), pp. 79 et seq.

³ E. Chadwick to S. Smith, 27th June 1848.

⁴ Lord Morpeth to E. Chadwick, 4th September 1848.

⁵ *Idem.*, 14th September 1848; 18th September 1848.

⁶ MSS. Minutes, General Board of Health, 1848, p. 1 (22nd November).

Meanwhile Sir William Pym stole a march on the new office and declared a quarantine.¹ But just as Chadwick's two medical observers reached the coast to go to Hamburg, the news came that there were cholera cases in a Prussian ship at Hull. They were diverted thither by 'telegraphic despatch',² reported, and were just about to sail for Germany when the General Board received the news that the disease had forestalled them: the cholera was in Sunderland! On the 28th, an Order in Council brought the Nuisances Removal Act into force, Pym and his Quarantine Department lost their authority and the General Board assumed control of the epidemic.

But no regulations were ready! Even the circular which Southwood Smith was preparing was not ready! Chadwick instantly became the hub of activity. He goaded the Home Office into the immediate appointment of Southwood Smith as Medical Commissioner, demanded that Lord Ebrington issue his Poor Law circulars without delay, made the police and the Poor Law inspector ready for a London outbreak, telegraphed Sutherland to proceed to Edinburgh and from Edinburgh moved him to Glasgow and Dumfries.³ Desperate at the delay in framing detailed regulations for the Guardians he undertook to draft them himself, having, he said, given orders for their preparation four weeks back.⁴

On the 5th October the Board put out its *First Notification of Cholera* to the United Kingdom. By the end of the month the detailed regulations were ready; on the 31st the *Second Notification* was issued, and on 3rd November the *Regulations*. All this was accompanied by a public squabble with the Quarantine Department (which would not officially lift its quarantine till the 17th when the Board officially notified them that cholera was already in the island,⁵) and by running fire from the *Lancet* and the Royal College of Physicians. The *Lancet* dubbed the Board 'utterly incompetent', and the sanitary administration a 'buccaneering piracy against medicine'. 'The Board of Health, the Quarantine establishment, and the College of Physicians are all' it jeered, 'in a state of wildest contradiction'.⁶ The College took exception to a lay body presuming to give advice within their own province. Its own sub-committee had reported the harmlessness of vegetables and animal foods—the Board's first notification had cautioned against them; the sub-committee had reported in favour of cholera hospitals—the

¹ E. Chadwick to Lord Morpeth, 21st September 1848.

² E. Chadwick to Lord Morpeth, 5th October 1848.

³ The Board vigorously and publicly attacked the quarantine in a 'Letter to the Privy Council', dated 9th November 1848.

⁶ The *Lancet*, 11th November 1848, vol. ii, p. 532.

² On the 26th September.

⁴ Idem., 7th October 1848.

Board had opposed them. The President, Mr J. A. Paris, addressed an angry expostulation to the Home Secretary. Morpeth answered in the most conciliatory way, on lines drafted for him by Chadwick,¹ but professional pride was not appeased. Paris conceded ironically that as Lord Morpeth had indeed stated in his letter, professional advice would have come better from a professional body.²

The root of the matter was professional pique. On the whole the Board's suggestions were approved by most of the College. They had as a matter of fact been framed on the advice of Sir J. Clark, Dr Arnott, Dr Hodgson, Professor Owen, Southwood Smith, and Adam Crawford, out of whom three were on the council of the College.

The Board's '*Regulations*' enjoined instant preventive action, together with preparations for medical relief in case the epidemic took hold. The Guardians were to get lists of the worst conditioned places, instruct their medical officers to report on them, and on the basis of these reports, to set to and cleanse them. In case the epidemic took hold, they were to make ready dispensaries, houses of refuge and arrangements for house-to-house visitation. The General Board believed that cholera was heralded by a premonitory diarrhoea, and that, caught in this stage, the disease could be stopped by constipative drugs such as chalk and laudanum. The house visitation was to trace all people in this premonitory stage and persuade them to take the drugs. It had a far more important secondary object. The Metropolitan Sanitary Commission had been told by Dr Hodgson that an immediate change of place and regimen for attacked persons had proved highly successful. This Chadwick strongly doubted. 'I always doubt', he said royally, 'the success of mere medicine'.³ Now at the eleventh hour new evidence of its success was brought him: furthermore, the College of Physicians strongly favoured the course and he was anxious to conciliate them. Therefore, in addition to dispensing drugs, the house-visitors were to seek out the cholera houses and remove the *still healthy* to houses of refuge.⁴

These arrangements may well excite the derision of a modern practitioner; but the Board's views were not a whit more fanciful than the host of contemporary theories, and were a good deal more practical. There was an 'animalcular theory' which held that cholera was due to microscopic agents carried on the wind, and there was a 'fungoid theory' which attributed it to minute fungi in food and water; there

¹ E. Chadwick to Lord Morpeth, 16th October 1848.

² The *Lancet*, 16th December 1848, vol. ii, pp. 673 et seq.

³ E. Chadwick to ?, 16th October 1848.

⁴ Ibid.

was a 'telluric theory' which stated that cholera was a poison exhaled by the earth, the proof of which was that it had never spontaneously broken out at sea. An 'electric theory' connected it with static electricity, and an 'organic theory' maintained that cholera was due to a lack of ozone and influenza to an excess of it.¹ What must have happened had these theories been acted upon? Perhaps the Board argued too strongly the impossibility of contagion: but the contagionists refuted themselves when they complained, as the *Lancet* complained, that the Board's doctrine 'was intended to prove the omnipotence of stench to produce cholera, plague, or any other epidemic and therefore that good sewers and thorough draining would prevent cholera, plague and scarlatina'.² Nor were the Board's remedial drugs any more fantastic than the advice which filled the newspapers, and which ranged from filling a man's stomach with olive oil 'until he could take no more', as in Spain, or beating him with rods and jumping on his stomach as was the practice in China!

The Board's methods did in fact have some effect on local epidemics—but not for the reasons they adduced. Very often, as soon as house-to-house visitation began, the number of cholera cases began to fall. The Board concluded that this was due to their catching sufferers in the early and curable stage and treating them with constipative drugs. In this way it cheated itself of discovering the true sources of cholera, while the thoroughly unscientific character of its *Report on the Epidemic Cholera*³ did little to enlighten the public.

The local epidemics of 1848-9 nearly always began as a simple contact type, and it was shown that 87 per cent. of the cases and 61 per cent. of the deaths took place in houses where more than one person had been attacked.⁴ Now both constipative drugs and removal to houses of refuge reduced the liability to contact. The constipative drugs prevented sufferers using their privy—this was important. Such privies were often 'Overflowing and the ground soaked with fluid excrement'; it was also 'common practice to retain the foecal remains in the rooms'.⁵ Similarly, the removal of the healthy from overcrowded and filthy dwellings where cases of sickness had already occurred was in effect to remove them from the possibility of contact with it.

The house-to-house visitation, and the subsequent removals to houses of refuge also, often checked the water-borne epidemics because in many cases it involved a change in water-supply. The striking

¹ *The Times*, 13th September 1849.

² *The Lancet*, 7th July 1849, ii, p. 21.

³ *Report on the Epidemic Cholera*, 1850 (Parliamentary Papers, 1850, xxi).

⁴ *Ibid.*, Appendix A, p. 44.

⁵ *Ibid.*, Appendix B, p. 42.

instance was at Mevagissey in Cornwall where 136 had already died from cholera out of a total population of only 2100. The Board's inspector removed all who would follow him to a tented camp, where, providentially, there was 'an abundant supply of excellent water, celebrated for its purity'.¹ Not a single case occurred in the camp, but everybody who remained in the town was attacked!

Unhappily the medical inspectors themselves attributed to the house-to-house visitation and to drugs, results which are clearly due to the ancillary measures which they undertook simultaneously. Thus Dr Sutherland, after admitting that the 'main localizing cause' of the Sheffield outbreak was the water-supply, and having stated that he had prevented further pollution, proceeded quite inconsequentially to give all the glory to the 'medical relief measures'.² The most striking example of this self-deception is to be found in the same doctor's report on Dumfries. The shape of the cholera graph shows that the epidemic was water-borne. The curve was mounting steeply when Sutherland organized the house-to-house visitation. Within three days the new cases fell from 38 to 14. Sutherland attributed this to the successful medical measures. But, at the foot of a lengthy and enthusiastic account of these, the following note occurs:—

'Lastly it having been represented to me that it was customary to draw the only water supply of the town from a portion of the river immediately below the outlets to the common sewers I have used my influence to put a stop to this most injurious and unnecessary practice and with success.'³

The Board, with great show of energy, did some of the right things for reasons mostly wrong. The strength of its theory was that it induced medical superintendents to lay about them at all possible 'localizing causes' within sight and smell. Its weakness was that it distracted them by too many competing considerations all of which it deemed equally menacing. The theory led Sutherland to prevent water-pollution at Dumfries and Sheffield, but it gave Chadwick no guidance in London conditions which posed a Hobson's choice between refuse in the sewers and refuse in the river.⁴ It was an epidemiology which could, and did, save life *incidentally*. Had the Board's instructions been fully and universally obeyed, many more lives would have been saved. But the Board's instructions for preventive action were carried out nowhere: and even the remedial measures were but partially obeyed.

¹ *Report on Epidemic Cholera*, p. 128.

² *Ibid.*, Appendix A, pp. 109 and 111.

³ *Ibid.*, Appendix A, p. 60.

⁴ See below.

CHAPTER III

THE BOARD AND THE EPIDEMIC

I

FROM the start it became obvious that the Guardians would not obey: and it was proved soon afterwards that the General Board could take no legal action against them. If anything were needed to show how hollow was the so-called 'centralization' of the Poor Law Board, it was this. Practically no preventive measures were taken anywhere. Most Boards delayed till the epidemic was among them, and they treated it as an aspect of poor relief. Before Dr Sutherland could get medicine for his cases he had to obtain an order for relief.¹ The Guardians jibbed at hiring more doctors, with frightful results: 'I have walked through affected districts', wrote Sutherland, 'and seen the people in terror running about in all directions seeking for medical aid where none was to be found—I have entered houses and seen the sick and the dying lying without help. . . . In one town the medical staff was broken up and dismissed in the midst of a wasting pestilence and numbers of families were thrown into mourning in consequence. . . . I know one case in which, on the eve of one of the most disastrous outbursts of cholera I have ever witnessed, the medical staff was dismissed and the dispensaries closed and where hundreds died without being able to obtain a single dose of medicine'.² Similar difficulties arose over the provision of houses of refuge. Less-eligibility had done its work too well: the Guardians who equipped them regarded them as workhouse wards, and the 'independent labourers' shunned them for that very reason.³ For their part the Guardians complained that medical relief would pauperize the poor, and did what they could to restrict relief.

Against this attitude the General Board found itself powerless. The law gave it no power to originate prosecutions for neglect or violation of its regulations. The Guardians had no penalty to fear except their indictment by a coroner's jury if death occurred through their neglect. Thus in Whitechapel the medical officers reported to the Board that cholera had broken out. The same evening the Board entered on its minutes 'that it is the opinion of the Guardians that at present the order

¹ *Report on Epidemic Cholera*, 1850, Appendix A, p. 137.

² *Loc. cit.*, pp. 137-8.

³ *Loc. cit.*, pp. 138-9.

of the Board of Health of the 18th November last¹ need not be acted on in this Union'. On the 21st, the Clerk laid before them the medical officer's returns and list of epidemic localities. The Board noted the returns and deliberately ordered the medical officers *not* to visit the places. The Coroner (Mr Baker) expostulated, describing the deaths at Hairbrain Court: there were three corpses, and with them a number of dying, all in agony, lying amidst 'foetid and unwholesome vapours from privies and bad drainage'. An inquest was held, and brought in a verdict of 'very great neglect'. The Board of Health proposed to take instant action on it: only to find such action was beyond its legal powers.²

An even more shocking affair was the case of the pauper school at Tooting. Here 1400 wretched children, undernourished, badly clothed, overworked, were packed into almost unventilated dormitories. Within a fortnight 229 were attacked, and 52 died. The deaths began to average 14 to 20 per day. The General Board instantly ordered the Unions to remove their children, yet although the death-roll was to reach 180, two Unions had the inhumanity to refuse, and the Board could do nothing.³

The Board succeeded only where its medical inspectors arrived at the scene of an outbreak and persuaded the local authorities to act. Thus at Dumfries the parochial Board deliberately ignored the Regulations for 29 days, in which 269 people perished out of a population of only 10,000. It was not till Sutherland arrived that the Parochial Board surrendered.⁴ On the other hand, Grainger, who went to Liverpool on a similar errand, met with a rebuff. The Liverpool authorities had talked big and done little. Grainger found no medical relief organized, no plan for house-to-house visitation, no houses of refuge, little hospital accommodation. He ordered house-to-house visitation and twelve additional medical officers. The General Board issued his instructions as a Special Order mandatory on the Liverpool authorities. For answer they sent back a blank defiance.⁵

II

The epidemic reached its height in January 1849, and then, with the cold weather, died away all over the country. By April and May

¹ This order (*The Third Notification*) made the preceding orders automatically operative as and where cholera broke out.

² First Annual Report, General Board of Health, Parliamentary Papers, 1849, xxiv.

³ First Annual Report, Parliamentary Papers, 1849, xxiv. Cf. C. Dickens, in *The Examiner*, 1849, *The Tooting Farm*, and *The Paradise of Tooting*.

⁴ First Annual Report, Parliamentary Papers 1849, xxiv.

⁵ *Loc. cit.*, op. cit.

only a few isolated cases were reported. In the lull, the Board set about repairing its breaches. In a report on *Quarantine* it reaffirmed still more strongly its belief in the non-contagiousness of cholera, and in its First Annual Report it drew public attention to the defects of the Nuisances Removal Act and served notice that it would ask for amendments. At the same time it asserted its confidence in house-to-house visitation and urged the local authorities to set their houses in order against the likelihood of a further outbreak.

The Board also counted its dead. It had been a very light visitation. There were only 988 deaths, and the outbreak had been almost entirely confined to Scotland. An *Order for renewing the general Regulations*, issued on 4th April, stressed that the preventive measures must be continued, but urged significantly that they would prove useful against typhoid in the event of cholera not returning. This special pleading proved tragically unnecessary. In June the deaths shot up from 13 (as in May), to 246—almost as many as in January, the crisis month of the former visitation. The Board immediately issued a *Fourth Notification*. The cholera was returning.¹

The Board had no inkling of what it faced. This time the pestilence struck everywhere, carrying off 700 at Manchester, 1000 at Hull, 2000 at Leeds, 3000 at Liverpool. For every death in the period up to March 1849, there were 60 in the months following. To control this tempest, lashing at every nook and cranny of the island, the Board possessed—*two inspectors!*

The storm centre was London which so far had escaped lightly. Here the Unions had had ample time to prepare, they lay under the very eyes of the General Board, while the main sewerage was under Chadwick's personal direction. But this did not save it. On the contrary, 14,000 perished.

Almost without exception the Guardians disobeyed the Board's instructions. In Holborn 107 deaths took place (15 in one single house) before the Guardians instructed their medical officers to search out and report on the fever nests. It is true that, as the epidemic spread, some Unions undertook some nuisance removals: but one wonders what abominations had been removed when everywhere there still remained such horrors as these:—

'Insufficient supply of water, overflowing privies, dust-heaps, filthy houses, want of privies, dilapidated houses, rain coming through the cellars, privies in the cellars the effluvium of which penetrated into every room of the house:

¹ Fourth Notification, 11th June 1849, Parliamentary Papers, 1849, xxiv, Appendix.

stagnant water in cellars, matter of cesspools soaking into cellars and staircase almost impassable in consequence; matter oozing through the walls of houses and into sitting-rooms: bone-boiling, piggeries.'¹

In strong contrast Chadwick showed immense zeal. He ordered the public sewers to be scoured and flushed as never before. 'No filth in the sewers—all in the river',² *The Times* commented, but Chadwick publicly defended this disastrous choice: the total surface and refuse cleansing would only pollute the Thames to the population of 1 in 5000 and this was better than keeping it in sewers where it would give off 'pestilential exhalations'.³ So it happened that every two or three months Assistant Surveyor Lovick would appear before the Metropolitan Commission of Sewers and report enthusiastically that between March and May 1848 he had flushed 29,000 cubic yards of filth into the Thames⁴ and between September 1848 and February 1849 another 80,000. As the epidemic mounted to its peak in August, he proudly presented 5773 cubic yards flushed into the water-supply each week, at the cost of only 6d. a cubic yard. It is true that Chadwick did not stand alone in this policy. As late as 27th August 1849 (ending a week in which 1207 Londoners died of cholera) he produced a document containing ninety-eight pages of names approving his course, many of them doctors. It was not till the 14th September that a questionnaire showed a hostile majority among the Union medical officers. His only consistent critic was *The Times*. 'What has Mr Chadwick done with his 450 cartloads of filth?' it exclaimed as the epidemic reached its height. 'Has he sent them to fertilize the fields of Kent or Essex? . . . No: he has sent them into the river that the whole Metropolis may share his favours and that the poison which is ejected from Westminster may circulate with freedom throughout Lambeth and Southwark'.⁵ *The Times* was too late to affect the issue. The damage had been done by July. The epidemic had become water-borne, and the monthly mortality shot up from 246 in June to 1952 in July, 4251 in August, until it reached a peak of 6644 in September.

Throughout the three months in which the epidemic mounted to its crisis this frightful mortality raged entirely unchecked, the Guardians showing an obstinacy and petulance which can only be described as criminal. To have applied the house-to-house visitation to London,

¹ *Report on Epidemic Cholera*, Appendix B, p. 127.

² *The Times*, 7th October 1848. Cf. 14th, 15th, and 21st September 1848.

³ *The Times* ('Metropolitan Court of Sewers'), 14th January 1848.

⁴ Reports, etc., of the Metropolitan Commission of Sewers [*British Museum 8776 L28:29*], 4th May 1848; 10th October 1848; 8th February 1849; 27th August 1849.

⁵ *The Times*, 21st September 1849.

its various districts ought to have been regarded as so many little towns, and in each 'a complete machinery should have been provided—a medical superintendent, medical visitors, nurses, dispensaries open night and day, houses of refuge, and a limited number of hospitals—'¹ Nothing of the kind was even attempted. Not a single parish or Union attempted to seek out the cholera or diarrhoea victims in their houses. Where additional medical staff was appointed, it was on a part-time basis and on the understanding that the patient would seek out the doctor: home visitation was often ruled out expressly. In most instances too, medical relief was granted only after an 'order' had been obtained, a regulation which was rendered still more cumbersome by the fact that the Guardians, till the epidemic was almost over, met only at weekly intervals. There was a great lack of hospital accommodation, and what there was proved dirty, ill-ventilated and overcrowded. In every part of London, members of the same family were attacked in succession, again and again, as many as six persons succumbing one after the other in the same house, and yet not more than three Unions opened houses of refuge!²

'Repeatedly and earnestly', said the Board of Health, '[we] urged on the Boards of Guardians . . . the importance . . . of making immediate arrangements . . . ; but our representations were made in vain. The Local Authorities could not be induced to carry into effect the preventive measures we proposed, and we ourselves had no means of putting them into practice. Our entire staff consisted of two medical inspectors, one of whom was labouriously and exclusively occupied in grappling with the epidemic in Scotland. . . .'³ At last the Board could hold its hand no longer. By an amended Nuisance Removal Act, piloted by Ashley, the Board received powers to summon witnesses, to direct measures of precaution to overcrowded graveyards, and to prosecute for wilful neglect or violation of its provisions. In the third week in August, when 1373 people were carried off, it determined to organize the house-to-house visitation itself, and compel the Unions to submit to this invasion of their authority. On the 23rd it squeezed from a reluctant Treasury sanction for a Principal Medical Inspector and four assistants. They took immediate charge of the worst districts, and reported to the General Board how many medical visitors they would need. Thereupon the Board issued Special Orders to the vestries or Unions bidding them appoint and pay the said visitors, and put the whole medical force of the Union at their inspector's disposal. The

¹ *Report on Epidemic Cholera*, Appendix B, p. 146.

² *Ibid.*, Appendix B, pp. 131-41.

³ *Ibid.*, *Report*, p. 109.

majority of the authorities complied sulkily. The Bethnal Green Guardians, although the disease carried off thirteen persons in a single day, waited five days before considering the Order and another five days elapsed before a full staff could begin its duties.¹ In Shoreditch, the additional staff was appointed, but neither hospital nor house of refuge was provided.² Hackney, however, obeyed with alacrity and showed great co-operation.³ By the first week in September the system was partially in force and the Board's initiative seemed successful. But the disease had outrun the medical visitors: this week marked the acme of the epidemic, and carried off no less than 2026 victims! Spurred to greater efforts, the Board applied to the Treasury for power to appoint another four medical inspectors, and began to issue Special Orders to the remaining parishes and Unions, to Kensington, Chelsea, Greenwich, St Luke, and to the City of London Union. Meanwhile for several weeks past local memorials had flowed in from the parishes respecting the state of their overcrowded burial grounds. With 3000 burials taking place in the week, the Board had to act. It was reluctant to use disinfectants, for the only one available was quick-lime, and this—as in the 1832 visitation—provoked hostile demonstrations. The slum population was fast losing its head, some even believing that the doctors were poisoning the wells to thin off the population and that the inspectors were there merely to see that the victims were not chosen too wantonly.⁴ The Board decided, on receiving the report of an inspector, to close the worst graveyards altogether, and, declining to brook further delay with parish delegations, began to issue peremptory closure orders to the churchwardens.⁵

The strain told on the whole office where Austin, Southwood Smith, the chief clerk, and chief office keeper were successively struck down by fever or diarrhoea, but told with especial severity on Chadwick.⁶ His hold on the Commission of Sewers was under attack and was being prised loose by a factious and merciless opposition inside that body, and by unremitting personal attack in *The Times*. The officers were in revolt, the proceedings were marred by recriminations, and the policy of flushing the sewers was opposed and finally reversed. In the midst of this he went down with a serious bout of sickness and for two days Ashley carried the Board's business single-handed.

On his return, so feeble that he could barely speak above a whisper,

¹ *Report on Epidemic Cholera*, Appendix B, pp. 153-4.

² *Ibid.*, Appendix B, p. 159.

³ *Ibid.*, Appendix B, p. 161.

⁴ E. Chadwick to Delane, 15th September 1849.

⁵ MSS. Minutes, General Board of Health, 13th September 1849 to 6th October 1849.

⁶ *The Times*, 17th September 1849.

he learned that the great crisis of the Board was at hand. Hayter, the Secretary to the Treasury, had told Ashley that he doubted whether the Board was legally empowered to appoint inspectors and refused to sanction the additional four until he had seen the Chancellor himself. This in a city and on a day where 500 victims died of cholera! Ashley had hastened to the Treasury, and finding it deserted, had returned and sanctioned the four inspectors himself in the hope that the Treasury would approve them later.¹ At the same time the churchwardens and Guardians were showing their teeth at the Board's increasingly vigorous interference. St Saviours' gave the signal. For five days the vestry took no action upon the Board's order to close its graveyard, and then convened a vestry meeting. 'The Chairman said that now that they had heard the order he would state that he had declined to obey it'. Their yard was healthy and it contained family vaults the income from which went to the reduction of the poor rates. He was seconded by Mr Thwaites (later to be Chairman of the Metropolitan Board of Works) who deprecated the meddling of a Whig Government and indeed any Government in their local affairs. Had the order been *general* he would have supported it: 'He would not support the present impertinent order of the Board of Health'.² The Greenwich Union immediately followed suit, and then the City of London Union. Both refused to make the medical appointments ordered by the Board.³ Ashley, who was resting after being relieved by Chadwick and Morpeth, counselled defiance despite the opinion of the Board's legal adviser, a Mr Law, that they would lose their case.⁴

'We must refuse . . . to receive any deputations or committees or any form of resistance to our Graveyards Orders. . . . The necessity for action is immediate, urgent, paramount to all law, right, or interest. At once refuse to receive deputations, and direct Law to act instantly—I will take my amount of responsibility.'⁵

Chadwick had already taken these drastic steps, and issued summonses against Greenwich, the City of London, St Margarets, the Tottenham Court Road Chapel and St Saviours.

The City of London case was postponed for a time pending the outcome of a conference in which the Lord Mayor tried to bring the

¹ As it did—six weeks later when another three thousand lives had been lost. E. Chadwick to Lord John Russell, *Letter on the General Board of Health* (N.D.) 1854. MSS. Minutes, General Board of Health, 7th September 1849.

² *The Times*, 12th September.

³ *Ibid.*, 13th September.

⁴ MS. Minutes, 10th September 1849; 13th September 1849.

⁵ Ashley to E. Chadwick, 12th September 1849.

Board and the Guardians to terms.¹ In the case of the Greenwich Union the magistrates declared they could not interfere and the case was postponed to go before a judge. The St Saviours vestry won its first bout against the Board, the magistrates declaring that 'such measures as the Board thinks fit' could not mean the shutting up of burial grounds but must be governed by the particulars set forth in the clause, namely, the use of disinfectants.² This case was also reserved for determination by a judge. 'Our affairs are coming to a crisis', commented Ashley, 'the magistrates against us, no courts sitting, the Treasury awkward.'³ 'Nevertheless', he went on, 'we have acted rightly, boldly, wisely. I never thought that our interpretation of the law would stand before a magistrate. But public opinion and feeling demanded that we act (-) our part.

'Our counsel must urge very strongly the public over-ruling necessity of our course.'⁴

Pending these decisions, the Board held steadily to its course. The house-to-house visitation was improved and extended in all but the recalcitrant Unions, and more Special Orders and prosecutions went out to churchwardens and Boards of Guardians.⁵ But as soon as the legal cases were heard before the judges it became clear that the Board was beaten. On 27th September it lost its case against the Whitefield Chapel Burial Ground.⁶ 'The effect of this important decision', commented *The Times*, 'must inevitably be to tie up the hands of the Board of Health during the winter respite of the pestilence.'⁷ The Board met and virtually recognized their defeat by taking measures to apply disinfectants to the offending cemeteries.

By then the worst was over. The cholera was passing. That week the deaths were only 434, one-half of the preceding weeks. In the first week of October they had sunk to 288, in the second week to 110. By the 20th the Board warned their remaining medical inspectors to make ready to go. On the 6th November the Queen issued a proclamation for a General Thanksgiving.

¹ *Report on Epidemic Cholera*, p. 109.

² E. Chadwick to Delane, 15th September 1849.

³ Ashley to E. Chadwick, 13th September 1849.

⁴ *Idem.*

⁵ Special Orders: 15th September, St Pancras; 17th September, St Mary Rotherhithe, 19th September, St George Martyr. Burial Orders were sent to New Bunhill Fields, St Lukes and St John, Clerkenwell, to stop further burials. On 17th, legal action was taken v. St George the Martyr.

⁶ *The Times*, 27th September 1849.

⁷ *Ibid.*, 29th September 1849.

III

The ordeal left its mark on the Board. The comradeship of its members had been sealed. 'Chadwick and Smith', wrote Ashley in his diary, 'are men who may feel but who know not fatigue or satiety in business when necessity urges or duty calls. As for the staff of the Board miserably paid as they are, I am unable to speak with adequate praise. They have laboured even to sickness and when struck down by the disease have hastened back to their work, not for emolument . . . but for conscience sake'.¹ 'But for the gallantry of Lord Ashley', said Chadwick in his turn, 'we must have been brought to a standstill.'²

The passing of the epidemic also revived old problems and brought new ones. It brought the Board back again to its primary duty of applying the Public Health Act to the country towns, and it permitted it to resume the search for a new London water-supply. At the same time, the Board's failure to close the London burial grounds had a marked effect on public opinion. A *Society for the abolition of burials in cities and towns* had been formed.³ *The Times* had declared that the next session must see the 'total prohibition of intramural burial in populous towns.'⁴ The Board itself, three days after their rout by the Whitefield Chapel Burial Ground, decided to draw up a 'scheme of interments for the Metropolis' and press for legislation in the coming year⁵; and by 27th October, when a draft plan was ready, Ashley, still smarting from the recent rebuffs, pledged his utmost aid, saying—'I shall positively refuse to undertake or support any half measure. The thing shall be complete or not at all.'⁶

The Board, then, was set for an attack upon the water-supply and the graveyards of London. In one sense the time was very ripe. The Board had reaped the prestige of courage. It had worked in a beleaguered city whence all the officials had fled. The vestries, by contrast, had covered themselves with odium. 'Where were our parochial strategists', cried *The Times*, 'what scheme of operations did they plan? . . .'

'The parochial officers did nothing—absolutely nothing. They left the graveyards festering—the cesspools seething—the barrels of blood steaming in

¹ Hodder, *Shaftesbury*, vol. ii, p. 296.

² E. Chadwick to Phipps, 1st February 1850.

³ *The Times*, 19th September 1849. Its chief sponsors were Dr G. A. Walker (President), Mr Thicke, Dr Powell, and G. Thompson, M.P.

⁴ *The Times*, 6th September 1849.

⁵ MS. Minutes General Board of Health, 1st October 1849.

⁶ Lord Ashley to E. Chadwick, 27th October 1849.

the underground shambles—the great mounds of scutch putrefying in the Bermondsey glue yards. . . . They rejected the medical officer's counsel—they scouted his warnings—they even mutilated his reports and only in the fifteenth week of a mortality unparalleled for two centuries did they consent to the nomination of the domiciliary inspectors—'¹

No time therefore could have seemed more favourable for the completion of the London programme, the consolidation of its sanitation under a Commission dominated by Chadwick and the General Board. Therein lay the irony of the situation. That same month saw the Chadwick Commission broken up and the Board of Health excluded, *en bloc*, from the new one which contained its embittered professional opponents. London had broken away.

¹ *The Times*, 26th September 1849.