

PART TWO

THE GENERAL BOARD OF HEALTH

1848 - 1854

CHAPTER IX

CHOLERA, 1848-1849

THE six years Chadwick spent at Gwydyr House were the happiest in his official career. He lost for a time the sense of frustration which at the Poor Law Commission, "where all was going back under the evil influence of the Lewis's,"¹ had weighed down the natural buoyancy of his spirit. Sitting at his desk in Gwydyr House, and feeling an intricate administrative machine respond to the thrust of his will; sending out his Inspectors to put chastened local authorities on the cleanly path of tubular sewerage and constant supply; drafting his Bills and memoranda, advising Ministers, receiving deputations of local magnates; taking up with zest the burdens which fell from the fatigued hands of colleagues and subordinates; working twelve or fourteen hours a day; so occupied Chadwick was more content than at any time since the Government had put the Poor Law inquiry into his hands. It will be convenient here to indicate broadly the main problems which claimed his attention. The first in point of urgency and immediate importance in 1848 was the cholera epidemic, the subject of the present chapter. Secondly, throughout the six years the Engineering Inspectors of the General Board were active in the localities, investigating, advising, educating, bringing some two hundred places and over two million people under the Public Health Act. They made blunders here and there, but on the whole this missionary work in the provinces was done well; and it forms the permanent and most successful achievement of the Board. It will be described in Chapters 13 and 14 below. Thirdly, London was a problem on its own, calling for special treatment both on account of its political importance as the capital city and its administrative complexity as the greatest assemblage of people and buildings in the world.

¹ E. C. to W. D. Christie, 29 May 1848.

In London Chadwick met defeat. He failed at the Metropolitan Commission of Sewers to produce a workable plan for the main drainage of the capital. He failed again to replace the anarchy of the burial trade by a planned service under a public monopoly such as he had been advocating since the Interments Report of 1843. He failed finally to break the hold of the water companies and give Londoners the benefits of a publicly owned water supply. The reasons for these three failures will be examined in Chapters 10, 11, and 12; as a result of them the administrative consolidation of London which Chadwick planned had advanced no further than the first step, the unification of the seven Metropolitan Commissions of Sewers. From the end of 1851 Chadwick and his two allies at the Board were on the defensive. Inside Gwydyr House the harmony which at first prevailed was broken when the well-disposed Carlisle was followed by one President actively malevolent and two others indifferent and uncooperative. Outside, with the passing of the cholera, the popular enthusiasm for sanitary reform rapidly subsided; while a score of threatened interests fought in the Press and Government offices to discredit the Board. The decline and fall of the Board will be described in the last three chapters.

Chadwick's self-esteem which at times degenerated into arrogance, his inflexibility of thought, his irritability in the face of criticism, combined to make him an uncomfortable colleague. At Somerset House he had shown that he expected to be first in authority as he was first in knowledge; and that if he could not rule, he would be leader of the opposition. By good fortune, rather than by conscious intention on the part of the Cabinet, he now found himself associated with two men who were fundamentally in agreement with his views, and who in consequence either could see no objection to his proposals, or curbed their opposition for the sake of a smooth-running unanimity. The reformers had indeed been put in office: Chadwick, the brains of the public health agitation, Southwood Smith, its chief organiser, Lord Ashley, the chairman of the London Health of Towns Association. Chadwick, waiting in trepidation for the name of the colleague whom the unpredictable workings of patronage would thrust upon him, was delighted at Ashley's appointment. "It afforded to the Country a guarantee of earnest-

ness, sympathy for suffering, singleness of purpose in labouring for its relief."¹ They presented a strong contrast, the eupeptic Chadwick, who had his disappointments but never his doubts, who entered on every task with such unclouded confidence; and the self-questioning Ashley, with his "prolonged fits of despondency," "whose views are usually the reverse of sanguine."² One characteristic they had in common: they both liked their own way; and it is a remarkable fact that in six years of collaboration these two masterful men never clashed. Partly, perhaps, it was because there was a natural division of function between them. For Chadwick undisputed authority at Gwydyr House, the shaping of measures, the delights of power wielded behind the scenes; for Ashley the Parliamentary limelight, the influencing of audiences, the satisfaction of doing good conspicuously. In this way the clauses that Chadwick had had in mind since the time of the *Sanitary Report* appeared before the public in 1851, and went down to history as "Lord Shaftesbury's Lodging Houses Bill."³ Their agreement was based, however, on something deeper than complementary capacities and spheres of action. Lord Ashley, the Evangelical of the Evangelicals, and Edwin Chadwick, who probably never felt any religious emotion in his life, had a body of beliefs in common, and the currents of their thought—springing from sources so widely separated—yet ran in parallel channels. They dreaded that the sullen resentment of the neglected workers might organise itself behind the Trade Union leaders and the Six Points men. They maintained that if a Chartist millennium were to be averted, the governing classes must free the governed from the sharp spur of their misery, by improving the physical conditions of their lives, and by bringing them under the influence of that judicious education whose conservative power had been known to the privileged since the days of Plato. They saw the remedy in the intervention of the impartial power of Government to check the more obvious crudities of exploitation, and to raise a bulwark for the unprotected against organised economic interests and local governing cliques.

Far from colliding, therefore, these two strong wills supported

¹ E. C. to Lord Ashley, 28 September 1848.

² E. C. to F. O. Ward, 1 June 1855; to ?, n.d., c. 1852.

³ E. C. to M. Charles Verge, n.d., c. 1890.

and encouraged each other, giving to the activity of the Board a multiplied energy. There was firmness, too, in the unobtrusive Southwood Smith, who at the age of seventeen had thrown up a scholarship for conscientious reasons, and who was fond of saying that "Life is not long enough for us to reconsider our decisions."¹ But he was slow—"deliberate," Chadwick called it, to avoid the less kindly adjectives employed by others—and at times of pressure his more forceful friend fretted to see papers accumulating in the Doctor's unhurrying hands. When Southwood Smith suggested that he might act as Secretary to the new Board, Chadwick was firm in his refusal. The post was inconsistent with the Doctor's business habits.² Eventually he entered the Board by a side door—the clause of the Nuisances Act which permitted the appointment of a medical member.³ It was not a gracious entrance for a man whose name was linked with Chadwick's as a pioneer of sanitary reform, nor was it a propitious introduction of medical science to the counsels of the Board. There was always a hint of supercilious amusement, not untouched with jealousy, in Chadwick's attitude to the Doctor, whose heart was bigger than his head.

The easy-going Lord Morpeth was never quite at home at Gwydyr House, with the ebullient Chadwick and the sombre, moody Shaftesbury, both in their different ways so earnest in their sanitary labours. Chadwick he sincerely respected, but found him, with his strong-minded views about every subject that arose, a constant source of embarrassment. He thought it wise to warn at once this formidable colleague of his, who was entering office with expectations sharpened by a series of disappointments, and who over a decade had been maturing large-scale plans of reform: "Whenever I may be inclined upon any occasion, such as I hope and believe will be rare, not fully to go along with you, it will probably arise from a wish to temper too sudden a strain after perfection by what I may feel to be the most practicable modes of dealing successfully with Parliaments and Bodies of men."⁴

There was no question who was master. The voice of the Board was the voice of Chadwick. The majority of the docu-

¹ C. L. Lewes, *op. cit.*, p. 4. ² E. C. to Southwood Smith, 11 August 1848.

³ *London Gazette*, 5 October 1848, p. 3615.

⁴ Lord Morpeth to E. C., 4 September 1848.

ments they issued came from his pen; the remainder were revised by him, frequently to the extent of being almost rewritten. When Ashley and Morpeth spoke in the House, they were briefed by Chadwick. The Poor Law mutineer had at last a command of his own, and he was fortunate to have it manned by men who were ready to give a proper deference to his massive knowledge, and who would not dissipate time and energy in untidy dissensions.

The first task was to get a staff together. The Government were uneasily awaiting an attack on their expenditure which was threatened from all sides in the coming session. When Chadwick called at the Treasury, Sir Charles Trevelyan, the Permanent Secretary, assumed an expression "almost of fright at the idea of being asked for any money; and before I could enter into any explanations with him he began to exhort that expense might be spared." But when Chadwick outlined his modest demands, he "relaxed and highly approved."¹ A Secretary (Henry Austin) at £400 a year, an Assistant Secretary (Professor Alexander Bain) at £300, one copying clerk, the messengers and housekeepers already on duty in Gwydyr House²—not even the most apprehensive of Treasury officials could charge the Board with extravagance in staffing an office which was to have control of a new and complicated field of administration, and to conduct correspondence with local authorities in all parts of England, Wales, and Scotland. Chadwick had cut his requirements to the bone to avert Treasury opposition, and when, a week later, his own salary was publicly announced at £1,200 instead of the £1,500 he had expected, he felt that the time for protest had arrived. It was lower than that of an Enclosure Commissioner, an Usher of the Black Rod, a Town Clerk of Manchester or Liverpool; not to mention the Secretaries of railway and trading companies—for, unlike this niggardly Government, commerce knew the wisdom of rewarding the enterprise and ability of its servants.³ He got his £1,500.

The Treasury objected even to the Board's estimate for the

¹ E. C. to Lord Morpeth, 4 September 1848.

² Board of Health to the Treasury, 26 September 1848.

³ E. C. to Lord Morpeth, 30 September 1848. MS. notes, "Payments for superior service," 1848.

price of a seal, and Chadwick was obliged to send Austin out to see what could be bought cheaply second-hand.¹ Such cheese-paring would be merely comic if it did not reveal that the Government conceived of the scope of the new department as being no more than a subordinate function of a subordinate Minister. At Chadwick's suggestion, Morpeth urged that two medical observers should be sent to the Continent as in 1831 to watch the advance of the cholera and report on the steps which foreign Governments were taking to meet it. What was the use, replied Sir Charles Wood, when no one mode of treatment had been found to answer in all places?² It would take more than an impending epidemic to stampede the Chancellor of the Exchequer into incurring a bill for a medical wild-goose chase over half Europe.

In ministerial circles a new Board meant places to be distributed, friends to be obliged, and supporters to be placated. Chadwick, recruiting his staff, had never known the pressure of applications so heavy; but he had been given a free hand, and he dropped no crumbs for the hungry crowd of expectants who waited at the door of the Patronage Secretary. He warned Lord Morpeth, who had a kindly man's easiness and a Whig's sensibility to the claims of family and party:³ "For myself I was early disposed to accept and act upon favourable representations of men, until the contrary was proved, and I have paid most bitterly for it. I have been convinced against my own will that a reverse rule is the sound one for ordinary cases; but in our peculiar work, I cannot but feel that it is a strong necessity. To take for granted, to presume that all will be well, that error may be easily rectified; that to use Lord Melbourne's expression, "things will shake right" and as we wish them is the most easy and pleasurable

¹ It was fully in character for Chadwick to turn the tables by conducting an inquiry into the cost of manufacturing seals. He found that the contract price for seals was £40; yet equally good seals had been obtained for the Sewers Commission for £5; and with a little thought he himself devised a method of making superior seals for £2. He received no thanks for his pains. "The subsequent conversations with the Treasury on minor subjects had been curt and disobliging and in a tone open to the inference that the inevitable explanations referred to had by no means promoted cordiality." (MS. notes, "Administrative Relations of General Board with Treasury," n.d.).

² Lord Morpeth to E. C., 18 September 1848. One Medical Inspector (R. D. Grainger) was eventually sent to Hamburg for a few weeks.

³ E. C. to Lord Morpeth, 18 September 1848.

course: to scrutinize, to cross-examine, and to refuse: to watch and remove or reprove for partial failures, is disagreeable to me; but not other people's money, but literally extensive life and death, others' pain and misery depend upon the performance of this duty." It was thus no help to a candidate to bring to Gwydyr House a chit from the Treasury or a powerful friend. In selecting the Board's Superintending Inspectors Chadwick looked for men who were not blinded by indurated professional habits, and whose practical experience fitted them to understand the novel combination of works which was the heart of his sanitary scheme. There was Robert Rawlinson, for example, the young Manchester engineer, who had startled the Liverpool Council by his brilliant plan for bringing water to the city from the Bala Lake in Wales, seventy-two miles away; William Ranger, a former lecturer at the College of Civil Engineering at Putney, whose experience had been gained in the Fens and on Pevensey level; George Thomas Clark, railway engineer and archæologist, who had written on public health for the *Westminster Review*, and was later to make a name as the master of the Dowlais ironworks; Edward Cresy, the author of a standard *Encyclopædia of Civil Engineering*, and an expert on hydraulics as applied to house and main drainage; James Smith, "Smith of Deanston," the authority on agricultural drainage, an old ally from the Health of Towns Commission. As Secretary he had named another young engineer, Henry Austin, brother-in-law of Charles Dickens, who had earned Chadwick's special esteem by his plan for draining the low districts of towns by steam power, and who was fighting Chadwick's battles before the Metropolitan Sewers Commission. The selection of such men as these did not make for easier relations with the Treasury subalterns, but it put under Chadwick's command a small corps of competent investigators, most of them young and flexible in outlook, all of them possessed of enthusiasm for the new principles of sanitary engineering, and of practical capacity to carry them out on the spot.

By September 1848 Chadwick already had news of applications in agitation at York, Plymouth, Rotherham, Llanelly, and Barnstaple; while "a Candidate for employment is getting up a movement from Newcastle."¹ In December he was able to report

¹ E. C. to Lord Morpeth, 20 September 1848.

to Lord John Russell that seventy-five places had applied, including Derby, Wolverhampton, Dover, Portsmouth, Gloucester, Worcester, Preston, and Leicester—a body of applications which put an end to the talk of universal resistance. While the Continent was “convulsed with questions of privilege and sentiment affecting the labouring classes, which will commonly make bad worse,” he was sanguine that they would achieve striking results “by avoiding the metaphysical, and by pursuing a quiet but strong course of physical improvement (in which I would submit that it is most important that the Government, and the natural leaders should take and keep the lead).”¹ Eschew political metaphysics; aim at the practical in social reform; put your trust in Government—no better illustration than this recipe for English statesmen could be given of Chadwick’s position in that current of thought which arises in Bentham at the beginning of the century and flows into Fabianism at its end.

For the next fifteen months, however, though the Inspectors pushed on steadily with their local inquiries, the main energies of the Board were directed towards the task of fighting, with limited powers and a handful of overworked officers, the epidemic which for the last year had been leisurely traversing the Continent. The cholera had marched from Moscow to the Danube as the Commons began to discuss the Public Health Bill; scattered cases were reported from Berlin as it passed the Lords. The dread shadow overcast the debates, and from time to time legislators threw uneasy glances over their shoulders at its steady advance. To meet the challenge the General Board had only the exiguous powers of the Nuisances Removal and Diseases Prevention Act, as amended in 1848 (11 & 12 Vict., c. 123); and before they could employ even this weapon they must wait until the Privy Council should deem the danger sufficiently acute, and issue an Order in Council permitting them to use these emergency powers for a period of six months. Not until such an Order was published could a medical member be added to the Board or directions be issued by them for the cleansing of streets and dwelling houses by the Guardians of the Poor. Another year elapsed, and the epidemic was nearing its height, before powers

¹ E. C. to Lord John Russell, 5 December 1848.

were granted to the Board and the Poor Law Guardians to institute prosecutions for violation or neglect of the Board’s regulations (12 & 13 Vict., c. 111, ss. iii, iv). From the first, then, in this important field of their activity, the one which for over twelve months bulked largest in the public eye, the Board’s authority was circumscribed by an ancient jurisdiction stubbornly maintained by the Privy Council Office.

Fearful and guilty local authorities could not at first bring themselves to admit that the retribution they had seen approaching with a steady inevitability was now really upon them. The earliest cases of cholera were hushed up or laid to the account of some less dreaded malady. But by the end of September 1848 it could not be concealed that the disease had begun its work in England; and, as the Metropolitan Sanitary Commission had predicted, it appeared by a kind of hereditary succession in those neglected districts where plagues and fevers were bred anew for each generation. In Leith the first case was in the same house in 1848 as in 1832. In Bermondsey it was near the same ditch. In Pollokshaws the first victim died in the same room and even the same bed as sixteen years before.¹ Amongst the earliest places attacked in London was Fore Street, Lambeth, where “the miserable inhabitants look more like ghouls and maniacs than human beings,” where the doorways at high tide were blocked with boards and plaster to prevent the river getting in, and the surgeon made his way to his patients along planks laid over two feet of water.²

The two sailors from the Hamburg vessel at Horsleydown had undoubtedly died of Asiatic cholera, Chadwick informed the editor of *The Times* on 6 October. There had been two more undeniable cases in Lambeth, two in Sunderland, five in Edinburgh.³ The ripples of the epidemic were beginning to widen. Sitting in the midst of their cesspools and dungheaps, the local authorities were fluttering in apprehension. The Sheerness Guardians were in a panic, reported *The Times*. They had reason to be. “The offal of a population of eight thousand lies upon the surface of the streets and alleys in its most disgusting form. The only resemblance to a drain is a ditch which surrounds

¹ *Report on the Epidemic Cholera of 1848 and 1849*, p. 18; *P.P.*, 1850 vol. xxi, p. 3.

² *Times*, 28 October 1848.

³ E. C. to J. T. Delane, 6 October 1848.

the town, full of black and stagnant matter, and forms the last receptacle for all the carrion that is too bulky and offensive to wither in the streets."¹

On 2 October an Order in Council gave the Board powers for six months under the Nuisances Act, and three days later they published their first Notification in the *London Gazette*. To understand the administrative measures that it prescribed it must be remembered that the Board had no conception that the causal agent of cholera was a self-propagating micro-organism, discharged in the evacuations of the sufferer, and borne to the next victim in contaminated water or on the feet of that filthy feeder, the house-fly. They were not even aware that cholera was a specific infection, as distinct in its nature from plague and typhus as the elephant from the giraffe and camel. The plague of Alexandria, in their view, was the typhus of Whitechapel; yellow fever differed from ordinary fever only in intensity; and the cholera also was no more than a virulent form of those familiar crowd diseases which killed thousands every year in the slums of the great towns. The doctrine that one epidemic differed essentially from another Southwood Smith wrote off as an eighteenth-century error. Under the influence of the "epidemic atmosphere" it was possible for mild indigenous fever to develop into the most deadly of plagues; and, in support of this, Southwood Smith claimed that, six months before the cholera epidemic broke out in 1832, he had observed that cases of typhus in London were taking on characteristics approximating to cholera.² The Board were convinced therefore, that every case of diarrhoea—resembling as it did the first onset of the epidemic—was potentially a case of cholera. There is a consequent confusion, both in the methods of treatment they advised and in their accounts of the progress of the epidemic. The medicines prescribed in their Notifications were directed at the symptoms of diarrhoea, and the medical visitors were instructed to seek out all cases of looseness of the bowels. If any such cases did not pass into developed cholera, they were acclaimed as victories of medical science. Hence, since they found sixty cases of diarrhoea, the great majority of which were amenable

¹ *Times*, 24 October 1848.

² *Report of the General Board of Health on Quarantine*, p. 12; *P.P.*, 1849, vol. xxiv, p. 137.

to treatment, to every cholera death, the Board had a highly inflated opinion of the efficacy of their methods.

Opposed to the Board's theory was that of a large minority of the medical profession who retained the traditional belief in specific contagion. But if it were true, declared the Board, that anyone who touched a patient might himself develop the disease or transmit its *contagium vivum* to the next person with whom he shook hands, then the general practitioner on his rounds would leave a trail of death behind him; and every member of the General Board of Health must have fallen victim to cholera or typhus, since from morning to night they were receiving visits from medical inspectors just returned from the worst localities. Indeed, it was difficult to see how the human race had managed to survive so long, if every epidemic disease could thus propagate itself in all directions. Rejecting such absurdities, the Board directed attention towards those physical factors in the environment with which they believed disease to be associated. In the Report published in August 1850, in which they described their activity during the epidemic, they gave a list of ten of these "localising" or "predisposing" causes—overcrowding; filth; malaria from putrescent mud; dampness; want of drains and bad drains; graveyards; unwholesome water; food; fatigue; and purgatives.¹ The one "cause" on which the modern epidemiologist would fasten, unwholesome water, ranks seventh in the list, and is regarded, not as the vehicle for infection, but merely as a predisposing agent.

In the London of 1848 it was only too easy to point to some adjacent nastiness or offence to the nose to which a local outbreak could be attributed. "The epidemic was no respecter of classes, but was a great respecter of localities," wrote Dr. Sutherland, one of the Board's medical inspectors. "Rich and poor suffered alike or escaped alike, according as they lived in the observance or violation of the laws of their physical well-being."² They were attacked when they lived near the Regent's Canal, which had not been cleaned out for twenty-five years, or near the two acres of refuse accumulated in a suburb of Hull; when they lived in the Potteries with their three thousand pigs and their fat-boiling plant, or in the Taunton girls' school, where sixty-seven girls

¹ *Report of the General Board of Health on Quarantine*, pp. 37-67. ² *Ibid.*, p. 73.

were crowded into one sleeping room, with an average of sixty-eight cubic feet of breathing space each.¹ On the other hand, there were remarkable instances where the avoidance of filth had preserved lives as by a kind of providence. Hector Gavin reported the case of a well supplying a dozen houses, which was surrounded by four cesspools within a radius of twelve yards. The water was as thick as soup with seeping matter, and the landlord's agent was obliged to pump for an hour every morning before it ran clear enough for use. Of the eighty-five occupants of the houses, twenty-two did not use the well, and all escaped, while forty-six of the remaining sixty-three were attacked by choleraic diarrhoea.²

Under the terms of the Nuisances Act Chadwick's regulations were directed to the Poor Law Guardians, but he framed them avowedly with the object of concentrating power and responsibility in the hands of the Union medical officers. All places certified by them to be dangerous to health were to be cleansed every twenty-four hours; they were to inspect lodging-houses, and require the landlord to ventilate them; where a family inhabited a single room, they were empowered to order the removal of the patient or, alternatively, of as many as they deemed necessary of the other occupants. Dispensaries were to be opened at convenient stations, to supply remedies and advice on bowel complaints; and also "Houses of Refuge," to which endangered families might be removed. Believing as they did, that while the "epidemic atmosphere" prevailed, any case of diarrhoea might develop into cholera, the Board instructed the Guardians to have the infected districts combed out daily for such cases by a small squad of qualified officers. For the same reason they advised that all foods which tended to irritate the bowels should be avoided, every variety of green vegetables, for example, and all kinds of fruit; the diet should be solid rather than fluid, and animal rather than vegetable. They also placed a maternal insistence on the importance of warm clothing, and recommended the wearing of flannel next to the skin.³ All such advice was rather remote from the actualities

¹ *Report of the General Board of Health on Quarantine*, pp. 49, 45-6, 43, 37-8.

² Seventh Notification, *London Gazette*, p. 2683.

³ Notification in respect to Nuisances Removal and Diseases Prevention Act, *London Gazette*, 6 October 1848, pp. 3616-20. Second Notification, *ibid.*, 31 October 1848, pp. 3875-84. Special Notification to Captains of Merchant Ships, Steamers and Colliers, 1 December 1848, pp. 4386-9.

of life in Whitechapel and Bethnal Green, where many thousands of those in the greatest danger were in no position to pick and choose their daily dietary or change their clothing to order.

Outside Gwydyr House, with its confidence and calm certainty, schism and dissension split the ranks of the medical profession. Cholera bewildered the doctors. "*Quot medici, tot sententiæ*," observed *The Times*.¹ Theories as to its cause poured in to the *Lancet* and *The Times*, ranging from Budd's "Fungus Theory" and Snow's remarkable anticipations, to hypotheses thin spun by vast ingenuity from a handful of selected facts. Lea urged his "Geological Theory" that cholera miasm became toxic only when acted on by the calcareous and magnesium salts in water; while a Mr. Baggs lectured at the Polytechnic on "its dependence on the electric state of the atmosphere," stating that "this view of the subject is original."² One physician recommended a nostrum from an ancient Arabian manuscript;³ another outlined how to treat a case on algebraic principles. "In our profession," commented Dr. Sutherland drily, "every new occurrence, an epidemic, or a new remedy, or an extraordinary case of disease, is attended by violent literary symptoms."⁴

While the doctors thus disagreed amongst themselves, it was inevitable that they should watch with jealous eyes the intrusion of a lay Board into their professional field. Chadwick had wanted his new department to be called "The General Board of Works and Health," or some such name, which would make it clear that its functions were chiefly in relation to those environmental factors which affected the public health. But a Board of Health it was, and presently it was being looked to for rulings on medical questions. The mutterings of the Colleges of Physicians and Surgeons grew louder. It was a strange Board of Health which occupied itself mainly with house-drains and water-pipes. Under it three laymen, two nobles and a lawyer, prescribed treatment; civil engineers analysed mortality rates, and a farmer (Smith of Deanston) conducted inquiries into the sources of disease—while the one medical member of the Board, added apparently as a kind of afterthought, drafted regulations for sweeping streets and emptying privies. Chadwick, with his oft-expressed desire to put

¹ *Times*, 1 September 1848.

³ *Ibid.*, 14 September 1848.

² *Ibid.*, 25 August 1848.

⁴ Dr. J. Sutherland to E. C., n.d. 1848.

doctors out of business, was the main target, and when the Treasury cut the allowances of the Board's medical inspectors to two guineas a day, there was an outcry against his "poor law parsimony" and "enmity to the profession."¹ The cholera notifications led to open conflict between the Board and the two Royal Colleges. The *Lancet* sneered at the "extempore doctors" and the "zymotic gibberish of Dr. Southwood Smith."² The College of Physicians published a counter notification, which in contrast with the Board's warnings about fruit and vegetables imposed no restrictions on diet, and there was a brisk exchange on the subject of the cabbage as a predisponent to cholera. Though Morpeth congratulated Chadwick on having "cabbaged" the physicians,³ the dispute did nothing to dissipate the impression that the Board was dominated by an unprofessional meddler.

It had been a mistake not to consult the medical corporations before issuing the cholera notification, a mistake which the Board tried to correct when an epidemic again threatened the country in 1853. Chadwick endeavoured to make his peace with the College of Physicians by a studiously courteous letter which he drafted for Morpeth's signature,⁴ but he did not do so with a single mind. He was in no wise repentant. He had been criticised for his impertinence in offering a layman's judgment in technical questions; but his private (and far from silent) opinion was that the physicians were now seeking to annex as a medical province a field of investigation which he himself had opened up, and were presuming to set themselves up as the supreme authority on a subject about which most of them were grossly ignorant until the appearance of his *Sanitary Report*. He always doubted the "success of mere medicine,"⁵ and tended to minimise the importance of the medical practitioner, whose training was to cure rather than to prevent. Medical men, he told Morpeth, were much divided amongst themselves; they distrusted each other; and the schools that distrusted medicine altogether were large and increasing.⁶

¹ E. C. to Sir George Grey, 18 October 1848.

² *Lancet*, 7 July and 9 August 1849.

³ Lord Morpeth to E. C., 17 October 1848.

⁴ E. C. to Lord Morpeth, 16 October 1848. The letter was published in the *Lancet* on 16 December 1848.

⁵ E. C. to Lord Morpeth, 16 October 1848.

⁶ E. C. to Lord Morpeth, 20 August 1848.

Clearly he conceived that the engineer, bringing abundant pure water to the poor and flushing away their refuse cleanly and expeditiously, and the architect, designing for them dry and airy dwellings, would between them throw out of employment a large proportion of the profession which lived on the ills of mankind.

Chadwick's scorn, it should be remembered, was directed at a profession which had yet to take itself in hand by the Medical Act of 1858. It should be remembered further that his narrow conception of the part the doctor was to play in public health administration was rooted in the theory that disease was a product of a deleterious environment. But whatever the reasons—and to those just noted we should undoubtedly add Chadwick's own superb self-confidence—his attitude crystallised into the principle that the professional medical expert should be subject to lay administrative control. For this he advanced two main arguments. First, no pharmacopœia could supply the preventive remedies he advised; they were to be dispensed, not by the apothecary, but by the engineer and the architect; while the prescriptions required must be written out in the form of Acts and regulations by the legal practitioner. Secondly, in the public interest the Board of Health must be quite free to adopt new views at once from whatever quarter they might come. Now the greatest obstacle to the progress of medical science was the "fixed professional opinion" of the medical men. They had ruined Harvey, and opposed Jenner. A lay Board, however, would not be held back from advocating new views by the fear that these would injure their practice or professional position. The same lesson was taught by experience in other fields. "It is a well known fact that in the church the brightest ornaments owe their elevation not to episcopal but to lay patronage. Nelson would never have got forward with a Board of Old Admirals."¹ Chadwick thus inaugurated a debate on the relations between medical officers and administrative civil servants which continued for more than half a century after the fall of the General Board; and which was not finally resolved until by a Minute of August 1919 the Chief Medical Officer of the Ministry of Health was given the pay and status of a Permanent Secretary, and permitted direct access to the

¹ "Notes on the hostile attitude of the College of Physicians to the preventive work of the Board of Health," MS., n.d.

Minister in order to submit proposals and discuss matters falling within his responsibility.

Meanwhile, leaving Morpeth to soothe the offended physicians, Chadwick was deploying his slender forces to meet the attack of the cholera. The appointment of two medical inspectors, Dr. John Sutherland and Dr. R. D. Grainger, had been sanctioned by the Treasury, and of these one, Sutherland, was immediately ordered to Edinburgh to aid and encourage the Scottish towns.¹ The police and the Poor Law Board were warned. A circular to the Bishops suggested that the clergy take the lead in calling the attention of the parochial authorities to the need for preventive measures. Chadwick was busy preparing regulations for the medical inspection and purifying of suspected vessels, when without warning Sir William Pym, the arch-contagionist at the Privy Council Office, clamped down a quarantine. Was this, fumed Chadwick, how a new department, whose influence was moral rather than legal, should be ushered in—by public contempt of one of its fundamental propositions?² The quarantine was so much ink on paper; as in 1831, when almost the only ships put under restraint by the cordon on the Wear had sailed from Dutch ports where no cholera cases had occurred. Even if it were not so ineffective in its administration, it was too late. The shipping interests appealed to the Board to intervene, and the medical officer of the Customs called on Chadwick to confide his own private opinion of its flagrant absurdity. But no answer came from the Privy Council to the Board's remonstrance,³ though in the end, when it could no longer be denied that cholera was already busy in both England and Scotland, Pym agreed to lift his quarantine.

The Poor Law Unions, with their surgeons and fever wards, were better equipped to fight an epidemic than the vestry committees and volunteer bodies of sixteen years before. But Chadwick, who a month before the cholera broke out had complacently reassured Lord Lansdowne of the strength of this new machinery

¹ E. C. to Lord Morpeth, 5 October 1848.

² E. C. to Lord ? , 10 October 1848.

³ Minute, undated, of October 1848. Also "Notes on the Privy Council administration on quarantine and other Laws," MS., n.d.

of his designing,¹ soon perceived that the legislature had committed a grave error in entrusting the execution of the Diseases Prevention Act to the Guardians. From their Board rooms the Guardians viewed the needs of one class only, the destitute; they were now called upon to meet a collective emergency which threatened all classes, the ratepayer as much as the pauper, without any consideration for that important if indistinct line which marked off the respectable and self-supporting from the disreputable and dependent. They were set up as a breakwater to protect property against the rising tide of pauperism, and the master principle of their administration was "to do nothing except on application, and then only upon proof given of the urgency of the case."² They were now asked to forget their rate books, and take the initiative in seeking out opportunities for the exercise of their new powers. Most of them stuck in their Poor Law rut. "They could not comprehend the duty of *searching for* objects of relief."³ Preventive measures were regarded as common medical relief, to be given only upon the order of the medical officer, issued after inquiry and adjudication. Where a portion of the workhouse was set apart as a "House of Refuge," the workhouse test was applied to those who sought admission. "The majority of the Guardians," Dr. Sutherland reported after a visit to the Sculcoates Union, "consists of country people who would meet as often as you like, discuss for ever, and agree to nothing."⁴ In the towns the Guardians were usually too fully occupied with their existing functions to find time to master these new and unusual duties. When they did act, they did so on the narrowest view of the situation. Not until cholera had unmistakably appeared in a district would they order whitewashing and cesspool cleansing, and strengthen the hands of their medical officers. Execution of the General Board's orders was generally postponed until the Guardians held their regular weekly meetings, the only motive for delay that the Inspectors could discover being "the hope on the part of the Guardians that the epidemic would have passed before the orders were executed, and that therefore the expense

¹ E. C. to Lord Lansdowne, 29 August 1848.

² *Report on the Epidemic Cholera of 1848 and 1849*, p. 138.

³ Seventh Notification, *London Gazette*, 18 September 1849, p. 2863.

⁴ Dr. J. Sutherland to E. C., 2 October 1848.

might possibly be saved."¹ When, for example, the Board ordered the Guardians of St. George the Martyr, Southwark (where more had died from cholera than in any district except Lambeth) to appoint three extra medical assistants, consideration of the order was put off from one weekly meeting to the next; twelve days passed; and then the Guardians resolved not to comply.² It was in vain that the Board urged that expense could not be avoided in time of public calamity; that "in this case economy is on the side of humanity, and the most expensive of all things is to do nothing." It was in vain that they pointed out that if money were not spent in saving life, it must be spent in maintaining pauper widows and orphans; that the funerals of cholera victims in London had already cost £50,000; that Lambeth must for years support 61 cholera widows and 226 cholera orphans; that from one small court, Pea-hen Court, had come one widow and 12 orphans, whose support would cost the parish of St. Ethelburga not less than £420—which might have been saved if £30 had been spent in putting the court in a proper sanitary condition.³ Closing their eyes to Chadwick's figures, the Guardians of the Poor continued to regard themselves as the guardians of the rates.

In many places Town Councils and Improvement Commissioners pressed forward to take over duties from the paralysed hands of Union and parochial boards. The result of their zeal, however, was that powers and responsibilities were split between a number of rival authorities; and cholera sufferers died while their cases were being referred from one body to another. The first and most obvious necessity, cried Chadwick, was unity of action, and the first and most obvious defect of the law was that such unity of action was impossible. Four months before the epidemic broke out, he had suggested that the terms of the Diseases Prevention Act would surely permit the General Board to set up special Boards to take charge of preventive measures in the localities, as had been done in 1831–2.⁴ The Law Officers had refused to sanction this "large remedial interpretation";⁵ and the result was now plain in the reports of delay, expense, and loss of life

¹ Seventh Notification, p. 2682. ² Ibid., p. 2682. ³ Ibid., p. 2863.

⁴ "Memorandum as to provisions for the Cholera," MS., 24 May 1848.

⁵ Minutes of General Board of Health, 1 August 1850.

coming in from all over the country. At Edinburgh Sutherland found five organisations doing the work of one. At Hull two Boards of Guardians, a Cleansing Board and two bodies of Sewage Commissioners shared duties which could be efficiently carried out only by a single authority. At Bristol part of the borough was under a Local Act, part was in the Clifton Union, part in the Bedminster Union; and the whole was under a Mayor and Corporation. "Who are the authorities in such a case, who are responsible for carrying out your regulations?" Chadwick was asked, "—and to whom am I to apply and urge forward in the good work?"¹ The weakness of divided command extended also to the centre. The Board's regulations went out to local bodies accustomed to look for their orders to another department of the central Government. At Sunderland Dr. Sutherland was not listened to because it was believed that the Poor Law Inspector was the proper person to advise on such matters. Chadwick at once wrote a letter of protest to Viscount Ebrington, sharp but "not undeservedly so," Morpeth agreed.² "In strict duty and in cases of emergency there ought to be no waiting for consultations of intermediate authorities who have and ought to have on such extraordinary occasions any intermediate discretion. People must not die that official forms may be gone through which are of no use."³

Scotland, which suffered the heaviest onslaught in the early months, possessed neither Boards of Guardians nor a General Board of Health. Chadwick proposed that while the epidemic raged the administration of health measures should be centralised in Edinburgh—and promptly brought down upon his head a storm of local jealousies. "Glasgow positively refused: they would not be placed below Edinburgh—not they! Aberdeen refused subjection to it in terms of violent abuse: if they communicated at all it should be direct with London."⁴ A quaking deputation from Dumfries, where in the previous three weeks there had been 219 cases of cholera and 78 deaths, waited on the Board in London to ask for the assistance of a medical inspector;⁵ yet,

¹ E. Gulson to E. C., 4 October 1848.

² Lord Morpeth to E. C., 13 October 1848.

³ E. C. to Lord Ebrington, 13 October 1848.

⁴ E. C. to Andrew Boardman, n.d.

⁵ Minutes, 5 December 1848.

returning home, they immediately fell to bickering with the medical men of the town over the fees to be paid for their extraordinary cholera services. Ashley was for sending a peremptory demand that medical assistants should be appointed without too close a scrutiny of the bill. Chadwick decided on a more conciliatory course, and despatched his best man, John Sutherland, to talk some sense into the benighted parochialists. "My very spirit is crushed at the want of action of the people," he wrote to Chadwick after his first day in the town. "In all my experience I have met nothing like it. Fair to look at and full of promises but no talk can be more empty. Anything but doing. The regulations of the Board appear to be so much waste paper." No dispensaries, no House of Refuge, no house to house visitation! But after a week of Sutherland's drive and force of character, the parochial board, deflated but thankful, saw the cholera retreating from the town. "At the first effort everything looks well. Our cleansing is going on and our cholera cases are diminishing. The Committee of the Parochial Board will now do anything and I believe that both the General Board and I have their entire confidence and approval (with the exception of a recusant or two)."¹

For fifteen months the tale of local inadequacy and short-sightedness went on. The medical officer of Cumnock complained that the parochial board refused to pay his charges for attendance on cholera cases. The Kingston Union declined point blank to appoint medical assistants or to publish notices of the provisions of the Public Health Act. The medical officer of Culross, who had urged the parochial board to take steps to carry out the Nuisances Act and the regulations of the General Board, was dismissed for his pains. The Guardians of Redruth refused to reimburse their Treasurer for paying District Visitors during the outbreak.² Summing up his experience in fighting cholera and ignorance in a score of towns in England and Scotland, Dr. Sutherland declared that the Sanitary Committee of Sheffield was "the only body in the country which had the enlightenment to perceive the full extent of their duty, and the courage and

¹ Dr. J. Sutherland to E. C., 7 December and 14 December 1848.

² Minutes, 23 January 1849; 3 February 1849; 12 January 1850; 25 February 1850.

energy to perform it. This, I believe, was done without regard to expense, and in the firm conviction that apart altogether from the humanity of the course they had taken, the ratepayers would be large gainers in the ultimate saving of widowhood and orphanage which was, without doubt, effected."¹ The Committee began to prepare as soon as cholera was reported in the country; taking the Board's notifications as their guide, they embarked on a campaign of public cleansing, and consulted their medical officers about the preventive measures desirable. To this Sutherland attributes the fact that only seventy-six cases of cholera occurred in the town, though 5,519 cases of "premonitory diarrhoea" were discovered.

As the epidemic developed Chadwick became, as one friend described him, "the busiest and necessarily most inaccessible man in the empire."² Hardly a day passed without a meeting with Southwood Smith and Ashley at Gwydyr House. There were deputations to be cajoled and hectored, notifications to be drafted for the *London Gazette*, orders to be telegraphed to Sutherland and Grainger, the Poor Law Board to be spurred to further efforts, the pretensions of Sir William Pym to be combated, another fat Report to be prepared to condemn root and branch that relic of pre-Chadwickian superstition, the quarantine system. And when he had finished at Gwydyr House, he hurried round to the offices of the Metropolitan Sewers Commission in Greek Street, and there plunged into the great debate on the sewerage of London. On 22 November 1848, Austin, the Secretary, told the Board, in explanation of a gap of a month in the Minutes, that the pressure of business in drafting instructions, issuing forms, and attending to personal callers, equally numerous and more pressing than the written applications, had made it impracticable to keep the Board's records in order. In January 1849 Chadwick informed Lord John Russell that Austin was "overdone with work" and Bain was "knocked up"; one Inspector had the premonitory symptoms of cholera and another was down with fever; Lord Ashley was away to recruit; "and Lord Carlisle excepted, it may be said the Board of Health is very unwell."³

¹ *Report on the Epidemic Cholera of 1848 and 1849*, p. 107.

² J. H. Burton to E. C., 23 October 1848.

³ E. C. to Lord John Russell, January 1849.

But the most severe test was yet to come. During the winter of 1848-9 the most violent outbreaks had occurred in Scotland, England escaping comparatively lightly—perhaps, as Snow ingeniously argued, because the English were not accustomed to drink much unboiled water in cold weather, while the Scots used it freely at all seasons to mix with spirits.¹ As the weather grew warmer, however, the figures for cholera deaths in London began to mount. Every day the excrement of a population of two millions poured into the Thames, the scouring force of whose current was checked by Teddington Lock; and with the ebb and flow of the tide, the stale water passed back and forth through London as the river regurgitated its filth. To protect the Londoner from this poisonous mass no defence was raised except the half-hearted filter systems adopted by some of the water companies. The situation was not improved when the Metropolitan Sewers Commission, acting on Chadwick's belief that filth in the river was less dangerous than filth in the sewers, recommended that the sewers be flushed regularly into the Thames. The low districts of the capital might have been constructed by design to serve as a culture medium for the breeding and nourishing of the germs of the epidemic.

The cholera broke over London in two waves. The first curve of mortality extended from the end of September 1848 to the end of March 1849, with 988 deaths, the highest point being 94 in the week ending 13 January 1849. Throughout April and May the epidemic was dormant, though every week recorded its deaths. In June it gathered strength, and the figures began to rise, the highest weekly mortality being 2,298 in the week ending 8 September 1849.²

Early in the spring of 1848 the Whitechapel Guardians had warned the landlords of their district in letters and personal interviews of the precautions which should be taken to meet the advancing cholera. The landlords weighed the cost against their tenants' risk, and decided to let the tenants take their chance. In December cholera crept into a dark hole of a cul-de-sac, called Hairbrain Court, which lodged 157 people in the thirty-two rooms of its thirteen houses. "In one house on the right side,"

¹ *On the Mode of Communication of Cholera* (1849), pp. 117-18.

² *Report on the Epidemic Cholera of 1848 and 1849*, pp. 12-13.

reported the Union Medical Officer, "a grandmother and grandchild were laid out with the funeral paraphernalia of Roman Catholics, while a husband, wife, and two children lay side by side in the same room suffering from cholera. In the next house a woman was lying in the last stage of the disease, who died a few hours after. . . . There is a common privy at the end, and a channel runs down the middle of the court, under which is a drain, with branches right and left to the doors of the houses; but these, not communicating with any sinks, serve as receptacles for the filth which flows over from the privy, as appeared by one of these branches then laid open for the purpose of being cleaned out. Many of the children were dancing about on the heaps of filth taken out of it. There is no supply of water for any of the houses in this court, and the inhabitants have none but what they can 'beg, borrow, and steal' from the neighbouring courts belonging to other landlords,"¹ Seven years before the New River Company had driven a main through the court, but the landlords had ignored repeated pleas from the inhabitants to connect their houses to it. "In another court, where the houses are in better condition and are supplied with water, were found—a man lying dead in one house, a girl dead in the next, and a man dying in the cellar. This last poor creature was lying on a heap of chips and dirt in one corner, close to the foot of the steps leading down to it from the court, and his wife sat by his side or leaned over him. He had been taken, last night, from a wretched lodging-house in Hairbrain Court to St. Thomas's Hospital. There he was refused admission, and being unwilling to go to the workhouse could find no place but a cellar, without door or window. No persuasion could prevail upon his wife to suffer him to be removed. She said, while leaning over the body of her husband, 'Give me some relief to-day and a coffin for him to-morrow.'"²

A fortnight later John Liddle, the medical officer who made these revelations, wrote frankly to *The Times*: "Under the present arrangement, it is almost impossible for a union medical officer, subject as he is to an annual election, faithfully to discharge his duties as an officer of health, in endeavouring to prevent disease by urging the adoption of sanitary measures, and at the same time

¹ *Times*, 16 December 1848.

² *Ibid.*

maintain his independence. He must either be silent upon the subject of the physical sufferings of the poor, and allow the most disgusting and degrading state of things to continue, without raising his voice to ameliorate them, or he must resign his appointment."¹ In making the Union surgeon the key to their administrative arrangements, the Board of Health had rightly turned to the one local officer with the necessary knowledge and skill, thereby earning for their decision the rare commendation of the *Lancet*. But the Union surgeon took his orders from the men who paid his salary, and his usefulness was limited by the intelligence with which they directed his activities, and the willingness with which they provided additional assistance during the period of emergency. Between the intentions of the Board and the will of the local authorities stretched a chasm which was not bridged either by the slender powers which the Board exercised under the Nuisances Act or by the good sense and public spirit of the Guardians. In the worst districts the Union surgeon struggled to stem the mounting flood of cholera and diarrhoea cases, and was lucky if he could get his masters to appoint an assistant or two to dose the sufferers. After eighteen years of service the medical officer of Lambeth sent in his resignation in disgust, and then sat down at two o'clock in the morning to write to *The Times*: "During the week ending July 31, I and my two assistants, appointed under direction of the Board of Guardians, from an order received from the Board of Health, have attended 322 cases of illness among the poor of my district, requiring 1,028 attendances to be given at the houses of the poor, and at my own surgery; 59 of the cases were cases of Asiatic cholera in its different stages, and 141 were cases of diarrhoea and ordinary cholera; for this duty my salary amounts to 39s., or £100 a year, which is not quite three-halfpence for the medicines required by each case and my own services."²

House to house visitation, Houses of Refuge, home nursing, remained luxurious refinements, which, since the Guardians refused to vote the necessary money and assistance, were introduced into no more than a few districts. With rare exceptions, the London Guardians neglected to make a list of the localities in their parishes which had been attacked by epidemic and endemic

¹ *Times*, 29 December 1848.

² *Ibid.*, 4 August 1849.

disease. On the very evening that cholera broke out in Whitechapel, the Guardians resolved that the Board's order "need not be acted on in this Union";¹ and three days later, when their Clerk laid before them a list of the places where zymotic disease was then prevalent, they resolved further, "That the Clerk forward such particulars to the various local boards in the Union, but that the medical officers be not called upon to visit the places in question."² When the Board ordered the St. Pancras Guardians to appoint four medical visitors, they were met by a flat refusal, the Chairman observing that house to house visitation "was calculated to do more harm than good, from the alarm it created."³ Receiving from Bethnal Green returns showing 125 deaths in the week ending 18 August and 127 in the following week, they promptly issued a special order directing the provision of a dispensary and adequate hospital accommodation, and the appointment without delay of four medical visitors, an additional medical officer to help in the infirmary, a sufficient number of nurses, two inspectors of nuisances, and a staff of lime-washers. Despite the emergency, the Bethnal Green Guardians waited five days before appointing a medical visitor; they opened neither dispensary nor hospital, and undertook no limewashing; and they appointed only one inspector of nuisances instead of two, and no nurses at all.⁴

Nothing showed up more starkly the crass negligence of the Poor Law authorities than the outbreak at the Tooting child farm. Here nearly fourteen hundred children were housed in a building which half that number would have filled. Cholera swept through the close-packed pauper children like fire across a dried prairie. Three hundred had been attacked, and 180 were dead, before the Guardians listened to the Board and withdrew their children from the plague spot. Eight days after the epidemic had broken out no steps had yet been taken to separate the healthy from the sick; the children still slept three or four to a bed, infection spreading from one to the other by the involuntary discharges of the cholera sufferers; medical supplies were short and medical

¹ *Report on . . . the Nuisances Removal and Diseases Prevention Act*, p. 28; *P.P.*, 1849, vol. xxiv, p. 1.

² *Lancet*, 8 September 1849.

³ *Times*, 26 September 1849.

⁴ *Report on the Epidemic Cholera of 1848 and 1849*, pp. 111-12.

attendance unequal to the task, there were no nurses, and hardly sufficient assistance to remove the corpses. Chadwick sent one of the medical inspectors (R. D. Grainger) to investigate; and as soon as it was reported to him that the cottages used as the boys' dormitories were built over a stagnant ditch which served as a sewer for the whole establishment, he dispatched an expeditionary force of fifty navvies armed with pickaxes and scoops. Wakley, the Finsbury Radical and proprietor of the *Lancet*, conducted an able and exhaustive inquest, which lasted three weeks, and laid bare a scandal which did almost as much as the green bones of Andover to discredit the Poor Law administration. A pathetic procession of child witnesses testified that they wore the same scanty clothing in summer and winter alike; that (though Drouet, the contractor, received 4s. 6d. a week for each of them) the ration of bread was inadequate, and such meat as was provided went to those who were strong enough to fight for it; that hunger sometimes drove them to climb the fence and steal food scraps from the hog-tub.¹ The medical inquirers found that many of the children were big-bellied with scrofula, and covered with the scabs of impetigo and the itch. The verdict declared that the victims were "suffering from the effects of insufficient diet, deficient warmth of clothing, and impure air." This was an indictment less of the cholera than of the Poor Law authorities, and in contrast the Board of Health, with their energetic promptness and their prescription of a meat diet, came well out of the affair.

In the City of London itself, with its devoted garrison sworn to the defence of local self-government, the Board were fortunate to find one powerful ally. In January 1849 the recently elected Medical Officer of Health, John Simon, read his first report to the City Commission of Sewers, assuring them that their new Act gave them as good an antidote for the spread of fever as vaccination for the infection of smallpox.² When the City of London Union refused to obey the Board's order to appoint nine additional officers, Simon persuaded the Health Committee of the Corporation to set up a board of inspectors to conduct house-to-house visitations. In their first round they discovered the bodies of six cholera victims who had died without any medical attendance

¹ *Times*, 20 January 1849.

² *Ibid.*, 24 January 1849.

whatever. But opposition was strong on the Court of Common Council, and *The Times* believed that portions of Simon's reports were suppressed. The City should be proclaimed safe, Alderman Sidney maintained, because all this talk about cholera had caused thousands of families to flee in panic, and in consequence shopkeepers were "paying hundreds a year for their premises, and only earning 6d. *per diem* by their trade."¹ One member of the City Commission of Sewers objected to the "spicy, unctuous articles" in *The Times*, while another was annoyed by the practice of "handing over a heap of complaints to the press."²

Lacking the co-operation of the Metropolitan Guardians, the General Board, with two medical inspectors to cover the whole of England and Scotland, were helpless. Without the power to originate prosecutions for neglect or violation of their orders, the Board had no direct control over the Guardians, and it was only indirectly through the uncertain result of a coroner's inquest, such as that conducted by Wakley at the Tooting institution, that they could bring pressure to bear on the Poor Law authorities. In vain the Board lectured the Guardians on their responsibilities under the Common Law, warning them that they were legally accountable for neglect involving injury to health and life. They debated the advisability of prosecuting the more flagrant offenders. The powers of the Board of Health, argued Chadwick, were in fact a continuation of the authority of the Privy Council to take all necessary precautions in times of public danger. The authorities, from Blackstone to Professor Lang, were clear that the Poor Law Guardians as a corporation were not immune from punishment for infractions of the law.³ But Carlisle advocated caution. Boards of Guardians were rather impalpable bodies, unpaid, and quite likely to throw up their appointments if prosecuted; their liability might still remain, but the result could only be great confusion.⁴

Eventually, however, they determined to test their strength before the courts, taking a stand on their decision to close the worst of the overcrowded graveyards. The amended Nuisances Act of August 1849 empowered the Board to inquire into the state

¹ *Times*, 8 October 1849.

² *Ibid.*, 10 October 1849.

³ Minutes, 24 August 1849.

⁴ Lord Carlisle [Morpeth] to E. C., 25 August 1849.

of the metropolitan burial grounds and to direct the managers to take such measures of precaution as were necessary for the public safety.¹ The Board at once sent out the medical inspectors, and by the second week of September burial had been interdicted in half a dozen of the worst grounds. The orders aroused violent opposition. Why, they might as well direct that no more people should die in the parish, as attempt to close these grounds, declared the Chairman of the Guardians of St. George the Martyr, Southwark; the obvious result would be that all the poor people would come to the parish to bury their friends, as they would be unable to afford their removal to a distant extra-mural cemetery.² A tumultuous vestry meeting in St. Saviour's, Southwark, resolved that the closing of their churchyard would be a hardship to the poor, who would have to pay double the fees to be buried in a cemetery. "Why did they not commence at the right end, and before closing one place point out another in which these poor people could be buried?" asked the Chairman, while another speaker "deprecated the meddling of a Whig Government, and indeed of any Government, in their local affairs."³

Convinced that it was less consideration for the poor than for the poor rates that agitated the vestries, the General Board stiffened themselves to meet the protests of the indignant parochialists. "We must not parley," Ashley told Chadwick; "the necessity of 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 any amount of responsibility."⁴ A general Minute on Interments recorded their intention to act solely on the reports of their inspectors. They could not permit the delays of a renewed discussion on each case; it was their duty to give summary decisions, which must be delivered with promptitude if they were to accomplish their object.⁵ "I am amazingly pleased with our Resolution. I chuckle over its Stile," wrote Ashley.⁶ Proceedings were taken immediately against the rebellious parish of St. Saviour's, but the magistrates

¹ 12 & 13 Vict. c. 111, s. ix.

² *Times*, 21 September 1849.

³ *Ibid.*, 12 September 1849. ⁴ Lord Ashley to E.C., 12 September 1849.

⁵ Minutes, 13 September 1849.

⁶ Lord Ashley to E. C., 14 September 1849.

upheld the churchwardens' contention that the Act did not empower the Board to close their burial ground. "Nevertheless we have acted rightly, boldly, wisely," Ashley maintained. "I never thought that our interpretation of the Law would stand before a Magistrate. But public opinion and feeling demanded such an act of Heroism on our part. We can and must urge very strongly the public overruling necessity of our course."¹ A second time the Board went to law, summoning the managers of the Whitefield Chapel burial ground before the Bow Street magistrate. The summons was again dismissed, the magistrate giving his opinion that the measures of precaution contemplated by the Act must be such as burying deeper in the ground or using lead coffins; they could not, at any rate, be held to imply the destruction of the property altogether, which would be the effect of enforcing the closure order. The two counsel and the magistrate united in condemning the new Act as one of the most lamentable instances of legislative bungling they had ever met.² In this way the local authorities wriggled through the wide meshes of an Act whose indefiniteness of phrasing had been intended to broaden the discretion of the Board. "This is intolerable," cried Ashley, after reading the magistrate's decision, "—public property must not be turned to public injury."³

The Board were now driven to issue regulations prescribing the use of quicklime at each interment. It was the only disinfectant available, and it had objectionable associations, Chadwick confided to an unusually sympathetic Delane. "At this time the population we know are peculiarly excitable, the poor Irish especially. The belief has now gone out, that the doctors are poisoning the wells.⁴ At St. Andrews the other day there was a disposition to riot on this ground; that the doctors were poisoning them to diminish the population, and that the Government had sent down an Inspector with the beneficent object of preventing the victims being carelessly or wantonly chosen." It was a feeling that was not likely to be restrained by the parish gravediggers and sextons, who felt their livelihood to be in jeopardy; the danger was plain; but the Board, with their small force of

¹ Lord Ashley to E. C., 13 September 1849.

² *Times*, 28 September 1849. ³ Lord Ashley to E. C., 1 October 1849.

⁴ As in the epidemic of 1831-2; see above, p. 51.

overburdened officers, had no choice but to work through these ignorant and unwilling agents.¹

In the middle of the long vacation, with Parliament and the Courts in recess and the Ministers out of town, the Board were fighting a pestilence single-handed, with an ill-drawn Act and a scanty, inadequate staff. "Our affairs are coming to a crisis," wrote Ashley in the second week of September. "The Magistrates against us, no Courts sitting, the Treasury backward. . . . It will be necessary to report to the Government that the Board has no power equal to the terrible Exigency of the times."² Under the pressure of those heavy and anxious months, the secretary, the assistant secretary, and Southwood Smith fell ill in turn, and finally even Chadwick went down with suspected cholera. For a week or two at the height of the epidemic Ashley continued the fight alone, wrestling in prayer with God and the Government. "Labour and anxiety at the Board of Health very great," he noted in his diary on 7 September. "We are now in the City of the Plague, and still by God's love under his shield and buckler. He hears our prayers, and defends against the 'Pestilence that walketh in darkness.' Disorder increasing; close of last week showed a mortality trebling the average of London; 1,881 victims of this awful scourge! Yesterday showed for the metropolis alone, a return of 345 in one day. . . ." "London is emptied," he wrote two days later. "Cholera worse than ever; returns of yesterday quite appalling, and yet manifest that we do not receive more than two-thirds of the truth."³

The inactivity of the clergy dismayed Ashley. Whitewashing and opiates and strict temperance were all very well, but surely this was a time when the pious example of the Ninevites in proclaiming a fast and putting on sackcloth—which had such excellent results—might be profitably followed. In the Bishops' professional judgment, however, the emergency, grave as it was, did not call for measures of this drastic nature. However, a special prayer was read on 16 September, and the clergy of London united in exhorting their congregations to assist in delivering their fellow-men from the bondage of dirt. "A poor substitute for a

¹ E. C. to J. T. Delane, 15 September 1849.

² Lord Ashley to E. C., 13 September 1849.

³ E. Hodder, *op. cit.*, vol. ii, pp. 295, 296.

day of repentance and humiliation," grumbled Ashley;¹ but there was a gratifying decline in the mortality in the ensuing weeks. It was a curious survival of the ancient belief that plague was the direct action of deity, visiting the wicked with misfortune and disease. Sinful man could always think of some perfectly good reason why he should be so punished.

If ever a Government department was in need of prayer it was the Treasury in the black weeks of that September when the cholera score in the capital was mounting daily by hundreds. Sir Charles Wood was a timid Chancellor of the Exchequer, whose dread of expenditure was almost pathological. The paralysis of his inhibition spread downwards to the permanent officials who conducted Treasury diplomacy with the minor departments, and the wide vision of an England clean and healthy soon contracted in the tortuous channels of Treasury accountancy. At Somerset House Chadwick had already had experience of the obstructive tactics of the Treasury, but he was startled by the extent and nature of the obstacles which were now thrown in the path of the new department. This was the moment, when the staff was depleted and engrossed in the public emergency, that the Treasury chose to demand that the Board send in its accounts, adding that until they were made up the quarterly payment of their Parliamentary grant would be suspended. Chadwick and Southwood Smith were obliged to pool their salaries to pay office expenses,² while Ashley was furious that the reward for all their labour was "to be treated as Swindlers and Vagabonds."³

When an urgent appeal for a medical inspector was received from Newtown, Montgomeryshire, the Board replied that they had so many demands for aid that they were obliged to take them in rotation according to the priority of application.⁴ Yet a fortnight later the Treasury refused to sanction the appointment of additional inspectors. The proposal should first be submitted to the Home Secretary, said Sir Charles Trevelyan. The Board replied firmly that the Public Health Act gave no jurisdiction over their proceedings to the Home Secretary. What if the Home

¹ *Ibid.*, p. 300.

² E. C., "Administrative. Relations of the General Board of Health with the Treasury. Minutes for a paper on," MS., n.d.

³ Lord Ashley to E. C., 25 October 1849.

⁴ Minutes, 6 August 1849.

Secretary expressed the opinion that certain measures recommended by the Board were inexpedient, and the Board, in deference to that opinion, refrained from executing them? If loss of life were to ensue, would the opinion of the Home Secretary exonerate the Board from responsibility? The Board felt that it would not. Again, in the emergency now facing them, it was essential for the sake of promptitude to avoid multiplied references; divided responsibility was detrimental to the public service—especially if reference were made from a body with specialised knowledge to one possessing no special information on the subject.¹ This was unanswerable, and the Treasury now agreed to sanction the appointment of one medical inspector and four assistants in London—for a fortnight only.² On 7 September Bain had an interview with Hayter, the Parliamentary Secretary to the Treasury, in an attempt to secure approval for the employment of additional District Medical Superintendents in London; Hayter doubted whether the Board had the power under the Nuisances Act to make such appointments, and declined to give any answer until he had consulted the Chancellor of the Exchequer. The deaths in London were then approaching five hundred a day. Ashley, the only member of the Board still on his feet, went over to the Treasury to request an immediate consent to the appointments, but he could find no one there. Returning to Gwydyr House, he recorded in the Minutes that since the smallest delay must result in serious injury and loss of life, the appointments should now be made, in the hope that the Treasury would see fit to sanction them later.³ He notified the Treasury immediately by letter of his action, but no reply came—till six months later, when the Board were reprovved in strong terms for making appointments not only without the consent of the Treasury but without previously informing them.⁴

Thus, eleven months after the cholera had appeared in London, the Board of Health in exasperation threw off the reins of Treasury restraint, and on their own responsibility engaged the services of a sufficient number of medical men to comb out the stricken

¹ Minutes, 23 August 1849.

² Ibid., 24 August 1849.

³ Ibid., 7 September 1849.

⁴ E. C., "Administrative. Relations of the General Board of Health with the Treasury. Minutes for a paper on," MS., n.d.

districts. At the beginning of September, when the weekly total of cholera deaths had reached 2,026, the system of house-to-house visitation at last came into operation, with a staff of eight medical superintendents aided by such medical visitors as the Guardians could be persuaded to pay for. In the first week the four visitors in Bethnal Green discovered 1,571 cases of diarrhoea and 69 of cholera, every one of which had been without any medical assistance previous to the visitation. Altogether, in the eight weeks the system was in operation, the Board's officers discovered and treated over 45,000 cases of diarrhoea and cholera.¹

With the diminution of cholera in London, the daily agenda of the Board gradually lost its atmosphere of fearful urgency. It had been a sharper lesson than that of sixteen years before. In London in 1831-2, out of a population of 1,681,641, 14,144 had been attacked and 6,729 had died; in 1848-9, out of a population of 2,206,076, the attacks numbered 30,000 and the deaths 14,601. Over the whole country one in 250 had been attacked in the first epidemic, one in 151 in the second. In England and Wales in 1831-2 the attacks had numbered 71,606, the deaths 16,437; in 1848-9 the deaths alone from cholera and diarrhoea were 72,180 and Scotland contributed a further seven or eight thousand.² Human efforts had done little to arrest or divert the onrush of the epidemic. Hippocrates flattered himself that he had brought the plague of Athens under control by burning fires in the streets. There is the same confusion of *post* and *propter* in the General Board's appraisal of the methods they adopted against the cholera. Lime-washing, cesspool cleansing, all the Board's earnest exhortations to shun filth, did not deny access to a water-borne microbe. In the perspective of later knowledge, it is easy to see that the Board, instead of prosecuting reluctant churchwardens and Guardians before unhelpful magistrates, would have been better employed in circularising the public on the need to boil their water, and in ensuring that the companies filtered their supplies. Not until their seventh and last Notification, published on 18 September 1849, did they suggest that water suspected of containing impurities should be boiled. In London they did probably more harm than good by their advocacy of regular flush-

¹ *Report on the Epidemic Cholera of 1848 and 1849*, pp. 110-11.

² Ibid., pp. 11-12.

ing of the sewers into the Thames. Belief in the spontaneous generation of epidemics from dirt, and in the fundamental identity of the diseases so generated—these twin medical heresies were propagated by the Board through the medium of their Reports and their energetic Inspectors, leaving an impression on professional opinion which was still strong forty years later. John Simon refused to accept Koch's germ theory till 1890. Florence Nightingale thought that continued fever might develop into smallpox. Chadwick dismissed with scorn the possibility of the existence of "diseased germs, a mere hypothesis";¹ and a few months before his death he told a newspaper reporter, "I cannot tell you how strongly I believe in soap and water as a preventive of epidemics."² It is easy to multiply examples of the wrong-headedness of the public health reformers; but in recognising their errors we must not undervalue the empirical sanitation which they championed. Unable to confront an enemy they could not see, whose real nature indeed they did not suspect, Chadwick and his engineers were well occupied in cutting his lines of communication.

Within the limits of their science and their power the General Board did what they could in 1848-9, and they would have done much more if the Treasury had let them. In many of the dark places of the capital, in Hairbrain Court and Slater's Court and Rosemary Lane, jets of water from the parish fire-engine, or from a hose attached to the nearest stand-pipe, played on walls and pavements, and purged away their scurf of filth. Grainger and Sutherland, the medical Inspectors, were enthusiastic about the results of the house-to-house visitation, which they considered had proved so effective a safeguard of the poor that "several lamentable instances occurred in which the wealthier classes perished while the poor were saved."³ The Government undoubtedly gave the problem up, and its members remained in the country until the epidemic was spent. The Board stayed in London to fight; and at the least their activity did something to spread the belief that epidemics could be halted if energy and knowledge were applied to the task. The working classes—who, according to all the medical visitors, were well aware of the connection between their insanitary dwellings and the diseases which

¹ MS. memorandum, n.d.

² *Weekly Dispatch*, 13 July 1890.

³ *Report on the Epidemic Cholera of 1848 and 1849*, p. 103.

afflicted them—revealed a touching gratitude, not unmingled with astonishment, at receiving visits of succour from the bustling, efficient officers of the Board. "The Board of Health may hope little, and perhaps desire little, for the applause of men," wrote Ashley in his diary, after reading an approving article in the *Observer*, "but I do much deplore that our anxieties and labours should be thrown away, and we be told that we have done nothing, attempted nothing, imagined nothing, wished nothing. Our diligence and zeal are mentioned in the article; yet it is less than justice. We have indeed toiled unceasingly, and not as mere officials, but with earnestness and feeling. Chadwick and Smith are men who may feel, but who show not fatigue or satiety in business, where necessity urges, or duty calls. As for the staff of the Board, miserably paid as they are, with scanty hopes of preferment, or even of continued employment, 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 (for they receive fixed salaries), but for conscience' sake. And such are the men whose scanty recompense certain gentry would reduce by 10 per cent. Out upon this disgusting economy!"¹

The crisis had revealed sharply the weaknesses and anomalies of the Board's position. For all that their enemies protested, they were no Inquisition with supreme powers to reclaim an insanitary population. They did not possess the aggressive weapons needed to combat local privileges and property rights. It was unfortunate for the Board that the pestilence was in full retreat long before Parliament reassembled. "We must, if we can, keep up the spirit of physical reform," Ashley told Chadwick. "The Cholera, thank God, has passed—is not the wholesome fear passing also?"² The transitory fears of the majority had been the force which drove the public health measures through Parliament; the permanent and implacable interests of minorities now opposed their application and extension. In the days of security men forgot their tremors and the old errors which had brought disaster upon them, and few remembered the exertions of a hard-pressed Board save the grateful dwellers in the back streets, who were inarticulate, and the outraged parochialists, who were far too vocal.

¹ E. Hodder, op. cit., vol. ii, p. 296. ² Lord Ashley to E. C., 29 October 1849.

CHAPTER X

GREEK STREET, 1848-9

HERE in London, Chadwick felt, at the very doorstep of Gwydyr House, was the tough centre of the sanitary problem. If life in the towns of the industrial north was even more squalid, and health, as the mortality rates showed, suffered even more, it was in London that the evils which he had indicted were massed and concentrated on the largest scale in the physical discomfort of a population of two millions; and the greatest strength of the opposition, the alliance of property and particularism, of shareholders and vestry politicians, was here entrenched. Before the end of 1849 the General Board of Health had in hand two major measures, for regulating the interments and the water supply of the capital, the story of which will be told in later chapters. From his other base, at the office of the Metropolitan Commission of Sewers in Greek Street, Soho, Chadwick since 1847 had been attacking a further aspect of the metropolitan problem—the main sewerage of London's 170 parishes and the domestic drainage of its 300,000 houses.

Throughout the 1848 session, at the same time that he had been guiding the Public Health Bill through Parliament, Chadwick had pressed forward with another important sanitary measure, a Metropolitan Sewers Bill, to give statutory recognition to the consolidated Commission set up in the previous December. By this Bill he hoped to recast the Commission more to his liking, and to rid it of the weaknesses which had already made themselves apparent in its structure and personnel. He had wanted, as we have seen, a small sanitary executive for London, composed of men carefully selected for their knowledge and enthusiasm for the work, to give close day-to-day supervision to the technical details. The Commission of twenty-three he considered too numerous and fissile for the task. They included a strong contingent from the Metropolitan Sanitary Association, Lord Ashley,

Lord Ebrington, R. A. Slaney and Dr. Southwood Smith; the physiologist, Professor Richard Owen, one of Chadwick's closest friends; the geologist, Sir Henry de la Beche; and two distinguished physicians, Neil Arnott and Sir James Clark. These could certainly be expected to follow Chadwick's lead; and in addition he could count upon the support of the chairman, Lord Morpeth, the First Commissioner of Woods and Forests, so long as he did not race too far ahead of the Whig Government. But four of the old district Commissioners had also been nominated, and with one of them, John Leslie, a vestry politician from the parish of St. George's, Chadwick at once found himself engaged in the bitterest of conflicts.

To his consternation he found that Morpeth was contemplating a step which would add strength to this dissident minority. Fearing an outcry if the Bill did not embrace the principle of representation, Morpeth was leaning to the view that each Union and select vestry should elect a member to a Metropolitan Board of Sewers, the right of the City to nominate its due proportion being of course reserved. Chadwick rejected with scorn the idea of such a "Sewers Parliament," where the ignorant delegates of Marylebone and St. Pancras would debate scientific principles of drainage, a subject as unsuited as chemistry or surgery for the discussion and voting of popular assemblies.¹ Bad as the works of the superseded Sewers Commissions had been, he told Morpeth, they were better than those of the parishes.² His own preference was indicated by the approval he gave to a suggestion of the Lord Chancellor's, that the Commission should be confined as far as possible to Government subordinates. "At this time," he urged, "we might with such subordinates give evidence of political importance: that it was possible for such subordinates to carry out a reform such as local representative bodies had never dreamed of: to beat commercial companies in efficiency, and even private builders in respect to the economy of works, and win the approbation of the public to the extension of new power without the ordinary cumbersome machinery."³ In the event, however,

¹ "Metropolitan Special Commission. Notes on the Evidence examined," MS., 7 October 1847.

² E. C. to Morpeth, 4 August 1848.

³ E. C. to Morpeth, 11 September 1848.

neither Morpeth's parliament of parochialists nor Chadwick's select Board of civil servants found favour with the Government, and it was decided that the Metropolitan Sewers Commission should remain substantially unaltered, apart from the introduction of five representatives of the Common Council.

Chadwick failed also in his efforts to bring the enclave of the City within the jurisdiction of the consolidated Commission. The Health of Towns Association published a sensational report on the state of the City, based on facts he had supplied. Both sides circulated petitions for signature among the parishes. Pamphlets and articles in the *Morning Chronicle* were addressed by City aldermen to other local authorities in the provinces to stir opinion against sanitary centralisation. Toulmin Smith appeared before the Metropolitan Sanitary Commission, and Chadwick put him through a "stout cross-examination";¹ a few weeks later the irascible antiquarian was accusing Chadwick of refusing him the opportunity to revise the notes of his evidence, and Morpeth implored his colleague not to give him the opportunity of "kicking up a dust."² In the public controversy the Corporation were worsted, but the "soup interest" prevailed as usual in the lobbies. The Health of Towns Association, believing that their agitation had stopped the separate Sewers Bill promoted by the City, were amazed to find that somehow it had got into the Lords. The Metropolitan Sewers Act of September 1848 (11 & 12 Vict., c. 112) was thus obliged to recognise the conjoint authority of the Metropolitan and the City Commissions of Sewers. The defences of the City garrison were still proof against the drive towards consolidation.

His hands tied by this division of powers, and by a growing rebellion in the ranks of the Metropolitan Commission itself, Chadwick opened his campaign for the cleansing of the capital. The first necessity was a general survey, without which the main arteries of London's drainage could not safely be laid down. No such survey could be pieced together from the materials in the offices of the old Sewers Commissions, and the surveyors' astonishing ignorance of the subterranean geography of their districts constituted perhaps the most damning indictment of their casual, rule of thumb methods. They had, Chadwick told Sir James

¹ E. C. to Morpeth, 29 April 1848. ² Morpeth to E. C., 29 May 1848.

Graham, only the longitudinal sections and heights of their lines of sewers; "if they deviate from them, they know not whether it be into a pit or upon a hill"; in fact, the Westminster Commission had granted a licence for laying down a sewer "in a direction in which it was found when the builder came to examine the spot, the water would have to run uphill."¹ When Chadwick's men, probing the cause of a violent outbreak of fever in Westminster School, opened up a great sewer running beneath the Abbey Precinct, the Clerk of the Works was amazed. "It is all a mystery," he murmured, "drains being things he never troubled himself with, so long as the water went off."² It was less than five years before that Chadwick had been asked by Butler Williams, Professor of Geodesy at the Putney College of Civil Engineers, to describe how a sanitary survey should be conducted. The idea was as new as that; and it was with some misgivings that he now put the survey of London into the hands of the Board of Ordnance, then engaged on a survey of all towns with a population of 4,000 or more on a scale of five feet to the mile. The Ordnance, whose officers had been busy over a period of years in the work of self-reform, was a department of which Gregory Hardlines, the Civil Service Pharisee, might well approve, but its pace was too leisurely and its departmental habits too rigid for the task now demanded of it. Patiently Chadwick and Sir Henry de la Beche explained their views on sanitary cartography to Colonel Hall, the Superintendent of the Survey. All that was immediately wanted was the triangulation and the levelling, which need occupy six N.C.O.s no more than eight months. There was no need to delay drainage works while the Ordnance, intent on making a plan which would be "a credit to them," marked gardens and flower beds, trees and lamp-posts—and even the number of steps before every house door—as they had in their recent map of Dublin. A block plan, at a cost of £37,000, of London and its suburbs for eight miles around St. Paul's would be quite sufficient.³

¹ E. C. to Sir James Graham, 27 March 1843.

² *Metropolitan Sanitary Commission, Third Report*, p. 14; *P.P.*, 1847-8, vol. xxxii, p. 339.

³ E. C. to Lord Morpeth, 4 January 1848; E. C. and Sir Henry de la Beche, *Report on Proposed Ordnance Survey of the Metropolis and Suburbs*, 10 January 1848. *Orders of Court*, vol. i, pp. 24-6, 13 January 1848.

Chadwick had good reason for his delight when the military surveyors hung up their "cat's cradle" on St. Paul's in January 1848, and people were astonished at the sight of common soldiers using theodolites in the street. But in two months the work came to an abrupt halt. Why should the whole country bear the expense of a survey of London, the Commons were asking, a survey which was quite unnecessary in any case?¹ Faced by a combination of provincial jealousy and metropolitan hostility, the Government declined to sanction any further advances from the Treasury. Lord Morpeth, who had assured the Sewers Commission of the Government's support, offered to resign from all his official positions,² but was talked out of it by Chadwick; and eventually it was agreed that the cost should be borne on the metropolitan sewers rates.³

Three months had been wasted by the political manœuvring of the Whigs, and it now seemed likely that the survey, stripped though it was to bare essentials, must take at least another year. How was the Sewers Commission to occupy itself in the meantime? In two ways, thought Chadwick: first, in experiment, for in sanitary works no authorities existed who could safely be followed; secondly, in creating house drainage where it did not exist, and in reorganising it where it did. The lines and outfall of the main drainage could not be settled until the survey was complete, but, after all, the combined area of the smaller conduits of the system of sewerage was greater than that of the trunks, as the area of the capillaries of the body was greater than that of the main arteries. The cesspools and house-drains formed three-fourths of the evaporating surface, the sewers only one-fourth. If the Commissioners busied themselves in replacing cesspools by water-closets, in taking up the badly levelled brick drains and laying in their stead earthenware pipes cleansed by adequate supplies of water, the noxious exhalations which offended the noses and depressed the health of Londoners would largely disappear. In short, they should aim first at "the complete drainage and purification of the dwelling-house, next of the street, and lastly of the river."⁴ What this meant in concrete terms of human com-

¹ *Hansard*, vol. xcvi, pp. 1014-17, 2 March 1848.

² Lord Morpeth to E. C., 28 March 1848.

³ *Orders of Court*, vol. i, pp. 49-51, 1 April 1848. ⁴ *Times*, 4 October 1849.

fort may be illustrated from the example of the cleansing of Church Lane and Carrier Street, a part of the former "Rookery" of St. Giles's, where 2,850 people were crammed into ninety-five houses on a space of little more than an acre. Amongst the genteel correspondence of *The Times* there appeared one morning a crude, misspelt letter:

"The Editur of the Times Paper.

"Sur,

"May we beg and beseach your proteckshion and power, We are Sur, as it may be, livin in a Wilderniss, so far as the rest of London knows anything of us, or as the rich and great people care about. We live in muck and filthe. We aint got no priviz, no dust bins, no drains, no water splies, and no drain or suer in the whole place. The Suer Company, in Greek Street, Soho Square, all great, rich and powerfool men, take no notice watsomedever of our cumplaints. The Stenche of a Gully-hole is disgustin. We al of us suffur, and numbers are ill, and if the Colera comes Lord help us.

"Some gentlemans comed yesterday, and we thought they was comishoners from the suer Company, but they was complaining of the noosance and stenche our lanes and corts was to them in New Oxforde Street. They was much surprized to see the seller in Number 12, Carrier Street, in our lane, where a child was dyin from fever, and would not beleave that Sixty persons sleep in it every night. This here seller you couldnt swing a cat in, and the rent is five shilling a week; but theare are greate many sich deare sellers. Sur, we hope you will let us have our cumplaints put into your hinfluenshall paper, and make these landlords of our houses and these comishoners (the freinds we spose of the landlords) make our houses decent for Christians to live in.

"Preaye Sir com and see us, for we are livin like piggs, and it aint faire we shoulde be so ill treted.

"We are your respeckfull servents in Church Lane, Carrier Street, and the other corts.

"Teusday, Juley 3, 1849."¹

The Times did go and see them; and as its reporter, at the protective elbow of a police sergeant, made his way from one human

¹ *Times*, 5 July 1849. The letter bore 54 signatures.

warren to another, his note-book filled with grimly pathetic details. The landlord of one of the better houses "pointed in triumph to a clock and some crockery in one of the rooms." One woman told him "they seldom tasted meat—hardly ever. They did not expect it. They were glad to get bread, and they had not often enough of that."¹ The assistant surveyor sent from Greek Street to inspect the area reported that the houses were let to a lessee for about £20 each per annum; each house was again underlet at £35 per annum; the single rooms were let at a highly remunerative rent; and finally the separate beds in the rooms were let to vagrants at about 3d. a night—bringing in, after deducting rates and other expenses, about £70 per house per annum. Yet in many of the houses, with their average of thirty or forty tenants each, the landlords had abolished the necessary conveniences because of the cost; and the occupants had to beg their supply of water from shopkeepers in the neighbourhood. The average annual outlay per house for emptying cesspools amounted to £1 10s., the water supply, miserably inadequate as it was, cost £1 10s., and the scavengers' charge, occasioned by the want of dustbins, came to a further £1—in all £4 per house per annum. For an improvement rate of £1 15s. the assistant surveyor estimated that the streets might be paved, tanks erected to furnish a constant water supply in every room, privies and cesspools replaced by water-closets and drains, a dustbin fixed in each yard and a common urinal in each court.²

In this and in similar reports by surveyors of the Sewers Commission, Chadwick worked out his interim plans for metropolitan drainage. A block of buildings, such as Goulston Street, White-chapel, or Jennings' Buildings, Kensington, would be chosen, and would be examined by an officer of the Commission; and his report would indicate the measures needed, stressing the salutary fact that a comparison of annual costs proved that a clean dwelling was cheaper than a squalid one.

At the same time, to check jobbery, and to determine the details of domestic drainage, Chadwick set going a series of experiments and trial works. In his various reports he had con-

¹ *Times*, 9 July 1849.

² E. Gotto, *Report on Church Lane and Carrier Street, St. Giles*, 7 July 1849. *Orders of the Court*, vol. ii, p. 135, 12 July 1849.

demned the work of engineers of the highest reputation, of Rendel and Wicksteed and even of the great Robert Stephenson. Gwilt, the author of the standard *Encyclopædia of Architecture* advised for a moderate-sized country mansion a drain of an area of five square feet, with a capacity large enough to discharge 2,000 cubic feet of water a minute. In this sphere of disputed principles and contradictory practice, the public were at the mercy of the jobber—like the well-known architect whom Chadwick once reproached for putting in brick house-drains at half a crown a foot when for sixpence a foot he might have laid down superior earthenware pipes. "Oh, but you know, Mr. Chadwick," he was told, "we architects must live."¹ To the opposition on the Sewers Commission, when they questioned the value of his experiments, Chadwick declared that the disputed problems of drainage were a matter of gauging and measurement, which, if carefully conducted, would eventually remove all ground for differences of opinion. "Great was gravitation—it would not be diverted by passion or ignorance, and would prevail."² Earthenware pipes were brought from Switzerland and their prices and quality compared with home products. The production cost of bricks was analysed and the prices charged by contractors shown to be 60 per cent higher; whilst a subterranean survey revealed that the ruinous state of so many sewers was caused by the fact that the bricks supplied had been far inferior to the qualities contracted for at that very high rate of profit. The flow in the sewers was gauged, and it was demonstrated to the astonishment of the old officers that house-drains need not be larger than four inches in diameter, a pipe that size being sufficient to carry off the sewage from a thousand people or more. Tests were made to determine the quantity of water actually consumed in the metropolis, and the quantity which would be required for the new system of drainage. Trial surveys were made of suburban districts such as Richmond and Sydenham, and plans and estimates drawn up to show the practical advantages of the combination of water supply and drainage. Barges took out sewer water to enterprising farmers, and encouraging reports came in of double crops of grass and wheat. Chadwick pushed on quietly at the same

¹ E. C. to Lord Morpeth, 14 October 1848.

² *Times*, 24 July 1849.

time with preparations to dispossess the water companies. Explorers went out to test the quality of the surface and drainage water at Epping, Windsor, and Richmond. The specimens so far examined, he told Morpeth in June 1848, showed only six degrees of hardness, as compared with the twelve or fourteen degrees of Thames water; this would mean a saving in soap of £200,000 a year. For about £180,000, he calculated, they could drain a hundred square miles of land to give a completely new supply of up to a hundred gallons a day to each of the 300,000 houses of the capital.¹ If confirmed, these results spelt the doom of the companies, with their restricted supplies of dirty water. It was not surprising that he warned Morpeth that these researches should be kept quiet. What he feared most of all was that the companies, getting wind of his activities, would press for a Government pronouncement on "pre-appointed terms of compensation" which reflected their own inflated ideas of the value of their works.²

It was valuable work; it was necessary work; and in the interval until the completion of the general survey the officers of the Commission could hardly have been better employed than in conducting experiments and putting London's domestic drainage in order by blocks and districts. But the policy lacked that appeal to the interest and imagination of the ratepayers which a grand engineering feat like the main drainage of London would have provided. It was dullness unrelieved. Chadwick was a bad publicity agent both for himself and for the works of the Sewers Commission. In his speeches at Greek Street the noble theme of a capital freed from the burden of dirt and disease could scarcely be heard above the unending chatter about gully holes and dust-bins and the flow of water through a four-inch pipe. *The Times*, which had smiled upon the Commission in its early months, fumed to see them dissipating their time and money in measuring house-drains and offering prizes for patent commodes.³ By the middle of 1849 *The Times*, and the public, had lost all patience.

From the beginning Chadwick was convinced that the survey and the experimental works could not be supervised by an unwieldy body of twenty-three Commissioners, one section of whom

¹ E. C. to Lord Morpeth, 14 June 1848.

² E. C. to Lord Morpeth, 30 May, 31 July 1848.

³ *Times*, 2 July 1849.

never attended the monthly meetings at the rooms in Greek Street, while another section sat in permanent implacable opposition. In January 1849 he used his command over the majority of the active Commissioners to secure the appointment of a number of committees, one for Finance, another for Bye-laws, and, most important of all, a Works Committee, from which there branched sub-committees for the Ordnance Survey, the Trial Works, the Disposal of Refuse, and the Construction of Roads.¹ One object of this step was to carry on business in the intervals between the meetings of the full Commission; but it was Chadwick's aim also to ensure that scientific questions should be discussed in an atmosphere free from the friction, the delay, and the untidiness of disputation. He sought to "put a stop to the thirst for debates"² by withdrawing with companions of his own choice behind the doors of a committee room, where the merits of siphon traps and hollow bricks could be given the same calm deliberation as questions of surgery or physics. When he emerged from the committee room, however, he found himself in the less equable climate of an open assembly, where unfriendly Commissioners could attack him in ill-informed speeches half an hour in length, and where even friendly Commissioners in their ignorance could cause annoying delay. At his ease when making an exposition of principles to a sympathetic audience, Chadwick's temperature rose when he encountered the contrary pressure of a hostile mind. The anti-Chadwick party never numbered more than half a dozen, and its solid indissoluble nucleus was the little group of old Commissioners, Byng, Leslie, Jones, Bidwell. Chadwick left them in no doubt that he resented their presence. In their leader, John Leslie, a former member of the Westminster Commission, he discovered a man whose jaw was as firm as his own, and whose determination to expose error and point out true courses was just as great—with this difference: that Leslie was as set in the old ways as Chadwick in the new. Chadwick saw in Leslie the incarnation of that parochialism against which he had always

¹ *Orders of Court*, vol. ii, p. 8, 16 January 1849. The Committees were composed as follows: (1) General Committee, open to all members; (2) Finance (7 members); (3) Bye-Laws (6 members); (4) Works (13 members), with sub-committees for Ordnance Survey (4), Trial Works (3), Disposal of Refuse (3), Construction of Roads (2).

² *Times*, 3 August 1849.

contended, with its pig-headedness, its narrow horizons, and its clinging to exploded practices.

There seemed no end to Leslie's perversity. As soon as Chadwick heard that a number of the old Commissioners were to be transferred to the new body, he had immediately given them copies of the reports of the Metropolitan Sanitary Commission; and they had assured him that they heartily agreed with the principles he had laid down. Yet, hardly a week after the writs of supersedeas had been issued in November 1847, the old Commissioners, led by Leslie, were voicing views in plain contradiction of the new methods and in support of the practices which were to be abandoned. Assuming that they were not dishonest, concluded Chadwick, it followed that they did not understand the measures; and that what had really impressed them was the thought that their party foes were to be dismissed while they themselves gained positions of greater power.¹ At the very first meeting Leslie revealed how little he had grasped of the proposal to consolidate the works, when he contended that the two surveyors, Phillips and Roc, should be given equal status in charge of separate districts. A week or two later he stood alone, in defiance of the lawyers on the Commission, in questioning the legality of the general survey; he treated with the same contempt the opinion of the Law Officers, obtained after much expense and delay.² In meddling with house drainage, declared Leslie, the Commission were stepping beyond their proper function. They should content themselves with a simple declaration that cesspools ought to be abolished, leaving it to the individual citizen to find out how to do it; sewers should be driven up the streets, and then the occupiers left to form the junction as best they could. On the mysterious doings of the Trial Works sub-committee Leslie directed an angrily inquisitive gaze. Fourteen thousand warrants of distress for the non-payment of rates had already been issued, and the Commission should be more careful with the ratepayers' money than to spend it on gauging the run of the sewers and other profitless inquiries.

¹ "Memoranda in respect to the proceedings in the Sewers Commission," MS., n.d. E. C. to Morpeth, 30 December 1847.

² E. C. to the Hon. Frederick Byng, 11 September 1848. *M.C.S. Minutes of the General Purposes Committee*, vol. ii, p. 55, 23 May 1848.

But the innovation which Leslie most detested was Chadwick's committee system.¹ He saw no reason why the old method should be changed of dealing with a miscellaneous assortment of business in open court, where all questions affecting the sewers administration could be discussed under the critical gaze of the ratepaying public. Had this been the only point at issue, Chadwick's case would have been incontrovertible. In so intricate a task as the administration of London's sewers—involving such diverse technical matters as the assessment of rates, the supervision of a large clerical and engineering establishment, the preparation of surveys and estimates, the trial of new materials and new devices—a subdivision into specialised committees was the only way to come to close grips with the details on which policy must be framed. It was in the committees, with their fingers on the pulse of business, that policy must be initiated; the open court, though it might influence its committees by criticism or encouragement, must in the main be content to ratify their decisions. But this was not all. No idea of composing the committees on representative lines seems to have entered Chadwick's head. From the all-important Works Committee the old Commissioners without exception were shut out.² He did not listen when Lord Carlisle (Morpeth), sensing the danger of an excluded, embittered minority, suggested that it might be prudent to occupy Leslie by putting him on a committee with three or four others of superior knowledge to report on the pollution of the Thames.³ What could Leslie contribute to a scientific investigation beyond an ignorant obstructiveness? You might as well expect a vestry politician to design and construct a locomotive as to plan a scientific drainage system. It was hardly to be wondered at, therefore, that the decisions of the committees came in for a hotly jealous scrutiny when they were brought before the whole body of Commissioners in court or General Committee.

Inevitably the others fell under Chadwick's domination. It

¹ *M.C.S. Minutes of the General Purposes Committee*, vol. iv, pp. 38-40, 22 February 1849; pp. 59-60, 1 March 1849. *Orders of Court*, vol. ii, pp. 29-31, 15 March 1849.

² See the Protest signed by Byng, Leslie, Lawes, Bidwell, and Jones (*Orders of Court*, vol. ii, pp. 33-35, 22 March 1849).

³ Lord Carlisle (Morpeth) to E. C., 16 April 1849.

was a benevolent despotism, working through the machinery of half a dozen committees, whose head and heart were Chadwick. As *The Times* objected, if the committees were filled by his nominees, and the Court was bound, as he insisted, to support the committees, it was only too clear that the Commission represented and registered the opinions of one man alone.¹ "Any Commissioner who did not belong to the Works Committee was perfectly useless," cried one critic. "Mr. Chadwick asked him why he did not attend; and he answered that the Works Committee governed the commission. All the rest were mere cyphers, and were treated with a degree of intemperance if, as commissioners, they came to the court to discharge their duty and do what they considered right. They were considered excessively impertinent if they asked a question, or alluded to any explanation that might do good to the commission."² The gulf between Chadwick and Leslie could not be bridged. The unhappy Carlisle found himself in the desperate dilemma of a man with one foot on each side of an ever-widening crevasse. Chadwick's last word was that "between good and bad sewers there can be no compromise"; there must be no "jobbery in urbanity," no "self-indulgence in kindly feeling at the expense of the public and of duty."³ Carlisle was sympathetic when Chadwick, returning from another "dreadfully annoying day at Greek Street," cried that "the present state of things cannot, ought not to go on."⁴ But not infrequently Chadwick, with his continual alarms, his protests and his fretting, strained the patience of the peace-loving nobleman. He could not endure bad blood and squabbles between the members of the Commission, he warned Chadwick, and if they continued he would run away from both Boards.⁵

When the time came in September 1848 for the reappointment of the consolidated Commission under the terms of the recently approved Sewers Act, Chadwick moved ponderously to shake off his Old Man of the Sea. It had been agreed that the original twenty-three Commissioners should continue in office unless they signified their own desire to retire, and when he found that Chadwick was trying to edge Leslie out of the Commission

¹ *Times*, 1 October 1849. ² Hon. Frederick Byng, *Times*, 3 August 1849.

³ MS. fragment, n.d.

⁴ E. C. to Lord Carlisle, 2 July 1849.

⁵ Lord Carlisle to E. C., 26 January 1849.

Carlisle sent him a stiff note. "Now I am entirely convinced of the thoroughly *public-minded* spirit of all you do, and I can quite understand how particular people may thwart, annoy, offend, obstruct; but where is the work we can expect to do without a mixture of these elements? I sometimes think that people who have not been in Parliament are more intolerant of this species of opposition and obstruction than we who are more seasoned to it. We have enough of opposition and jealousy to deal with from *without*, to make it very unseasonable to excite and *create* them in fresh quarters. . . . So pray let there not be any more bad blood raised about it."¹ Earlier the same point had been urged by John Bullar, one of the lawyers on the Commission, whose good humour frequently cushioned the shock of the contending factions. There must be some opposition, and none was likely to be less effective than Leslie's; and "if you had not force of determination enough to master circumstances of annoying character, you ought to have been quietly buried in a cesspool some years ago, with a train of Assistant Commissioners following your funeral, and the pall borne by broken-hearted flushers!"²

If the cantankerous Leslie was the most irritating, he was not the most serious obstacle to the inauguration of the new order. Within six months of the consolidation Chadwick was complaining that the establishment in Greek Street was not running smoothly. The clerks and surveyors who had been inherited from the extinguished district Commissions were sensitive about their rights of precedence, and worked together with bad grace; and they were appalled when Chadwick introduced a regular working day of six hours from ten to four, in place of the carefree sloth of the old régime. Urgently needed was an engineer of commanding personality and advanced views to take charge of the works. On a proposal of John Leslie's the Commission had committed a cardinal error in dividing the metropolitan area into two districts, each under an engineer of equal status, with the result that the two officers, Roe and Phillips, pushed on with their separate programmes without consulting each other. They were both capable and well-disposed men, in Chadwick's judgment, but they needed to be watched; for it was a new system they were

¹ Lord Carlisle to E. C., 18 October 1848.

² John Bullar to E. C., 14 September 1848.

being asked to carry out, a system very different from that with which their experience had made them acquainted, "as widely different as a locomotive is from a common dung cart."¹ As morning after morning Chadwick was summoned to Greek Street to reprove the absurdities of the engineers and to smooth over their jealousies and disagreements, he recalled that Roe had been a reluctant witness in support of consolidation, and that Phillips' evidence before the Metropolitan Sanitary Commission had been given its edge by his resentment against his employers. Sir Henry de la Beche had been right, he began to think: the break with the old order should have been sharp and complete. The old officers could not adjust their mental habits, formed under the district commissions, to the wider outlook of the consolidated area, nor could they readily accept the new knowledge quarried by the Trial Works Committee which went against their professional practice for a quarter of a century. It was a fact, they agreed, when the demonstration took place before their eyes, that four-inch pipes kept clear whilst larger ones accumulated deposit; yet both continued to put down house-drains of double the size they admitted to be necessary. They had too much to unlearn, and though when pressed they might concur in the value of the new ideas, their vision was too obscured by old and accustomed practice to let them catch more than a fractional glimpse of Chadwick's grand design.

In his perplexity Chadwick turned more and more to the reliable Henry Austin, now the Secretary to the General Board of Health, who was acting as Consulting Engineer to the Commission. The introduction of his favourite strained and eventually shattered the surface agreement between the engineering officers of the Commission. Austin was unknown; quiet and modest, he lacked the authority and force of character which would have enabled him to dominate his two professional colleagues and to silence the clamorous minority in the courtroom. Roe remained faithful to Chadwick, but Phillips seceded to the side of Leslie and Byng.

The clash came in June 1849, when Austin and Phillips produced rival schemes for the disposal of London sewage. Instead of limiting the attention of the court to minor matters and piece-

¹ E. C. to the Hon. Frederick Byng, 11 September 1848.

meal work, said Phillips sharply—such as the drainage of a detached and separate district, the advantages of a three-inch over a four-inch pipe, or the shape of a water-closet pan—the energy of the Commission and its officers should have been concentrated in the first instance on the selection of a sound plan for providing an outfall independent of the Thames. Phillips' proposal, in its essentials, was the construction of about twenty miles of intercepting sewers from Kingston in the west to the Kent or Essex marshes in the east, following the course of the Thames and acting as a substitute for it, at a depth of some hundred feet below the bed of the river.¹ The idea was not new. It had already been examined and rejected several times; and in a modified form it was later to form the basis of Bazalgette's plans for metropolitan main drainage. Chadwick, his eyes still lovingly fixed on the mirage of gold from sewage, found it totally unacceptable. Far better was Austin's "converging system." By this plan London would be divided into districts, each having a sump, into which the refuse would be collected; from these reservoirs steam engines would eventually pump it out to the farmers through subterranean pipes. In any event, said Chadwick crushingly, whatever plan was adopted, tunnels or sumps, it must wait on the completion of the survey; and in the meantime the Commission must continue with its programme of experiment and preparation, remedying the domestic drainage wherever possible, and flushing the sewers regularly into the Thames.

In this policy he inevitably came into collision with those who held that the Thames was London's greatest nuisance and Londoners' greatest danger. As the summer stinks from the river were wafted through the windows of the office in Printing House Square, the leader writer of *The Times*, with handkerchief to his nose, poured out columns of protest. "Not a single cesspool to be found in the city—except one, reaching from Richmond to Gravesend, with an exposed surface averaging a quarter of a mile in breadth! No filth in the sewers—all in the river!"² The Sewers Commission relieved Church Lane and Carrier Street, but only by poisoning the water supply of the whole capital, a piece of devilry forbidden even by the rules of war.³ It was only

¹ J. Phillips, "Letter to the Commission of Sewers on the Drainage of the Metropolis," 21 June 1849.

² *Times*, 7 October 1848.

³ *Ibid.*, 14 September 1848.

a choice of evils, replied Chadwick; to discharge noxious matter into the river was a lesser evil than to store it up in the midst of a dense population.¹ The flushing of the sewers he regarded as the greatest contribution the Commission could make to the defeat of the cholera. In their first month they flushed 22,400 feet of the Westminster sewers, with a deposit ranging from six inches to three feet six inches; their activity was intensified when the epidemic broke out; and in July 1849 an assistant surveyor reported that in each of the last six weeks the Commission had spent £150, every sixpence of which represented a load of filth carted away from the metropolis. The intention, and the energy displayed in its execution, were admirable; the results were not—for the hoarded refuse, including the fresh infected faeces of the cholera victims, was flushed into the Thames at a point opposite the main intake of London's water supply.

Judging the policy of the Commission from one aspect only—its effect upon the cleanliness of the river—*The Times* presently passed from occasional criticism to open and permanent hostility. John Walter began to suspect that he had been chosen as a Commissioner less on account of his interest in the sewers than of his influence with *The Times*;² which was only too true. His technical views he took from an aged engineer, Stewart, an old-fashioned empiric, who scorned the notion of waiting for the completion of the survey before beginning a general scheme of drainage, and favoured Phillips' plan of deep intercepting tunnels to divert sewage from the Thames. In a series of letters Chadwick attempted to turn *The Times* from its championship of Phillips. The intercepting sewer, he argued, was a reckless and uneconomical method of handling so valuable a commodity as town refuse; the plan amounted to throwing the sewage of London a hundred feet deep, only to pump it up again and send it back several miles in the direction whence it came, to be used as farm manure; it would occupy two or three years, cost two millions, and leave St. Giles's, Whitechapel, and Rotherhithe in much the same condition as at present. All this Chadwick explained to Walter and Delane, exuding a breezy confidence that after this exposure no one could possibly continue to countenance such

¹ *Times*, 14 January 1848.

² John Walter to E. C., 22 July 1849.

nonsense; but *The Times* still cheered for Phillips and intercepting sewers.¹

Thus, in the summer of 1849 affairs at Greek Street came to a climax, and the Metropolitan Sewers Commission rushed with increasing velocity on its own destruction. Phillips and Austin exchanged broadsides, each deriding the other's scheme.² At the same time the chief clerk, Lewis C. Hertslet, after sternly reproving his employers for not laying down a definite course of action for their works, sent in his resignation³—and, so Chadwick alleged, promptly began to manufacture hollow bricks, £150,000 worth of which would be required for Phillips' tunnel.⁴ A curious little note reached Chadwick from one of the clerks: "Phillips says, and thinks that the Gentlemen comprising the Commission (using his own words) are a lot of old Women or Muffs, and that the Commissioners will not get much out of him unless the Commissioners adopt his plans, for he will not be put down."⁵ In the following month the debate begun by Phillips and Austin was thrown open to the whole profession, and engineers were invited to submit their plans for the sewerage of London.⁶ It was a victory of *The Times* over Chadwick, who held that no comprehensive scheme could be laid down until the survey was completed, and was continually pointing out that, since the Commission were already engaged in undoing the work of civil engineers of the highest reputation, it was futile to seek in their ranks for the designer of London's main drainage. When the Court opened on 20 August to receive the plans, a crowd of excited engineers immediately surged into the room. The meeting was a tumultuous one, and the Commissioners present were startled by the numbers and rivalry of the competitors.⁷ Sixty-two plans were submitted that morning, and another seventy-five before the competition

¹ E. C. to John Walter, J. T. Delane, n.d.

² *Orders of Court*, vol. ii, pp. 105-8, 21 June 1849. *M.C.S. Minutes of the General Purposes Committee*, vol. iv, pp. 72-91, 28 June 1849. J. Phillips, "Letter to Commission of Sewers on Drainage of the Metropolis," 21 June 1849. H. Austin, "Observations on Phillips' Letter," 29 June 1849.

³ *Orders of Court*, vol. ii, pp. 103-4, 21 June 1849.

⁴ "Notes of Information to Lord Palmerston on the foundations of hostility to sanitary measures," MS., c. August 1853.

⁵ T. F. Greene to E. C., 7 July 1849.

⁶ *Orders of Court*, vol. ii, p. 157, 23 July 1849.

⁷ *Ibid.*, pp. 220-223, 20 August 1849. *Times*, 22 August 1849.

was declared closed. All were useless, as Chadwick had predicted, being drawn up in ignorance of the findings of the surface and subterranean surveys.¹

Every resolution was now becoming a battleground for the opposing parties, and at times the Court appeared "nothing better than a beargarden."² Should the Commission appoint two additional assistant surveyors? "Mr. Phillips, when appealed to, denied that more assistant surveyors were wanted; Mr. Austin as confidently asserted that they were indispensable. Mr. Chadwick spoke at some length on the point, seasoning his observations with further hits at the old commissioners."³ When Chadwick remarked complacently that under the old Westminster Commission the cost of removing soil by hand labour amounted to seven shillings a cubic yard, while now it was flushed away for only sixpence, Leslie rose in a fury of denial and demanded a special meeting to go into the figures. On the appointed day only three members were present in the committee room to support Leslie. In an adjoining room Chadwick waited with a strong contingent of his friends, ready to enter and swamp the meeting if a quorum were formed; while a beadle stood at the door to intercept Commissioners who looked like straying into the rebels' camp.⁴ It was a ludicrous situation which lost nothing in the telling in *The Times's* report.

As a gesture of appeasement the Works Committee was thrown open to all members in August 1849.⁵ The move was a failure. The Committee was now in difficulties, cried Byng, and wished to involve others;⁶ while Leslie pressed on his attack with a motion that the Trial Works sub-committee, on account of its cost and its small results, should be abolished.⁷ In such wranglings and personalities the Sewers Commission was gasping out its life. "Mr. Leslie complained that other Commissioners were allowed to say what they pleased, but so soon as he spoke he was told that he was personal"; "Mr. Bullar . . . complained that the time

¹ *Report on Plans for the Drainage of London*, by J. F. Burgoyne, James Vetch, etc., 8 March 1850; in *P.P.*, 1854, vol. lxi, pp. 104-11.

² *Times*, 28 September 1849. ³ *Ibid.*, 3 August 1849.

⁴ *Orders of Court*, vol. ii, pp. 225-6, 21 August 1849. *Times*, 22 August 1849.

⁵ *Orders of Court*, vol. ii, p. 204, 9 August 1849.

⁶ *Times*, 10 August 1849.

⁷ *Orders of Court*, vol. ii, p. 281.

which should be given to business was wasted by Mr. Leslie in fruitless discussions."¹

It could not continue. At the end of September 1849 Chadwick appealed to the Government to recast the Commission, in the hope of eliminating Leslie and his friends. The reply, conveyed in a letter from Lord Carlisle "under feelings of very great pain," gave him a severe jolt. Lord John Russell and the Lord Chancellor agreed to supersede the Commission—but only on condition that neither of the parties prominent in the recent disputes should be reappointed.² Chadwick was furious that this undiscerning Government should class him with Leslie as great and equal nuisances. For the second time in his career he felt that he was being made a scapegoat by the Russell Government, while the real culprits escaped uncensured. But the sentence could not be averted, and, despite the polite words of Russell³ and Carlisle, he felt it to be another rebuff. The Board of Health put the best gloss they could on the affair, and in their Minutes passed off the defeat as a strategic withdrawal. Experience had shown, they declared, that membership of the Commission of Sewers was not compatible with their duties at the General Board: "Because as members of a local board, in which they can form only a minority, an undue weight and responsibility may be, and they believe has been, ascribed to their individual or personal influence with the majority;—And because as members of a local board they may be in a minority with reference to measures on which, from more enlarged information, they may not only take a different view, but with regard to which it may be their public duty to enforce on their responsibility an opposite course."⁴

It would have been well for Chadwick if this resolution, the argument of which is unexceptionable, had been passed a year earlier, and he had severed his connection with the Metropolitan Commission of Sewers the moment he was appointed to the General Board of Health. By September 1848 the large-scale survey, the essential preliminary to a metropolitan plan, was well in hand, and Chadwick might wisely have left to other men the task of building upon the foundation he had laid. There is a

¹ *Times*, 30 August 1849. ² Lord Carlisle to E. C., 29 September 1849.

³ Lord John Russell to Carlisle, 24 September 1849.

⁴ Minutes, 17 October 1849.

limit to the amount of work one man, whatever his resources of energy and will-power, can profitably undertake. To establish a great new department of the central Government, and to nurse it through the dangerous years of its infancy, was a labour in which he should have found ample room for the exercise of his abilities. The trouble with Chadwick was that he felt himself to be indispensable. In this field of public health reform, where he had been the pioneer, he placed no trust in the judgment of others, however well-intentioned he knew them to be. Sir Henry de la Beche, the geologist, Simon and Southwood Smith, the physicians, Roe, Austin, Rawlinson, the engineers—all these and many other friends of the cause saw clearly some fraction of the whole; but none of them, Chadwick believed, saw the problem in all its bearings so surely as himself. He hated to delegate his power, because he could not at the same time delegate his knowledge and his vision. It is a dilemma known to all benevolent despots.

What had he to show for his two years at Greek Street? In the severe view of *The Times*—and *The Times* in this reflected the opinions of the great mass of London ratepayers—his dictatorship by committee had accomplished practically nothing. It was no clearer now than in 1847 how the main drainage of London should be carried out, whether by sump or tunnel or by continuing to use the Thames as a common sewer. All that Chadwick's Commission had done was to flush some thousands of tons of refuse into the river, argue the advantages of four-inch capillaries, conduct a series of experiments of dubious value, and cleanse a few blocks of forty or fifty houses. The responsibility for this policy, misguided in its aim and unimaginative in its conception, concluded *The Times*, must rest on the man who had worked himself into a monopoly of power.¹

It was a heavy judgment, which hung around Chadwick's neck to the end of his official career, and helped to drag him down at the last. There was no denying that it had much substance. If feelings had been sore at Greek Street, Chadwick's roughness in dealing with the men and situations there had been largely to blame. If the Commission had failed to come to grips with the principles of metropolitan main drainage, it was partly because

¹ *Times*, 21 July, 21 September, 3 October 1849; 8 March 1850; 14 February 1851.

all his thinking about the subject was distorted by a false premiss—his insistence that the sewage of London must be handled in such a way that it produced a remunerating profit. That is the weight of the judgment against him. But, on the large practical issue, it was an ill-informed and partial judgment. The critics cried out for immediate works, as if it were merely a matter of sending out a gang of labourers with shovels and pickaxes to trench and tunnel a passage for London's sewage. The problem of metropolitan main drainage was not so simple as it appeared in Printing House Square. The Commission of engineering experts appointed in 1856 to consider the question took three years to settle the principles, and a further seven years elapsed before Bazalgette's scheme, with its eighty-three miles of intercepting sewers at a cost of £4,600,000, was finally executed. Chadwick himself had not foreseen how long and how expensive a business it would be (he always insisted that he could have done it more quickly and at less cost). But in one important respect he saw further than his detractors. He had grasped the essential fact that until a survey had been completed, however long that might take, no general scheme of main drainage could be undertaken. Bazalgette planned his sewers according to Chadwick's large-scale survey.

CHAPTER XI

A NEW PRESIDENT

THE epidemic, which had put a severe additional strain upon the overcrowded burial grounds during the terrible months of 1849, had raised in an acute form the question of the accommodation for London's dead. By the amended Nuisances Act of August 1849¹ the General Board were empowered to inquire into the state of the metropolitan graveyards, and to prepare remedial measures for the next session of Parliament. The scheme which Chadwick laid before the Government in December followed closely the lines of his great report of 1843. Under it the burial of the dead, "a most unfit subject for commercial speculation," would become a public service, controlled by a small Board of qualified and responsible Commissioners, at least one of whom was to be paid. Parish churchyards, private burial grounds, and joint stock cemeteries would all be closed, and in future all interments without exception would take place in National Cemeteries managed by the Burial Commission. Funeral costs would be regulated according to a series of scales or classes; and Chadwick estimated that the consolidation of the services, together with the economy of large-scale contracts open to a Commission enjoying the monopoly of the 52,000 funerals annually occurring in the capital, would reduce the present bills of gentry and tradesmen by two-thirds and of artisans by one-half. To supervise the arrangements, to ensure that burial should be sanitary and decent and cheap, and to perform the other duties which Chadwick had sketched out in the papers submitted to the Health of Towns Commission, there was to be a paid permanent staff composed of one chief Officer of Health and eleven assistants.²

Such a scheme touched the interests of three main groups, the

¹ 12 & 13 Vict., c. 111.

² *Report on a General Scheme for Extramural Sepulture*, pp. 87-9, 113, 115. P.P., 1850, vol. xxxi, p. 573.

Church, the Dissenters, and the cemetery shareholders. Parish incumbents would be paid compensation for the loss of their burial fees. Each of the National Cemeteries would have a consecrated portion with a church for conducting the Anglican burial service, and an unconsecrated portion with a chapel for the use of Dissenters. The eight joint stock cemeteries¹ must be compulsorily purchased, the award in each case being fixed by a jury. Only one of them, Kensal Green, possessed a site suitable for the purposes of the scheme, and this would be enlarged to form one of the National Cemeteries. At least one additional cemetery would be required, preferably on a site near the river; an average of ninety-six bodies a day would float along this "Silent Highway" from eight houses of reception established on either bank. Chadwick knew the ideal spot—Abbey Wood, part of an ancient monastic domain, a dry tract of gravel and firm sand rising gradually from the river's edge. The sum of £700,000 was immediately required for the construction of the new cemetery in the east, the enlargement of Kensal Green in the west, and the purchase of the joint stock burial grounds; and the annual expenditure on interest, establishment charges, and compensation would amount to £112,000. The money would be raised by a loan, payments on which would be defrayed from the receipts of the National Cemeteries. The Act would provide for a rate to make good any deficiency, but Chadwick was confident that, even with the burden of compensation and the reduction of the existing fees, no deficiency was to be expected.

In a series of remarkable papers, addressed to the Government and the Bishops, Chadwick gave his imagination full rein to fill in and colour the outlines of his scheme. Bentham, planning his Panopticon or working out to the last detail the equipment of a Government office, could not have been more patiently thorough than Chadwick as he laid down the design of his National Cemetery, the style of the church, the materials of its construction, the arrangements for the chaplain, the choir, the bearers, and the corpse. Lord Carlisle was staggered at the inventive ingenuity of his colleague as he described the Crystal Palace grandeur of the church, with its dome of stained glass ribbed with iron, and

¹ Kensal Green, Nunhead, Highgate, Norwood, Brompton, Abney Park, Tower Hamlets, and Victoria Park.

its floor of encaustic tiles; with its stalls for the mourners, walled with hollow bricks and hung with rich cloth, each distinguished by the arms of one of the metropolitan parishes or the terra cotta effigy of one of the apostles; with its approaches which might be covered with glass panels in wet weather, and its surrounding avenues lined with full-size or colossal statues.¹ It was a remarkable effort of constructive thought, but at the same time a grave imprudence. As Carlisle hastened to warn him, such papers were "apt to ooze out,"² and if that happened a storm of controversy and ridicule would burst over their heads.

The Cabinet considered the scheme on 12 December 1849 and shook their heads over the offensive tone of Chadwick's draft. The next day Carlisle and Ashley were summoned to the Home Office, when Sir George Grey apparently intimated that if the scheme was to have any chance of public support it must lose the peculiarly rigid cast in which Chadwick had shaped it.³ Carlisle therefore redrafted the Report, and under his tactful pen Chadwick's attack on the undertakers and cemetery owners lost much of its rude directness. The Report appeared in February 1850, and two months later—most surprisingly in view of the attitude they were soon to adopt—the Government introduced a Metropolitan Interments Bill. "Panic has subsided; and Prejudices and selfish interests yield only to Fear in cases of this kind," wrote Sir James Graham. "... In the midst of the Cholera it might have been carried; I am not unwilling to hope, that with some modifications it may yet be found feasible."⁴ It was something gained, at any rate, that the man who, as Home Secretary, had set his face against the scheme should now consider that it fell within the range of legislative possibilities.

A Crown-appointed Commission, with the power to levy rates, exercising functions which were now possessed by influential if sluggish vestries, threatening the existence of eight cemetery companies and three thousand undertakers, and treading the debatable ground between the Church and the sects, offered a very broad

¹ "Memoranda of draft instructions for consideration for designs in respect to the construction of a church for the celebration of Divine Service at the National Cemetery," MS., n.d.

² Lord Carlisle to E. C., 26 October 1849. ³ Lord Carlisle to E. C., 12 December, 13 December 1849.

⁴ Sir James Graham to E. C., 3 April 1850.

target in the Commons. The Bill was met by the unanimous opposition of the metropolitan members, who coupled Chadwick and the Bishop of London as objects of their boundless distrust: Chadwick for foisting upon the capital a huge job—"a board attended with its usual accompaniments of clerks, treasurers, secretaries, chaplains, and God knows what"¹—which would put some scores of appointments within the gift of the Whigs; the Bishop for having browbeaten the Government into promising the clergy fees in perpetuity for services they would cease to render once their intramural churchyards were closed. The political economists argued against any interference with the machinery of supply and demand, but were blind to Chadwick's demonstration of the superior economy of large-scale Government contracts. The constitutionalists were shocked at the meddling with local self-government, but kept silent about the working of that admirable principle during the cholera epidemic. Dissenters were indignant that Christians who lived amicably side by side should be segregated at death, and protested that everybody, whatever his faith, would be mortgaged for all time to pay compensation to the Anglican clergy.² Outside, in the Press and in the lobbies of the House, the undertakers were raising an outcry, just as in 1831, *The Times* recalled,³ the rag-pickers of Paris had threatened to riot if the French Government interfered with their vested interest in street garbage. But the Bill had won one powerful and unexpected ally. *The Times*, a little troubled at the condemnation of private enterprise, a little dubious of the proposal to control individual choice by Government officers, had yet decided that "the bodies of the dead and the tears of the living are subjects which may be withdrawn from trading speculations without violence to the maxims of political economy."⁴

Chadwick's scheme emerged from Parliament with substantially little change—save in one respect, and that, as it proved, a disastrous one both to the scheme itself and to the reputation of the General Board. He had recommended a special Burial Commission with four paid members appointed by the Home Secretary;

¹ T. Duncombe: *Hansard*, vol. cxi, p. 693, 3 June 1850.

² *Hansard*, vol. cxi, pp. 677-710, 3 June 1850; pp. 856-70, 6 June; pp. 903-31, 7 June; pp. 1068-78, 11 June; pp. 1286-92, 14 June; vol. cxii, pp. 122-4, 20 June.

³ *Times*, 15 May 1850.

⁴ *Ibid.*, 17 April 1850.

the Government had decided instead that this new duty should be laid upon the Board of Health, reinforced by one paid member for the purposes of the Act. It was a further burden which Chadwick confidently assumed; but if the measure had been bedded out under a separate Commission, the General Board, its time already sufficiently occupied with the tutelage of the Local Boards which their Inspectors were calling into existence throughout the country, would have been saved two years of fruitless labour and anxiety and the discredit of the eventual failure.

In March 1850, at this delicate stage in the Board's history, when one intricate measure was about to be introduced into the Commons and another (the Bill for metropolitan water supply) was well advanced in preparation, the Earl of Carlisle was appointed Chancellor of the Duchy of Lancaster, and retired from the presidency. Ever since he had succeeded to his father's title, he explained to Chadwick, he had wanted more leisure for his own affairs. But the easy-going Carlisle turned his back without much real regret on Gwydyr House, with its earnest sanitary labours and its unsettled atmosphere of continual controversy. More than once he had threatened to "cut and run." He had supported Chadwick loyally, but with a sense of increasing strain, and though he remained friendly and helpful in the difficulties of the following years, he showed no willingness to take a full share of the odium which fell upon his former colleagues.

Chadwick could not conceal his alarm that the presidency was again at the disposal of the political chiefs. It had been a miracle that Lord Ashley and Lord Carlisle had been appointed to the Board in the first place, two noblemen sympathetic to the sanitary movement and willing to accept Chadwick's leadership with a good grace—a miracle unlikely to be repeated. Ashley also, he saw, was "discomposed and anxious," and might not co-operate cordially with a newcomer who had not shown zeal in the cause; and a change at the Board would be peculiarly hazardous at this very moment, when it was essential to retain undiminished the confidence of both churchmen and Dissenters. An old-established Board, with settled courses of action, might change its personnel without much danger; but at Gwydyr House, where all was new, it might be damaging to break up a partnership marked by "a perfect understanding, and reciprocity of feeling," in which "the

public have confidence, as is most unequivocally shown by the extent of application to us."¹ Could not the presidency, he suggested to Lord John Russell, be attached to the office of the Duchy of Lancaster?² But Russell was unresponsive to his plea, and it was clear that the loss of Carlisle must be accepted. Chadwick wrote him a note of sincere regret, a farewell to the most understanding chief he had ever served under, a farewell at the same time, as his fears accurately divined, to the peace and unity which had been Carlisle's personal contribution to their common labours. "Whenever I have been deeply troubled in spirit and have received a note from you, it has produced a calming soothing effect, and helped me on in the course of duty; and so it is now, but it is the promise that tho' somewhat separated officially, you will be present and aiding us in our snubs which will be many. I have said amongst my friends that I have never served with any one whose motives I felt to be more pure and elevated and therefore kindly. I observed only that at times it seemed to me the kindness was in excess for the rudeness, bad passion and sinister interests which were opposed to us. . . ."³

An even more serious blow to the Board of Health than the withdrawal of Carlisle was narrowly averted. Lord Ashley had counted upon having the honour of introducing the Interments Bill into the Commons ("Honour, in these matters, becomes *influence* and *power* to do more"), and when it was entrusted to other hands he sent in his resignation. He was given all the tedious details of the Provisional Orders to steer through the House, he grumbled, but any important measure the Government reserved for themselves; he was to be "reduced to the station of a senior clerk in the Home Office."⁴ Hardly had he been talked out of his sulks when he heard that another man was to be appointed over his head as President of the Board of Health. Again his resignation went in; and he was persuaded to remain only by a promise from Russell that he should have the Bill for metropolitan water supply.⁵

If not Ashley, who was to take Carlisle's place at the head of

¹ E. C. to Carlisle, 6 March 1850.

² E. C. to Lord John Russell, n.d., c. 6 March 1850.

³ E. C. to Carlisle, 27 March 1850.

⁴ E. Hodder, *op. cit.*, vol. ii, p. 318.

⁵ *Ibid.*, p. 319.

the Board? Looking round for men of goodwill, Chadwick picked out Lord Ebrington, a member of the Poor Law Board, who had been active in the early public health campaigns and knew something about the subject; moreover, he assured Russell, employing a characteristic argument, the Poor Law Board could be worked just as well by three members as by four, and by transferring Ebrington the Government would save £1,500 a year.¹ Considerations of economy and aptitude, however, exerted no influence on the political dispositions of the Whig Government. Amongst the members of a deputation which had waited on Chadwick a few weeks earlier to oppose the application of the Public Health Act to Totnes was one who frankly confessed that he knew nothing about the measure and had never even read it.² It was Lord Seymour, heir to the Duke of Somerset—who now took his seat as First Commissioner of Woods and Forests and *ex officio* President of the Board of Health.

Seymour's coming fell like a chilling blast on the devoted company of Gwydyr House. At their first meeting he informed Chadwick and Southwood Smith that his rule of action in office was "never to act until he was obliged and then to do as little as he could." This, wrote the furious Chadwick, "to men who had explored the seats of fever and had each suffered by it, in a new department appointed to promote measures, for the reduction of preventible sickness and death by the wholesale, which they, from study, knew to be practicable!" Seymour, they heard, "was averse to all such interferences and his saying was that there must be poor"—"a pretty theory," commented Chadwick in disgust, "that physical degradation and misery were not only an irretrievable, but a proper necessity for the great mass of the population."³ Seymour's shocked colleagues did not immediately challenge his statement of faith, "the policy of which for these times might be questioned for older departments" and which was particularly repugnant to the principle of the Public Health Act, "which is to do with the means granted to us, all the good in our power."⁴ But the inevitable clash between Chadwick and

¹ E. C. to Russell, 7 March 1850.

² "Administrative. Notes of Objections to the course taken by Lord Seymour in respect to the Public Health Act," MS., n.d.

³ E. C. to Lord John Russell, n.d.

⁴ E. C. to Carlisle, n.d.

Seymour could not be long delayed. The new President soon made very plain the low value he set upon the activities of the Board. He openly declared that he wished to stop as much as he could. Deputations from local authorities and sanitary associations were given a cool reception, his Lordship listening to the details of their cases with unconcealed ill-humour; from members of Birmingham Town Council and from other sources complaints reached Chadwick that his whole bearing evinced hostility to the Public Health Act. His disapproval was vented on nearly every officer of the Board.

On three occasions only during the two years of his presidency did Seymour attend meetings of the Board, and since his colleagues were so rarely honoured by his presence difficulties soon arose over business which had been conducted in his absence. Not long after his appointment, Chadwick was summoned to the Woods and Forests. Seymour then laid before him a paper he had received from the Treasury, and asked "in a very unusual and unpleasant manner" why he had not been informed of it, and of the Board's proceedings in general. They had every wish to keep him informed, retorted Chadwick; but how could they supply full details of their manifold daily activities to a person who never came near them—unless he was prepared to listen for a period in proportion to the time which the Board took in transacting their business? And was it consonant with the Act for Seymour to conduct business, except at the Board and as a member of it? Such action was surely questionable in law and practice, and led to misunderstandings and unsatisfactory results. "For a new Board, jealously watched, surrounded by enemies," concluded Chadwick, "it was impolitic and unsafe to have any irregularities even in formal practice."¹

Thus, the constitutional question, never raised while Carlisle was at the Woods and Forests, became acute under a less sympathetic régime. Had the three reformers now a colleague or a master?

On 5 August 1850 the Metropolitan Interments Act (13 & 14 Vict., c. 52) received the royal assent, and the General Board (with the exception of their President) held a special meeting to

¹ E. C. to ? [probably Carlisle], n.d.

consider the steps necessary to execute its provisions. Southwood Smith, who had ceased to have official standing at the Board when the Order in Council under the Nuisances Act lapsed at the end of the epidemic, had been appointed additional member for the purposes of the Interments Act, and Charles Macaulay, nephew of Sir Charles Trevelyan, became assistant secretary. Alexander Bain, the assistant secretary appointed under the Public Health Act, had resigned six months before, worn out by the heavy pressure of business which the cholera had put upon the office. His place, in deference to the Treasury, had not been filled; and now Austin, "poor Austin" as Carlisle called him, who had struggled to cope single-handed with the ever-growing correspondence of the Board, threw up the task out of sheer exhaustion and became a Superintending Inspector. He was replaced by Tom Taylor, barrister-at-law and Fellow of Trinity College, Cambridge, but best known as a contributor to *Punch* and the author of popular farces.¹ At Gwydyr House, Chadwick decided before long, a man like Tom Taylor was playing out of character. He came late and left early, entertained actors and editors in the office, kept one messenger busy taking manuscripts to the theatre and the printers, and absented himself to attend rehearsals of his farces. The legal business was soon suffering from his cheerfully offhand attention.²

Was Chadwick's interment scheme workable? Was it practicable for a public board to manage cemeteries, to monopolise burial, and to regulate the cost of funerals by large-scale contracts? To this question Chadwick's reply was to point out that in Frankfort, Munich, Berlin and elsewhere publicly-owned cemeteries were in operation, while in Paris the *Service des Pompes Funèbres* worked to the general satisfaction; in short, that the measures which his critics asserted to be impracticable were at that very moment being put into practice abroad to the obvious benefit of the community. The only difference, in his view, was that his plan, which aroused the appreciative envy of Parisian administrators, was more thorough, showed a clearer recognition of the social objects involved, and provided a superior machinery for public control and instruction. Only the event could show whether he was right, and it might well have furnished him with

¹ Minutes, 18 March 1850.

² E. C. to Tom Taylor, 12 April 1852.

a conclusive reply to his critics. As it turned out, however, his scheme did not succeed; neither did it fail; it was merely not attempted. The General Board, in eighteen months, never got further than the preliminary skirmishing with the cemetery companies and the Treasury.

From the first it was made clear to the Board that the Treasury disliked the Interments Act, and distrusted the men who were to administer it. A week or two after it had been given the royal assent, Chadwick received an emphatic warning that the measure "would never be allowed to work."¹ The Chancellor of the Exchequer, Sir Charles Wood, had for years been dragged reluctantly at the rear of his party along the dangerous paths of social and economic reform. He had not accepted the necessity for the repeal of the Corn Laws until 1844; he had fought against Ashley's Bill to restrict the hours of women and children in factories; and the only remedy he could see for Ireland in 1847-8 was to wait with Malthusian resignation until famine and hunger had cut off the excessive numbers of Irishmen. Put in charge of the invalid Whig finances in 1846, he directed himself with single-minded devotion to the one object of cutting public expenditure. He had obliged the General Board to begin its task with a staff too small for efficiency, and he never forgot that during the epidemic they had defied the Treasury and appointed five temporary medical inspectors. His views were shared to the full by William Goodenough Hayter, who, as Parliamentary Secretary to the Treasury, was chief whip and paymaster to the Whigs, maintaining discipline and good humour in the party by the judicious dispensation of the loaves and fishes of patronage. He told Chadwick that he considered him and Lord Shaftesbury "no better than a pair of socialists," and frankly declared that he intended to do what he could to hinder them.² "Mr. Hayter has been sufficiently explicit to me on the subject," Chadwick remarked to Carlisle, as the Interments Act faltered to a standstill in the Treasury bog. "He has told me in so many words that he thought the whole measure entirely wrong; that he was opposed to our whole proceedings, that he thought it wrong to interfere with trading companies, that we were wrong in our measure as to water supply, that Government ought to have nothing to do

¹ E. C. to Russell, n.d. (1851).

² Ibid.

with these things: for Government did everything badly, or worse than other people. Certainly his own office has done nothing to reverse that dictum."¹ When the Russell Government fell in 1852, Hayter told Chadwick that he regretted quitting office since he would thus lose the opportunity of "working" the Board of Health.² Finally, Chadwick thought it was not without significance that the Treasury letters to the General Board bore the signature of George Cornwall Lewis, who had nearly succeeded in stopping the publication of the *Sanitary Report* in 1842.

It would be interesting to know how many legislative projects have been killed in embryo by over-cautious Chancellors and unsympathetic Financial Secretaries. The peculiar value of the Minutes of the General Board and Chadwick's memoranda and letters relating to the Interments Act, and to the Metropolitan Water Supply Bill which we shall consider later, lies in the fact that they reveal in detail how such an abortion was carried out, and light up the motives of those responsible.

The first step must be the immediate purchase of the eight metropolitan cemeteries, the soil of only one of which was suitable for burial; and the simultaneous closure of the overcrowded graveyards, which could be divided "only into such as are bad, and such as are extremely bad." The General Board must take possession at once of every cemetery and every graveyard. If only one district were selected for the introduction of the new scheme, bodies might be taken outside its boundaries to other grounds in just as bad a condition.³ On 25 November 1850, therefore, after a careful examination of the sites by their Inspectors, the Board submitted an estimate of the value of the cemeteries to the Treasury, and requested permission to negotiate for their purchase. Two months elapsed before the Treasury replied. The Board's estimates, showing a valuation of £251,000, must have been framed on insufficient data, wrote George Lewis at last; the Treasury's own expert was of the opinion that the sites could not be acquired for less than their original cost, which might be as much as £750,000. The Board could not be permitted to enter into negotiations of such magnitude. The Treasury suggested an alternative course. The Board should buy up one

¹ E. C. to Carlisle, n.d.

³ Minutes, 21 November 1850.

² E. C. to Russell, n.d. (1851).

or two of the cemeteries as a start, enabling them to close the worst of the graveyards; at the same time they might purchase land for a public cemetery, so showing the cemetery companies that they meant business and strengthening their hand in the negotiations.¹

The Treasury thus recommended a half-and-half scheme such as the Board had all along opposed. The whole question of a burial monopoly under public management was reopened, and Chadwick found himself repeating once again his familiar arguments against leaving the interment of the dead to the anarchic, irresponsible competition of commercial companies. On 30 January 1851 Lord Seymour made one of his rare appearances at the Board. The reason was soon evident. He moved that the Board were ready to act on the Treasury suggestion, and would open a cemetery of their own to go into competition with the joint stock grounds. When his colleagues refused to adopt the Treasury's "absurd and destructive scheme," Seymour declared their attitude showed "most unwarrantable insubordination," and warned them "this would never be forgotten or forgiven by the Treasury."² The Board ignored his threats, and redefined their position in two uncompromising Minutes, the substance of which was embodied in letters to the Treasury.³ Even if the juries awarded the full sum claimed by the companies, it would still be necessary to make the purchase—and it would still be consistent with the estimates laid before Parliament, which were based on the proprietors' own valuations of £400,000. If the Board attempted to carry out the Act without first securing possession of all the cemeteries, they would find themselves involved in a competition with the companies, unseemly and repugnant in itself, and leading to all the disorder and loss which were bound to result from the introduction of rival capitals into the same field of supply. In that contest the Board would be handicapped by the annual burden of compensation and interest; while their competitors, fighting "with a degree of virulence and desperation which has

¹ 22 January and 13 February 1851: *Second Annual Report of the General Board of Health under sec. 73 of the Metropolitan Interments Act*, pp. 109, 129-30. P.P., 1852, vol. xx, p. 97.

² E.C. to Russell, n.d. (1851).

³ Minutes, 30 January and 14 February 1851. Board to Treasury, 31 January and 15 February 1851: *Second Annual Report*, pp. 111-16.

not hitherto been witnessed," would enjoy two advantages—their sites would be closer to the capital; and they would feel no scruples about using such insanitary but profitable practices as pit burial.

Lord Seymour wrote at once to express his disapproval; the Treasury had refused to sanction the Board's scheme, and since on this point authority was given to the Treasury by the Act, the Board should submit to their decision. What would happen if all the other departments were to copy the Board's action, and argue with the Treasury instead of acting as they were required?¹ Chadwick in answer pointed out that the Treasury's proposal amounted to a suggestion that the Metropolitan Interments Act should be dispensed with, and another principle of action adopted, at variance with that laid down in the statute. The Act invested the Treasury with power to approve the appointments and the financial arrangements, but there the Treasury's responsibility ended. If the Board carried out the Treasury's scheme, and disaster befell them, it would be no defence to plead that they were acting on the advice of a body which had no legal standing in the matter. Parliament might well ask why the Board should have adopted a course flatly opposed to their own recommendations, a course they believed to be illegal as well as impolitic, on the suggestion of persons who had given no more than incidental attention to the measure and were not responsible for executing it.²

The Treasury could find no reply to this; and eventually—with the help, Chadwick believed, of some pressure from Sir George Grey—the Chancellor of the Exchequer was induced to allow the Board to proceed with the scheme sanctioned by Parliament. In March 1851, four months after the Board had made their original application, the Treasury authorised them to buy out the cemeteries.³ Promptly they issued notices for the compulsory purchase of the Brompton and Nunhead grounds, and made an offer for the Abbey Wood estate at Erith, on which Chadwick planned to build his National Cemetery.⁴ Now came further delays and embarrassments as the Board encountered the shareholders' invincible belief that their property was worth far more than the sum they were offered. Chadwick wished to compel a decision by the findings of a jury; as he pointed out to Lord Seymour, the

¹ 17 February 1851: *Second Annual Report*, pp. 132–3. ² MS. fragment, n.d.

³ Minutes, 19 March 1851. ⁴ *Ibid.*, 21 March, 21 April, 8 May 1851.

experience of his own department, the Woods and Forests, proved how vain it was to expect to purchase land or property for public purposes by private agreement with the owners. The Treasury insisted, however, that the purchase should be made by a series of separate bargains; and the cemetery companies, unwilling to hasten their own destruction, claimed the right to submit their cases to the dilatory procedure of arbitration. Before the Board could enter into possession of the cemeteries they must await the adjudication of eight claims for compensation. By July 1851 the arbitration proceedings for the first two cemeteries had been in progress three months, and were still not complete. At this rate, their solicitors warned them, they would not get possession of all eight in less than a year.¹ Chadwick's exasperation mounted as the months went by; the Board had done their work in one-third of the time, the other two-thirds had been taken up by the Treasury and Lord Seymour, the "president who cannot preside."²

The heaviest blow was yet to fall. Chadwick now went into the City to raise money for the purchase. To his consternation the Guardian Assurance Company declined the loan on the legal ground that, the Board's life being limited by the Public Health Act to five years, it might not be in existence at the expiration of the loan. The Directors of the Royal Exchange Assurance Company, whom he next approached, examined the estimates of the amount to be expected from fees. They discovered the Act did not stipulate that all burials should be conducted by the Board; bodies might be taken to new and unconsecrated grounds outside the jurisdiction of the Metropolitan Interments Act, and, in consequence, no guarantee existed that the Board would have power over the whole of the burial fees.³ A powerful reason for their doubts, Chadwick believed, was that the delay in executing the Act had encouraged speculators, and a Bill to establish a Metropolitan Necropolis at Woking was now being canvassed; its promoters claimed that they had the approval of the Government, and Chadwick discovered that the Solicitor-General, Sir

¹ Minutes, 1 July 1851.

² E. C. to Carlisle, 19 May 1851.

³ Minutes, 22 April, 2 May, 24 May, 10 June, 17 June 1851. *Second Annual Report*, pp. 7–8.

Richard Bethel, was a large shareholder, while his brother-in-law was the architect.¹

The Board now turned for help to the Treasury, suggesting that the measure should be financed with Exchequer Bills; this would save £17,500 a year on the estimated outlay of £700,000, since money-lending corporations demanded a profit of from 2 to 2½ per cent more than the Government.² "See," exclaimed the Governor of the Bank of England to the Directors, when Chadwick consulted them about the loan, "see the way in which the Government manages these works, in placing the public at the mercy of money corporations like ours: putting the public at such an expense when it may upon a direct security, obtain the money by Exchequer Bills at so much less." Such Government assistance, argued Chadwick, was granted freely enough for other public purposes—the annual return listed advances for Harbours and Docks, for Railways, for Waterworks, for Collieries and Mines, for Lunatic Asylums, for the Improvement of Cities and Towns. Why not, therefore, an issue of Exchequer Bills for Metropolitan Interments?³

It was a test question for the good will of the Treasury, which now held the key to the situation. When Chadwick's solution was rejected, the Interments Act floundered to a halt. Despite the frequent, earnest meetings in Gwydyr House, the reports, the thousands of letters, the bustling activity of the Inspectors, the Board now found themselves hemmed in by a closed circle of perplexities. To shut the parish graveyards they must open new burial sites; to provide these and to buy out the cemetery companies they must have money; they could not borrow because of the legal flaw in their constitution—and to escape from this impasse they must seek the aid of the Treasury, an authority more anxious to restrict their activities than to see them extended. Chadwick was on edge with annoyance and the irritating sense of labour thrown away. Shaftesbury was on the point of resigning out of pique. Lord Carlisle seemed reluctant now to come out in support of the Board and the Report to which his name was attached—that amiable nobleman too easily took on the colour of the company he was in.

¹ E. C. to ? (Russell), n.d.

² E. C. to Russell, 21 July 1851.

³ Minutes, 1 July 1851.

A last hope remained. Failing the issue of Exchequer Bills, there was still one way to make the Interments Act workable. Two clauses might be inserted into the Act: one providing that if the General Board ceased to exist some other body should assume their liabilities and duties under the Act; the other empowering the Board to levy their fees and impose their regulations on the burial of every person dying within the metropolitan area. That was all that was needed, thought Chadwick; that, and a disposition to help by the Treasury chiefs. Hopefully he prepared an amending Bill, and obtained the approval of the Assurance Companies to its terms.¹ After all, he thought, the "insuperable difficulties" of Sir Charles Wood were the merest oversights, which the Commons—who, in sanctioning the purchase of the metropolitan cemeteries, must have intended that the Board should have the means to do it—would rectify at once if the case were fairly put to them. Shaftesbury showed the two clauses to Sir Charles Wood, who said he had no objection, but did not think the House would pass them.²

The Chancellor, however, never laid the amending Bill before the House. "Instead of doing so," Chadwick complained to Carlisle, "Sir Charles Wood is reported to have represented that the Board had made some propositions which the Government could not assent to, as if it were something new and enormous that they required; whereas all they requested is comprehended in the scope of the act as it stands."³ The Chancellor then introduced a Bill providing for the advance of £137,000 from the Consolidated Fund for the purchase of the Nunhead and Brompton cemeteries, and announced that in the next session the Board might be deprived of its executive powers and reduced to a Board of Control, burial being left to the parochial authorities or private parties.⁴ It was clear that the Treasury had written off the Interments Act as a dead loss, and were now preparing to wind up its affairs. And worse was yet to be feared. Wood was openly coquetting with the wild men of the Marylebone and St. Pancras

¹ *Second Annual Report*, pp. 9–10. "Metropolitan Interments Act Amendment. Draft of a Bill to amend the "Metropolitan Interments Act, 1850," and to provide for the Regulation of Non-parochial Burial Grounds hereafter to be provided," 23 July 1851.

² E. C. to Carlisle, 22 July 1851.

³ E. C. to Carlisle, 21 July 1851.

⁴ *Hansard*, vol. cxviii, p. 1552, 25 July 1851.

vestries. Late one night in an emptying House he announced that the Government intended to renew the Sewers Commission only temporarily, and to introduce a measure in the coming session putting both the interments and the water supply under parochial control; "Sir Charles made this statement, bowing to Lord Dudley Stuart who forthwith thanked the Government."¹ Shaftesbury, who saw him for a few minutes to convey the Board's protest at this sudden change of front, reported that nothing could have been more insolent than the manner with which the Chancellor received him.²

For some months longer the Interments Act lingered on under this suspended sentence. In October, after nine months of haggling, the awards for the two cemeteries were promulgated at last. The companies had failed so utterly to make out their case, and the Board's offer was considered so liberal, that the umpire declined to call evidence. The companies had claimed £268,111; the Board had offered them £83,707; they were awarded £117,105.³ Though the rate of compensation was one-third higher than the Board had intended to offer, cried Chadwick in triumph, it would not make the total purchase price for the eight cemeteries more than £350,000. What now of the £750,000 which the Treasury expert had estimated!⁴ Such facts, however, had no power to shake Sir Charles Wood. He was satisfied, he told a deputation from the Metropolitan Sanitary Association, that the Board's estimates would be exceeded three or four times; he added that in Edinburgh no one was buried within the city, though the arrangements were in the hands of cemetery companies, so it did not seem so absolutely impossible for private parties to do it.⁵ The deputation left with the impression that Lord John Russell, who was also present, did not know much about the matter and Sir Charles knew very little more.⁶

In December the Treasury administered the *coup de grâce*. The Board were instructed to abandon the awards for the Brompton and Nunhead cemeteries, and informed that a new interments measure was to be brought in,⁷ framed on principles essentially

¹ E. C. to Lord ?, 23 July 1851.

² Shaftesbury to E. C., 28 July 1851.

³ Minutes, 18 October 1851.

⁵ *Times*, 25 November 1851.

⁷ Minutes, 15 December 1851.

⁴ E. C. to J. T. Delane, n.d.

⁶ E. C. to Lord ?, c. 25 November 1851.

different from the existing Act. "There is no use, I am sure, in fighting against power, unless we have something on our side to appeal to," wrote Shaftesbury resignedly. "You particularly and the Doctor cannot *long* resist, and retain your positions; and we shall then lose *all* by endeavouring to save *half*."¹ A word from the Treasury, an additional clause or two, Chadwick reflected bitterly, would have saved the Interments Act and the Board of Health from the reproach of failure. Convinced as he was that "measures for the relief of pain and physical suffering should have the precedence over all others,"² he was perplexed and bewildered by this absence of good will. The more he thought of it the more incredible it seemed to him that "a matter of the most solemn moment, the horrors of a thousand agonising scenes to the population,"³ should be so lightly dismissed by the Government. What had happened to show that his scheme was unworkable and wrong in principle? Nothing; yet the Government was now encouraging everything that the evidence had condemned, trading in burial, joint stock cemeteries, and parochial management.

Surveying the unhappy history of the Act, we can see that by the end of 1850 the Government had got over its cholera panic and had had time to think twice about metropolitan interments; and its second thoughts, coloured by a general suspicion of central Boards and interference with private enterprise, were against Chadwick's National Cemeteries. While still anxious to be rid of the indecencies of burial within the capital, and to find a remedy for a nuisance which inflicted itself on the eyes and noses of Members of Parliament every time they passed by St. Margaret's churchyard on their way to the House, it was not prepared to sanction the peremptory intervention of the Board of Health. In the Treasury view the enthusiasts at Gwydyr House were committing the Government to a vast undefined expenditure for a dubious object. Hayter told Chadwick in conversation that the cemeteries would never be bought for less than a million; to which Chadwick roundly returned that, if Hayter were not a shareholder himself, he was speaking in the interests of shareholders.⁴ Certainly the Treasury produced no evidence to support Sir

¹ Shaftesbury to E. C., 7 December 1851.

² E. C. to Lord ?, n.d.

³ E. C. to Lord?, c. 25 November 1851.

⁴ E. C. to Russell, n.d.

Charles Wood's assertion that the purchase price would be three or four times the amount stated by the Board; the arbitration awards in the case of the Brompton and Nunhead grounds, indeed, showed that Chadwick's figures were far more reliable, and that the total cost of buying out the companies would be well within the estimates which Parliament had before it when approval was given to the scheme. But behind this curtain of financial scruples the Treasury concealed a more powerful motive for its opposition. Seymour (a former Secretary to the Treasury), Wood, Hayter, Lewis, had all been trained in the negative traditions of the old administrative service, and all took the narrowest views of the functions of Government. Their faith was in the efficiency of private enterprise, and their principle of action was to leave to the capitalist anything out of which he could make a profit. They doubted the strength of Government to shoulder any further burdens; and with good reason—Hayter, the Patronage Secretary and "broker-general in offices," was well aware of the quality of the placemen who were nominated by him, at the instance of party supporters, to the departments of State. They sighed with relief when they found that oversights in drafting had rendered the Interments Act so imperfect as to be promptly reversible. Thus, both the channels through which the Board normally communicated with the Cabinet—the President who was the interpreter of their views, the Treasury who acted as the financial censor of their conduct—were openly hostile to the men and measures of Gwydyr House. Disaster came, in Chadwick's view, when no Minister high in responsible office could be induced to find the time to approach the subject with a sincere desire to surmount the difficulties. The Board's activities lay at the very periphery of ministerial attention. Their scheme had been read and studied in detail by no member of the Cabinet, except Sir George Grey, who took little interest in the measure once it was passed, and, of course, the Earl of Carlisle, who told Chadwick regretfully that his representations had little effect "as I am always rather considered to be still acting under your spell."¹ As Chadwick foresaw, when he implored Carlisle not to leave the Board in 1850, "half-knowledge would be continually finding imaginary false difficulties and finding real ones insuperable."²

¹ Carlisle to E. C., 1 February 1851. ² E. C. to Lord ? (Carlisle), n.d.

The Metropolitan Interments Act, which had started on its way with such bright hope some eighteen months before, had now returned to lay its burden of discredit at the door of Gwydyr House. The common verdict was that the Board had failed. They had failed to close the overcrowded churchyards. They had devised an imperfect scheme, and to remove its imperfections had sought impossible powers over every corpse in London. They had annoyed everybody by their unaccountable delays, their quarrelsomeness, their absolute temper, their rudeness to parishes and cemetery owners. All this was the fault of the Board—but in particular of Edwin Chadwick. "That gentleman was no doubt very ingenious," cried John Bright, when the Commons were asked to vote the money for the purchase of the two cemeteries, "and whenever he had a board with such persons as Lord Shaftesbury sitting at it, he would be sure to pull the wire. And he did pull the wire, for if they granted the sum now asked for, Mr. Chadwick would become the arbitrary dispenser of more patronage than was in the gift of officers filling the highest situations in the Government."¹ In every clash of the Board of Health with their adversaries, the public now saw further evidence of the uncompromising harshness of his mind; in every suggested addition to the Board's functions, evidence of his ambition and love of power.

¹ *Hansard*, vol. cxviii, p. 367, 22 July 1851.

CHAPTER XII

LONDON'S WATER AND LONDON'S GOVERNMENT¹

THROUGHOUT 1850 and 1851, while the Board were making their fruitless effort to put into effect the provisions of the Interments Act, a greater project for improving the health of Londoners was pursuing a parallel course to disaster. In May 1850 Chadwick produced another bulky report, the *Report on the Supply of Water to the Metropolis*,¹ in which he once again trod that well-worn path of argument first traced eight years before. He had succeeded in consolidating seven of the Sewers Commissions; he now aimed to unify the nine companies which shared the water supply of London; and the final step he contemplated would be to bring water supply and drainage together in a combined service, administered by a single body for the whole of the metropolitan area. In short, he could see no reason why his principle of sanitary consolidation, the principle of the Public Health Act, should not be applied to the capital as much as to any provincial town.

The foulness of the dilute sewage which was pumped to the average Londoner as his domestic water supply was by now so clearly demonstrated that even a witness from one of the companies was prepared to admit that offensive matter made the water "not so pleasant"—though, Chadwick noted, he spoke as if "the water-drinkers are regarded as a small or eccentric set in the City, and that such pollutions of their beverage are things of no moment, calling for no remedy, and treated as a joke rather than otherwise."² But even if the Thames could be protected from contamination, asserted Chadwick, it would still remain an unsuitable source for London's water supply. It was too hard, twice as hard as the average for 150 rivers examined by the Board's Inspectors. Every day twenty-six tons of lime passed

¹ P.P., 1850, vol. xxii, p. 1.

² Ibid. p. 45.

through the pipes of the water companies, coating the inside of kettles, baths, and boilers, and using up excessive quantities of tea and soap. The "washerwomen's interest," which in the aggregate was larger than that of all the cotton and linen manufacturers, demanded that the Thames, Lea, New River, Colne, Wandle, and other tributaries of a similar degree of hardness should all be abandoned as early as practicable. The weight of the evidence favoured "the principle of soft water supply by means of gathering grounds."¹ From 150 square miles of gathering grounds, from Richmond and the heaths of Bagshot and Farnham, London could derive a supply double that now furnished by the companies, and only a third or even a tenth as hard as the water of the Thames. An entirely new supply of the softest water, pure, filtered, and aerated, could be delivered on the constant system in unlimited quantity for drinking, cooking, washing, and all domestic purposes at an inclusive weekly rent-charge of 2d. a house. At the same time, since it was axiomatic that drainage and water supply were two inseparable aspects of a single problem, he sketched out a plan for the main drainage of London. Soil water should be expelled from the capital through pipes, skirting the cultivated lands where much could be retailed as manure, and the surplus discharged so far down the river that none of it could be brought back by the return tide. The gross outlay for water supply and drainage, he estimated, would be £2,142,000, necessitating an average weekly charge per house of 5d.—less than the present charge for a defective water supply alone.

In this scheme there was no place for the nine water companies.² The supply of a commodity which was absolutely essential to the health, physical and moral, of the people should not be governed by considerations of profit. Yet the companies proceeded on the principle of charging the consumer not according to the cost of the service, but according to their estimate of his necessities and his capacity to pay. The promises made by the companies when they were first established made ironic reading now. Sir William Clay, chairman of the Southwark and Vauxhall Company, had once observed indeed that they could not have kept

¹ Ibid. p. 113.

² New River, Hampstead, Chelsea, East London, Grand Junction, West Middlesex, Lambeth, Southwark and Vauxhall, and Kent.

their promises, and would have been fools if they had.¹ The Grand Junction Company had appeared forty years before with a programme of pure water, a constant supply, a high service free of extra charge, and lowered rates. Once its pipes were laid it had pumped its water from a point opposite the Ranelagh sewer; it had withdrawn its constant supply, and obliged its tenants to spend £50,000 on cisterns; and it had made its high service subject to a rate twenty times its actual cost.² Chadwick did not conceal his disgust at the bland inefficiency of the water companies, the costly inadequacy of their works, and their frankly predatory attitude to the public. He protested against the surrender of a public service to private enterprise. From earliest times the town water supply had been looked on as a municipal duty; it was only at a time when public administration was weak and public opinion ill-informed that the companies had gained their concessions. The State should now resume the rights which had fallen from its grasp in a period of debility, and which the companies were now so flagrantly abusing. Nor need it be gentle in doing so. Water flowing in a stream was *publici juris*, a commodity which no individual could claim as his property and of which everybody was free to make use. Since the companies could not lay claim to the Thames and its affluents, all the property they really possessed was their distributary apparatus—most of which, Chadwick privately declared, was scarcely worth more than the old iron of which the pipes were composed.³

Who then was to inherit the works and functions of the water companies, and combine them with the administration of the sewers for the execution of Chadwick's grand plan for the sanitary redemption of London? He dismissed brusquely the idea of a municipality. The administrative machinery suitable for a provincial town would be hardly appropriate for the metropolis of the whole empire, the seat of Parliament, and centre of law and commerce; an attempt to introduce it must open up large and new political questions the settlement of which would delay the remedies so urgently needed. Hence, in Chadwick's view, the

¹ E. C., "Notes of heads of remonstrance on the Metropolitan Water Bill," MS., n.d. (1852).

² E. C., "Promises held out in the prospectus of the Grand Junction Company," MS., n.d.

³ E. C. to F. O. Ward, 6 October 1849.

task should be entrusted to a small Board of paid and skilled officials. Three competent officers, meeting daily and giving undivided attention to the subject, could push through business at six times the speed of the present thirteen Sewers Commissioners, who met only once a week or fortnight in committees of varying composition. Such a Board would be responsible to the Government, and through Parliament to the ratepayers; and in addition it would be surrounded with the guarantees set out in the provisions of the Public Health Act for explanatory reports and estimates, for public audit and the publication of accounts, and for the execution and maintenance of works on contract by open tender.

It was a bold, simple plan, argued with great power and at times with passion as Chadwick assailed the interests barring the way to a cleaner, healthier London. The Report, it must be emphasized, contains three distinct proposals: first, that the water supply of London should be derived from new sources; secondly, that the water companies should be bought out by the public, and their works consolidated; and thirdly, that an executive commission should be appointed to administer the combined service of water supply and drainage. By Chadwick these three proposals were regarded as inseparable elements in a single scheme; but in fact each of them—a soft-water supply, public ownership, an executive commission—was supported by an independent body of reasons, and might have been isolated for consideration on its own merits. A public monopoly of the water supply was the great object to be achieved. It would be better to dispossess the companies even if London continued to draw its supplies from the hard water of the Thames; it would be better to dispossess the companies even if their functions fell to some other authority than the executive commission that Chadwick desired. We may, at the outset, lay a finger on one reason for Chadwick's failure in this, as in so many other projects. Once he had arrived at a solution, after an exhaustive examination of the evidence, he committed himself to it wholeheartedly, bending to it all the energy of his emotions and his intellect. In that singleness of will and purpose there was too little room left for manoeuvre, for modification, for compromise. He was incapable of cutting and moulding his schemes to fit the resistant pattern of other

minds, suppressing criticisms in detail so long as the main principle were established, sacrificing with good will a lesser benefit that a greater might be achieved. He had, as the Earl of Carlisle told him, "possibly too ardent a strain after perfection which necessarily becomes one-sided in a world of so many mixed considerations."¹ It is to be regretted that Chadwick did not concentrate his attention upon the primary task of buying out the companies and consolidating the supply under public authority. Instead he wandered off into the wilds of Surrey in search of the perfect source, and the clear-cut administrative scheme of the Board became entangled with disputed questions of chemical analysis and hydraulic engineering. He was thus driven to extend his lines to defend positions which were not vital, and to press arguments which later scientific developments rendered largely irrelevant.

Now that the scheme was before the public, Chadwick hoped to get before the end of the 1850 session the Government's sanction to take the preparatory steps for the consolidation of the water works. Once again, however, he had fallen into the error of assuming that the hearty assent he heard in Gwydyr House would find an echo in Downing Street; and that the Government, in admitting the cogency of his arguments, were prepared to shape their policy on his recommendations. The Treasury would be very restive on the question, Carlisle warned him;² and two days later Ashley added, "We must be very circumspect. I see clearly that the parties are anything but friendly. Go forward very gradually."³ When Parliament went into recess, the Board had secured their Interments Act, but the Government were still avoiding a decision on the water-supply scheme. The Board must get ready for an arduous November campaign, wrote Ashley, when "we must pipe all hands, God helping us, for the water-supply."⁴

The interval, as we saw in the previous chapter, was largely spent in preparations for implementing the Interments Act; but from ten o'clock to ten o'clock one late summer day the members of the Board wandered over the wild heaths of Surrey, round Farnham, in quest of gathering grounds. This preliminary survey

¹ Carlisle to E. C., 4 October 1848.

² Carlisle to E.C., 12 August 1850.

³ Ashley to E. C., 14 August 1850.

⁴ Ashley to E.C., 18 September 1850.

promised well, and Chadwick took immediate steps to have the results checked. For once he made an unfortunate choice of agent. The Honourable William Napier was a high-minded young man, who bore a burden of debt with the careless charm of good breeding and an aristocratic name. The combination of charm and family probably had its effect on Chadwick who, for all his scorn of the intellectual qualities of the upper classes, had a little of the snobbery of the man who has clambered several rungs up the social ladder. It is difficult to understand otherwise why he should have accepted so readily Napier's offer to make (for expenses only) a closer examination of the Farnham gathering grounds. He could have laid his hands on a dozen men better qualified for the task, whose reports would not have been so vulnerable to attack. Napier spent some six months in Farnham, but beyond underlining Chadwick's superlatives and feeding his faith in the soft sand springs, his researches did not amount to much. The water was undoubtedly there. "Gushes of water as big as one's waist," cried the enthusiastic John Simon, when he checked over the results, "with scarcely perceptible alteration by *any* reagent."¹ A few weeks' exploration of all the woods and valleys of the district revealed forty-four streams, with a yield sufficient for half a million houses; "the water being of its primitive purity; perfect as to aeration; brilliant in colour; soft almost as distilled water; of a grateful temperature, about 50°; and almost free from all mineral, animal, and vegetable impregnation."² The encouraging fact determined by Napier was that even in the unusually dry summer of 1850 the flow of these streams would suffice to furnish an increased supply to the whole of London.³ More and more rosy grew Chadwick's hopes of collecting the spring water of the Surrey hills—a never failing source of 40,000,000 gallons at 1° of hardness—and pumping it from Farnham to the top floor of the highest house in the capital. With this amplified supply, he assured Prince Albert's secretary, they could wash the streets and houses of London in readiness for the Great Exhibition.⁴

¹ J. Simon to E. C., 21 October 1850.

² W. Napier, "Further Examination of the 'Gathering Grounds' for the proposed Government Water Supply to the metropolis," p. 6.

³ Memorandum. *The plan of improved Water Supply of the Metropolis*, printed, 9 December 1850.

⁴ E. C. to Col. Phipps, 19 October 1850.

When Ashley returned to London at the end of October, invigorated by a three months' holiday which had saved him from a breakdown, he was delighted to hear the results of Napier's researches. He would write at once to Grey, he said, for authority to prepare the Bill.¹ A week later he had been in touch with members of the Cabinet, and doubt was beginning to creep in. "Will our Government have courage and principle to carry the plan into effect?" he was wondering.² Then one day Lord Seymour came to the office, and to Chadwick's amazement demanded to know upon what authority the Board had investigated the water supply of London, and objected to any further proceedings on the matter. For answer Chadwick directed his attention to the recital in the opening paragraph of the Report.³ With heavy foreboding, Ashley noted in his diary: "The Water Supply, for which alone I remained at the Board of Health will be set aside or emasculated by the Government; and yet I made this measure a condition of my stay there. The situation is painful, because it is become that of a clerk, and I am made, by Seymour and Grey, to feel it hourly. The Board has no free action, no power to effect any of its decisions, for the Treasury and the Home Office refuse, or thwart, every proposition."⁴ On 19 December George Lewis informed the Board that the Treasury did not deem it expedient at present to incur the expense of a plan and levels of the district which Chadwick had indicated as the future gathering grounds for the capital.⁵ And in the first month of 1851 the friction between the imperious Seymour and his imperious colleagues struck into flame. A curt note to the Secretary demanded to know who had authorised Napier to continue his inquiries at Farnham beyond the period sanctioned by the Treasury. The challenge was taken up by Ashley as the champion of the Board, and there was a sharp exchange of letters.

If Seymour thought he had ground to reprove his colleagues, demanded Ashley, would he not have done better to call them together and hear their explanations?⁶ Seymour replied that the Board should have informed him of their action; "explicit direc-

¹ Ashley to E. C., 25 October 1850. ² Ashley to E. C., 2 November 1850.

³ E. C. to Carlisle, n.d. (January 1851).

⁴ 12 December 1850: E. Hodder, *op. cit.*, vol. ii, p. 320.

⁵ Minutes, 19 December 1850. ⁶ Ashley to Seymour, 6 January 1851.

tions" had been sent by the Treasury to the Board that they should submit to him any proposal involving expenditure. Had he known of it, he would certainly have objected to any further investigation by Napier. Napier's report, with its account of the practice of the ancient Peruvians, the canals made by the Moors, the water-courses of Mesopotamia, and extracts from Sale's Koran, was "a paper suited only for a Monthly Magazine." If ever the Board initiated proceedings involving new expenditure in contravention of the Treasury directions, he would remonstrate again; he did not wish to lay himself open to censure such as the Treasury had passed on the Board before he came to office.¹ This was the first he had heard of "orders from the Treasury," replied Ashley. Seymour's right to find fault with his colleagues was unquestioned, but it would be more agreeable, and more consistent with the proper and necessary rules of Board operations, if he conveyed his differences of opinion in person. That had been Lord Carlisle's practice whenever he had any doubt or difficulty, and "the result was a most friendly and comfortable unanimity."²

Seymour, hearing of Carlisle's virtues, must have experienced something of the disagreeable feeling of a second husband whose wife sings the praises of his predecessor. He could have derived little more satisfaction from Ashley's next letter. The Board had no record of, nor could they or their officers remember, any "explicit directions" from the Treasury instructing them to submit to Seymour proposals involving expenditure; "and indeed the case is clear, for surely the Treasury would never have issued an Order which, in fact, would have been illegal, that, on a Board consisting of four Commissioners, three should be compelled to submit their proceedings to the fourth, who did not intend to take any share in the business, or even to be present at their deliberations."³ At this Seymour proposed to appeal to the Chancellor of the Exchequer for a ruling as to his duties and responsibilities.⁴ This did not answer the question, replied Ashley bluntly. "You charge the Board and me among the rest with neglect of duty and disobedience to 'explicit directions.' I asked you before, and I now ask you again, 'When was the Order given."

¹ Seymour to Ashley, 7 January 1851.

² Ashley to Seymour, 8 January 1851. ³ Ashley to Seymour, 10 January 1851.

⁴ Seymour to Ashley, 10 January 1851.

What was it; was it by word of mouth or in writing, where is it now to be found?"¹ Pinned down at last, Seymour lamely confessed that he "understood" such directions had been given to the Board by the Treasury or the Chancellor of the Exchequer.² An "understanding," Ashley pointed out, was a weak foundation on which to reprimand his colleagues. The same day he wrote again to sweep away the last excuse for Seymour's querulous complaint. He forwarded copies of two letters, one dated 10 August 1850 informing Seymour of Napier's engagement, the second dated 12 August, from Seymour himself, recording "no objection." Napier's engagement did not begin till five days afterwards. "Such is the haste and want of consideration with which you attack your Colleagues."³

Lord Seymour had retreated discomfited behind the skirts of the Chancellor of the Exchequer, but in Gwydyr House there was dismay and a feeling that the Board had reached a crisis in their career. It would have been serious enough if the incident had merely revealed that the manners of their President were bad, his memory feeble, and his attention to the business of the Board neither regular nor sympathetic. The correspondence—taken in conjunction with the attitude which in this same month he adopted towards the Interments Act—showed in addition that he intended, in his own words, "to stop as much as he could" of the work of the sanitary reformers, and that in this policy of obstruction he was supported and incited by a powerful section of the Cabinet. Clearly he felt no loyalty either to the members or to the duties of the General Board. His allegiance was given wholeheartedly to the Lords of the Treasury, and he agreed with them that public health legislation meant finding money for busybodies to meddle with things which were better managed by Providence and the capitalist entrepreneur. To Ashley he was obliged to be outwardly polite; but Southwood Smith, Dr. Sutherland, Austin, all were treated to marks of his contempt; and Chadwick he loathed.

¹ Ashley to Seymour, 10 January 1851.

² Seymour to Ashley, 11 January 1851.

³ Ashley to Seymour, 14 January 1851. There is no record of Seymour's reply to this. On 18 January Ashley told Chadwick, "Lord Seymour's reply is a becoming one. I hope for peace," which may indicate that he sent a note of apology.

One point was clearly illustrated by the Seymour-Ashley duel—the ambiguous nature of the President's status. Was he simply the first among his equals, or did he sit at the Board as a departmental chief with his subordinate advisers? By the Public Health Act he was on the same footing as the other three members of the Board; yet, as a Minister of the Crown, his shoulders carried more responsibility and his opinion had more weight. The Act, so Chadwick argued, directed the Treasury to make its decisions only upon the advice prepared by joint deliberation at a Board. The Treasury had no legal warrant to substitute for the collegiate responsibility of the Board action upon the responsibility of a single member of it—not even if he had taken part in the deliberations, and much less if he were absent and never listened to them. "It is rather hard in itself," Chadwick told Carlisle, "after having bestowed great labour in convincing the public, then the Government: then the parliament, and getting a measure passed, and then to have the whole measure subjected to gentlemen, who say that all are wrong and that they are hostile to the principles of the measure."¹ The question had another aspect. While the critics objected that the Board were independent and uncontrolled, Chadwick complained on the other hand that no Minister gave his full attention to the subject of public health. The Board shared with the Woods and Forests the time and labour of a minor Minister. Carlisle had attended carefully to his duties at Gwydyr House; with the result, since he could not be in two places at once, that he aroused dissatisfaction at the Woods and Forests. Even before his clash with Chadwick and Ashley, Seymour had declared, in conversation with Carlisle, that he would take little part in the Board's proceedings. It was obvious that, unlike his predecessor, he looked on the duties of the new department as of a very subordinate order indeed, and found the routine and atmosphere of the older office more congenial. In consequence, the whole business of the Public Health Act, as Chadwick protested, was subjected to a double or even a threefold procedure. After being passed at the Board, it was submitted to a President who never presided; and at the same time it was laid before the Treasury, whose officials had no resources of information to guide them on reaching decisions on sanitary policy. The business of

¹ E. C. to Carlisle, n.d. (January 1851).

the older departments kept to a well-trodden course, and could be understood by anyone of general intelligence; but the Board's business was new, and bristled with technicalities. A mastery of the new principles, Chadwick maintained, and regular attendance at the Board to discuss and observe their application in practice, were essential to the proper working of the Act.¹ If this proposition were accepted, the intrusion of the uninformed Seymour stood condemned for its arrogant impertinence.

The Board's position was further weakened in May 1851, when Ashley succeeded to his father's title. It was true, as Chadwick pointed out, that in the less sustained debates of the Upper House, his health would not have to bear the strain of late night sittings; and he would encounter less opposition from sinister interests than in the Commons.² Nevertheless, the removal of Ashley left the Board with Seymour as their only official spokesman in the Lower House—a champion unreliable in his loyalty, and more inclined to turn his weapons against the cause he was defending.

Despite Lord John Russell's promise to Ashley—which alone had persuaded him not to resign in March 1850—the Bill for metropolitan water supply was put in the hands of the Home Office. Not one member of the Board was consulted about the measure, except Lord Seymour, their *fainéant* President. The Government Bill, introduced on 29 April by the Home Secretary, Sir George Grey,³ proposed that the stock of the existing companies should be valued, and that they should then be consolidated and placed under the supervision of Her Majesty's Principal Secretary of State. The dividends of the consolidated company would be limited to 5 per cent, any excess income being applied by the Treasury to the reduction of rates. As a sanction to ensure that the proprietors complied with the provisions of the Act, the Home Secretary would be empowered to stop dividends. Looking over the Bill with a discouraged eye, Chadwick must have felt that his Report might just as well have remained unwritten, Napier might have stayed in London, and the Board have saved

¹ "Administrative. Notes of Objections to the Course taken by Lord Seymour in respect to the Public Health Act," MS., n.d.

² E. C. to Ashley, 9 June 1851.

³ *Hansard*, vol. cxvi, p. 340.

themselves the laborious inquiries and preparations of the previous fifteen months. Grey's Bill, in fact, hardly noticed the findings of sanitary investigators over the last ten years. It did not provide for a constant service, for a filtered supply, nor for a resort to new and purer sources; these matters were left undecided, to be settled by the Home Secretary at some unspecified future date. It did not provide for a universal supply, so that nearly three-quarters of a million Londoners would still have to beg or steal their water, or catch it from a public stand-cock. It said nothing about the consolidation of water and drainage under a single authority, which had been recommended by three sanitary inquiries, in 1842, in 1845, and in 1850. Above all, it left the service in private hands, checked only by such supervision as could be expected from an overburdened Minister. The water traders remained—their virtual monopoly, based on a tacit agreement, now converted into a legal monopoly; guaranteed against competition and assured of a dividend of 5 per cent on a capital whose value they placed at £4,800,000, a sum more than double the amount they had actually laid out.

The origin of the Government Bill was an open secret. Twelve months before Sir William Clay, chairman of the Southwark and Vauxhall Company, had addressed himself to Chadwick, declaring his hearty concurrence in the proposition that the water-works should be consolidated and acquired by the public. The radical defect of the present system, he observed, was that the companies had no protection against the incursion of fresh competitors. Few years passed without new schemes being canvassed; the public were easily led astray by projectors who professed to be able to defeat the oppressive water monopoly; and the companies were thereby caused continual trouble, anxiety, and expense. For this reason, he believed, the proprietors would welcome a "water works annuity fund," created under the guarantee of Parliament, the amount of the fund to be determined by the actual net income of the companies; the annuities to be a first charge on the water rates, and transferable at the Bank like other Government annuities. In return, the whole property of the companies should be vested in the public. Both parties would gain by the change, the public by the economies of a unified administration, the companies by the increased value and security

of their shares.¹ Clay's scheme was, in fact, an ingenious method of exchanging the precarious benefits of commercial freedom for the financial stability of a Government rentier. It sprang from an intelligent appreciation that the old order was passing, that—as the leaders of *The Times* unequivocally revealed—the weight of public opinion was against the companies, and that if they continued to resist they would exacerbate that opinion and open the way for a settlement on the ruthless lines indicated by Chadwick. But Clay, who wrote heartily that, if the companies and the Board of Health got together, they could come to an agreement in five minutes,² could have had no inkling of the depths of Chadwick's scorn for the claims of the water traders. Presently, finding Chadwick unresponsive, Sir William Clay diverted his stream of memoranda to the Home Office, where they were given a more sympathetic hearing.

In his acceptance of the principles of consolidation and public ownership, however, Clay—who confessed to be “tired of presiding over Directors' meetings”³—was far from typical of his class. There were others who retained their faith in private enterprise, who would rather keep their independent existence than be merged into either a consolidated company or a unified public service, and who were unwilling to exchange for a safe percentage the risks of the old order with its possibilities of greater profit. The majority of the directors were resolved to fight a delaying action as long as they could. A barrister friend of Chadwick's, engaged in auditing the accounts of the Chelsea Water Company, found a “good round sum” set down as a subscription towards fighting the Public Health Act.⁴ When the Water Works Clauses Act of 1847 applied the first restraints to the trade in water, however, they realised that it was no longer sufficient to subsidise journalists and lecturers to talk darkly of French Centralisation and the invasion of property rights. They must make a show of accepting gracefully some part of the sanitary findings; and they calculated that if they did so they might be enabled, by virtue of their strength in the Commons and the respect accorded to them

¹ “Memoranda on the supply of water to the Metropolis. Sir W. Clay's paper,” MS., n.d.

² Sir W. Clay to E. C., 8 April 1850. ³ Sir W. Clay to E. C., 23 July 1850.

⁴ E. C. to F. O. Ward, 6 October 1849. In another note, probably to Delane (28 July 1851), he gives the figure as £200 or £240.

by the Government as great nucleations of capital, to survive into the brave new world of Chadwick and the Health of Towns Association.

Each of the three solutions so far described—the Government-appointed Commission urged by Chadwick, the statutory Company proposed by the Home Office Bill, the independent companies under certain minimum restrictions desired by most of the proprietors—had its spokesmen in the debates of 1851. There was a fourth party, however, more vocal than these, and commanding outside the House a wider measure of popular support. If Sir William Clay, and beyond him the less accommodating directors of the water companies, formed the right wing of the opposition to Chadwick's scheme, the left wing was represented by the advocates of parochial control. It was a confused, disunited, clamorous group, drawing its theoretical arguments from Toulmin Smith, its members diverse in their aims and in the quality of the motives which impelled them; a loose alliance of the metropolitan M.P.s and the Common Council, of Guardians, overseers, and churchwardens, the projectors of a dozen water-supply schemes, and a dubious tail of contractors and jobbers; some shouting for a municipality for the whole of London, others hoping to obtain for the separate parishes of the capital the essential organs of urban government. The chief movers, Chadwick was convinced, were a set of engineers and promoters who felt that they had little or no chance with anything higher than a parish vestry.¹ There was Mr. Taberner, for example, the attorney's managing clerk who acted as spokesman for the Metropolitan Water Supply Association, and who was connected with a scheme for supplying each parish separately by artesian wells. He had the effrontery to call one day at Gwydyr House and offer to direct the agitation according to the instructions of the Board, on condition that they reimbursed him for the time and money he had sacrificed. A similar suggestion came from the solicitor of another scheme, which proposed to draw water from Henley at an outlay of two millions and appoint a salaried Board of Management costing £6,000 a year. “These overtures were made on the most vulgar conception of the motives and desire of the

¹ E. C., “Water Supply: Central Establishment versus Parochial Establishment in the metropolis,” MS., n.d.

members of the General Board to obtain mere power and patronage; in which on the implied conditions that it was to be given to the promoters, unreserved support was promised, and hostility intimated if it were withheld."¹ But the scheme which was acclaimed in vestry after vestry from June to September 1851, and which enlisted the support of Delane of *The Times*, was a proposal by Francis Mowatt, member for Penryn and Falmouth, to vest the ownership and management of London's water supply in a representative body, comprising four members elected by the ratepayers for each of seventeen districts, together with four from the Common Council, and four nominated by the Government.²

In a series of lengthy letters and memoranda Chadwick combated the notion of creating a municipality for London. His argument followed two main lines. In the first place, the proposal stood condemned by all his experience of the corruption and interest-begotten prejudices of local representative bodies. He described in broad outline this gigantic new local authority, with a jurisdiction over two and a quarter million people, disposing of millions of pounds in rates, and faced with a complex of technical problems. Then, with a note of irony, he pointed to the products of vestry politics, and asked if men of this calibre could possibly grapple with so enormous a task. Could the small shopkeepers, who formed the majority of the metropolitan ratepayers, be expected to create a municipal council more intelligent and better disposed towards improvements than the Corporation of the City—a body whose ignorance, callousness, and susceptibility to sinister influences, were clearly shown by its defence of the cruelties and abominations of Smithfield Market? Secondly, shifting his ground, and aiming at the self-importance of national legislators, he urged that a unified municipality for the whole of London would be a formidable and independent power in the State, which would always be able, by the magnitude of its political influence, to procure the exemption of the capital from the operation of the laws passed by the legislature. The administration of the metropolis, the seat of Government, was of national concern;

¹ E. C., MS. fragment, n.d.

² Mowatt attempted to introduce his Metropolitan Water Supply (Control of Representative Body) Bill on 24 June 1851 (*Hansard*, vol. cxvii, pp. 1140-9), and again on 6 February 1852 (*Hansard*, vol. cxix, pp. 220-31).

that was acknowledged by the special attention given to it by Government Commissions in the past. The two lines of argument thus converged in the proposition that the special nature of the problem presented by the capital city called for special administrative arrangements—in short, for the executive commission Chadwick had earlier indicated.¹

If the Home Secretary read these memoranda, he did not allow himself to be swayed by their reasoning. Yet it was immediately evident that the Government's Bill stood no chance of success. Sir George Grey himself seemed to have no great confidence in the measure. The best plan if it were only practicable, he declared, would be to place the water supply in the hands of a municipal corporation or some analogous body. On the other hand, he confessed that if they were dealing with the subject as a new one, and could ignore long-established machinery and the aversion to Government interference in matters of daily and domestic concern, Parliament would do well to adopt the proposal made by the Board.² Hence, by the Home Secretary's own admission, his solution was only a bad third, and he laid himself open to attack from the one side by those who were not so easily persuaded that a municipality was impracticable, and from the other by those who believed that water supply was properly a subject for Government interference. The Bill was enfiladed from all quarters by a suspicious House. Why should Londoners pay £400,000 or £450,000 a year when a completely new and improved supply could be obtained for £2,000,000, demanded Viscount Ebrington, whose speech owed much to Gwydyr House.³ Sir Benjamin Hall, the Member for Marylebone, prophesied that the Bill would boom the 3 per cent water shares to £130; seventy Members of Parliament, he was informed, held shares in the companies, and they were not likely to vote for any competition.⁴ In his belief that the water companies were behind the Bill, however, Hall had misjudged their temper. They were far from willing, as we have seen, to forfeit their freedom of action to the extent contemplated by Sir William Clay; and the opinion of the

¹ See especially *Memorandum as to the Constitution of the Administrative Machinery for the erection of New Public Works*, printed, 24 January 1851.

² *Hansard*, vol. cxvi, p. 340, 29 April 1851.

³ *Ibid.*, vol. cxvii, p. 506, 5 June 1851.

⁴ *Ibid.*, p. 472.

majority of them was expressed by Sir John Johnstone, a former director of the New River Company, who could see no reason why the House should not pass a Bill tying down each company to certain rules and regulations, similar to those which would be applied to the proposed amalgamated body.¹

The Bill passed its Second Reading by 95 votes to 79; but only two had risen to speak in its favour, Sir George Grey himself and Sir William Clay. On 5 June it was referred to a Select Committee, its defence being entrusted to three eminent counsel against the lawyers and engineers put into the field by the companies and the parochial party. The General Board were allowed no *locus standi* before the Committee, and their Inspectors were not called as witnesses; the most Chadwick could do was to send copies of his Report on Water Supply to members of the Committee. It was "really a very fearful thing," to refer such a question to a Committee of private and irresponsible members. "Should not they be reminded of their duties to those who are unrepresented; the vast mass of two millions of the population, and of the poorest?" "The private bill legislation is really in general the legislation of those who can pay for it. Where Hudson was unopposed he did as he liked, through these committees, with the legislature; and for railway purposes the committees, and through them Parliament itself, were the agency of the parliamentary agents. . . . There will be perhaps as much as three millions sterling in issue against the public for which there will be counsel. But the power of money in procuring the evidence of scientific witnesses is the most disgusting feature to be anticipated. Before the railway committees, men of science were got to swear against a rival line which had a tunnel, that the air of the tunnel would be dangerous to human life. Before the private committee of the River Lea Trust Bill, an eminent Chemist, who had given a certificate in favour of soft water for Liverpool, was got to express his horror at the proposal to supply [people] with soft water, as one for poisoning them. . . . In favour of the Thames water as it now is, the Companies obtained the strong certificates of men of science who had denounced it before the Board of Health. . . . Could not the inhabitants of Church Lane, St. Giles, or of Jacob's Island be advised to come *in forma pauperis*, and ask the committee

¹ *Hansard*, vol. cxvi, p. 322.

to assign counsel to them?"¹ With such reflections Chadwick looked on helplessly at the day-to-day clashes of the contending parties. He was cheered when Sir James Graham, who had no liking for the Government Bill, showed signs also of being impressed by the constitutional inconveniences of Mowatt's parish parliament.² But Graham had vagaries of his own, Chadwick noted disgustedly—some notion of supplying the north side from Watford and the south side from Farnham, and erecting a separate municipality on each bank; which would amount to having two hearts in one body.³ Under cross-examination the parochialists made revealing admissions. But what was the use of bringing out the fact that the agitation was the product of a few interested individuals working on small minorities in the parishes, when the papers printed none of the proceedings?⁴

Between June and September 1851 one vestry after another condemned Grey's Bill and passed resolutions in favour of parochial control. Seven hundred ratepayers in Southwark signed the requisition for a public meeting against the Bill, the largest requisition ever known in the borough.⁵ But the trading interests, Chadwick observed, seemed to be in complete possession of the papers, with the exception of *The Times*.⁶ The secretary of one water company told him "they had got the *Economist*";⁷ but opposition was only to be expected from a journal which had looked upon the Public Health Act as an unjustifiable meddling with natural law. More perturbing was the defection of the *Chronicle* and the *Daily News*, two newspapers distinguished hitherto for their advocacy of sanitary reform. Napier called on the editor of the *Chronicle* to complain of the way his views had been misrepresented, and discovered that the writer of the offending articles was Venables, the counsel for the Kent Water Company before the Select Committee. Chadwick was especially pained by the scurrility of the *Daily News*, which "has been introduced as a reformed newspaper and has been held up I believe by Bright and Cobden as an example of what a cheap Newspaper should

¹ E. C. to ? (Delane), 20 June 1851.

² F. O. Ward to E. C., 19 and 27 June 1851.

³ E. C. to F. O. Ward, 3 July 1851. ⁴ E. C. to F. O. Ward, 5 July 1851.

⁵ *Minutes of Evidence taken before the Select Committee on the Metropolitan Water Bill*; P.P., 1851, vol. xv, p. 1; Q. 4982, evidence of E. Collinson.

⁶ E. C. to F. O. Ward, 28 July 1851. ⁷ E. C. to Russell, n.d. (1851).

be." Crowe, the editor, was most respectable, and "it is most likely to be the affair of some mere capitalist." And so it turned out to be: Smith, the manager of the paper, appeared as the solicitor for the Hampstead Water Works, in which he was believed to have a large interest.¹ The *Daily News*, Chadwick recalled, had also been strongly opposed to the removal of Smithfield Market—the articles being written by one of the counsel engaged on its behalf. Chadwick wrote a public letter (which apparently remained in draft) to protest against a practice which must be conducive to the corruption of the Press, arguing that the retainer of a barrister who was an influential writer in a newspaper, perhaps even its proprietor, was in effect the retainer of the newspaper itself. He thought further of mentioning to the Attorney-General this new kind of huggery, which led to the employment of barristers not for their legal qualifications but for their secret services as writers in the newspapers.

The Times alone seemed not to speak with the voice of the hired hack. "Whatever bias I have heard imputed to the *Times* I have never heard it accused of a pecuniary bias. Indeed, although I largely differed from the late Mr. Walter, I always said that his integrity against every sort of sinister influence appeared to me to be most remarkable."² A tribute indeed from one so sharp to scent corruption! Shut out from the Select Committee on Grey's Water Bill, with the Government increasingly cold and unresponsive and the threatened interests ever more active and menacing, Chadwick made a bid for the alliance of the most powerful leader of opinion in the London Press, Delane of *The Times*. In Printing House Square unfortunately the name of Chadwick carried with it the odour of the polluted Thames; and he was driven therefore to make use of a stalking-horse, an eloquent and forceful journalist, F. O. Ward, who could put a more attractive colour on the sanitary case than could Chadwick with his desiccated English.³ Delane had made it plain that he found more to recommend Chadwick's Government Board than Clay's statutory com-

¹ E. C. to F. O. Ward, 30 June 1851. ² E. C. to ? (Delane), 28 July 1851.

³ Ward made Chadwick's acquaintance towards the end of 1849. He had explained the Board's scheme in two articles in the *Quarterly Review*: (1) "Metropolitan Water Supply," vol. lxxxvii, pp. 468–502, September 1850; (2) "Sanitary Consolidation—Centralisation—Local Self-Government," vol. lxxxviii, pp. 435–92, March 1851.

pany; but in preference to either he wanted to see London's water supply in the hands of a municipality. To mature the municipal institutions demanded by *The Times*, argued Ward, would take a lifetime. The interval could best be bridged by a terminable Commission, small, paid, and removable, renewed at intervals of three years as an *ad interim* administrative expedient until the municipal reconstruction of London had been carried out. Ward addressed his letters to Chadwick, who forwarded them without comment to Delane; but *The Times* showed no signs of abandoning its campaign for the immediate establishment of representative government for London. Nor was Chadwick's assent ungrudging to the form in which Ward had shaped the Board's plan. He certainly did not concur with Ward's thesis that government by commission was no more than a temporary administrative device, to be replaced within a generation by a municipality. The feeling abroad in favour of representative control might be regretted, Ward urged on Chadwick, but it must be admitted, and their policy should be to modify it or mitigate it as best they could. All Chadwick's evidence that the parish agitators were interested men, and the vestry meetings but thinly attended, would not deter *The Times* and other journals from advocating ratepayers' control, which, "whether demanded by large meetings or small, is at all events the only principle that has in its favour *any popular meetings at all*."¹ This Chadwick must have felt was giving hostages to the enemy. Ward's letters acknowledged too much reasonableness in the ideas of the opposition for a controversialist of Chadwick's temper. After one or two of his letters had been held up by Chadwick's censorship, Ward ventured on a postscript of expostulation. It would weigh with Delane, he said, if all the letters were sent, "as this will show that independent views are taken and discussed, and that I am not a mere puppet reflecting your views and playing into your hands. (And, by the bye, let me mention that you are much weakened by the prevalence of a belief of this kind in many quarters—it is thought that the Engineers Inspectors and those who serve you, give in many cases opinions modelled in conformity with yours—which deprives the evidence, etc., of its cogency. Even *I* have been openly said to be 'in Chadwick's pay'! It is worth while to adopt

¹ F. O. Ward to E. C., 14 July, 31 July and 3 August 1851.

all reasonable means of mitigating the intensity of the dislike and opposition and mistrust occasioned by these unfounded ideas. Let my various letters, etc., go for what they are worth, for example—and be assured that, so far as they are wrong, they will not prevail, while the candour of giving fair play to opinions not *entirely* identical with yours will be much appreciated.”¹

Chadwick's irritability increased as the Select Committee ambled on through ten inconclusive weeks. Ward wrote to encourage him: “Above all keep our soldiers in good cheer—don't for heaven's sake talk about ‘disasters’ in the camp. I for one have not the slightest misgivings—and I promise you a bowl of Punch made with soft Gatheringground water delivered through my water-tap in Cork Street before two summers are over our heads.”² The Committee closed the hearing of evidence at the beginning of August. No report was made. None was necessary. The case for consolidation was proved, but that was the one point on which agreement was reached by the unhappy Committee, bewildered by a confusion of issues—hard water against soft, constant supply against intermittent, Watford chalk against Surrey sand, Mowatt against Clay and the companies against them both. Russell had already announced that the Government did not intend to legislate on water supply during the present session. The water question had been put off for another year, as it was clear it must be the moment Grey introduced his ill-concocted Bill. The Treasury, which had refused to grant the Board £500 for a survey of the new sources, had spent £5,000 on the rejected measure.³

¹ F. O. Ward to E. C., 7 August 1851.

² F. O. Ward to E. C., 30 July 1851.

³ E. C. to Russell, n.d.

CHAPTER XIII

THE INSPECTORS AT WORK

THE jealousy of the localities and the caution of the legislature had circumscribed the powers of the General Board of Health by the narrowest of boundaries. Their Inspectors could be summoned by a petition signed by one-tenth of the ratepayers; alternatively, the Board could hold an inquiry into the sanitary condition of any place with a death rate over 23 in the thousand, whether the inhabitants welcomed the investigation or not. But that was the sum total of what may be termed their initiatory or aggressive powers; and the wisdom of the Board held them back from pressing even these limited powers to their full stretch. As a rule of practice, they laid it down at the beginning that they would conduct no local inquiry unless they were assured of substantial local co-operation. They proceeded upon the authority of a return from the Registrar-General only after they had received solid evidence in the shape of some form of local representation—a resolution of the Town Council, a ratepayers' meeting, a petition from the doctors and clergy—that their Inspector would be kindly received by influential elements in the district. Sometimes they over-estimated the strength of the feeling in their favour; sometimes the swing of local politics put their friends out and their enemies in; sometimes a district which had at first seemed receptive was swept into opposition by the speeches and handbills of water company agents, Local Act attorneys, or the Anti-Centralisation League. This was only to be expected. The Inspectors' probe was bound at times to press on a tender spot. But the Board took up no intransigent attitude towards the localities, and they withdrew with admirable caution when the opposition seemed preponderant, regretting privately at the same time that they had no power to clean away such well defended dirt.

Nothing annoyed Chadwick more than the charge that the

Board of Health forced its way into a place and rode roughshod over the feelings and interests of its inhabitants. He would point in answer to the securities he had so carefully provided for sounding local opinion, consulting the wishes of the population, and preparing their minds for the responsibilities and benefits of the Public Health Act. A local examination was conducted by a specially qualified engineer, escorted by leading citizens of the district; a public interrogation of witnesses was held before the ratepayers; the Inspector explained the objects aimed at and the methods by which it was intended to achieve them; a report on the present state of the town was published locally, together with a description of the new public works proposed, and an estimate of their probable expense; and finally, in London, a responsible Public Board sat to review the contemplated measures, and to serve as a court of appeal to private parties. What more painless method could be devised of grafting the functions and powers of the Public Health Act on to the older machinery of local government?

How smoothly on occasion the method worked is illustrated in an entertaining account by Robert Rawlinson.

"On my arrival in Hexham, I found the town in a state of ferment as to the inquiry, the bell-man was perambulating the streets summoning the ratepayers to a meeting to oppose the inquiry. This was repeated during the evening, one of the meetings being for the evening, the other for the morning. Several of the promoters called in upon me during the evening, evidently fearing the morning's meeting. I explained the Act to them, as the most absurd statements had been published and were believed. I learned that the leader of the opponents was a Local Solicitor. The promoters were most anxious to learn what course I should take, as they feared to come forward and support the measure in public. That is they would attend the meeting but wished to avoid taking an active part in the proceedings. I told them this was exactly the course I desired they should take—namely—let the opposition have all the talking to themselves, and so leave them to me as I was quite sure out of their own evidence I could convict, if not convince them. The inquiry had to be adjourned to a large room as there was a full and rather formidable attendance. The day being wet many workmen were there. I

commenced the inquiry by a short statement of the proceedings which had brought me down—and then glanced rapidly over the powers contained in the Act—taking up one by one the objections which I had been informed the promoters of the opposition had made. I then requested any persons having evidence to offer either for or against to come forward and tender it. The opponents entered most resolutely into the arena, declaring that Hexham was well supplied with water; and was, in all other respects, a perfect town. I inquired for the return of the mortality, and found that, for the last seven years, it was actually some $29\frac{1}{2}$ in the thousand, but with 'cooked' returns it was $24\frac{1}{2}$ in the thousand. I then called the Medical Officers and the Relieving Officers and soon got amongst causes of fever, small-pox, and excessive money relief. I then traced disease to crowded room tenements, undrained streets, lanes, courts and crowded yards, foul middens, privies, and cesspools. The water I found was deficient in quantity and most objectionable in quality, dead dogs having to be lifted out of the reservoir. And though the opposition fought stoutly they were obliged publicly to acknowledge that improvement was needed—they, however, dreaded the General Board, and the Expense. I then explained the constitution of the Board and stated that their powers would be used to instruct, protect, and to check extravagant expenditure. By this time the eagerness of the opponents had somewhat subsided, the body of the meeting had come partially round, and so I entered into an examination of the promoters who came willingly forward. At the termination of the inquiry several of the opponents came forward and stated that I had removed their objections and they wished the Act could be applied immediately.

"Today I have inspected the town—and have found it as bad as any place I ever saw. I have had at least twenty gentlemen with me all day although it has rained most of the time. The town is old, and in as bad a condition as Whitehaven, and I don't know that I can say anything worse of it. I am staying at the best Hotel in the town, but there is no watercloset, only a filthy privy at some distance,—the way to it being past the kitchen. I have just been out in the dark and rain blundering and found some one in the place.

"I have inspected the sources of the present water supply, and

find that the water is taken from an open brook, filthy and muddy in wet weather, and filthy and bright in dry weather. In the same districts I have found; or rather, been shewn, springs—pure and soft—and at a sufficient elevation, to give 150 foot pressure in the town—and in abundance for the whole population. The existing springs will be added to if requisite by deep drainage. Most complete water works might be formed at a cheap cost. And the town may be sewered and drained for nothing, as a Nursery Man adjoining has stated that he will give £100 a year for the refuse, if it is all collected by drains. There are many acres of market gardens and nursery grounds within reach of the outlet sewer and more than £100 a year will be obtained.

"Since the inspection today I have had parties from both sides with me, the opponents trying to explain away their opposition; the promoters to furnish information; and, at times, I have had nine or ten gentlemen at once, belonging to both parties. The leader of the opposition has made me a present of some Anglo-Saxon coins—called Stycus, which were found in Hexham Church Yard."¹

The deft and tactful handling of a truculent opposition, leaving no scars of controversy, is an example of the Inspectors' diplomacy at its best. But not all inquiries ended so happily with a peace offering from the leader of the critics. When T. W. Rammell invited the Corporation of Chipping Wycombe to accompany him on a tour of inspection, they refused point blank, "they having determined to give all attempts to saddle the town with the Act the bitterest opposition in their power."² Not infrequently pressure was brought to bear on witnesses to prevent inconvenient revelations. During the inquiry at High Wycombe, for example, the vicar produced a letter from one of his parishioners:

"Sir—If you send for me when you hare redy in the town hall, i will give a true statement of the newcence of the pigsties against my house belonging to Mr. Hunt. Mr. g. Hunt told Mr. J. Hunt that i told you about the sties. Mr. Jo Hunt asked Mr. g. Hunt if I hoed him any money, if I did he would demand it, and if i dint pay it he would have a warrant of distress and take my goods, that was the reson I was afraid to say the complaint, the

¹ R. Rawlinson to E. C., 30 September 1852.

² *Report on Chipping Wycombe*, p. 8 (March 1850).

Lord delievered daniel from the Lion paw, and that same god is my god and he will deliever me from my henemys.

"i am your obdict servent,

"John Pippin.

"the rev. Mr. Paddon, Wickham, Bucks."¹

Many in the localities looked with suspicion on the tables of mortality rates concocted in a distant London office, and called on the evidence of "popular repute" or the "oldest living resident" to prove the healthiness of the district. At Merthyr Tydfil Rammell met widespread resistance—and, in particular, from the iron miners. They argued that the high death rate was caused by their dangerous work underground and by lack of food. "What they wanted was more meat," not sanitary regulations. One miner put the point forcibly: "My reason is, that people have not enough to buy food, and have nothing to spare for water. The wives of many being barefoot, there is no expense of shoe-leather." Rammell in reply demonstrated that, even if full credit were given to pit accidents, 27·6 deaths out of each thousand were still due to natural causes. By the end of the meeting the miners had been induced to look at the question again in the light of the evidence, and had agreed to send eight delegates, four against and four in favour of the Act, from each of five districts, to accompany the Inspector on his round of inspection.²

Turning the pages of the Inspectors' reports, we become familiar with a local drama, repeated in a hundred places, played sometimes as a comedy and sometimes as a tragedy, with innumerable variations of plot and circumstance, but marked by a few constantly recurring themes. The stock characters appear again and again—the landlords, who "would do that their neighbours did" and refused to be "at the expense of making a drain";³ the farmer, frankly admitting, "I prefer cesspools to drains, and I should like to stop drainage altogether";⁴ the Improvement Commissioners, defending their inactivity in the past with the argument, "Powers are apt to go to sleep unless attention is called to them sometimes; we don't claim perfection";⁵ the local solicitor scornfully reject-

¹ *Report on High Wycombe*, p. 17. ² *Report on Merthyr Tydfil* (1850), pp. 4, 47.

³ *Report on Wakefield* (W. Ranger, December 1851), pp. 11–12.

⁴ *Report on Bangor* (T. W. Rammell, September 1852), p. 5.

⁵ *Report on Chipping Wycombe*, p. 40.

ing the Inspector's statistics with the comment "the excess is but six-tenths, which is but half a man";¹ the Justice of the Peace, well-intentioned but knowing nothing of the provisions of the Public Health Act, demanding suspiciously, "Have not the Board of Health power to order what they please to be done? and can the inhabitants control the expenditure?"² Against this mass of interest, ignorance and apathy, the Inspector's strongest weapon was a general perambulation of the town. As he made his way through the courts and back streets, accompanied by a train of clergy, doctors, solicitors, Guardians, and Commissioners, the inhabitants crowded out of their wretched dwellings, crying out their complaints, in the belief that he was armed with power to give them immediate relief. One startling fact which these surveys revealed was that not only the higher but most of the middle classes also knew very little about the conditions in which the lower classes lived. The delegates of respectability often expressed astonishment and horror at what they saw, declaring how utterly strange it was to them, how unbelievable if they had not seen it with their own eyes. The plea of ignorance could no longer be maintained, however, after they had watched the Inspector put his questions and take down his notes in their uncomfortable presence. Here, for example, are the minutes made on such a tour by William Lee at Dudley:

"Patchett's-buildings.—All Irish. A court about eight feet wide, . . . with only surface drainage. No ventilation. A foul well used for cleaning the yard; most filthy privies are placed at the top, and as fast as the pots are emptied into the open receptacle, the fluid runs down the yard; the seats and passage covered with ordure, and the privies cannot be used. One case of cholera. The houses have water; the landlord would not lay it to them, but the water company did. One of the tenants says, 'He will not put a brick in, but if he is asked to do anything at the property, d—and b— us, and is often drunk.' Rent for house and chamber, 2/4d. *The whole of the medical evidence shows these yards to be among the worst localities of disease in the town.*

"Mr. Richard Fellows' property, and Thomas Williams, four houses.—Only one privy, without door, roof, or seat, and part

¹ *Report on Chipping Wycombe*, p. 6.

² *Report on King's Lynn* (W. Lee, September 1852), p. 9.

of the wall down. The tenant, Richard Roberts' wife, says: 'I cannot get him to even come and look at it. We pay 2/6d. per week. The back door is nearly down, and I am sure I expect it falling on the children. My husband is lame, or it would not be as it is. We cannot go into the privy. We have no water but the *cellar water*, which we use for slopping; we cannot get any other without either buying or stealing. The landlords ought to lay water on for all the houses.'

"William Cox's property.—Nine houses; no water; have to go half a mile for water. One of them says, 'We may as well talk to that,' stamping her foot on one of the bricks of the footpath, 'as talk to the landlord about having any water. He looks after the rent.'

"Badger-square.—Twenty-five houses. Very shocking privies. No water but from a draw-well. One of the tenants, who lent a rope and bucket, said, 'We have to steal water or do anything we can, and to drink the well water. There are dogs and cats in it, and sometimes we wind a cat up and cannot stomach it. . . .'

"The New Dock.—A street which is a perfect quagmire, even at this dry season, for want of pavement and drainage. The property is almost new, and yet everything connected with health is in the most wretched state.

"Birmingham-street, Vanes's-yard.—. . . The Inspector of Nuisances caused the owner of some property below this to erect a privy for some houses that were without; but the tenants pulled it down, because they said *they should have all the people in the district coming to it if they did not*. He then erected three others, and had locks put on, and they now stand.

"Bond-street, John Owen's property.—I asked, 'Where do you get water?' Answer—'We steal it. . . .'

"All the neighbours about this part of the town were calling my attention to the ills connected with drainage, privies, want of good water, and stench, etc., to such an extent, that I was compelled to refuse to take them down in my minutes, because I should have had to mention almost every house, and could never have used my remarks."¹

So, in town after town, against the advocates of *laissez faire* and local self-government, the Inspectors argued Chadwick's

¹ *Report on Dudley* (W. Lee, 29 December 1851), pp. 77-85.

thesis that in matters of public health an impartial central authority must intervene to adjust the balance between the powerless masses and those of their betters who wanted privilege without responsibility. Meanwhile in Gwydyr House all the anxiety of decisions which they knew involved life and death to thousands crowded upon the Board as the time came round each session for the preparation of the Bills in which their Provisional Orders were confirmed by the legislature. Whitstable and Newton Abbot must be struck out of the schedule because strong local opposition had developed.¹ A deputation from the Leamington Commissioners asked that the application should be postponed for a session. Did they represent the real wishes of the ratepayers? wondered the Board; and their doubt was shown to have good grounds a few days later when they heard that the resolution of protest had been passed at a vestry meeting closed to the public.² Ryde took a poll on the Act, and two-thirds of the ratepayers voted against its application; a fortnight later the medical men of the town sent a deputation in favour of the Act, but the Board reluctantly refused to move against the majority of the inhabitants.³ Deputations, friendly and hostile, waited on the Board, and counter-petitions poured in, from administrative bodies whose powers would pass to the Local Boards, from ratepayers who dreaded the expense of water and drainage schemes, from landlords who disliked regulation and office-holders who feared dismissal. Attempts were made to discredit the testimony of the Inspectors. A letter from the Commander of the Royal Engineers at Portsmouth attacked the reports of Grainger and Rawlinson as a "tissue of wilful misrepresentation," and declared they must have been imposed upon by interested persons.⁴ Babbage's report on Bromyard was stated to be full of absurdities and lies; he had remarked, for example, that three funerals had taken place there on one day—but not that they were of three old women, aged seventy-two, ninety-two and ninety-five respectively.⁵

From Alfreton came a typical petition, signed by the Mayor and the largest ratepayers, and maintaining that the town had, "to the knowledge of the oldest inhabitant, been notoriously

¹ Minutes, 21 June, 27 July 1850.

² Ibid., 12 and 27 July 1850.

³ Ibid., 26 March, 12 April 1853.

⁴ Ibid., 21 August 1849.

⁵ *Hansard*, vol. cxxiv, p. 1351, 9 March 1853.

remarkable for the health and longevity of the inhabitants." It went on to plead the case of the owners of lands and premises on whom the chief burden of the charges would fall, and forecast an exodus from the town to avoid the additional imposts, with the result that the property in Alfreton would be greatly reduced in value. The "gigantic machinery" and "numerous officers" were quite unnecessary, as the parts complained of had now been improved under the Nuisances Act. Those who signed the original petition had been deluded by the belief that the Act would involve an expense of no more than twopence a week.¹ At the subsequent inquiry at Alfreton a local clergyman informed the Inspector that he had been asked to "direct" his tenants to sign the counter-petition.² The Board had abundant reason to believe that landlords and other interested parties only too often employed threats and misrepresentations to stir opinion against the Public Health Act; and that where such tactics failed, counter-petitions were cooked up and signed with fictitious or forged names. The clash of local jealousies and interests may be illustrated by the case of Macclesfield, from which the Board received four memorials, one in favour originating from the Mayor and Corporation, three opposing the Act, promoted by the Police Commissioners of the town and the Highway Boards of Sutton and Hurdsfield. The motive of the Corporation in getting up the original petition, alleged the memorial from Hurdsfield, was certainly not the sanitary improvement of Macclesfield, but a desire to force all the other public bodies in the borough to surrender their functions and powers.³ A letter from the Town Clerk of Macclesfield later informed the Board that out of the 4,132 signatures appended to the counter-petitions, only 1,421 could be identified as those of ratepayers; several of the signatures were not those of the persons they purported to be; many of the names were in the same handwriting, and some appeared fictitious; there were also frequent repetitions of the same name, and the names of persons not resident at all; and in several cases after the signature of the father those of the children were appended.⁴ To

¹ *Report on Further Inquiry at Alfreton* (W. Lee, December 1850), p. 5.

² Ibid. (December 1850), p. 10.

³ *Report on Macclesfield* (R. Rawlinson, February 1851), p. 8.

⁴ Minutes, 9 June 1851.

counter such trickery the Inspectors were later instructed to verify the genuineness of signatures by personal visits or by reference to the rate books;¹ and ultimately, in May 1853, the Board decided to request that in future the Clerk to the Guardians should attach to each petition a certificate showing the number of ratepayers and attesting the qualifications of those who had signed.²

From Great Yarmouth came an octavo pamphlet of fifty-eight pages, alleging that the evidence taken before the Inspector had been mutilated, falsified, and fabricated, defending the water supply which he had condemned as hard and impure, and advocating an alternative scheme of sewerage which would leave nearly 25,000 out of the 28,000 houses undrained. The application of the Act, "firstly, would destroy a large proportion of the value of real property; secondly, ruin whole families who are living upon the surplus income of mortgaged property; thirdly, drive from the town those owners of shipping property who, having no interest in the real property of the town, will be induced to reside where local taxation will be less oppressive; fourthly, by which means hundreds of poor will be thrown out of employ, and become chargeable upon the parochial rates; and fifthly, largely contribute towards the decay of a town once among the most flourishing seaports in the empire of Great Britain."³ The Inspector, William Lee, reported to Chadwick that the death rate in the town was 24 in the thousand; and a Select Committee of the Lords which investigated the case decided that the mortality was so excessive that the General Board would have been justified in applying the Act without any petition from the locality. There was nearly half an ounce of saline and mineral matter to every gallon of the water supply. With the exception of the barracks, all the houses recently built had no means of drainage whatsoever; and all their privies and middens opened into dead wells, the seepage from which daily poisoned the water used by the nearby Military Lunatic Asylum. Local improvement was the responsibility of a body of 113 Commissioners appointed under an Act passed forty years before, and now altogether unequal to the requirements of the borough. "A flagrant instance of taxation without representation," concluded

¹ Minutes, 24 October 1851.

² Ibid., 26 May 1853.

³ *Report on Memorial from Great Yarmouth* (W. Lee, October 1850), p. 27.

Lee. "A majority of the Commissioners are self-elected for life; . . . for a great number of years, until within the last few months, they had never published any accounts; . . . the Abstracts now published, with the Public Health Act impending, are so mystified that their Lordships could not understand them." One witness admitted that in order to obtain signatures against the Act he had told ratepayers that they would be compelled to pay 7s. 6d. to 10s. in the pound as rates.¹ The objections from Great Yarmouth were supported by Joseph Hume; but the case against the town was so overwhelming that the Board felt strong enough to defy the opposition.²

The hamlet of East Stockwith sent a memorial against being included within the district assigned to the Gainsborough Local Board:

"Worthy Sir,

"We the undersigned Being Princeable Rate Payers of the hamlett of East Stockwith do feel our Selves agrieved By your Saniture measure concerning the Plans Laid down of us haveing any thing to Do with gainsboro waterworks or any Part of the Dreaniage it Doth Require as we have a good Dreaniage of our own about 6 feet fole in 20 chean, wich falls Down into the Carr wich that Dreaniage is Verry good and hath Been greatly Improved at a Serious Expence by the Erection of a large Steam Engene at Ravensfleet which will Continually Bring Large Rates upon us for the Management and Repairs of the Same we have good Dreaniage and three Trustees Regularly Chosen to Enspect any Defisuneces that may occur in our Dreans will not Lett any Stagnated water become a Nuoisance to hinger any thing and as to haveing any more Expence with New works it will be a burden more than we Can Bear as our Rates his Exceedingly heavy. Now we Sinceerly Beg of you to withdraw any Such mesure from us as it will be of No use what Ever to our Place with gratitude we are your Obt. Servants.

"(Signed) Robert Wildboar (and 50 others)."³

This was an anxiety felt by many small areas newly brought within the boundaries of a sanitary district; and the Board

¹ William Lee to E. C., 4 August 1851.

² Minutes, 15 April 1851.

³ *Report on Further Inquiry at Gainsborough* (W. Lee, May 1851), p. 6.

returned their usual soothing answer—assuring Robert Wildboar and his fellow ratepayers that inclusion in the jurisdiction of the Gainsborough Local Board would not involve being burdened with the cost of the works, unless they received benefit from them.

The indifference of the absentee Presidents, who shared none of the enthusiasm of the Board and had no desire to share any of their labours, was another source of delay and difficulty. In June 1852, to take a notable instance, Lord John Manners, Seymour's successor, told the Board that he feared he would not be able to undertake the introduction of a second Confirming Bill that session. He gave no reason for this decision, which would have thrown away months of preparatory labour spent in investigation and the conciliation of local sentiment. The Board protested strongly. The towns in the schedule stood in urgent need of the powers of the Act, and postponement might occasion the loss of many lives; especially in Woolwich, in parts of which the death rate rose to 38 and even 40 in the thousand, Wisbech where the septennial average was 30 in the thousand, and Salisbury where it was a fraction higher.¹ Lord John then consented to introduce the Bill—on the understanding that, in the deliberate opinion of the Board, it was unlikely to arouse any delay or discussion in Parliament.² How the Board could be held answerable for the Bill's smooth passage through the House he did not make clear.

By February 1850 the Board had received applications from 192 places, with a total population of 1,969,915, ranging from Birmingham with its 182,922 to the Northamptonshire parish of Little Bowden with 439. The Public Health Act had been introduced at that date into thirty-two places.³ After the initial impetus of the first eighteen months, however, the number of new applications slackened off to an average of just over twenty a year. In July 1853 a return of the Board showed that petitions had reached them from 255 places, 164 of which had been brought under the Act, 86 by Provisional Order, and 78 by Order in Council.⁴ The power to act on the authority of a return from the Registrar-

¹ Minutes, 9 June 1852.

² Ibid., 9 June 1852.

³ Return, 6 March 1850 (Commons); *P.P.*, 1850 (110), xxxiii, 591.

⁴ Return 1 July 1853; *P.P.*, 1852-3, vol. xcvi, p. 1.

General had been exercised with the greatest caution. In the first five years the Board directed inquiries into only twenty-eight places from which they had not received a petition signed by at least one-tenth of the inhabitant ratepayers; and even in these places, as we have seen, they made no move until they had seen good evidence in the shape of influential local representations that their Inspector would be given strong support. In one place only did they institute an inquiry without any form of local requisition. A petition reached them from the parish of Walsoken, a suburb of Wisbech; in the view of the Inspector, William Lee, no effective sanitary works could be constructed for this parish without taking in the rest of the town. His report subsequently gained the unanimous approval of the inhabitants of Wisbech, the death rate of which was 30 per thousand. In other places, Alnwick, for example, the Board reluctantly decided not to incorporate within the boundaries of the Local Board certain districts where hostility to the Act was manifest, although their inclusion would have rounded off the natural area for drainage.¹ The drafting of a sanitary scheme was determined by physical facts, the line of a watershed and the delimitation of a natural drainage area. But across the physical face of the countryside, its rivers and hills and geological strata, earlier generations had traced the lines of their civil administration, cutting it into units which frequently bore little relation to the area within which the objects of the Public Health Act could be most economically and conveniently accomplished. Chadwick, much as he would no doubt have liked the task, could not sit down like Napoleon in council and redraw the administrative map of Great Britain. Some redrawing there must be: but the Inspectors were instructed to go beyond the existing civil boundaries only where the physical necessity could not be denied, or where it would be a manifest advantage to the occupiers and owners of the district to be included in the new jurisdiction. Commanding as they did a staff of Inspectors which was never more than seven in number, and for most of the period was only five, the Board had no strength to spare for protracted battles in the localities.

The critics in Parliament and the Press, who tried to make out that the Board's intervention was everywhere resented and that

¹ Minutes, 26 April 1850.

sanitary works meant enormous expense for a doubtful benefit, were amply rebutted by the evidence. The average cost of applying the Public Health Act by Provisional Order was little more than £136, by Order in Council still less, only £88. To obtain a grant of similar powers by Local, Improvement, or Waterworks Acts involved legal charges amounting to over £1,600; the average expense of even an unopposed Improvement Act was £600. The comparative costs of the two procedures were strikingly illustrated in the case of Reading, where a Local Act was promoted for the sanitary improvement of the town. A preliminary inquiry by the Department of Woods and Forests cost £900; and the expenses ran up to a total of £8,000—yet in the end the Bill was defeated by the opposition of the local water company. Subsequently a petition was sent to the Board of Health; their Inspector conducted his inquiry and survey for £140 19s. 3d.; and the works for which £60,000 had been estimated under the unsuccessful Local Act were executed for £25,000.¹

In most places the Inspector of the General Board was the first to give serious and informed attention to the framing of a comprehensive scheme for supplying the inhabitants with water and relieving them of their refuse. He was ordered, in the set of instructions drawn up by Chadwick, to consider the threefold aspect of the problem: how water, pure and wholesome, from springs or rivers or upland gathering grounds, could be brought to the population; how it could be carried away again after use, bearing human wastes with it; and, finally, how the products of the sewers could be utilised to manure the neighbouring farm land.² The Inspector directed the attention of local authorities to sources of water which they had never suspected. At Ely William Lee suggested that the polluted Ouse should be abandoned, and the land-drainage water be collected instead from the tableland above the city.³ At Alnwick Rawlinson proposed to get water from the moors, "not by impounding reservoirs, as would most certainly have been done by any Engineer not

¹ Return (Commons), 1 July 1853, pp. 23-4; P.P., 1852-3, vol. xcvi, p. 1. *Report on administration of the Public Health Act . . . from 1848 to 1854*, p. 39; P.P., 1854, vol. xxxv, p. 1.

² *Report on . . . the Nuisances Removal and Diseases Prevention Act*, P.P., 1849, vol. xxiv, p. 1. App. x, pp. 129-35.

³ *Report on Ely* (11 January 1850), pp. 36-8.

educated in your school, but by deep drainage. The idea was of course new in the district, and the Local Board requested to see some of the water that they might be assured of its quality and have a guarantee as to quantity before being committed to the scheme."¹ Rawlinson made trial borings which revealed water four to ten feet below the surface, two degrees in hardness, and sufficient to furnish 84,000 gallons a day for the 7,000 inhabitants. Two years later Dr. Sutherland told Chadwick, "I have seen the Alnwick works. They are beautiful. I would rather have seen them than the finest temple in the Universe."²

Accounts of the progress of local schemes presently began to reach Gwydyr House. They made encouraging reading for men who had need of encouragement. At Barnard Castle, for example, four miles of pipe sewers, from four to fifteen inches in diameter, had been laid at a depth of seven or eight feet at a cost of 1s. 8d. a linear foot; the cost of main drainage falling on each house being only £2 6s. 10d., or ¾d. a week. The water supply, formerly derived from the River Tees, was now drawn from soft-water springs five miles away, and brought by an earthenware pipe to a covered reservoir, and thence by a seven-inch iron pipe to the town. "The water is only brought into the light in the room where it may be drawn, in a constant supply as fresh as at the spring-head," observed Chadwick with satisfaction. The supply for each house cost less than 1½d. a week, so that the total rate charge for the combined public works amounted to less than 2½d. a week for each householder.³ When, early in 1853, Chadwick and Southwood Smith spent a pleasant day inspecting the recently completed works, they watched with benevolent approval while "an address was presented to the Local Board by several of the poorer classes expressing their gratitude for the improvements introduced into their dwellings."⁴ Similar achievements were reported from other towns. At Ottery St. Mary, in Devon, combined works were constructed for less than a penny per house per week; at Tottenham and Ely for less than 1½d.; at Hitchin and Penrith for 1¾d.—all below the average rates charged by trading

¹ R. Rawlinson to E. C., 25 September 1852.

² J. Sutherland to E. C., 25 June 1854.

³ *Minutes of information collected with reference to works for . . . drainage of dwelling-houses, etc.*, p. 134; P.P., 1852, vol. xix, p. 307.

⁴ Minutes, 6 January 1853.

companies for water supply alone. Even Sandgate, which had few houses, and those of a size and value above the average, paid less than 3d.¹ In the towns brought under the Public Health Act the total cost of combined public works for water supply and drainage averaged 2½d. a week for each house; the private improvement works (such as filling up the cesspool and fitting sink and water-closet) amounted to a further 1½d.; the total average weekly cost being thus 3½d.²

These were arguments that a ratepayer could understand, and it was with such figures before him that Chadwick maintained that the question of the scale of sewers was far from being "merely big and little endian controversy"; on its correct answer depended the relief of an immense amount of sickness and the saving of many thousand lives.³ If, as the engineers of the old school asserted, it was necessary to lay down in every street brick sewers large enough for a man to enter, the expense would prohibit complete drainage in many provincial towns. The smallest brick sewer recommended by the surveyors of the old Commissions of Sewers cost 11s. a foot, while the average cost of the entire public drainage at Rugby, Tottenham, Barnard Castle and Ottery St. Mary was no more than 1s. 9d. a foot. At Carlisle a leading railway engineer had estimated £70,000 for laying down street sewers of deposit on the old style; yet self-cleansing tubular sewers were put in for £23,000. In fourteen towns where pipe sewers were laid down the total outlay was £98,858, as compared with a probable cost of £249,394 for large brick sewers; and the average cost for each town was no more than £7,061 instead of £17,814.⁴ Where properly laid, moreover, and adequately supplied with water, they involved no appreciable current expense whilst brick sewers demanded periodic cleansing by manual labour.

No part of Chadwick's theories, not even his highly coloured picture of the agricultural value of liquid sewage, aroused such violent opposition as his advocacy of pipe sewers. Captivated by the ingenuity of his "Quart into Pint" reasoning, it was said, he

¹ *Minutes of information collected with reference to works for . . . drainage of dwelling-houses, etc.*, p. 134; *P.P.*, 1852, vol. xix, p. 307.

² Return, 1 July 1853; *P.P.*, 1852-3, vol. xcvi, p. 1. ³ MS. fragment, n.d.

⁴ *Report on administration of the Public Health Act . . . from 1848 to 1854*, pp. 39-40; *P.P.*, 1854, vol. xxxv, p. 1.

closed his eyes to the fact that pipes were frequently cracked or choked, while brick sewers as frequently performed their function efficiently. It was alleged that the evidence in support of his four-inch pipes came from unknown witnesses, all of whom he had later rewarded with appointments under the Sewers Commission; and from a Trial Works Committee, who had conducted experiments under the scientific supervision of a staff of bricklayers' foremen. And if Chadwick himself did not stand to make money out of earthenware tubes (his enemies paid him the compliment of not holding him guilty of any lesser corruption than the desire for universal power), the seven pipe manufacturers of Lambeth were suspected of subsidising F. O. Ward, the Press champion of the new system.¹ Tubular drainage, said the critics, was too delicate and sensitive for people so barbarous as the English working classes, who, as the sewer-men testified, had the habit of throwing away with their own excreta such unwanted articles as scrubbing-brushes, hearthstones, pig's entrails, nightcaps, and litters of kittens. Engineers shuddered at the thought of the intestinal troubles such carelessness must cause in a complex of narrow pipes, and the hundreds of miles of streets which must be torn up again and again to deal with them. "As the population cannot hastily be fitted for the sewerage," declared one, "the sewerage must be fitted in a degree for the population."²

Whenever failures occurred (and failures were naturally common in the early experimental days) a triumphant "We told you so!" went up from the Institute of Civil Engineers. To Chadwick's immense indignation the story was spread that the four-inch pipes he had fitted in his own house in Stanhope Street had choked up, and had been replaced by drains of a larger bore.³ Pipes were frequently manufactured of unsuitable materials, thin and brittle, crudely fashioned, and so untrue in section that two pipes of twelve inches diameter when brought end to end might show an unevenness of joint of more than an inch. A variety of joints—butt, socket, half-socket, rabbet—came into confusing use. To the faults of the pipe-makers were added those of the pipe-

¹ See, for this and similar charges, *Engineers and Officials* (anonymous pamphlet, 1856).

² Thomas Page; in *Reports on an inquiry relative to the prevalence of disease at Croydon*, p. 48; *P.P.*, 1852-3, vol. xcvi, p. 35.

³ E. C. to ?, 28 August 1852.

layers. Pipes were laid in sandy soils without protection, their inlets were left unguarded, they were given insufficient fall; nine-inch pipes were connected to six-inch or four-inch, and at times a tubular sewer would be continued by a square sewer, larger in size and constructed of dry rubble or bricks.¹ But gradually pipes gained ground. Stronger materials were brought into use; improved machinery gave greater accuracy and uniformity of design; experience taught how best to lay and joint the pipes, how to inspect and ventilate them, and guard them against the entry of improper substances. Chadwick persuaded the Lambeth manufacturers to make pipes of superior strength and workmanship for towns under the Public Health Act. By 1852 one factory alone was turning out weekly ten or eleven miles of glazed earthenware pipes, and Chadwick estimated that not less than fifty miles of sewer and drain pipes were being produced each week. By the end of 1853, 27,000 houses in London, nearly a tenth of the total number, were being drained by some three or four hundred miles of pipes. Dr. Sutherland could write in February 1854, after a visit to Rochdale: "The result of the pipe drainage is that there have been no obstructions, no breakages and no cost of repairs. Some of the pipes were laid in 1846. They are laying down pipe sewers in some of the widest streets in Manchester, and I find pipes everywhere. Say what they like, the pipes will eventually gain the day."²

Chadwick's quarrel with the Institute of Civil Engineers went deeper, however, than a clash of technical opinions. The battle of the pipes was embittered by professional jealousy and personal pique. As scornful as their chief of the "Fossil or Gwilt School,"³ Chadwick's bright young men cocked snooks at some of the most respected names in engineering, Stephenson, Rendel, Bazalgette. At Gwydyr House it was commonly said that, in the sanitary field at least, the eminent engineers had proved eminent failures; and outside Gwydyr House it was retorted that Chadwick excommunicated all engineers who did not blindly adhere to his small-pipe dogmas. Not least among the weaknesses of the Board's

¹ *Minutes of information collected with reference to works for . . . drainage of dwelling-houses, etc.*, p. 48; *P.P.*, 1852, vol. xix, p. 307.

² J. Sutherland to E. C., 2 February 1854.

³ W. Lee to E. C., 9 March 1852.

constitution was the arrangement by which their Inspectors were paid by the day, and were free, once they had completed an engagement for the Board, to undertake private commissions. They might in their official capacity examine and report on the sanitary condition of a place under the Public Health Act, and then as private individuals put in a bid to carry out the works they had recommended. And very often the Local Board, as it nervously faced up to its programme of sanitary construction, sought the services of the Inspector, who had the advantage over his professional competitors that he had already surveyed the ground and had indicated authoritatively the works that would be required. Chadwick himself could see nothing wrong with this system. If the Inspector's plan were suitable, why should he not be allowed to execute it? His labours in preparing the ground had surely earned him the right to be employed; and it would scarcely make for economy and efficiency if the commission were withheld from engineers of the greatest experience in this kind of work, and given instead to those who might have everything to learn. They could be ill spared from their primary duty of conducting the local inquiries, but Chadwick, with his ingrained suspicion of all engineers who did not derive their practice from the principles of his sanitary reports, was delighted as one local scheme after another fell into the safe hands of the Inspectors, the only true and dependable apostles of pipe drainage.

Moreover, it was pleasant to be able to tell critics that, far from the Local Boards protesting against central interference, they often complained that the General Board had inadequate powers to assist sanitary authorities, fresh to their duties, in administering a novel and difficult measure. Gwydyr House, which had not sufficient staff even to draw up all the necessary bye-laws and legal forms, was kept busy enough without the further duty of tutoring Local Boards. When appeals came in, however, Chadwick felt he must draw upon his slender resources of men and time to find them an answer. By May 1853 Inspectors had been employed as engineers to carry out works under the Public Health Act at fifteen places, and at a further twenty-one places the works were being executed or about to be executed by them.¹ By 1854

¹ Return (Commons), 23 May 1853; *P.P.*, 1852-3, vol. xcvi, p. 27.

Inspectors had been employed as engineers at: Rugby, Sandgate, Barnard

twenty-four towns had asked the General Board to name an engineer to plan their works; eleven had asked their advice on the appointment of surveyors; twenty-five surveyors had sought the advice of the Board's chief engineer, Henry Austin; and forty-four towns had engaged the Board's Inspectors.¹

But it was not simply as privileged rivals, backed by the authority of the General Board, that the professional engineers had reason to fear the Inspectors. In conducting the local inquiry the Inspector brought under scrutiny any projected schemes for sanitary improvement, and his opinion naturally weighed heavily with the Board, who, under the 119th section of the Public Health Act, must give their sanction to any local plans before a loan could be raised on the mortgage of the rates. It was contended that this might mean, in effect, that an engineer was obliged to submit his plans for the approval of a man who might later put himself forward for the same engagement with the Local Board. At Durham, for example, a brush occurred between the Inspector, William Lee, and Chadwick's one-time favourite, Thomas Hawksley. Hawksley, whose more recent utterances sometimes contradicted his opinions of that earlier period when he had been looked to as the chief engineering hope of the Towns Improvement Company, was now completely out of favour at Gwydyr House. Lee, after an examination of his plans for the improvement of Durham, could see no reason why the works Hawksley estimated would cost £6,000 should not be done for £4,300. Charles May, Hawksley's Quaker partner, wrote to protest, Hawksley himself apparently refusing to have any personal communication with Chadwick. By what authority did the Board require engineers to submit details of their plans and estimates to other engineers, perhaps much their junior, who were their direct competitors? It was the general feeling in the

Castle, Southampton, Coventry, Newmarket (survey only), Ormskirk, Hitchin, Croydon (waterworks and plan only of drainage works), Penrith, Dartford, Launceston, Ashby-de-la-Zouche, Selby, Epsom.

Works were being executed or were about to be executed by them at: Lancaster, Alnwick, Morpeth, Nantwich, Rotherham and Kimberworth, Baildon, Altrincham, Berwick-upon-Tweed (works of sewerage only), Wigan, Knighton, Newcastle-under-Lyme, Burslem, Diss, Maidenhead, Gainsborough, Cardiff, Warwick, Dover, Gloucester, Salisbury, Woolwich.

¹ *Report on administration of the Public Health Act . . . from 1848 to 1854*, p. 44; P.P., 1854, vol. xxxv, p. 1.

profession that this practice was "subversive of honourable competition and degrading in its character, as creating a repugnance in the mind of those best able to serve the public to such supervision."¹ Despite his experience as a waterworks engineer, replied Chadwick, Hawksley had never drained a town in his life, and had always averred that drainage was a separate branch of practice. "Why," he exclaimed, "the junior inspector has had far more practice in town drainage but more particularly improved town drainage than you both put together or any one of the engineers the most eminent you have named."² To the Dean of Durham he confided his belief that the whole affair was "utterly frivolous." "All this means as it seems that Mr. Hawksley objects to any examination of his plans or to such examinations only as he likes or by whom he likes. . . . I do not understand how professional engineers could get on if they are never to act, except when they are clear of rivalry."³

Hawksley subsequently published a pamphlet, alleging that another Inspector, Ranger, after condemning Hawksley's plans for the Darlington waterworks, which he had peremptorily demanded to see, had soon afterwards reproduced the specifications verbatim as his own work at Barnard Castle and Southampton. At Croydon Ranger had rejected plans submitted by two other engineers—and had then accepted the engagement himself. Chadwick personally had objected to the employment of Wicksteed by the Leicester Local Board, and had suggested to Great Grimsby that Rendel should be superseded by an Inspector.⁴ These were grave charges, and for a time Chadwick thought of taking proceedings against their author, so that the Board and the Inspectors might deny the allegations on oath.⁵

Conscious of his own rectitude, and distrustful as ever of the motives of his opponents, Chadwick did not give full weight to their criticisms until it was too late. He was always prepared to agree that it was a sound principle to pay the Inspectors an annual salary. It would protect them from the suspicion that self-interest

¹ Charles May to E. C., 7 July 1852. ² E. C. to Charles May, 20 July 1852.

³ E. C. to the Dean of Durham, 23 July 1852.

⁴ T. Hawksley, *Letter to the Marquis of Chandos, M.P., in relation to the exercise of some of the extraordinary powers assumed by the General Board of Health, and the Superintending Inspectors*, 22 April 1853.

⁵ E. C. to Lord ?, 7 June 1853.

dictated their attitude to the drainage schemes they examined, and relieve them from the invidious duty of passing judgment on the plans of professional rivals; and it would set free all their time and abilities for their public functions. The serious disadvantage, as it seemed to Chadwick, was that it would also deprive provincial towns of experienced sanitary engineers before the transition to the new system was safely accomplished. Approving the principle, therefore, he would nevertheless on this account have liked to put off its introduction till about sixty towns had been completed by the Board; supported by that body of successful experiment, they could discount the effect of the Croydon disaster and snap their fingers at the Institute of Civil Engineers. By the middle of 1853, however, a number of examples of the new works were in operation, and he consented, not without misgivings that the step was being taken prematurely, to a draft clause making it illegal for the Board to appoint an Inspector otherwise than at a fixed yearly salary. The damage by this time had been done, and the idea had become fixed in some influential heads that the Board of Health was an arrangement for the benefit of Chadwick's protégés. It afforded excellent material for Lord Seymour in the momentous debates which decided Chadwick's fate.

CHAPTER XIV

THE LOCAL BOARDS

THE constitution of the Local Boards was laid down in the schedules attached to the Confirming Acts and Orders in Council of the General Board, to whose discretion the Public Health Act had left the size of the new local authorities and the property qualifications of their members. The schedules were short and followed a simple, unvarying pattern. The Local Board was to consist of a certain number, one-third of whom were to retire each year. They must be resident, and must either possess real or personal estate, or both, to a certain minimum value, or be rated to the relief of the poor of some parish, township or place within the district upon a certain annual assessment. The date of the first election was fixed, and its conduct entrusted to some leading citizen, the Chairman of the Board of Guardians, the Union clerk, the vicar, the Lord of the Manor, a Justice of the Peace, a solicitor, or a banker. These provisions resulted inevitably, as Chadwick described it, in "the Local Government of a Class," and "that Class the well to do Class."¹ In twenty-nine out of seventy-eight places to which the Act was applied by Order in Council, the property qualification was put at £1,000; in three places at from £600 to £800; in thirty-one at £500; in twelve at £300 or £400; and in three only at less than £300, the lowest figure being £200. The alternative rating qualification tells the same story. In fifty places out of the seventy-eight it ranged from £20 to £30 per annum; in a further twenty-four from £10 to £20; and in four places only was it below £10.

From the same group of places may also be illustrated the trend of the Board's policy in fixing the size of the Local Board. In fifty-six places the number was put at nine; in a further eighteen at twelve; in two the number fell to six, in another two it rose to

¹ E. C. to I. P., 24 March 1848.

fifteen. The figures for the Provisional Orders give a similar picture, though here a few of the Boards were given eighteen members. When the Vestry Committee of Brighton asked for a Local Board of forty-two, the General Board opposed the demand with vigour. Their figure was twenty-four, but they expressed their willingness to compromise on thirty. The apprehension was groundless, they declared, that thirty was an inadequate number to supply committees. In large Boards responsibility was weakened and business impeded by irrelevant discussion and irregular attendance.¹ A compact executive of nine or twelve members, with the sound views of men of substance; elected on a property franchise by plural voting; holding power for a limited term of three years—this was the aim of the Board's policy in the localities.

Once a Local Board had been constituted, however, the members elected to it might well be adverse to the operation of the Act. They might be of the humour of the Local Board of Mileham, who declared that they "do not consider any Plans or Maps whatever will be required for the proper drainage of the District."² An unwilling Board might even commit suicide; the Bromyard Local Board, for example, who "not having elected a Chairman, held a meeting, or taken any other step in execution of the Act, and more than three months having elapsed since the election all the members of the Board have become disqualified and the Act has become a dead letter."³ At Selby the opponents of the measure used bribery and corruption to get themselves elected to the Board, and then promptly passed a resolution announcing their intention to prevent the construction of the combined works to which the General Board had given their approval, following this action by reducing the salary of the surveyor from £150 to £75.⁴ Sanitary powers might for years lie unused, until a more progressive Board came to office. Thus, at Sheerness the Local Board fell under the dominance of an adverse majority shortly after its establishment, and for three years after it had passed under the Public Health Act the town, which as a naval dockyard had close relations with the central Government, remained in its state of abject squalor. There was some sharp comment about the

¹ Minutes, 15 and 17 April 1852.

³ Ibid., 13 May 1853.

² Ibid., 26 October 1850.

⁴ Ibid., 13 and 29 April 1853.

delay, and Chadwick wrote in defence of the General Board: "A local Board is often several years in making up its mind; it then sends in its plans for examination in a hurry—often essentially imperfect. We have only one engineer available for the service of examination, who is worked night and day, and some *weeks* delay occurs,—as in a private, overworked professional office;—but the *years* of delay are laid to the door of the General Board."¹

There were complaints—from Fareham, Epsom, Castleford, and Worcester, for example²—of the stupor and inefficiency of the Local Boards. The General Board could only reply that they had no power to compel the local authorities to carry out the requirements of the Act. When the Godmanchester Town Clerk reported that the Corporation, in accordance with the wishes of the inhabitants expressed at a public meeting, had determined not to put the provisions of the Act into force, the Board had no answer but to point out that they were thus violating an Act of Parliament.³ The three reformers early decided "that they would not press the Act, because under the existing state of the law, it appears to them to be of no use to call into existence an administrative machinery or to impose responsibilities where there is no adequate authority, no efficient support, of means for public prosecution: and where the subject has no means to enforce them."⁴ When so much of the sanitary legislation was discretionary, it was little use, they felt, to wave a writ of mandamus over the heads of recalcitrant authorities. In the emergency of the third cholera epidemic at the end of 1853 they considered whether in some of the more flagrant instances of neglect they should have recourse to the remedies of the Common Law. Homicide by "unlawful omission" might be committed by anyone who neglected a legal obligation to apply food, clothing or other necessities required to sustain life or prevent injury. Now it was one duty of Local Boards to cause such sewers to be made as might be necessary for the purposes of the Public Health Act—and that duty was not discretionary but compulsory. They could therefore be held liable to penal consequences for the imperfect discharge or unlawful omission of this obligation. It might be

¹ E. C. to W. F. A. Delane, 9 June 1853.

² Minutes, 17 January 1850, 28 June 1851, 7 April 1853, 8 October 1853.

³ Ibid., 14 November 1851.

⁴ MS. fragment, n.d.

proved, for example, that many lives had been needlessly lost by cholera in Luton as a result of the inactivity of the Local Board. Against this charge it was no legal or moral defence that the Luton Board had only obeyed the instructions of their constituents; a majority could not dispense with Acts of Parliament—and, in any event, the ratepayers did not form the majority of the inhabitants. What would the working classes think if they saw that offences against their betters and against property, as in the Bristol riots, met severe punishment, while offences which spread disease and death among the poor and unrepresented classes went unpunished?¹

But no swift punitive action followed this homily. The Board could only observe that the Luton case illustrated the need of greater security for unprotected populations, and then resolve that the facts should be laid before Lord Palmerston with a view to prosecution by the Law Officers. Drainage and water supply, however, were not subjects in which the Government felt that its prestige was involved, and, even in the midst of an epidemic, the Law Officers of the Crown regarded the struggles of the General Board with a detachment which reflected the lack of interest of the ruling classes.

Only half a dozen clauses of the Public Health Act gave the Board any real measure of control over the local authorities of their creation. Their consent was needed for the establishment of pleasure grounds, and for the closing of an old burial ground or the opening of a new. They could hear the appeals of parties who believed themselves aggrieved by the Private Improvement rates imposed by the Local Board. But their principal weapon was the power to sanction mortgages on local rates to supply the funds for works under the Public Health Act.² Here was the instrument by which Chadwick hoped to control the financing and planning of the new sanitary works. Before the Board would consider the sanctioning of a mortgage, they insisted on seeing a complete survey of the district, together with plans and estimates of the proposed works, and details of the charges to be laid on the ratepayers. If the works were too extravagant, or were designed on the old principles, or did not combine drainage and water supply

¹ Minutes, 7 December 1853.

² 11 & 12 Vict., c. 63, ss. 74, 82, 83, 120, 119.

under one administration; if the rates were not calculated according to Chadwick's principle that the charges should be spread over a period coextensive with the benefits derived from the works—then Austin, who acted as the Board's referee on engineering questions, invariably reported against the approval of the mortgage.¹ Thus, when the Local Board of Eton requested permission in April 1850 to raise a loan of £1,000, the General Board withheld their approval until plans, estimates, and particulars of the works were furnished; and in February 1852 they refused to sanction a plan for the drainage of Leicester for which a £35,000 loan was wanted, condemning "its imperfect, wasteful, and inefficient character."² But even this, their most salutary power, had its limits. They could not, for example, prevent the raising of money for a Local Act, much as they objected on principle to such a procedure. Regretfully they had to admit that under the terms of the Act they could not refuse their sanction to a loan of £4,000 for a Local Act for Bilston, "though they wish to record their sense of the impropriety and gross extravagance of such expenditure."³

In addition to this measure of control over the public loans of the local authorities, the Board had certain powers with respect to the officials appointed under the Act. The surveyor could not be dismissed without their consent, and their approval was necessary to both the appointment and the removal of the medical officer of health.⁴ The intention was to interpose a shield of impartial and distant authority between these officers and the interested animosities which might secure a dominating position on the Local Board. As Austin told Chadwick of the surveyor at Hull: "He is doing his work well and with energy, but he has much to contend with. He told me that if it had not been for the protecting clause in the Act, he could not have kept his place for six months, that without it, his position would have been unbearable, and that he would not have remained for a thousand a year. It is certainly so with all the best men we have."⁵ Even so, despite the safeguard against removal, the officers remained the creatures

¹ Minutes, 6 February 1851, 31 March 1852. *Report on . . . Nuisances Removal and Diseases Prevention Act*, p. 62; *P.P.*, 1849, vol. xxiv, p. 1.

² Minutes, 25 April 1850, 12 February 1852.

³ *Ibid.*, 16 May 1851.

⁴ 11 & 12 Vict., c. 63, ss. 37, 40.

⁵ Austin to E. C., 16 April 1853.

of the men who paid their salaries and fixed the conditions of their service. There was an illuminating clash with the Local Board of Clitheroe on this issue. On 20 March 1852 the General Board were informed that the Clitheroe surveyor had been dismissed, because of the determined opposition offered by an overwhelming majority of the ratepayers, property owners, and other interested persons, which made it utterly impossible to execute the provisions of the Act. They replied that, having no power to release the Local Board from the legal obligation to carry out the Act in the best way they could, they could not legally sanction the dismissal of a surveyor when the only reason alleged for it was the inability of the Local Board to fulfil its duties under the Act. Nevertheless although threatened by a writ of mandamus, the Clitheroe authorities resolved not to carry out the Act. The surveyor, backed by the General Board, stuck to his post; whereupon the Clitheroe Board reduced his salary to 25s. per annum, and he was obliged to resign.¹

Any Local Board which began a scheme of public works must needs appoint a surveyor; but the necessity for an officer of health was less keenly felt, and the parsimony and shortsightedness of the local authorities prompted most of them to dispense with this appointment. The difficulties in the way of creating a permanent paid medical service were clearly illustrated when Bilston asked the Board to sanction the employment of an officer of health—at £20 a year.² When the Southampton Board expressed the view that it was not desirable that their officer of health should abstain from private practice, they were firmly told that his public duties were incompatible with the demands which private engagements would make upon his time.³ But what answer could be returned to the medical officer of Darlington, who stated that he did not intend to relinquish his practice, since his salary was only twenty guineas a year?⁴ The Board's solution, contained in a letter circulated to the local authorities (9 October 1850), was to suggest that, where any district was thought too small for the payment of a properly qualified officer of health, the best plan would be to appoint a single officer to act for several

¹ Minutes, 20 March, 8 May, 2 December 1852, 14 March, 4 April 1853.

² Ibid., 26 December 1850.

³ Ibid., 14 November 1850.

⁴ Ibid., 1 January 1851.

adjoining towns. It was not till 1872 that the appointment of a medical officer of health was made obligatory on the district Boards; and their security of tenure was eventually secured by the Public Health (Officers) Act of 1921. It had taken two generations, since that first sketch in the *Sanitary Report*, for Chadwick's conception of the nature and duties of an officer of health to realise itself in administrative practice.

When Chadwick began his public health inquiry in 1842, hardly a town in the kingdom had a publicly owned water supply, and few voices were raised against the dominant faith in profit and private enterprise. His reports had played a decisive part in developing among local authorities the self-confidence to take public utilities such as water and gas into their own hands. In the years between 1842 and 1848, however, as we have seen, he oscillated between advocacy of municipal trading and of large-scale private enterprise under Parliamentary regulation. The *Sanitary Report* and the Health of Towns Commission had been largely an inquest on the shortcomings of parochial and municipal bodies. In the first optimistic flush of the Towns Improvement Company, and despairing of action from a thankless and unenlightened Government, Chadwick had laid it down as a principle that in commercial agencies lay the only hope for sanitary reform. Much had happened to change that opinion. The golden prospects of the sewage manure project had faded. His railway inquiries had shattered for him the myth of capitalist efficiency, and contact with cemetery and water companies had shown him that to look to profit-making corporations to plan for the public interest was like putting the flock in the care of the wolf. The complete shifting of his ground was admitted and defended when the Board summed up their experience in their final report in 1854. The failures pointed out in the Health of Towns Report, they stated, had justified the presumption that local authorities were incompetent to provide water supplies; but the subsequent examination of trading companies had revealed no superiority in efficiency, economy, or management. Experience under the Public Health Act had shown that local authorities could supply the lower classes, who were generally neglected by the companies, for 1½d. a week, and at the same time avoid the risks and losses of a trading body. Moreover, they were willing to undertake the

construction of works for complex objects, such as combined works for drainage, water supply and sewage disposal, which the wary capitalist would rarely touch. The new works exonerated municipal corporations and Local Boards from the charge of incapacity levelled against them, and demonstrated that responsible public bodies could give cheaper and better service than companies actuated by the motive of a trading profit to be levied on individual necessities.¹

Throughout its brief life, therefore, the General Board encouraged Local Boards to take public utilities into their own hands, ousting, forestalling, or combating as necessary the agents of private enterprise. At Carlisle, for example, Rawlinson recommended that the water company should be taken over by the Corporation. In constructing the works a company might be equally efficient as a public body, but in two respects it fell short—it could never have the same motives and interest to urge a general use of water for purely public objects, such as surface washing; nor could it possibly have the same means at its disposal to accomplish these purposes.² When a Reading deputation asked the Board whether they should oppose the Bill then before Parliament for extending the capital and powers of the water company, the Board agreed that it was contrary to public policy to allow the introduction of new capital by a trading company. "It was the duty of the Local Board to oppose the introduction of such new capital, and so to keep themselves free for the choice of any improved source of water supply for their district."³ In March 1854, in an interview with the Clerk of the Local Board of Hull, they promised their support to a Bill which aimed at consolidating the Local Board's control over the gas works and the cemetery, both at present in the hands of trading companies. A week later they declared their intention to support a motion that a Water Works Bill for Southport should be postponed, in order to give the Local Board time to prepare a scheme which would put the supply under their own management.⁴

Chadwick's original intention had been that the Provisional

¹ *Report on administration of the Public Health Act . . . from 1848 to 1854*, pp. 24-6; *P.P.*, 1854, vol. xxxv, p. 1.

² *Report on Carlisle* (June 1850), pp. 79-80.

³ Minutes, 13 February 1851.

⁴ *Ibid.*, 10 and 18 March 1854.

Orders should in effect be Local Acts, framed to cover, not only the narrowly interpreted objects of a sanitary measure, but also such other matters of local administration as paving, lighting, markets, and roads. In the first of the Confirming Acts (August 1849) he succeeded in inserting a clause which empowered Local Boards to enter into contracts for the supply of gas or oil or other means of lighting, and to provide lamps, lamp posts and other apparatus as necessary.¹ But the scrutiny of the Parliamentary critics proved too keen, and objection was promptly voiced to the introduction of these supplementary clauses. The absence of provisions of this nature was one strong reason why in some places, Newcastle and Birmingham for example, a Local Act was preferred to the simpler and cheaper procedure by Provisional Order. The Board regarded it as one of their most important duties to send their experts before the Private Bill Committees to oppose such Bills in principle or in detail.² Twice they succeeded in defeating a Local Act, and in others they secured the insertion of the mortgage clause from the Public Health Act, which brought the proposed works under their supervision; but they failed in other attempts because they lacked the means to bring up witnesses, and had no recognised *locus standi* before the Committees.

The immense output of instructional pamphlets from the Stationery Office of to-day would have delighted Chadwick. Throughout his official career he was engaged in cutting channels for the regular flow of information from the localities to the central departments, and thence—digested, tabulated, and illuminated by a wider experience and a deeper science—back again to the local authorities. As he always insisted, even if the powers of the General Board had been greater, he would still have preferred to proceed, whatever the extra labour, by persuasion, and to accompany every step by a full exposition of the reasons.

For the guidance of the inexperienced Local Boards the body of sanitary doctrine which Chadwick had built up on the results of his ten years of investigation was set out in three instructional pamphlets—on house drainage, land drainage, and the application of sewer manure.³ In the first of these they were told that

¹ 12 & 13 Vict., c. 94, s. viii.

² Minutes, 9 March 1849 (Macclesfield Water Supply Bill); 7 March 1851 (Wrexham Local Bill).

³ *P.P.*, 1852, vol. xix, pp. 307, 1, 133.

their primary duty was to abolish all cesspools and replace them by water-closets and tubular drainage; and for their information diagrams and descriptions were given of the improved appliances then gradually coming into use, such as screw-joints for earthenware pipes, movable dust bins, and a simpler form of water-closet. In the second pamphlet they were enjoined not to confine their attention to the drainage of houses and streets. It was equally a matter of concern to the sanitary economist to remove excess moisture from the site on which the town was built, the roads which connected it with other places, and the lands which fringed its suburbs. Chadwick recalled how a London medical officer had once taken him to a height overlooking his parish. "Those mists," he had said, pointing, "exactly mark out and cover the seats of disease for which my attendance is required. Beyond those mists I have rarely any cases to attend to but midwifery cases and accidents." Catarrh, rheumatism, scrofula, would all be decreased by an energetic policy of land drainage. Moreover, the value of the land would be enhanced; heath and moorland, for which 5s. an acre had once been a high price, had been sold for 30s. or £2 when thorough-drained, and clayey soils had risen in value from 7s. 6d. to £3 or £4 an acre. The trilogy of instructional pamphlets was completed by the Minutes on Sewage Manure, which assured Local Boards that for an annual outlay of 6s. an acre for piping the liquid sewage to the fields a single farm might be made as fertile as three or four. The Local Boards must regard themselves as trustees for the inhabitants collectively in the management of this valuable public property, in which no private individual should be permitted to establish permanent proprietary rights.

As one fat Report followed another, and Gwydyr House poured out its Minutes of information and its sheaves of model bye-laws, it began to be said that the Board's printer must have a very lucrative business. The tracts were excellent, wrote J. R. McCulloch from the Stationery Office, but why were they distributed free? If McCulloch were on the Board, Chadwick replied, he would vote for doing more rather than less in the way of distributing information to the Local Boards. The highest authorities had admonished the General Board to "conciliate public opinion"; and even without that admonition they would

have felt themselves bound to do so. They had very little power, and in these times it was difficult to exercise any power whatsoever; and after all, it was better to proceed by the influence of instructions wherever they could. If as a result of their Minutes they could get improved works into operation in even a few towns, it would be worth not only the whole expense of the printing ten times over, but the whole expense of the General Board.¹

It was not the first time that he had clashed with the Stationery Office. In 1849 McCulloch proposed to the Treasury, "for the sake of economy," that all reports and papers should be printed in folio. *Prima facie*, Chadwick at once objected, it was improbable that folio was cheaper than octavo; and his inquiries revealed in fact that if the whole of the Parliamentary printing were put in the convenient format adopted by everybody outside Her Majesty's Stationery Office, some £24,000 a year might be saved on the annual bill of £200,000. But this was far from being the most important aspect of the question. "Either the objects of the Board must be attained by the naked exercise of power—in which case it must have additional force of officers, which would be expensive, or it must act by persuasion, that is to say by the exposition of facts, and their influence on opinion."² Now to the latter course printing in folio would be fatal, since, as the printers confessed, 3,000 copies in folio would not be as much read as 1,000 in octavo. At Lord Brougham's suggestion the Poor Law Report of 1834, and the extracts from the evidence of the Assistant Commissioners, had been printed and circulated in octavo, the first official papers to be so published. The folio editions of those reports were now in the warehouse or had been disposed of as waste paper; of the handier edition nine or ten thousand copies had been distributed free of charge to the parishes and a further fifteen thousand had been sold.³ Thus, in Chadwick's eyes, the whole question of the proper relationship between Government and public opinion, and in particular between the General Board and its local satellites, was one of the issues at stake in this "battle of books between official folios and official octavos, between big and little blue books."⁴

¹ E. C. to J. R. McCulloch, 24 February 1852.

² E. C., "Administrative. Relations of the General Board of Health with the Treasury. Minutes for a paper on," MS., n.d.

³ E. C. to Lord Brougham, June 1849.

⁴ E. C. to ?, 1 June 1849.

In 1852 Henry Austin, relieved of his anxieties as Engineering Secretary, was sent out as an emissary of Gwydyr House to make personal contact with the Local Boards. From time to time he reported to headquarters his impressions of his tour. At Derby, where no plan of the town drainage had previously existed, he found the Local Board actively engaged on improvement measures and delighted with the increased powers derived from the Public Health Act.¹ At Norwich, however, they were "fencing with the question of the Survey."² His intervention at Ely, where a majority of the Board had been hostile, cleared up a number of misconceptions and greatly helped the progress of the drainage scheme.³ At other places, too, his assistance was welcomed.

"It is rather a melancholy case," he wrote from Towyn. "I have seen nothing out of Ireland, bearing the same deplorable appearance, or in an equally bad condition.

"Nearly the whole of the property is in the hands of Trustees for a Minor and is managed by an Agent, who, in opposing all improvements, forced the inhabitants to take refuge under the Public Health Act.

"The place is however far too small to support the Machinery of the Act, and is precisely one of those for which other provisions are urgently required.

"There are only about 150 houses in the town, and nine-tenths of those are under £5 rateable value. I need scarcely say that there is not a drain in the place, scarcely the luxury of a cess-pool, soil and refuse of every description strewn every spot, nearly, except the main street. There are two places from which the whole population has to fetch water.

"Accompanying this state of things is a corresponding condition of ignorance how to remedy it—although the Board, impressed with the magnitude of the evil, are most anxious to do so. Clark, unfortunately, not considering the character of the place, had recommended a scheme of drainage and water supply which would cost more than double the amount actually required for suitable works, and more than double indeed, the whole sum which they would be empowered to borrow—and therefore they had determined at last upon a defective scheme of partial drainage without water supply.

¹ Minutes, 12 July 1852. ² H. Austin to E. C., 28 February 1852. ³ Ibid.

"They expressed themselves very gratefully towards the General Board for sending me to them, and were most thankful for the advice given. They will proceed at once to get out a plan of complete works, and as an example of economy and of the amount of improvement which may be effected for the money, I believe it will be a curiosity."¹

"Bryn-mawr," he wrote a few days later, "has been to me the most satisfactory case I have yet visited. It is a wretched place wholly dependent upon the iron works there. The mortality is frightfully high, but I was assured that they would do nothing but carry out a most objectionable plan of drainage for which they had applied to the General Board to sanction a mortgage of £1,500—which, if not granted, they intended to levy at once by rates. It certainly did appear a hopeless case, and the more so because they had actually entered into contracts and had commenced the works. I am happy to say however that I was enabled to induce them to stop the works and give up the contract, and begin *de novo* to lay out a proper plan of drainage and water supply, for which they will apply to the Board for a mortgage of between £4,000 and £5,000. It will be the more important case as an example to the large populated districts here engaged for miles around on the iron works—all of the same miserable kind."²

Inexperienced Local Boards, struggling with their novel duties, received with thankfulness the instructional Minutes of the General Board and the advice of their Inspectors. At more than one place votes of thanks were passed or grateful letters addressed to Gwydyr House. The arguments of Toulmin Smith here fell on unbelieving ears. The application of the Act had not deprived them of local self-government, declared a report of the Worthing Sanitary Committee; for their former Commissioners held office for life, while one-third of the Local Board must retire every year, and no member could remain in office more than three years without re-election. The Local Act under which the district had been governed hitherto had been quite inadequate, since it gave no power to provide a supply of water, while such powers as it did confer upon the Commissioners could not be used until they had liquidated their debt. As for the necessity of seeking the General Board's sanction to local schemes, "we look upon this

¹ H. Austin to E. C., 7 October 1852. ² H. Austin to E. C., 18 October 1852.

restriction as affording the very best possible protection to the ratepayers against having their money fooled away upon useless works."¹

From the chairman of the Ormskirk Local Board came an account of the benefits which had resulted from the application of the Public Health Act in 1850, an account which might have been paralleled in a score of other places:

"The population of the Town is 6,200, of whom one third at least are Irish, and the majority of the Inhabitants are poor Cottagers, crowded in Courts and Yards at the back of the principal Streets.

"Previous to the Act, no Sewerage Works of any moment existed, nor was there any supply of Water. The Lodging Houses, especially those frequented by Irish labourers, were crowded to excess: fever was seldom absent from certain quarters of the Town, and a high rate of mortality existed.

"Since the introduction of the Act a complete system of Sewerage and of Water Supply has been effected, for which we are largely indebted to the valuable services of Mr. Rawlinson. The Works have been in full operation since the summer of 1853, and already, out of an aggregate amount of 1,000 dwelling-houses, 700 are thoroughly drained and supplied with Water, and it is worthy of remark that although in the onset a strong opposition was expressed against the Act, yet, in consequence of the mind of the Inhabitants becoming reconciled to its establishment, the private Works have with few exceptions been carried out voluntarily, and with hearty good will. Cottagers are furnished with an unlimited supply of good water at the rate of 1d. per Week. A more efficient supervision of the Lodging Houses has been obtained, of which there are 120 in the registry.

"Without entering into the experience of other Towns, I am enabled to speak in behalf of myself and Colleagues . . . that we have met with no undue interference from the General Board of Health, nor have we any accusations to bring against that body, of arbitrary treatment: on the contrary, our communications have been uniformly received with a spirit of fairness, and from the advice and co-operation afforded, a more efficient scheme of Works has been executed than otherwise would have been, had

¹ W. H. Dennett, *Report to the Sanitary Committee, Worthing*, August 1851.

we been left to our own resources. Were we called upon to give evidence, our testimony would be unanimous, that in our case, the Public Health Act has proved to be a wise, salutary, useful, and benevolent provision of the Legislature."¹

Quiet progress such as this, however, attracted less attention in the Press and House of Commons than the noisy resistance of some half a dozen of the Local Boards; and the steady improvement of conditions, the cumulative effect of which must be awaited with patience over a long period, caught the eye less arrestingly than a sudden and startling catastrophe, such as the Croydon epidemic in the last months of 1852.

The outbreak at Croydon was one of the earliest and most striking examples of a phenomenon which was to occur from time to time during the latter half of the century in the new residential districts of the growing towns, bringing perplexity to sanitary reformers despite the stoutness of their confidence—an explosion of typhoid fever following the introduction of the new pipe sewerage which it was claimed would put an end to the causes of zymotic disease. Croydon had been brought under the Public Health Act in August 1849, and by December 1851 combined works of drainage and water supply had been installed in most parts of the town. Typhoid appears to have been imported in September 1852, on the person of a villager from Oxted, twelve miles away, where an epidemic was already raging. It spread along the lines of the new sewers, which, as Budd later explained in his classic treatise, acted as an extension of the diseased intestine of the typhoid sufferer; and, filtering through the cracks and leaks of a most defective pipe system, it contaminated the water supply. In a population of 16,000, there were by December 1852 1,800 cases of fever with a mortality of about sixty, and numerous cases of diarrhoea and dysentery with a mortality of about ten. Croydon was, though its respectable and well-housed citizens could not credit it, one of the most unhealthy places in Surrey. But the town had experienced nothing so dramatic as this epidemic of typhoid; an epidemic, moreover, which attacked chiefly members of the middle and upper classes, who had been the first

¹ J. A. Kershaw to Lord ? (Palmerston), 20 July 1854. This was one of the testimonials received by the General Board at the time of the debates in 1854 which decided their fate. For other references, see pp. 364-5.

to benefit from the new drainage and water system. It was noted that all the cases had occurred during and since the execution of the new works, and people reminded each other of the nuisance when the Local Board filled in the cesspools and open ditches throughout the town, so disturbing earth saturated with the accumulated filth of years. The outbreak, it was promptly alleged, must be due to the new pipe sewers and the activities of the Local Board.

The Board's investigators, Southwood Smith, Sutherland, Austin, and Grainger, were already in the field, when they were informed in January 1853 that the Government had appointed Dr. Neil Arnott and Thomas Page, an engineer from the Board of Works, as an independent Commission of Inquiry. The appointment reflected the general suspicion which now attached to the Board's every act, and Chadwick realised at once that at Croydon Gwydyr House and its works were in the dock. The Croydon Local Board, under its vigorous chairman, Cuthbert Johnson, was regarded as one of the most progressive and successful of the General Board's satellite authorities. Little more than a year before, Chadwick and Southwood Smith had attended a pleasant and heartening ceremony at the opening of the combined works. They had looked on benevolently as the Archbishop of Canterbury lifted the valve of the great steam engine which pumped water to the high-level reservoir; and at a civic dinner in the evening Chadwick had gone into his familiar, well-loved statistics, and congratulated the householders of Croydon on obtaining the benefits of pure spring water and self-cleansing sewers for 5½d. a week.¹ It is easy to understand his annoyance and anxiety when Neil Arnott, one of his earliest allies, informed him that the report had been obliged "to speak of faults and failures in works which you had hoped were to be deemed perfect."²

Since both the Board and its critics accepted the prevailing pythogenic theory, the Croydon investigation developed into a hunt for stinks and an inquest on some very bad pipe-laying. There were some sharp exchanges on the question whether un-ventilated pipe sewers or brick sewers of deposit were the most foul-smelling, but the purity of the water supply, which was

¹ *Times*, 13 December 1851.

² N. Arnott to E. C., 27 April 1853.

really to blame, was attested by both sides. The investigators, in fact, were looking for the wrong thing in the wrong place, and most of the points made would be ruled out of court by a modern scientific inquiry. However, if the dialectical limitations of the contestants are accepted, the Board had much the better case. Before the introduction of the Public Health Act Croydon had been similar to scores of other towns, honeycombed with cesspools, and drawing its water from wells. Vilely as the works had been carried out by the local contractors, they had reduced the sewer emanations and the potential foci of disease. Faults in the design and construction of the Croydon drains, however, were treated by the Government Commission as faults inherent in the system of tubular drainage, and Page made plain his opinion that four-inch and six-inch pipes were too delicate to stand up to the rough domestic habits of the lower classes. Chadwick in vain urged Arnott to visit Tottenham, Rugby, Hitchin, or some other place where such works were in successful operation, so that he might judge for himself whether the blunders committed at Croydon were unavoidable or not.¹ The Report of Arnott and Page, published in April 1853, indicted the pipe sewers and house drains of Croydon, and by implication censured the engineering theories of the General Board. "Such events occurring in a place like Croydon, with an intelligent Local Board of honourable men eager to perform any amount of gratuitous service which promised advantage to their town, and who were near the Central Board in London, for easy conferences, prove the desirable securities for the efficient performance of such works are not yet possessed and further show that some of the anticipated advantages of the pipes have not yet been obtained, and some of the drawbacks connected with the employment of them had not been foreseen."²

Chadwick spent some months in preparing, in collaboration with the chairman of the Local Board, a massive counter-attack, but his reply to the allegations of Page and Arnott remains in wordy and argumentative manuscript fragments. For once Shaftesbury refused to follow his truculent colleague into the battle. Chadwick's report was so strongly personal in tone, he

¹ E. C. to N. Arnott, 14 and 26 March 1853.

² *Reports on an inquiry relative to the prevalence of disease at Croydon*, p. 7 (Arnott); P.P., 1852-3, vol. xcvi, p. 35.

wrote, that "if sent forth as I have before me in MS.," "it would be absolutely the ruin of the Board." "You, I, and the Doctor, we three, should *by our own act and deed*, be cast down, bound hand and foot, into the burning fiery furnace."¹ The Board's best defence was slow to come, but unanswerable when it came. Five years later the Chairman of the Local Board was able to send Chadwick the quarterly tables of mortality for Croydon with the comment, "You will see that the sanitary condition of the Parish for the year 1857 has been singularly good—and that instead of our Deaths having been 22 per thousand per annum as they have averaged for the nine years ending Christmas 1856, they have only been 15.92 per thousand per annum. And as Dr. Farr in his tables called 17 per thousand per annum the 0 of his Scale of Insalubrity we may rejoice at being thus below his Zero. . . . As to returning to Cesspools all classes now know what a comfort and advantage it is to be free from the Nuisance of Cesspools and would not return to the system if it were possible to avoid doing so."²

¹ Shaftesbury to E. C., 15 October 1853.

² William Drummond to E. C., 10 May 1858.

CHAPTER XV

REACTION, 1852-1853

It was in 1852 that the current of events turned decisively against the men and principles of Gwydyr House. For over three years the General Board had been spreading the doctrine that in certain spheres the play of competition should be checked in the interests of society, and that in those spheres enterprise, though it might remain in private hands, should at all events be planned with an eye to economy and the public benefit. Was Chadwick an enemy of private enterprise and free competition? Was he a socialist? He strenuously defended himself against so terrible a charge. But it was surely possible to retain those principles, to which English capitalism ascribed its rude health, without falling into the moral and economic quagmire of *laissez faire*. His Interments Act, for example, was based on just those "wholesome and eminently English principles"—with this difference: that the aim was to bring them "to bear *for* instead of *against* the public interest." A district was marked out, and private enterprise invited to compete freely by open tenders to perform the requisite service. It must, of course, engage itself to act in accordance with prescribed regulations, designed to secure proper solemnity and greatly improved arrangements; and to impose a scale of charges fixed at the lower level that would become possible if only one capital, one management and one set of officers were employed in the service.¹ What objection could there be to that? So Chadwick argued, endeavouring to show that the method of public contract would leave ample elbow-room for legitimate private enterprise. But his disarming explanation failed to carry conviction to the capitalists to whom it was addressed, who saw that if they accepted his reasoning they could no longer proceed whither they wished and how they wished under the influence of the push and pull of profit, but must put

¹ MS. fragment, n.d. E. C. to Russell, 4 November 1851.

themselves under the dictates of a conscious social purpose. If they could find it possible to breathe the rarefied atmosphere of Gwydyr House—if they were prepared to allow their profits to be limited, their budgets scrutinised, their activities regulated and the minimum standards of their service defined—the companies might still remain. But if not, if they declined to bind themselves by contract to public service, then their work could be done as well, or better, by civil servants of the Chadwick school or by local authorities tutored by his Inspectors. The outline of Chadwick's ideal State was becoming clearer: a State where collective utilities, such as water, gas, and means of communication, were owned by the public, though they might be constructed and maintained by contract; where charges were fixed not with an eye to shareholders' dividends, but merely to defray the cost of service; where units of administration were cut to the size calculated to give the best technical and economic results.

Against this conception there set in during 1852 a powerful and many-sided reaction. It was the reaction of local authorities, wary of rearrangements of ancient boundaries and of encroachments on their traditional independence; of governing oligarchies, who saw in the extension of the central power an end to their patronage and perquisites; of property owners who reckoned that the fever tax would bear less heavily upon them than the cost of new drains; of engineers whose professional standing and rules of practice were endangered by the Board's Inspectors, and of Parliamentary agents whose fees were threatened by the expeditious procedure of the Provisional Order. It was the reaction of commercial companies who saw in the advance of gas and water socialism an invasion of the sphere of profit, and of manufacturers who found that sanitary regulations would add to their costs and close to them modes of working that had been profitable in the past. "There was no end to such kind of legislation," cried one, "and, if persevered in, there might, in time, be a Bill to prevent expectoration in the streets."¹ It was the reaction, in a more general sense, of business men whose interests were not directly threatened, but who had more confidence in their own administrative ability than in that of Government with its eighteenth-century habits of aristocratic corruption and leisureliness.

¹ *Hansard*, vol. cvii, p. 195, 11 July 1849 (Foster).

Criticisms of the Board's measures were frequently made in terms from the political vocabulary of a passing age, when every official was a place-holder, and every place a piece of patronage to be dispensed by the Secretary to the Treasury. Not till the introduction of competitive examinations for the Civil Service was the sting taken out of this argument. All these groups had specific and conscious motives for resisting the Board. There were others who shouted with them, whose motives were less explicit, whose hatred of Gwydyr House could hardly be defined in words; who were moved obscurely to oppose to its hard utilitarianism a sentimental clinging to the old ways, and to meet its brisk efficiency with the inertia of comfort-loving, routine-keeping men. Long ago Lord John Russell had warned Chadwick: "There is one thing always to be kept in mind. We are endeavouring to improve our institutions. Hitherto they have been lax, careless, wasteful, injudicious in an extreme; but the country governed itself, and was blind to its own faults. We are busy in introducing system, method, science, economy, regularity, and discipline. But we must beware not to lose the co-operation of the country. They will not bear a Prussian Minister, to regulate their domestic affairs. So that some faults must be indulged for the sake of carrying improvement in the mass."¹

It was by coincidence merely that the attack developed during the brief régime of the Derby Government. Whatever party had been in power—Whigs, or Tories, or Radicals for that matter—the principles of Gwydyr House were offensive to them all; and any Government not stiffened by the courage of conviction which moved Chadwick and Shaftesbury and Southwood Smith would have hesitated to defend a group of men who, through bad fortune and misunderstanding, through the misrepresentations of others and their own faulty judgment, had long overdrawn the credit of public confidence which had been extended to them under the terrors of an epidemic. In Gwydyr House there was, indeed, a gleam of hope when the Tories ousted the Whigs. Wood, Hayter, and George Lewis must go. Above all, it meant a change at the Woods and Forests, and surely no new President could show less good will and understanding than the outgoing Seymour. Perhaps, thought Chadwick, the Derby Ministry could be per-

¹ Russell to E. C., 9 October 1836.

suaded to go into the question of the Treasury's constitutional right to exercise a dispensing power and scrap an Act which Parliament had approved but which the Treasury regarded with disfavour.

These hopes were soon disappointed. Lord John Manners, the Board's new chief, though he did not display the rancour of Lord Seymour, made it plain that he intended to do no more than carry out the plans which his predecessor had been maturing. On 29 April 1852 Shaftesbury moved a resolution in the Lords, "that the sanitary state of the Metropolis requires the immediate interposition of Her Majesty's Government."¹ It was a test motion, designed to draw the Tories into the open, to discover if they had any intention of taking action against the reviving companies. These, of course, were "truisms," replied Derby, when Shaftesbury had reached the end of his depressing narrative.

"Now, if it were a *tabula rasa* that Parliament had to deal with—if the vast interests of existing companies had not to be consulted, which had been found a practical difficulty in the way of all legislation that had been attempted—he had no doubt it would be better and more efficacious that there should be one single authority charged with the administration of the water and the removal of all offensive matter, than vest the separate powers of water supply and sewerage in separate bodies, thereby losing the unity of action that appertained to a single authority. But there was great difficulty in deciding what that central authority should be. The practice of Continental Governments might be quoted; but other Governments were much more free to act for the benefit of the population than a Government subject to popular influences and control, and which had to study not only the interests, but the views and feelings, of those for whom they legislated. He did not dispute the advantages of cleanliness, and he agreed with the most reverend Prelate (Archbishop of Canterbury) that cleanliness and decency were the handmaids of morality and religion. But it was not by Act of Parliament that you could compel people to be moral, decent, or clean; and in many cases legislation to enforce those objects would be opposed by the persons for whose real and permanent interests they were legislating. (Shaftesbury: No, no!)"²

¹ *Hansard*, vol. cxx, pp. 1283–98.

² *Ibid.*, p. 1305.

Balancing the interests of the water companies against those of the population of London, Derby in a speech of remarkable frankness thus came down in favour of the former; and he then went on to stress the objectionable features of centralisation, to discount the popular demand for sanitary improvements, to disparage Shaftesbury's statistics, and to assert in conclusion that beyond a certain point the Government could not go in interfering with the internal affairs of the people—altogether, in fact, to act to perfection the part of a Prime Minister who was casting round to find justification for doing nothing. Chadwick had no doubt that Derby's information came from the subordinate officers of the Treasury, who in their turn were probably primed by shareholders in the water companies.¹ The indignation of the reformers was well voiced by Dr. John Roberton, an old ally from the days of the battle on behalf of the railway labourers of the Summit Tunnel. "Is not the sanitary state of the stables of the Gentry minded?" he demanded. "Don't their racers get plenty of pure water? have not they well ventilated stables and room enough to rest their bodies and stretch their limbs? Doubtless they have: and when the mass of mankind comes to be as much valued as racers My Lords and others will help on Sanitary Reform."²

A few weeks later Lord John Manners introduced a Bill to repeal the Interments Act of 1850. The proper remedy, he observed, was not the principle of monopoly and centralisation, which had failed to work despite the great and almost extravagant powers confided to the General Board, but the "more constitutional, simple, and less objectionable method, by which from time immemorial the parochial authorities had been entrusted with the burial of the dead."³ Thus, by his Metropolitan Burials Bill, the Home Secretary was empowered to close any burial grounds proved to be obnoxious, and the parishes were enabled, singly or in combination, to provide new grounds or to contract with the trading cemeteries. Chadwick could only conclude that his new chief had not read the evidence of the trial and failure of the very measures which he now proposed. What use

¹ E. C. to ? (probably Delane), 29 April 1852.

² Dr. John Roberton to E. C., 3 May 1852.

³ *Hansard*, vol. cxxii, pp. 872, 874, 17 June 1852.

would these powers be in the hands of the parish politicians, the men who had permitted the abuses to flourish unchecked, resisting amendment with all the obstinacy of ignorance and prejudice? Under the rule of the vestrymen of Marylebone and St. Pancras, the Officer of Health, on whom pivoted the whole arrangements for advice and regulation, could find no place. It was illusory to expect parishes—or even Unions, which could never be induced to combine to establish district schools—to co-operate of their own accord to acquire a cemetery, a possibility “as remote as their union to construct of themselves a locomotive.”¹ One of the parish clergy, he heard, had stated that “a good and sufficient chapel” for a parochial cemetery could be built of rubble for £1,000.² Rubble! What a falling off from the architectural splendour of Chadwick’s National Cemetery!

In the same month (June 1852) a Bill empowering the London Necropolis and National Mausoleum Company to purchase 2,000 acres of Woking Common on which to lay out a cemetery, was approved by the Commons, after the chairman of the Select Committee had remarked that all parties admitted the powers possessed by the General Board “had been tried without effect, and that, if this Bill were not carried, it would be perfectly hopeless to expect any remedy from the Board of Health.”³ Lord John Manners agreed, welcoming a measure which he thought calculated to remove the evils complained of; and his approval was echoed by Lord Seymour. To Chadwick it was obvious that the Bill was the scheme “of vulgar projectors and a vulgar architect,” a building speculation disguised as a public measure, which included amongst its proposals pit burial for paupers, the use of railway arches as mortuaries, and the transport of corpses in the common horse-boxes of the railway.⁴ Yet the Government had given the Bill their benediction—was it because “the present Solicitor-General Sir Richard Bethel was deeply engaged in this speculation, his brother in law Mr. Abrahams being the architect?”⁵

In the course of the debates on the interments question Lord

¹ E. C. to Russell, n.d. ² E. C. to the Bishop of London, 31 January 1852.

³ *Hansard*, vol. cxxi, p. 892, 21 May 1852.

⁴ E. C., “Objections to the Necropolis Bill,” MS., n.d.

⁵ E. C. to ? (Russell), n.d.

Seymour in alliance with the metropolitan members delivered a sharp attack on the principles, constitution, and personnel of the General Board. Even the inoffensive Southwood Smith did not escape, and one member asked why he should continue to draw his salary now that the Act under which he was appointed had been repealed; all he had done was to go to Paris and assist in the writing of ten thousand letters.¹

“There was considerable inconvenience in the constitution of the Board itself,” Lord Seymour told the Commons on 21 June. “Although he, when President of the Board, was responsible to Parliament for the proceedings of that Board, yet when he attended the Board and made a proposal, it was seldom he could get a seconder, for Mr. Chadwick and Dr. Southwood Smith, forming the majority of the Board, carried the question against him. He had told the Government that it was impossible to go on in that way. He thought it would be far better if some Lord of the Treasury were to assist Mr. Chadwick, so that the Government might have some possibility of controlling the Board, and preventing the inconvenience and delay of business which now repeatedly occurred.”²

The impression Seymour conveyed of himself playing the Dormouse to Chadwick’s Mad Hatter and Southwood Smith’s March Hare was, of course, quite unfounded. It was not the first time in his relations with the General Board that he had revealed that he possessed an ingeniously constructive memory. He now drew for an appreciative House a picture of himself wrestling with two sullenly stubborn colleagues, and finally giving up attendance at a Board where he could only make a useless gesture of protest. Seymour must be confusing them with some other Board, wrote Shaftesbury blandly. Surely he had not forgotten that out of the 237 meetings held during his tenure of office, he had attended only three; that once only was any resistance offered; and that was by Shaftesbury, not by Dr. Smith or Mr. Chadwick? That occasion was, of course, on 30 January 1851, when Seymour had startled the Board by proposing that they should take over two of the cemeteries and enter into competition with the remainder of the trading companies; and it was the Board not

¹ T. Duncombe: *Hansard*, vol. cxxii, p. 1082, 21 June 1852.

² *Hansard*, vol. cxxii, p. 1081.

Seymour whose representations had finally prevailed with the Treasury, short-lived though the victory was. Shaftesbury, who felt a justifiable annoyance at the suggestion implied in Seymour's speech that only Chadwick and the Doctor conducted the business, pointed out with some acerbity that he had been absent from one only of the Boards at which Seymour had made an appearance, and that out of the total number held during Seymour's period of office he had attended 101.¹ *The Times* report was not quite correct, Seymour hastened to explain. What he had said was that he remembered attending the Board at the end of 1850 or beginning of 1851, and making a proposal which was not seconded, and which consequently dropped. Finding himself in this position he felt disinclined to attend the Board—even if he had the time. "I do not believe that I stated that I met with frequent opposition at the Board, but I may have said that my views were frequently opposed to those of the Board, and I said I considered the constitution of the Board defective as an executive department, because differences, which were honestly entertained on both sides, led to delay and repeated correspondence with the Treasury."² Thus, on Seymour's own showing, the resistance he encountered from his colleagues had now dwindled to a single instance of conflict of views, and this had apparently proved sufficient to "disincline" him to attend the Board. Forwarding copies of the letters to Lord Carlisle, Chadwick implored him that before the question arose of renewing the Board's term of office, a committee of inquiry should be held to investigate all such charges, so that the measure should not be left to the mercy of the Treasury.³ But Seymour was never challenged in public, and he never modified the original version of his charge against his former colleagues, which was to be revived again as a weapon in the final grand assault on the General Board.

Meanwhile, on the water question, the Government had with equal decision turned its back on Gwydyr House. Shortly before the fall of the Whigs, Lord Seymour introduced a Bill for metropolitan water supply. He did not believe it possible, he declared, for a Government commission to superintend such a function; to create a municipal corporation, however, would mean delay,

¹ Shaftesbury to Seymour, 22 June 1852.

² Seymour to Shaftesbury, 24 June 1852. ³ E. C. to Carlisle, 26 June 1852.

and it would probably be inefficient, in any case; a combination of the companies, again, might be the means to economy, but it was not Parliament's duty to require it.¹ In this way he disposed, one by one, of the schemes of Chadwick, the parochialists, and Sir William Clay, leaving as the most practicable solution—since securities must be given to the consumer which would not entail any undue exertion by the Government—the proposal that the companies should be left as they were, subject only to certain conditions as to quality, distribution, and rate of charge. His Bill, which no less clearly represented the ideas of Sir John Johnstone than the Bill of the previous year represented those of Sir William Clay, was inherited a month later by Lord John Manners, who promptly sent it, with a batch of other Bills from the water companies, to a Select Committee. Here, after two months at a cost of £1,000 a day in retainers for a score of counsel and Parliamentary agents, the Government Bill was hammered into a shape which the companies found possible to accept. On 7 June a surprised House was requested to go into Committee on the measure, the Government having taken the Second Reading at so late an hour that the principles of the Bill had not so far come under discussion.² Both Mowatt and Lord Ebrington delivered damaging attacks upon the Bill, but it mustered ample support in a House which included eighty-six shareholders of the water companies;³ and eventually it reached the Lords so late in the session, as Shaftesbury complained, that they had to pass it without knowing more of it than if it were a Chaldee manuscript.⁴

The Metropolitan Water Supply Act of 1852⁵ obliged those companies which drew their water from the Thames to remove their intakes to some place above Teddington Lock, beyond the influence of the tide which daily agitated and re-agitated the sewage of the capital. The companies were given till 31 August 1855 (the Chelsea Company a year longer) to do this. They were also obliged to cover in their reservoirs, and to filter all water intended for domestic use; and it was stipulated that within five years a constant supply must be laid on by every company. The

¹ *Hansard*, vol. cxix, pp. 218–19, 6 February 1852.

² *Ibid.*, vol. cxxii, pp. 839–72, 17 June 1852.

³ The figure given by Joseph Hume: *Hansard*, vol. cxx, p. 84, 25 March 1852.

⁴ *Hansard*, vol. cxxii, p. 1267, 24 June 1852.

⁵ 15 & 16 Vict., c. 84.

Government had, in fact, been as gentle as possible in putting the curb on the companies. Lord Ebrington alleged that the Select Committee had refused to hear his evidence, and that the truth had emerged only when the companies' experts disagreed amongst themselves.¹ The schedule of uniform rates and charges, which Sir John Johnstone had said would amount to a confiscation of the companies' property, had been quietly dropped, together with the clauses which were intended to compel competition between the companies. To Chadwick this second Home Office Bill displayed "an offhand ignorant and supercilious contempt" for the needs of the population and for his own labours to relieve them, and it appeared less objectionable than the first in one respect only: it did not guarantee to the companies a monopoly of bad supplies at three times the price for which good supplies could be obtained from the sources he had indicated.² It exhibited no attempt by its framers to view water supply and drainage as a unified problem, and it did nothing to end the bad old practices of the past, such as the additional charges for water-closets and baths which acted as taxes on health and cleanliness. It obliged some of the companies to seek new intakes; but their source was still the Thames, hard with lime and fouled by the refuse of the towns through which it ran—and Chadwick's Surrey springs were once more disregarded.

It is hardly possible, after reading the story of Chadwick's struggle to give London a wholesome and universal water supply, not to conclude that a splendid chance had been missed. If his recommendations had been acted upon and the companies had been bought out in 1851, the ratepayers of London would have saved themselves fifty years of discomfort and ill health, and some £40,000,000 of compensation which in 1902 was thrown as a back-breaking burden of debt on the Metropolitan Water Board. The solution of the "practical men," of Seymour and Wood, of Derby and Manners, proved no solution at all. Fourteen years later, when cholera raged for twenty-three weeks in London and killed 5,548, it was revealed that the East London Water Company continued, in contravention of the fourth section of the 1852

¹ *Hansard*, vol. cxxii, p. 856, 17 June 1852.

² "Notes of heads of remonstrance on the Metropolitan Water Bill," MS., n.d.

Act, to distribute water which had not been passed through filter beds; and though the provisions of the 1852 measure were repeated and strengthened by the Metropolis Water Act of 1871, it was not till 1899 that Londoners were receiving the promised constant supply.

The history of the metropolitan water companies affords the classic example of a great vested interest, rooted so strongly among the governing classes, with its friends in the Press and the departments of State, its spokesmen in the Government, and its silent battalions of shareholders in the House of Commons, that it was enabled to hold out for generations in the face of all the evidence, until the mounting exasperation of the public forced it to a capitulation—on its own terms. How many politicians and civil servants, Chadwick wondered, were drawing dividends and directors' fees from works which the Board of Health had condemned as inefficient and unhealthy? "The new Secretary at War: the Right Hon. R. Vernon Smith who brought forward one of the New River Company's bills: inherited shares in it. His father was the chairman of the New River Company, and really wrote the report of one of the Committees on the water question. The present solicitor to the Treasury Mr. Reynolds is a Director of the West Middlesex Water Company. Several clerks of the House of Commons I am told are holders of water shares. The public offices are beset with them, and with shareholders in other companies."¹ In Parliament the Board's measures came under discussion in "an atmosphere of shareholders." The aura of influence of a great body of capital extended far beyond the circle of those with direct pecuniary interests. "The Minister may be told this is great property, 'capital' invested for an important public object; you cannot sacrifice it in families; the House will not support you. You can never carry such a measure."² The railways in Germany, he heard, charged little more than one-third of the English fares, and yet returned a profit of 6 per cent, the reason being that, since they were State-owned, they were exempt from the influence of shareholders in the chambers and Government departments. How much better than in England where it was thought no disgrace for shareholders like Sir William

¹ E. C. to G. Goldsmith (editor of the *Globe*), 7 February 1852.

² E. C. to ? (Delane), n.d.

Clay or Sir John Johnstone to vote on questions in which they had a financial interest!¹

He detected sinister figures like these behind every interest disturbed by the Board. The chairman of one of the two cemetery companies against which they had first taken proceedings was father to an under-secretary of State; the chairman of the other had an under-secretary as nephew. Chadwick was indignant, therefore, but not surprised, when he discovered that these companies "had information long before we received it, that a hostile course would be taken against us."² Then there were the great slum landlords. The Marquis of Salisbury, the Lord Privy Seal, opposed the application of the Public Health Act to Hertford, where whole rows of houses belonging to him had not a single privy. Lord Lonsdale, ground landlord of Whitehaven, successfully resisted the introduction of the Act into the town, which the Board estimated would cost £22,000 to put in a sound sanitary condition; though it was said that he found twice that sum to back an opera company. In the closing months of 1852 these two noblemen showed themselves as the most active opponents of the Board in the Upper House. The outstanding example of another type of critic was Toulmin Smith, theorist of Local Self-Government and defender of the vestry and court leet, who thrust himself forward as the spokesman of various parties opposed to the Board. The Corporation of the City of London had spent £300 in circulating his pamphlets. The Town Commissioners of Bristol had paid him £80 for lecturing against the Public Health Act. He had acted as counsel for the Hampstead Water Company before the 1851 Committee, and had been briefed to promote a Local Act for Birmingham to counter the application for the Public Health Act. Thus, Chadwick summed it up, in the newspapers and on public platforms, retained advocates assumed the guise of impartial judges, and in Parliament shareholders and shareholders' agents appeared as impartial public representatives.³

The defeat of the Derby Government in the elections of the summer of 1852 caused little rejoicing in Gwydyr House.

¹ E. C. to G. Goldsmith, 7 February 1852.

² E. C. to J. T. Delane, 1 November 1851. ³ E. C. to ? , 28 July 1851.

"I quietly dread the effect of changes, and negotiations, and office hunting and leaving, at this particular juncture," observed Shaftesbury. "We have not a moment to lose. The next three months are, 'I speak as a man,' inestimably valuable; and if we let slip that time for preparation, we may be utterly ruined.

"Yet what shall we gain by a return to our old Masters? Seymour will be no better than John Manners, as John Manners proved to be no better than Seymour. D'Israeli, to all intents and purposes, is equal to Charles Wood; and Hamilton is vastly superior to Hayter. Walpole, to be sure, and Salisbury and Lonsdale are sad specimens of knowledge and will in sanitary matters. Yet, all I have said, are nearly alike. Public men know nothing, want to know nothing, hate to be told anything, which does not openly and directly affect their political position and safety."¹

At this time (July-August 1852) Shaftesbury was on the Continent, recuperating from the effects of overstrain, and his letters to Chadwick uncover the frustration and bitterness left by the disasters of the past session. "It is needless to tell you of the heat here," he wrote from Ems, "for I understand the weather is fiercer, if possible, in London. . . . I have sat and pictured, to myself, the sufferings of *our* clients in their crowded alleys, Courts, Lanes, and houses of the Metropolis, with poisonous and deadly water, until I have become more sorrowful than, perhaps, they are themselves! I cannot well describe to you the pain of my disappointment, actual and *prospective*; for I see that our enemies, these 'Sons of Zervinat' will prove too strong for us. It comes between me and my 'cure' (this is the local term), I do not receive half as much benefit as I should do, were our hopes accomplished. . . ."²

It was with appreciative envy that Chadwick, and still more Shaftesbury, watched the progress of Louis Napoleon's social reforms, with their swift clean strokes of unrestricted, beneficent power. He was "laying about him furiously in Paris," noted Shaftesbury, where "he has proclaimed war against all courts, alleys, lanes, and culs de sac." "The Galignani of yesterday contained a programme of improvements which made my hair stand on end. Every working man that lives will on seeing these results shout 'vive la Despotisme'; 'à bas les gouvernements libres!'

¹ Shaftesbury to E. C., 18 July 1852. ² Shaftesbury to E. C., 16 July 1852.

Why our Vestries, Boards of Guardians, paving Boards, and all the apparatus of what is called 'local' and 'Self' government, have only been so many obstacles in the way of physical and Social amelioration."¹ When Emil Chevalier came as a special Commissioner in August 1852 to examine the lodging-houses and model dwellings of London, Chadwick sent him, in the company of Count Cavour, on a tour of some of the worst districts. They agreed, he wrote to Shaftesbury, that the Lodging House Act was working very well, and were favourably impressed by the model dwelling-houses; but they were "in horrors" at the neglected condition of the slum population.²

"Your letter filled me with grief and shame," replied Shaftesbury. "'The thing,' as old Job said, 'that I greatly feared, is come upon me'; and the Sin and sensuality of Protestant, free, and wealthy England towards the mass of the civil population, will be shown up to the whole world, and then contrasted with the paternal care of Papist, despotic, impoverished France!

"To avert such an issue, and to stand well in a day of account, you and I and many others have laboured long, but have been reluctantly and feebly backed in the beginning; and we shall be nobly and angrily opposed in the end.

"This day I have been to Frankfort on business—the City is broad, clean, and very handsome—but the Stinks (whence they come I know not) were prodigious. Cesspool-breezes were blowing from all points of the Compass; and I felt, I regret to say, something akin to a malicious comfort that some other places, beside London, had their own abominations."³

Barnstaple rejected Lord Ebrington, "our only stay in the House of Commons,"⁴ in the elections of 1852, hatred of the Public Health Act coming to the aid of the customary electoral weapons of bribery and treating.⁵ Looking over the new Government, Chadwick could see only one face which seemed to promise hope and a rescue from frustration; it was that of Palmerston, the Home Secretary, whose caustic marginalia and insolent little notes were said to have kept the sluggish patricians of the Foreign Office in a state of unexampled activity. Here was a fellow-

¹ Shaftesbury to E. C., 18 July 1852. ² E. C. to Shaftesbury, 7 August 1852.

³ Shaftesbury to E. C., 12 August 1852. ⁴ Shaftesbury to E. C., 16 July 1852.

⁵ Earl Fortescue to E. C., 13 November 1853.

warrior against cant and routine, and one, moreover, related by marriage to Lord Shaftesbury, for whom he had a curious respect. Palmerston for his part listened more sympathetically than his predecessors at the Home Office to the views of the General Board; and at a public dinner at Lewes, after Lord Ducie had lamented the shortage of farm manures, he delivered, to the ponderous amusement of *The Times*, a eulogy of the untapped treasures of town guano, based apparently on some vague recollections of Chadwick's theories.¹

The new President of the Board was not Lord Seymour, as Shaftesbury had feared, but Sir William Molesworth, yet another President who preferred to preside at a distance, and to act in embarrassing independence without consulting his colleagues. His first move was to declare that he would not insert in a Confirming Bill any town where a majority of the ratepayers appeared to be against it. This, Chadwick pointed out, amounted to a reversal of the provision in the Public Health Act giving the Board the power to intervene in any place proved to suffer from excessive mortality. It would deprive the subject, moreover, of the common law right to pure air and the means of healthy existence; no local majority could assume the authority to determine that a minority or even a single individual should be so deprived, and should die in consequence. Such a power would be a sovereign power, and an arbitrary one; it would give local bodies the right "if not of the gallows literally of the pit. . . ."²

So 1852 closed, with the Board brooding over two major defeats in the capital, with Shaftesbury low in spirits and Chadwick beginning to sound his friends about the possibilities of employment in the Home Office. When Robert Rawlinson read a paper on town drainage at the Institute of Civil Engineers in December, not one voice was raised in his support.³ The mention of Chadwick's name one day in the Court of Common Council precipitated "a perfect outburst of fury."⁴ There were few men alive, he thought, "so little loved and so intensely hated; and whose official position is so precarious."⁵

¹ *Times*, 19 July 1852.

² E. C. to Russell, n.d.

³ E. C. to F. O. Ward, 15 December 1852.

⁴ E. C. to Andrew Boardman, n.d.

⁵ *Ibid.*

The year 1853 brought with it no lessening of the gloom. Its opening weeks were clouded by the unfortunate Croydon inquiry. Hawkesley and his friends grew increasingly clamorous. Before a Lords' Committee Toulmin Smith, acting on behalf of the slum landlords of Hertford, the Marquis of Salisbury and Baron Dimsdale, routed one of the Board's Inspectors.¹ Above all, hostile elements in the localities were enormously encouraged and strengthened by the course of events in London, where Chadwick's schemes collapsed in the final disaster of an open quarrel between the General Board and the Metropolitan Commission of Sewers.

When the first Metropolitan Commission of Sewers succumbed to its internal disorders in September 1849, it had been succeeded by a smaller body of thirteen members, selected mainly for their scientific and technical knowledge, and including Sir John Burgoyne from the Board of Ordnance, prominent railway engineers such as Robert Stephenson and J. M. Rendel, and a number of officers from the Royal Engineers. Alarming stories presently came to Chadwick's ears. The great Mr. Rendel had been heard to use such expressions as "Sanitary Humbug," and had scoffed at the whole subject of sanitary improvement; it was quite sufficient, he contended, for the Commission to carry sewers down the centre of the streets, leaving the owners to drain into them or not, as they thought fit.² Chadwick's trial works were brought to a stop. The eminent engineers attended only intermittently to their unpaid public duties, and the business of the Commission was frequently held up for lack of a quorum. Their one considerable achievement was the notorious Victoria Street sewer, on which, after estimating that it would cost £13,854, they spent £33,000; part of it fell into ruins almost immediately, necessitating an additional large outlay for repairs.³ As Londoners watched their rates mounting, while their streets and houses remained as foul as ever, *The Times* and Sir Benjamin Hall were presently as loud in complaint of the new Commission as

¹ *Minutes of Evidence taken before the Select Committee of the House of Lords on the General Board of Health (No. 3) Bill*; P.P., 1852-3, vol. xxxi, p. 231 (Lords).

² E. C. to Carlisle, 1 November 1849.

³ *Reports and Communications by the Board of Health to the Home Secretary on the Drainage of the Metropolis*; P.P., 1854, vol. lxi, pp. 3-4.

they had been of the old.¹ By pressure on its more amenable members and by representations to the Government, Chadwick endeavoured to maintain his control over the course of affairs at Greek Street. His anxiety increased as they drew further and further away from his influence. On the general theory of town drainage, and on the particular question of the drainage of London, the views of Chadwick and his Inspectors clashed with those of Bazalgette, the Superintending Engineer of the Commission, and Cubitt and Stephenson, their Consulting Engineers. "As to pipes he would not touch one," Stephenson had once declared. "He hated the very name of them, and felt inclined never to mention the word again."² In November 1852 the stone-ware pipes, which had been laid down three years before in Church Lane and Carrier Street, St. Giles, by the first Metropolitan Commission of Sewers, were pulled up and replaced by brick drains, Bazalgette giving as his reasons the number of stoppages, the cost of removing obstructions, and the risk of opening the ground for examination under old and badly built houses.³ This report had a marked effect on those who did not know all the circumstances—that the failure had occurred in a block of buildings with a deficient water supply, mostly common lodging-houses occupied by the lowest type of Irish labourers; and that these forty-eight houses amounted to a very small fraction of the 27,000 in London which by now were being drained by 346 miles of pipes.⁴ Another damaging document put out from Greek Street was a report on "Past Failures and Present Condition of Pipe Sewers," in which Bazalgette, after examining 122 pipe-sewers, found that some were completely choked, 23 were cracked or broken, and 113 contained deposit, in 66 ranging from 2½ to 7 inches in depth.⁵ It was thus not long before the officers of the Sewers Commission were being invoked as authorities by those who wished, from whatever motives, to resist or discredit the General Board of Health.

¹ See, for example, Hall's attack, *Hansard*, vol. cxvi, pp. 1063-71, 16 May 1851.

² *Communications from the General Board of Health, and reports of Superintending Inspectors in respect to the operation of Pipe Sewers*; P.P., 1854-5, vol. xlv, p. 49.

³ *Pipe and Tunnel Sewers, Reports of Mr. Bazalgette relating to*; P.P., 1852-3, vol. xcvi, pp. 9-11.

⁴ P.P., 1854-5, vol. xlv, p. 5.

⁵ P.P., 1852-3, vol. xcvi, p. 12.

By August 1853 Chadwick could contain himself no longer, and Southwood Smith joined him in a letter to Lord Palmerston protesting against the wastefulness and erroneous principles of the works which the Sewers Commissioners were planning to execute. Bazalgette proposed to spend two million pounds on laying down another thousand miles of brick sewers, an "expenditure in worse than waste," and the main lines of intercepting sewer which he contemplated would cost a further three millions. For one-third of this amount, self-cleansing pipes could be installed. Furthermore, by adopting Austin's methods for the drainage of the metropolis, not only would the pollution of the Thames be avoided, as Bazalgette intended, but at the same time another great object would be secured which he had sacrificed—the sewage would be saved for disposal as manure.¹ The letter did not stop Bazalgette's preparations, but in the controversy which followed Palmerston showed himself a good friend to the General Board. In November 1853 he pointedly sent the Sewers Commission copies of reports he had received from a number of the Local Boards, "to show the cheapness and efficiency of the tubular system."² Bazalgette took up the challenge, and made a personal inspection of the places in question. He satisfied himself that the cost of pipe drains was considerably greater than the General Board had stated, that in four out of the five towns he had visited there had been notable failures, and that none of them had as yet possessed pipes long enough to give them a fair trial.³ In reply the General Board submitted reports from the engineers responsible for the works under judgment. These censured Bazalgette for conducting so hasty and superficial an examination, and showed that at Rugby pipes had worked satisfactorily for a period of two years and at St. Thomas's, Exeter, for two and a half; that at Barnard Castle only one defect had been found in three miles of pipes; and that at Tottenham, Bazalgette, in order to give a "general idea" of the charges resulting from the new system had quoted one bill for £40—neglecting to point out that this was incurred by the owner of one of the largest houses in

¹ *Reports and Communications by the Board of Health to the Home Secretary on the Drainage of the Metropolis; P.P., 1854, vol. lxi, pp. 5-6.*

² *Ibid.*, p. 139.

³ *Ibid.*, pp. 184-204: *Report upon the Drainage and Water Supply of Rugby, Sandgate, Tottenham, St. Thomas's, Exeter, and Barnard Castle, 13 February 1854.*

the town, who had put in eight cocks, four water-closets, 212 feet of private drains and apparatus for watering his carriage and flower garden.¹

There we must leave the controversy, which poured its subsidiary stream of hate into the flood which overwhelmed Chadwick in July 1854. In the localities Bazalgette's reports were gratuitously circulated by the enemies of the Board to inoculate local opinion against the persuasive arguments of the Inspectors. At a public meeting at Weymouth, for example, an opponent rose to ask Austin, "What guarantee can the General Board offer us at Weymouth against such fatal consequences as these" (flourishing the diagrams of stopped pipes published by the Metropolitan Commission of Sewers), "if we adopt pipe drainage, and what course would they advise?"² Members of Parliament read Bazalgette's reports on the pipe sewers of the metropolis, and looked at the eleven pages of diagrams which supported them, showing alarming cross-sections of pipes choked black with sediment, and the impression spread that the majority of pipe drains beneath London were cracked and oozing filth or were blocked by the retained ordure. It had a powerful effect when Chadwick's fate was in the balance in the vital debates of 1854. As F. O. Ward told him: "I referred to Bazalgette's lithographs as having mainly contributed to the strong impression in the House of Commons which led to your retirement:—and Sir John Shelley confirmed that statement, referring to one particular lithograph (of a pipe from Mr. Rich's premises) shown as quite blocked up in Bazalgette's report, and which he particularly remembered as the subject of jokes about the *rich* state of the pipe: whereas, on turning to Grant's report, this very pipe proves among the poorest—being in fact completely *clear*."³

¹ *Communications from the General Board of Health, and reports of Superintending Inspectors in respect to the operation of Pipe Sewers; P.P., 1854-5, vol. xlv, pp. 58, 88, 99.*

² *Ibid.*, p. 15.

³ F. O. Ward to E. C., 25 April 1855.

CHAPTER XVI

ACHIEVEMENTS, 1848-1854

As the Board entered upon the last twelve months permitted to them by the Public Health Act, they began to weigh anxiously the chances that their mandate would be renewed by Parliament. A despondent letter from Shaftesbury, taking the cure at Ems in the summer recess of 1853, showed that he faced the coming session with gloomy foreboding. He had been cut to the quick when Palmerston withdrew support for his Mendicancy Bill, and he saw in its rejection a sign of his waning influence.

"The House, it is said, refused to listen; this, if it be so, is a sad omen for any future exertions; I have not time before me, as I had twenty years ago when I moved the factory bill; nor have I the same struggle and fire to endure disappointments. Punch and the Times have done their best for me; but my friends, it seems are weaker, and my enemies stronger, than either or both together!

"I am sadly dispirited; and I shall have no heart left either to attempt, or imagine anything more. And, at last, when our rulers give the coup de grace to the Board of Health, I shall feel, like Othello, that my occupation is gone."¹

They must make a defensive statement, he wrote later the same month; "but it will be to no purpose as an effort to ward off a capital sentence. That our dissolution is resolved on, I cannot doubt; the very fact of the combination against us of the Metropolitan members and the Subordinates of the Treasury would make our position very difficult to a bold and just Ministry; it will render our overthrow and oppression too certain and almost agreeable to a Government that is neither one nor the other." "Why should the Subalterns at the Treasury be jealous of me and my Lodging House Act?" he went on. "I am no Candidate for place, or pension, or political favour. God knows I have had

¹ Shaftesbury to E. C., 3 August 1853.

trouble enough for nothing; abundance of 'monkey's allowance, more kicks than half-pence.' Is it Mr. Wilson? but what is the use of asking *who?* the name of our enemies is 'Legion.'"¹

With this feeling that they were ringed round by a multitude of open foes, and that an even more numerous host worked secretly for their destruction, the Board drew up at the end of 1853 the apologia for their five years of activity.² It was a more modest and inoffensive document than Chadwick had intended it to be, but its only concession to the opposition was to omit some of his more truculent passages. Chadwick was less resigned to defeat than was Shaftesbury, and less convinced that defeat was inevitable. Once when he had mentioned to Lord John Russell some encouraging facts about their progress, the Prime Minister had asked why the Board "did not ding them into people's ears: they needed to be saturated with them."³ There, thought Chadwick, was the fundamental reason for the general distrust with which the Board were now regarded: the ignorance of their achievements which permitted the misrepresentations of their enemies to pass unchallenged. He hoped to enlist sympathy by a plain factual account of what the Board had done, and a reasoned explanation of the position they had taken up on certain controversial questions.

First, then, there were the figures which summarised the Board's work in executing the Public Health Act. By the end of 1853 284 towns had applied for the Board's intervention. The Inspectors had examined and reported on 243 of them; and 182, with a total population of 2,100,000, had been brought under the Act. In 126 of these towns surveys had been completed, or were then in progress. For 70 places plans of public works, founded on the surveys, had been prepared. In 31 towns, including Gloucester, Salisbury, Ely, Dover, Preston, Lancaster, Penzance, Wigan, and Chelmsford, plans for an entirely new set of combined works had been approved by the Board, and mortgages to the amount of £467,000 sanctioned for their execution. In the other 39 partial plans, providing for new sewers to combine with exist-

¹ Shaftesbury to E. C., 28 August 1853.

² *Report of the General Board of Health on the administration of the Public Health Act, and the Nuisances Removal and Diseases Prevention Acts, from 1848 to 1854; P.P.*, 1854, vol. xxxv, p. 1.

³ E. C. to Russell, n.d. (1851).

ing waterworks, for an extension of the water supply, or for other improvements contemplated by the Act, had been examined and approved, and a further £589,000 in mortgages had been sanctioned for these purposes. In thirteen towns, including Rugby, Tottenham, Alnwick, Morpeth, Hitchin, Ormskirk, Barnard Castle, Ottery St. Mary, Ashby-de-la-Zouche, Launceston, Croydon, and St. Thomas's, Exeter, the public works for drainage and water supply were finished and in operation; and in all except Croydon they were reported to be working satisfactorily. In the coming year the Board expected similar works to be completed in another thirty-five towns. The Report did not mention that this list was shorter than they had hoped to present, and that one main reason why it was not longer was the shortcomings of the Board of Ordnance, who had greatly exceeded in time and cost their original estimates for surveying the towns brought under the Act.¹ Even so, considering the means at their command and the burden of their other commitments, they had done well. They had been engaged at the same time in their ill-fated metropolitan ventures, none the less laborious and protracted because they were ill-fated; half a dozen Inspectors were all the staff they had been able to employ on the local inquiries; and they had spent less than £64,000 (more than a third of which was repayable by the Local Boards) in their five years of service, a figure well within their Parliamentary vote.

So much for the extent of their operations. But had the Public Health Act brought benefit to the towns where it had been introduced? On this point the Board could admit no doubt. By the Act a place could, for little more than a hundred pounds, arm itself with powers which, if sought by Local Bills, might cost several thousands. It could, calling on the expert counsel of the Board's Inspectors, equip itself with a system of public works which were novel in design, cheap to construct, and efficient in operation, bringing the means of health and cleanliness down to a weekly charge of a few pence. But greater than the economy of money which resulted was the economy of life. In selected groups of the working class, placed under favourable sanitary conditions, the annual death rate had declined from 30 to 13 per thousand. If the death rate throughout the kingdom

¹ Minutes, 26 March 1851, 10 June 1853. E. C. to Burgoyne, 20 June 1853.

stood at the same level, 25,000 lives would be saved annually in London, and 170,000 in England and Wales; and the average age at death, now twenty-nine, would be raised above forty-eight. In these practical exercises in social arithmetic the Board set a plain target before administrators: to close the gap between an actual mortality of 30 per thousand and a "natural" or "inevitable" mortality of 13 per thousand or less.

These were the benefits which sanitary reform held out for the future. But they could be obtained only if certain administrative principles were recognised and acted upon. In the first place, it must be acknowledged that defence against zymotic disease was not a matter which could safely be left to the will and resource of the individual; the chief preventive measures, large-scale works for municipal and domestic drainage and water supply, could be generally and systematically introduced only by a public board. Secondly, it could not be expected that even a local public board should carry out unaided works of a special nature. To overcome the inertia of local opinion and to supply the deficiencies of local knowledge, there must be a central department with wide initiatory and supervisory powers. The flag of centralisation was thus nailed firmly to the mast. And by its side the Board ran up another, no less detested: that of municipal enterprise. Recanting earlier statements, based upon the Health of Towns report, which asserted the superiority of trading water companies in efficiency and economy, they commended for imitation the examples of public management by town councils and Local Boards which in recent years had come under their notice. The reformers of Gwydyr House thus identified themselves with two unpopular propositions: that local representative bodies were not competent to administer without central aid and supervision all matters which affected their districts; and that profit-making bodies were not invariably the best instruments for rendering service to society. Against these doctrines would certainly be ranged the advocates of local self-government, who were many, and of private enterprise, who were even more numerous.

From the localities, where in nearly 250 towns the sanitary condition had been laid bare by the Inspectors and in half of them the first steps at least had been taken towards improvement, the general picture was one of steady and accelerating progress. The

picture had its shadows—local blundering, for example, of which Croydon was the most notorious instance. There had been differences of opinion with forty or fifty of the Local Boards. But resentment was aroused by the novelty not the extent of the General Board's control, which was of course far less than that of a modern department. The bit was galling because it was new, not because it was excessively sharp. Of the 182 Local Boards, only six were set down as hostile by Gwydyr House; and the reasons are worth noting:

"Two of these local boards, under the influence of small owners of the description of property requiring amendment, manifested their determination not to execute the Act, by an attempt to dismiss their surveyors, with a view to the entire breaking up of the boards, an attempt which we were bound to resist, because we could not sanction the removal of those officers without just and legal cause. With reference to two other hostile boards, plans of works were proposed which we could not sanction, on the grounds that the works themselves were not the most efficient and that they were unduly expensive. On our withholding our sanction to these works, the parties interested in them made loud complaints of uncalled-for interference. In another town, in which the engineer employed has been at variance with the General Board, it was found necessary, on examination of the proposed works, to insist on a reduction of 24 per cent on the gross sum, for which the sanction for a mortgage of the rates was sought. The performance of this duty was followed on the part of the engineer and others by Parliamentary opposition and complaint.

"We are aware of no instance in which we have experienced hostility, but on some similar ground."¹

Against this advance the Board had to set the total failure of their efforts in the metropolis. Regretfully they glanced once more at the Water Supply and Interment schemes, denying that it was any intrinsic weakness in their conception which had brought them to nothing, and reasserting that faith in the principles of planned service and public ownership which formed their essence. Enough has been said already about these measures. There was much else touched upon in the Report—all the multi-

¹ *Report of the General Board of Health on the administration of the Public Health Act . . . from 1848 to 1854*, p. 53.

farious activities of a brisk and capable department, continually looking for fresh opportunities to exercise its powers and for fresh pretexts to widen them. They had advised Sir Charles Wood to abolish the Window Duties;¹ supplied Lord Palmerston with ammunition for his campaign against the smoke nuisance,² considered what regulations might prevent the sale of unwholesome or adulterated articles of food.³ Of these minor occupations of the Board three call for more than the incidental notice they have so far been given in this study—their attempt to encourage the erection of improved working-class houses by local authorities and progressive landlords; their Act for the regulation of common lodging-houses; and their two reports on Quarantine.

A mass of memoranda remains to show that in the last months of the Board's existence Chadwick was busy on the clauses of a General Building Bill, which would have been the first attempt to extend to the whole country the norms of sanitary construction. This was not, however, the first attempt of the Board to "Christianise," as Shaftesbury phrased it,⁴ the domestic condition of the working classes. What might be done in this direction had been demonstrated in practice by the Metropolitan Society for Improving the Dwellings of the Industrious Classes, who had built in the Old Pancras Road and Mile End New Town two blocks of model lodging-houses, in which the mortality rate had dropped to 13.6 per thousand.⁵ To encourage the establishment of similar lodging-houses Ashley introduced a Bill into the Commons in April 1851.⁶ It was a permissive measure, on the lines of the earlier Baths and Washhouses Act, making available to boroughs and parishes with a population over ten thousand powers to erect lodging-houses, the cost being borne upon the rates.⁷ The Act was still-born. No local authority took advantage of its provisions; and it is chiefly interesting as an example of the

¹ E. C. to Sir Charles Wood, 1 April 1851.

² *Letter from the General Board of Health to the Home Secretary on Smoke Consumption P.P.*, 1854, vol. lxi, p. 533.

³ Minutes, 27 November 1849, 12 May and 21 June 1853.

⁴ *Hansard*, vol. cxv, p. 1268, 8 April 1851.

⁵ Southwood Smith, *Results of Sanitary Improvement, illustrated by the operations of the Metropolitan Society for Improving the Dwellings of the Industrious Classes*; Charles Knight, London, 1854.

⁶ *Hansard*, vol. cxv, pp. 1258-76, 8 April 1851.

⁷ 14 & 15 Vict. c. 34.

General Board's policy of encouraging the enterprise of public bodies.

The main reason for its failure, we may judge, lay in the inhibitions of the ratepayer, who was not prepared to risk a loss on a municipal building programme, and whose fears were reflected in the caution and lack of initiative of the local authorities. Model houses were all very well, but could they produce a reasonable return of profit? The same doubt restrained the improving landlord. "No doubt nothing can be more desirable than to provide good houses for the Poor, but I do not see my way in it," Lord Ellenborough once told Chadwick. ". . . No Agricultural Labourer can afford to pay in rent more than one shilling a week, and I cannot build a really good Cottage for less than £80 or even £90. In the last two years I have expended from £1,000 to £1,200 on cottages and I am sure I do not get more than 2 per cent. In Towns no Speculator will build without getting at least 6 per cent, and he ought to have that."¹ This, in Chadwick's view, was the crux of the housing problem. It was essential to show that sound and sanitary building need not involve a lowered profit, that good business might be as powerful a motive as high principles for erecting model cottages. "The desideratum for the working classes is to bring science and capital to bear on the construction of their houses: the only way to improve them and at the same time to make them cheaper is to make them a manufacture."² This meant, in the first place, experiment with new materials and methods of construction, with fire-brick grates, tubular chimneys, tile roofs, and hollow brick walls and floors. It meant, secondly, the enlistment of large capital, to make possible the economies of mass production. Chadwick was thus always on the watch for the progressive landlord who might be talked into trying out his ideas; a man like James Matheson, for example, who was about to spend some of the fortune he had made in India on improving the town of Stornoway.³ He was delighted, again, when Colonel Phipps, the Prince Consort's secretary, informed him in December 1848 that Albert was considering how to improve the labourers' houses on his property,

¹ Lord Ellenborough to E. C., 11 August 1848.

² E. C. to T. Bamfield, 6 January 1845.

³ E. C. to James Matheson, 18 March 1845.

and within a fortnight he submitted a lengthy paper on materials and building methods. The model cottages erected under the patronage of the Prince for the Exhibition of 1851 owed much to Chadwick's advice; and he was convinced that by building them in large numbers similar or better cottages might be put up at half or two-thirds the cost, and still give a return of 7 per cent.¹

A second Bill was introduced by Shaftesbury in the 1851 session, aimed, not at the dwellings of the stationary population, but at the doss-houses which accommodated from night to night the shifting thousands of homeless vagrants.² The common lodging-houses, maintained, as Dr. Ferriar had said, by the "keepers of fever beds," were the foci of contagious disease in the district. Here for twopence or threepence a night bed and board were found for the thieves and prostitutes of the neighbourhood, and the various classes of the fraternity of tramps—hawkers of matches and laces, travelling tinkers and umbrella repairers, ballad-singers and beggars "on the downright." Mingling with these colourful but disreputable characters were the migrant labourers, seeking work and driven into this company for want of suitable shelter elsewhere. "Last night I spent entirely in going through all the lodging-houses and brothels in the town," Lyon Playfair once wrote to Chadwick. "I began at twelve and finished at half-past four, so I saw a prodigious quantity. Such sights! frequently fourteen in a room, women and men lying stark naked together!"³ The remedy, Chadwick had urged in the *Sanitary Report*, was to oblige all lodging-house keepers to take out a licence, and to subject their establishments to inspection by the medical officer of the Poor Law Union.⁴ The demand for public control was taken up by the Inspectors in their local reports. Carlisle, observed Robert Rawlinson, had seventy-two lodging-houses, one huge forcing-bed for the generation of vice in all its forms; it was in vain to erect workhouses, gaols, and hospitals, or to establish penal colonies for the punishment, reformation, or suppression of vice, if these places, the fountain-head of all that was depraved, were

¹ Phipps to E. C., 8 December 1848; E. C. to Phipps, 23 December 1848, 14 May 1851, 3 November 1851.

² *Hansard*, vol. cxvii, p. 1123, 24 June 1851; vol. cxviii, pp. 325-37, 8 July 1851. 14 & 15 Vict. c. 28.

³ L. Playfair to E. C., n.d., c. 1843-4; probably referring to Sheffield.

⁴ *Sanitary Report*, 1842, p. 365.

left unregulated.¹ Hence in 1851 a Bill "was made up for Lord Shaftesbury who got it passed, and whose name it bears."² It was an undeniable success. By the middle of 1854 Chadwick could point to a remarkable diminution in the number of fever cases reported from the lodging-houses of London. Out of a population of 30,000 in the 1,400 or 1,500 houses under inspection, there had been only ten cases of fever, whereas it had formerly been common to have as many as twenty cases in one quarter from a single lodging-house.³

Of all the Board's work none has been so completely forgotten as their reports on Quarantine;⁴ yet Chadwick maintained that if they had rendered no other service than the publication of those reports, their appointment would have been fully justified.⁵ There is something to be said for this view. Based though they were on a false epidemiology, the reports issued in practical recommendations of the greatest value to the health and well-being of the seafaring population. The evidence the Board had collected, Chadwick believed, proved beyond doubt that the plague, cholera, and yellow fever all fell into the category of diseases which were bred amidst filth and overcrowding, and which might therefore be prevented in the proportion that these localising conditions were removed. He passed on to conclude that the contagionist theory was utterly discredited, and with it the quarantine system erected upon it. As well raise a barrier against the wind as expect to keep out the epidemic atmosphere which brought the pestilence by military guards at the frontier and warships at the approaches to the seaport towns. The true defence was not quarantine but cleanliness. A glance into the fore-castle of most merchant ships would reveal at once why the outbreak of an epidemic was so often associated with the landing of the mariner. The seamen of the world's greatest maritime power lived in floating cellar-dwellings, more noisome and des-

¹ *Report on Carlisle*, pp. 56-7.

² E. C. to M. Verge, n.d. (1890).

³ *Reports made to the Home Secretary by the Assistant Commissioner of Police, upon the operation of the Common Lodging-houses Act*; P.P., 1852-3, vol. lxxviii, p. 525; 1854, xxxv, p. 115. *Papers received by the Board of Health, exhibiting the operation of the Act*, 1852-3, vol. lxxviii, p. 553.

⁴ *Report on Quarantine*; P.P., 1849, vol. xxiv, p. 137. *Second Report on Quarantine: Yellow Fever*, 1852, vol. xx, p. 117.

⁵ E. C. to T. Thornely, 17 July 1854.

tructive of health than any in a Liverpool back street; and the effect showed itself in the statistics of mortality, which gave this "important and comparatively defenceless class of the community" a working life shorter, by far than that of any other class of labourers. The Board therefore proposed the dissolution of the existing quarantine establishments, and their replacement by sanitary regulations. A ship in harbour should be brought within the scope of the Nuisances Removal and Diseases Prevention Acts, and subjected to the same precautionary measures as a house on shore. In case of sickness the captain should be obliged to bring a medical officer aboard, who should take charge, and order the cleansing and purification of the ship, the diminution of overcrowding, and the removal of the sick. During the epidemic of 1848-9 the Board issued instructions to this effect, in the face of sturdy protests from Sir William Pym, the Director-General of Quarantine at the Privy Council Office.¹

If quarantine was useless to defend the population from disease, there seemed no reason why its obstructions to commerce should be allowed to continue. Frequently the detention of a cargo for three or four weeks involved a loss as great as the whole cost of its transport to England; perishables such as fruit rotted in the holds; the price of cotton goods went up 15 per cent. Manchester had long been thinking along these lines; and when the British Government decided that it was time steps were taken to liberalise the quarantine system, it was perhaps due less to the General Board than to the Manchester Chamber of Commerce, convinced, as Dr. Sutherland put it, that "sanitary reform and free commerce are synonymous terms, and that filth and restrictions will in future go together."²

Spain, Portugal, and the Italian states still clung superstitiously to the old-style quarantine, but in the United States, France, and Austria faith in its efficacy was waning, and the French Government received strong support when it summoned a Quarantine Conference to Paris in July 1851. Dr. John Sutherland, the Board's ablest and most persuasive medical officer, attended as the chief British representative. By the third week of the Con-

¹ "Special Notification to Captains of Merchant Ships, Steamers and Colliers"; *London Gazette*, 1 December 1848, pp. 4386-9.

² J. Sutherland to E. C., 31 December 1851.

ference Sutherland was reporting to Chadwick that he had won over the most influential contagionist in Italy, the representative of Naples, and the delegates were condemning lazarettos root and branch as doing more harm than good in their present state.¹ As they sat at the Affaires Etrangères discussing Sutherland's proposals for hygienic reforms in the Turkish Empire, they heard the discharge of cannon and musketry as the people of Paris manned the barricades in defence of the Republic; a terrified official rushed in crying that all was lost, and the sentries at the outer doors disappeared ("always a sign of great danger," remarked Sutherland drily), but the delegates, declining the offer of a guard from the Cabinet, continued undaunted to discuss pratique and Bills of Health while a battle raged in the streets three or four hundred yards away.² The Conference resulted in a victory for Chadwick's hygienic principles, if not for his anti-contagionist views. Quarantine remained, but much of its ancient barbarity and unreason would in future be swept away. Vessels were to be subject to the examination and certification of a port medical officer, who would in effect be the equivalent of the urban officer of health. All governments were instructed to attend to the hygiene of their ships and the sanitary condition of their seaports.³ The die-hard Pym obstinately refused to accept the recommendations of the Conference, declaring that it was impossible to furnish every ship with a bill of health. Absolute nonsense, cried Sutherland; "I wish we had one hour of Sir Robert Peel or Lord Palmerston to sweep the whole buzz of objections away."⁴ Half a century was to elapse before the quarantine system was finally settled on scientific principles, and the penal interdict of earlier times replaced by the modern procedure of notification and medical inspection, disinfection, and inoculation. In the early stages of that development the Board's reports had a considerable and beneficial influence. Translated into French and Italian, they

¹ J. Sutherland to E. C., 23 October 1851.

² J. Sutherland to E. C., 8 December 1851.

³ J. Sutherland to E. C., 5 December 1851.

⁴ J. Sutherland to E. C., 4 August 1852. The Minutes of the Conference were printed by the French Government, but not made public. For an account of its proceedings, see "The International Quarantine Conference of Paris in 1851-2," by Gavin Milroy (one of the Board's Medical Inspectors), in *Transactions of the Society for the Promotion of Social Science*, 1859, pp. 605-12.

circulated on the Continent and in all the maritime towns of the Levant and of North and South America, directing the attention of governments to the floating slums of the forecastle, and teaching that clean ships and regular medical inspections were better protection against the spread of infection than naval squadrons or a cordon of troops.

The Board's defence of their policy seems to have caused not the slightest ripple on the surface of opinion. Since Chadwick's *Sanitary Report* of 1842 the propagandist efforts of the reformers had shown steadily diminishing returns as the popular mind became saturated with horrors and hardened by reiterated shocks. This latest production of his, flattest and most pedestrian of all sanitary manifestos, fell dead from the press.

Who amongst the friends of the Board was capable of shaking public opinion out of the sluggish unconcern into which it had relapsed after the subsidence of the cholera panic? There were a few names of national weight and influence, but the political leaders of the public health movement were mostly amiable nonentities. The public health movement suffered from its bores. The House rapidly emptied whenever R. A. Slaney introduced his favourite motion for a committee to report on practical plans for the improvement of the working classes; and his talk of sickness benefits, old age pensions, and savings banks was met by Ministerial stonewalling or the retort of some private member that "he wished the people not to depend upon Government."¹ W. A. Mackinnon lectured the House regularly and conscientiously on the evils of smoke and Smithfield Market and intramural interment, but even his friends shook their heads over the results. "Mr. Mackinnon never succeeds. They say he has no tact," Dr. Holland remarked sadly to Chadwick. "He has a great knack at failing."² It was a restive team that Chadwick sought to harness to his plans. Shaftesbury and Ebrington and Southwood Smith moved under his control; but others did not respond so readily to his command. Lord Carlisle was too pliant to be relied

¹ *Hansard*, vol. cix, pp. 359-75, 5 March 1850 (Trelawney).

² P. H. Holland to E. C., 22 March and 22 July 1846.

upon. Joseph Hume, again, as the great advocate of retrenchment, co-operated willingly in urging model act procedure in place of costly Local Bills; but he looked with misgiving on Chadwick's engineering estimates and the proposed creation of a paid local bureaucracy throughout the country.

Chadwick himself frowned upon the organisation of a "sanitary party." Such talk would divert attention from measures to men, would show "how few they are and *how young they are*."¹ Had it not been a trick of Leslie and Byng at the Sewers Commission, when they could pick no holes in the measures themselves, to attempt to discredit them as the work of "Chadwick's party"?—by which stratagem they detached those members who prided themselves on their independence of viewpoint and freedom from party ties, and, moreover, convinced Walter of *The Times* that the measures were the product of cliques and cabals. A sense of professional decorum also deterred Chadwick from becoming the centre of a body of political agitators. As a public officer, he declared, he must belong to no party. The General Board had quasi-judicial duties to perform, and so, though they might receive support from any party, they could not themselves belong to one. Inspectors under attack were ordered by Chadwick to keep away from meetings of the Sanitary Association. He endeavoured himself to maintain a proper distance from this propagandist body; he was even reluctant to appear at their dinners, but was overruled "on the grounds of purism" by Shaftesbury and Carlisle.²

Seeking the reasons why the Board fell in 1854, we note first then that their well-wishers were badly led and weakly organised. Chadwick's own explanation for the disasters which befell the Board is given in one of the most self-revealing letters he ever wrote. Addressed to an American relative in the closing months of 1852, it describes his preparations for a strategic retreat, and tries to lay bare the reasons why that retreat might soon be forced upon him. It is the letter of a very lonely man, maintaining his courage and strength of purpose still unbroken, but feeling keenly the thwarting of great objects and the ingratitude of powerful men.

"Our Board is terminable next year; powerful parties are

¹ E. C. to Lord ? (Ebrington), 6 August 1852. ² Ibid.

labouring to prevent its renewal, and most probably they will prevent its renewal under any conditions on which I can be employed. The new elections have lost us one powerful friend, and have added one or two very certain enemies.

"Under these circumstances I should be obliged, if you would warn my father's family of the uncertainty of the continuance of any assistance from me. I have felt myself obliged to give similar warnings here.

"I have long considered it prudent to reduce my establishment and expenditure; but I have never got a clear month's time to look about me and to do the work, which if done at all must be done by myself for I get no assistance on which I can depend. . . . I am moreover much observed by the enemies of our measures and it is as hazardous as changing the position of an outnumbered army in the presence of an enemy; and I have felt that it is highly dangerous to give an appearance of retreat, or display want of confidence in the cause.

"I write to you fully because you are the only one related to me who are likely to take a public as well as private interest in my work.

"There is a *prima facie* case against me of imprudence, and mismeasurement of forces in bringing against myself personally and the cause, so many enemies, but I knowingly entered the field against very large odds, much has been gained, and eminently large results have only been lost by small chances, such as the unexpected deaths of the late Earls of Carlisle and Shaftesbury removing the two most powerful allies from the House of Commons. In other respects the cause which deserved to be fortunate has been unfortunate. There has been, in some instances foul dealing against it, to an extent which has been unexampled which no more required to be calculated upon than the revival of the practices of dark ages such as poisoning and assassination. In some respects, I have felt that our measures are in advance of the time; the science of prevention is a new one: vast sums are spent in the charity of alleviation: the sanitary association can with difficulty obtain subscriptions of a few hundreds. I have a firm reliance that much that I have done, and hope to have strength, and to be left in peace to lay out, will be found available and profitable in other times, and in the hands of other men.

"Some ground has been lost for the want of sufficient exposition; but for that I could get no time. The works you will receive from me, on the drainage of towns, and the application of the refuse of towns, have all had to be worked out by myself including the elementary principles of engineering applicable; and the consultations which from courtesy have been very extensive have been one source of obstruction. The least pleasant part of my retrospect up to this point has been the general failure of acts of generosity, or of confidence. If I were to go over the ground again, I would exact more: insist more on the exclusive direction of my own measures, have made entire clearances of staffs habituated to measures which require change, have pressed my claims for results obtained immediately on the ministers or on the public for recognition and have had shorter accounts, have overlooked less frequently opportunities of personal vindication. . . ."¹

The great odds against the reformers, treachery in unexpected quarters, a public opinion slow to grasp the significance of preventive administration, the incalculable malice of fortune—so much Chadwick clearly sees. How far was he himself to blame? Why should the name of Chadwick, associated as it was with great measures for the improvement of health and morals, so grate upon the public ear? That he was so hated was a distasteful fact which he faced unflinchingly, but, conscious of his own high purpose, he was honestly bewildered that it was so. But there were some facets of his character of which he was less aware. He could not know of the irritation caused by the constant nagging of that voice, always making unpleasant truths unpleasantly obvious, and by that cocksure manner, impatient of all opposition, with which he sustained his arguments. In the process of editing and revising by his colleagues, Chadwick's reports were weeded of their querulous personalities and the cruder manifestations of his robust belief that his opponents must be either fools or rogues, but his manuscript drafts and private correspondence supply innumerable examples. McCulloch reprimanded the Board for the expense of their reports—was it not because those reports had more than once overturned his opinions as a political economist?²

¹ E. C. to Andrew Boardman, n.d.

² E. C. to ? (Lord Brougham), 1 June 1849.

William Napier's creditors closed in on him and forced him to flee to Brussels—and the shortness of credit allowed to the explorer of the Surrey sand springs led Chadwick to suspect some foul intrigue by a hard-water interest.¹ Professor Liebig thought that in so wet a country as England liquid manure must be washed out of the soil and wasted—but then Liebig was the patentee of a solid manure. Professors Graham, Miller, and Hoffman presented a report to the Government against the soft Farnham water, and in favour of Clark's process for softening water by chemical means—were they not chemists?² There never was a man more suspicious of his antagonists' motives than Chadwick, more convinced that their objections sprang from a materialist root, a trading profit, a family connection or some snug little place. Whenever he moved towards an accommodation, he never left any doubt that he felt he was striking a pact with evil things, with greed and ignorance and prejudice. Justified though his suspicions only too often were, they gave Chadwick a stiffness of temper which was of no aid to him in conducting the diplomacy of Gwydyr House.

If anything could restore the Board's popularity, it was an epidemic. Fear was their most powerful and dependable ally; and, mingled with the anxiety with which they scanned the weekly mortality returns, there was perhaps a repressed hope that they would be called upon, as Shaftesbury put it, to "resume our old 'aggressions'."³ Twice already, in July 1850 and September 1852, they had informed the Government that they believed the country was in imminent danger of a return of the cholera;⁴ but neither the Whigs on the first occasion, nor the Tories on the second, could be persuaded that it was necessary to put the Diseases Prevention Act into operation, together with the additional powers which the Board were demanding on the strength of their experience in 1848-9. In September 1853, however, the cholera appeared unmistakably in Hamburg, and in a day or so it broke out again in its old haunts in Newcastle and Gateshead. In the first fifteen days of the outbreak 214 deaths were reported

¹ E. C. to F. O. Ward, 1 July 1851.

² E. C. to F. O. Ward, June 1851.

³ Shaftesbury to E. C., 26 August 1852.

⁴ Minutes, 19 July 1850, 13 December 1852.

from Newcastle, and 1,371 before September was out. The Board's "Choleraic heroes,"¹ John Sutherland, R. D. Grainger, and Hector Gavin, were promptly on the scene. Fearing that their enemies would attempt to elbow them out of the administration of the Diseases Prevention Act, Shaftesbury wrote privately to Palmerston. At the same time he entreated Chadwick, "Be very respectful for be assured that the slightest expression will be magnified into a crime by men who are resolved to remove us from our places, and tarnish us in reputation." "Let me counsel you," he wrote again, "to take the most *conciliatory* tone with the Boards of Guardians, the Treasury, and all authorities; one ground of our unpopularity is, as I have been told, that we were too dictatorial. I know that it was necessary to be so to overcome resistance; but let us be as forbearing as possible."²

Chadwick found that he had not misplaced his trust in Palmerston, who held the soundest of views on the value of cleanliness and the supineness of local authorities. The Home Secretary advised the Treasury to let the Board have such additional medical assistants as they considered necessary, and called for a list of nuisances in London to enable him to decide whether they might be made the subjects of indictment.³ Whether it was due to Palmerston's support, or to Chadwick's studied restraint, or simply to the chastening fear of a threat so speedily renewed, the atmosphere which surrounded the Board in this latest epidemic was better than in 1848-9. The Board's relations with the College of Physicians, the Scottish Law Officers, the Customs, the Board of Trade, the Poor Law Board and the Metropolitan Commission of Sewers, were handled with the greatest caution; and Inspectors who went round to warn the Guardians of St. Olave's and Greenwich of the impending attack reported an eager desire to co-operate and a readiness to admit that "in 1849 things were left too late, and that the pestilence was fairly down upon them, before they took proper measures."⁴ But the Board's powers remained what they had been three years before; the same ignorance and incompetence ruled in the localities; and the filth that had been cleared away during the earlier visitation had long

¹ Shaftesbury to E. C., 22 September 1853.

² Shaftesbury to E. C., 28 August, 17 September 1853.

³ Minutes, 24 September, 10 October 1853. ⁴ Ibid., 30 September 1853.

since returned with all the inevitability of a natural process.

"We have had the scourge you predicted, and as you predicted," the Town Clerk of Gateshead told Rawlinson. "The cholera has been true to its character. The dispensary Surgeon told me that he could have stood on a gallery in Martin Dunn's premises in Hillgate, alluded to in the Gateshead Report, and have pitched four beans into four rooms, each containing a cholera corpse. . . . The plague spot is this—when a sanitary improvement is proposed, it is discussed with reference, not to its necessity, but its expense: and if expensive, however necessary, it is shelved. This has been the case in Gateshead and what are the consequences? Our tradesmen, wholesale and retail, have lost thousands, their customers being afraid to enter the town—even with supplies—and enormous expense has been incurred in tending and feeding the sick and burying the dead—a grievous permanent charge upon the rates for the support of the widows and orphans who have lost their breadwinners—and *the work is yet to do.*" "A movement is on foot for an inquiry," went on Rawlinson, "and I trust it will be granted, in order that the saddle may be placed on the right horse—and the absolute necessity for granting larger powers to the General Board of Health may be made fully apparent. The powers of that Board are crippled from a miserable apprehension of interference with vested rights and local authorities, and the General Board is blamed for not exercising powers denied them."¹

The General Board called for a public investigation. The epidemic at Newcastle, they asserted, had been aggravated by causes which might have been prevented if the local authorities had exercised a proper regard for their Common Law obligations as well as their statutory duties with respect to the public health.² It was alleged that the introduction of complete works in the town would probably have interfered with the interests of a trading water company, whose shareholders got themselves elected to the Town Council in order to obstruct the exercise of the sanitary powers conferred by the Newcastle Local Act. Similarly at Gateshead a number of owners of small tenements had been elected to oppose the Public Health Act; and at Luton the owner

¹ R. Rawlinson to E. C., 22 October 1853.

² Minutes, 8 November 1853.

of some houses in which fifteen deaths had occurred was a member of the Local Board.¹

So great was the indignation amongst the working classes of Newcastle that there was some fear that they would rise and pull down the houses which were the seats of the pestilence—and which, wrote an angry Inspector, all ought to be bombarded.² The unrest amongst the Newcastle population, the allegations of incompetence against the local authorities, and the rumours of negligence on the part of the water company, could not be ignored in the dangerously inflammable atmosphere of an epidemic, and the Government therefore appointed a Commission of Inquiry, which included John Simon, Joseph Hume, and J. F. Bateman. The Commissioners demonstrated, with nearly six hundred pages of evidence,³ that Newcastle possessed all the unwholesomeness of an ancient walled town, together with added evils of comparatively modern origin. They described the cellar-dwellings, the back-to-back cottages, the increased overcrowding which had resulted when the York and Berwick Railway had been driven through the town; and stated that five-sixths of the houses lacked water-closets or any other form of faecal house-drainage, and two-fifths were entirely without drains of any kind, even for carrying off the rain. They revealed that the Town Council had neglected to put into force its powers under the recent Local Act until the day after the outbreak reached its climax, and had acted then only upon the instigation of the Inspector of the General Board. They gave it as their opinion that in view of the "great sanitary capabilities of Newcastle," its death rate, which had averaged 28.6 over the previous fifteen years, was nearly double the natural or necessary mortality, and that a thousand or twelve hundred lives were unnecessarily sacrificed there every year. But the Commissioners could not prove that the condition of the town had declined in the four years since 1849, when it had escaped very lightly; nor that its administration was more neglectful than that of a dozen other industrial towns which had no cholera cases at all. In 1853-4 as in 1848-9 the real cause of cholera remained

¹ Minutes, 7 December 1853.

² E. C. to ? , 28 September 1853.

³ *Report of the Commissioners on the Causes of the Outbreak of Cholera in the Towns of Newcastle-upon-Tyne, Gateshead, and Tynemouth*; P.P., 1854, vol xxxv, p. 131.

a mystery;¹ and the medical profession was no more agreed upon its treatment, the suggestions published in the Press including the use of ice, castor oil, laughing-gas, charcoal, and mustard poultices and hot mint tea.²

By November 1853 the outbreak on the Tyne had burned itself out. A few months later the disease appeared in the capital. But before the London epidemic reached its height, Chadwick and his colleagues had fallen from power. Not even the fear of cholera could drive out the hatred which by now surrounded the General Board of Health.

¹ Snow had put forward his theory of water transmission in 1849 in his pamphlet, *On the Mode of Communication of Cholera*, a second edition of which was published in 1854; but forty years later, as may be seen from the sceptical comments of Creighton in his *History of Epidemics in Britain* (1894), the theory was still fighting for general acceptance.

² *Times*, 15 August, 17 August, 25 August, 6 September, 13 October 1853.

CHAPTER XVII

THE FALL OF THE BOARD

"I HAVE now been engaged more than twenty-two years uninterruptedly for ten or twelve hours a day, with little recess or holiday except on the occasion of ill health in successive extraordinary services," Chadwick told Palmerston, as the Board approached the end of the term of office allowed by the 1848 Act.¹ He was paying now the price of that unrelaxing labour. As he entered upon the last half-year of his official career, his reserves of strength, though not of spirit, were seriously lowered by sickness. He had not completely shaken off the effects of a fever which he had caught in the spring of the previous year, on one of his visits of local inspection; and he was further weakened by dyspepsia, brought on by irregular hours and habits, combined with his unrelaxing mental exertion and anxiety. His medical adviser had warned him that he must soon seek relief from the excessive burden he was shouldering. But as yet Chadwick had no thought that the coming struggle in Parliament would result in his being thrust into a perpetual and unwilling retirement. The General Board, he knew, would be in some jeopardy; there would be harsh things said about himself; and *The Times*, the anti-centralisers, the water companies and slum landlords, the bone-boilers and all his other enemies, would take down their weapons for the attack. But he rested his faith in a powerful and well-disposed Home Secretary—and also, because he was a simple man, in the merits of six years of valuable and conscientious labour. A few months' rest; then two years more at Gwydyr House; and after that he might pick up and unravel some other thread of the social tangle, education, perhaps, or police, or factory regulation. With some such programme in his mind, he faced with fair confidence the debates which were to decide his future.

¹ E. C. to Palmerston, 31 May 1854.

It was Palmerston's intention to introduce a Bill to extend the Public Health Act for a further two years. In view of the weakness which had revealed itself in the past six years, however, the administrative machinery at the centre was to be changed. As he explained, on the Second Reading of his Public Health Act Amendment Bill, to all intents and purposes the Board was an independent body, not controlled by any department, nor represented by a responsible organ in Parliament. At present it was no more bound to obey the orders of the Home Secretary than was the Navy Board or the Victualling Department. He proposed therefore to make it a branch of the Home Office, giving the Secretary of State the power to appoint and remove its members and to issue orders and directions to them.¹ Thus, by putting the Board under ministerial control he hoped to remove the ground for the charges of arbitrary and irresponsible conduct; and by bringing the department under the protective wing of the Home Secretary to give it effective means of defending itself in the Commons.

This arrangement, it became clear at once, would not satisfy the critics of the Board. Judging that the Home Secretary would exercise no real control over the Board and would hold no real responsibility for its actions, they demanded that the department should be reconstructed on the lines of the Poor Law Board, with a new Minister, a President of the Board of Health, at its head. It was a sound solution, pointing the way to a healthy constitutional development of the new department; and in this respect the critics were right, as Chadwick from the first had been wrong. But the debates of 1854 did not turn solely upon this point. In pursuing their object the advocates of a Ministry of Health poured indiscriminating abuse upon the men and measures of the General Board. Their victory would mean the end of the defective administrative structure set up in 1848; but it would also mean the expulsion of the three reformers of Gwydyr House and a general condemnation of their policy. Chadwick saw only too much reason to distrust a scheme the chief sponsor of which was Lord Seymour, behind whom were ranged the representatives of the manifold interests attacked by the Board. Was it to increase the efficiency of sanitary administration that the proposal was

¹ *Hansard*, vol. cxxxv, pp. 973-4, 31 July 1854.

made—or to call a halt to the activity of himself and his colleagues? As he remarked to Russell, the change at the Poor Law Board, which was pointed to as a favourable precedent, was thought to work well because no complaints were heard; but though there was somewhat more of quiet in the House, it was at the expense of progress in the office.¹

It was a determined and brilliant attack which Lord Seymour launched in the Commons. Into two speeches, compact with ridicule and contempt, he contrived to compress all the criticisms which at one time or another had been levelled at the Board, garnishing his argument with personal details which gave it a convincing ring of authenticity. These speeches, delivered as they were with the authority of a former President of the Board, blasted their hopes, threw consternation amongst their friends, and swept the waverers into the division lobbies against the Bill. No stronger proof was needed of the want of someone to represent the views of the Board in Parliament than the way in which the ex-President misrepresented them almost without contradiction in these final debates.²

The first attack came on 6 July, on the Board's supply vote, a motion by Palmerston for £11,855 to defray their expenses for the next financial year (to 31 March 1855). Lord Seymour at once objected to the grant of money for the maintenance of a body whose actions, far from forwarding sanitary measures, had served only to make them unpopular, since under its rule they were brought in, not by the free will of the people, but by the despotic interference of the Central Board. Sir William Molesworth had quite properly refused to consider himself responsible for the proceedings of a Board of which he was only an individual member, whose opinion might be overruled by his colleagues. Seymour himself, when he was President, had sent a communication to the Board, after consulting with the other members of the Government, indicating the course he thought they should adopt; they had told him that his proposition was not seconded—"that the members of the Board knew nothing of what the Government might wish; they only knew that, at their Board, the proposal was not seconded, and it consequently fell to the ground." Was that the way to conduct public business? Were they to vote

¹ E. C. to Russell, 27 July 1854.

² See Appendix, p. 376.

money for a Board which thus set the Government at defiance? "The only way to bring these gentlemen to reason was just to stop their salaries." Seymour next turned his scorn upon the Inspectors and their local reports. He had himself visited one town just after such a report had been sent in, and after testing by personal examination the statements made in it, he did not hesitate to declare that a more exaggerated report he had never read. The Inspector invariably recommended that the town he had examined should be brought under the Board of Health; in return the Board stated that the Inspector, having devised a very beautiful system of drainage, had better be allowed to carry it out; and if the town did not adopt this advice and employ the Inspector, it encountered such hindrances and difficulties that it soon bitterly repented its decision. "The fact was, that the inspector brought in the Board, and then the Board brought in the inspector." After a dig at the Board's engineering theories ("utterly denied by the best engineers of the metropolis"), he described the report which they had published in their defence as "almost an indecent thing to have been sent out by a Government establishment," being full of conclusions "arrived at by the Board of Health, but denied by everybody else." He ended by remarking how complaints of the Poor Law administration had ceased once Chadwick had been removed.¹

Seymour was heartily seconded by Sir Benjamin Hall, the member for Marylebone, who thought that the best thing the Government could do would be to give Chadwick and Southwood Smith their money and dismiss them. "The Chief Commissioners, in succession, had found it impracticable to control the mischievous vagaries and extravagances of these two persons, and the only remedy was to get rid of them altogether." And Chadwick in particular, who, after being removed from the Poor Law Commission for his "rules of atrocious stringency," had "concocted a pamphlet" on sanitary subjects, on the strength of which he had manœuvred himself into power at the Board of Health. "He himself was quite at a loss to know what services this man had rendered to the community."²

It was now very plain that Palmerston was to have no easy passage for his Amendment Bill, which he introduced on 10 July.

¹ *Hansard*, vol. cxxxiv, pp. 1298-1300.

² *Ibid.*, pp. 1301-7.

During the days that followed the opposition interests mobilised their strength, and, in the ignorance or indifference of the mass of the Commons, the critics increasingly dominated the debates. Almost to a man, Chadwick informed Russell, he knew the causes of the Board's unpopularity with "the minority called the house." That member, for example, who rose to denounce their proceedings as interference with self-government, was a factory owner, whose chimney poured forth soot on all about him.¹ "The lobby was crowded, with the water engineers at the head of whom was Hawksley, and with Parliamentary agents, and with parliamentary counsel canvassing against the measure," he told F. O. Ward on his return from the House on 18 July. "Only one petition was heard against the measure: on the other side we had to lament that there was none for." Ill-health unfitted Chadwick for the strain of combat. Weak as he was, however, he mustered his energies to repel the attack, pouring out hastily drafted notes of appeal to his Parliamentary acquaintances. Unfortunately the session was near its close, and few of his political friends were in town. There was Lord Lansdowne, for example, who might make an effective reply to the Poor Law cry which had been raised; but Lansdowne was off to Stoke Park, whence his testimony, if it came at all, must come too late.² Scarcely a man with political influence had paid attention to the subject, and there was no time now to coach them in even the elements of public health administration. Desperately Chadwick looked round for a spokesman in the Commons. He appealed to Sir George Pechell, the member for Brighton, to refute the charge that he had made the Poor Law unpopular and had been dismissed from that office in consequence, reminding Pechell that in the Andover debates of 1846 he had supported the vote of censure on the Commissioners.³ The Board would be entitled to public support, he suggested to the Wolverhampton member, T. Thornely, if it had done nothing more than produce the reports which demonstrated to the medical authorities of the Continent the futility of quarantine with its obstructions to commerce which cost England alone upwards of two millions a year.⁴ The bitter personal hostility he

¹ E. C., "Parliamentary Presidentship. Notes of a draught letter to Lord John Russell on the new Public Health Board arrangements," MS., n.d.

² Lansdowne to E. C., n.d. ³ E. C. to Sir George Pechell, 12 July 1854.

⁴ E. C. to T. Thornely, 17 July 1854.

had aroused, he reminded Hume, was due largely to the complete practical demonstration he had made of Hume's own proposals for reducing the expense of private bills.¹ To E. B. Lytton he wrote: "You have known me at intervals for a very long period, and whatsoever weaknesses I may have I trust you will believe I could not have acted in so foolish a manner as to set at defiance a Government, and prevent my chief from attending to perform the duties of his office and move illegal coercion or violence towards towns. But if you were to believe I really had done anything deserving of dismissal, I trust that you and your friends will not set the example of a condemnation by acclamation, that you will give us the benefit of the lowest criminals, and ask to have the offences distinctly stated, and proved, and to allow the accused to answer before a Committee if no other competent tribunal. . . . It is declared however that we are universally condemned: that on account of our proceedings the public and the house condemns us. Now the house is I really believe a few members and the public Mr. Walter of the Times, the views of whose engineer I could not promote."²

Save an occasional polite acknowledgment, Chadwick had little to show for these attempts to touch the public conscience of his correspondents. He relied too much on arguments in detail, which might convince a man on one point, or convict him of an error in fact, but could not convert him to a principle. While, with his passion for legal exactitude, he was worrying how he could tell members of Parliament what really happened at the Board of Health on that fateful 30 January 1851, they were concerned about such general questions as the limits of central control. There was Newdegate, for example, who thought it at best a sometimes necessary evil; it destroyed self-reliance, and prevented capable individuals from exercising in their localities that amount of independent authority which afforded the only inducement to persons of the middle classes to act upon principles more generous than those of mere self-interest. In short, centralisation meant a loss of public spirit; and so, Newdegate informed S. H. Gael, he found it impossible to speak in support of Mr. Chadwick, the arch-centraliser.³

¹ E. C. to J. Hume, 23 July 1854.

² E. C. to E. B. Lytton, n.d.

³ N. Newdegate to S. H. Gael, 24 July 1854.

What particularly exasperated Chadwick was the charge that the Board had made themselves unpopular by their interference and tyranny—the Board, who had always been ready to assist the newly formed local authorities with all the technical skill and information at their command. It hardly showed want of confidence, he suggested to the member for Droylsden, when his constituents asked that Mr. Chadwick should go down and give them advice in person on their works.¹ He sent appeals to the more progressive Local Boards, to Woolwich, Hull, Penzance, York, Preston, and Lancaster, urging them to make known to their members and Lord Palmerston the friendly and helpful nature of their relations with the central Board.² He received a sheaf of testimonials in reply. "Where would our Sanitary affairs have been had you remained quiescent or willing to accommodate yourself to ignorance and prejudice?" asked the Rev. J. Clay of Preston indignantly; and he wrote a few days later to tell Palmerston his opinion that "by acting, to the best of our power, on the suggestions and advice of the General Board—we have—under Providence—hitherto escaped that terrible disease which has severely visited some Towns remarkable for their resistance to the recommendations of the General Board."³ The letters were comforting, but they had little echo in the Commons, where more attention was paid to the member for Totnes or the member for Marylebone than to some small-town engineer or the obscure chairman of a provincial Board. There were upwards of a hundred members, Chadwick estimated, who knew that, so far as their own constituencies were concerned, the charges of coercion were false, yet said not a word to vindicate the General Board. Lancaster, Barnard Castle, Ormskirk, Penzance, Wakefield, Woolwich, wrote strongly to refute the accusation;⁴ but Chadwick was hurt at the silence of most of the Local Boards. He heard later that

¹ E. C. to Charles Hindley, 9 July 1854.

² E. C. to William Dunn, 14 July 1854; Rev. Henry Brown, 20 July; E. H. Rodd, 21 July; George Leeman, 22 July.

³ Rev. J. Clay to E. C., 12 July 1854; to Palmerston, 22 July 1854.

⁴ William Dunn (Lancaster) to E. C., 13 July 1854; J. A. Kershaw (Ormskirk) to Lord ? (Palmerston), 20 July; Thomas Darke (Penzance) to E. C., 22 July; George Tanday (Wakefield) to E. C., 26 July 1854; George Brown (Barnard Castle) to E. C., 12 July 1854; Henry Brown (Woolwich) to E. C., 27 July 1854.

fourteen of them, and probably more, had spontaneously adopted resolutions and sent them to the Home Office.¹

As the end of July approached, Palmerston faced the possibility that he might lose his Amendment Bill. One sacrifice might save the Board, he thought—Chadwick's head. When the suggestion reached Shaftesbury's ears he wrote at once to offer his resignation, telling Palmerston that he must be held equally responsible for the conduct of the Board.² With a majority of new members on the Board, suggested Shaftesbury, the hostility of the public might abate somewhat, and Palmerston might then be able to retain the services of Southwood Smith during the cholera epidemic. But the Doctor loyally followed his colleagues, being reluctant, as Chadwick told Russell, to act with persons whose views and habits were unknown to him.³ When Palmerston rose, therefore, on the Second Reading of his Amendment Bill on 31 July, he held in his hands the resignations of all three members of the Board. Whether or not they took effect would depend upon the outcome of the debate.

Lord Seymour now delivered his second and more damaging attack.⁴ He dismissed in slighting terms the Board's work over the past six years. For London they had recommended "such a supply of water as could be scraped out of the sand of the Surrey hills"; the Metropolitan Commission of Sewers had resigned in a body rather than adopt Chadwick's tubular drains; the Board's reports, printed by the thousand, merely embodied the preconceived views of three or four prejudiced men. The Metropolitan Interments Act aroused his particular contempt. They had spent eighteen months and much money in collecting information, "or what purported to be information," on the interments question, the upshot of which was that no one was to die but the Board were empowered to pounce upon the body. "All the ordinary feelings of mankind were to be set aside, all the tender emotions of relations to be trampled upon, all the decency of mourning, all the sanctity of grief to be superseded, in order that the Board of Health might get their funeral fee." That the Act had passed was largely owing to the popularity of Sir George Grey, who had

¹ E. C. to F. O. Ward, 18 July 1855.

² Shaftesbury to Palmerston, 27 July 1854.

³ E. C. to Russell, 29 July 1854.

⁴ *Hansard*, vol. cxxxv, pp. 980-94.

asked him personally to see that it should come into operation without delay. At much personal inconvenience, therefore, he had remained in town that autumn, and had taken no vacation whatever, apart from a few days at a time, and these were spent in visiting places to which the Act was to be applied. A fortnight after Dr. Smith's appointment, he called on the Board. "He asked them, 'Well, gentlemen, have you got into order? and if so, what are you going to do? Have you made up your minds as to what shall be your first step?' 'Oh, yes,' said these gentlemen, 'we have made up our minds what we shall do.' 'What is that?' 'Well, we're going to Paris' . . . and the Board accordingly went to Paris, taking their secretary with them to write their letters and pay their bills." On their return he had objected to the employment of Paxton and Dr. Braun, and had felt his objection justified when the Exchequer had remonstrated with the Board for entering upon expensive arrangements without Treasury sanction. He had not attended all the meetings of his colleagues, who were in the habit of holding Boards every day some three or four minutes in duration. But he had gone to Gwydyr House on 30 January 1851 to tell them what steps the Treasury thought they should take to carry out the Interments Act. The Board read him a seven-page letter, in which they argued the point with the Treasury; and they then told him that his proposal was not seconded. True, Lord Shaftesbury had since denied that this was what had occurred; but "Lord Shaftesbury, speaking upon his honour, spoke, it was to be remembered, upon the information of the secretary—not having been himself present on the occasion—whereas he (Lord Seymour), having been present, spoke from his own recollection." After this episode he had stayed away, having "found by experience that it was to no purpose that he attended a Board where he was systematically overborne, while he could occupy his time to really useful public purposes in his own office."

Turning next to the Board's conduct in the localities, he asserted that it was against the principles of the constitution for a petition from one-tenth of the ratepayers of a district to bind the rest. Moreover, opponents in the locality had no power to test the genuineness of the signatures, and, in fact, the Inspectors refused to allow the inhabitants to see the petition. "The jobbing of the

Board of Health presented an amount of dirt which must be very startling to the clean party in question. . . . The whole thing was perfectly monstrous. Some engineer whom no one else would employ, or some medical man whom nobody would consult, would be anxious to have the Health of Towns Act applied to his district; he would then get a few signatures, and would send up his impartial suggestion that a particular place could not get on without the interposition of the Board; the Board, jumping at the suggestion, would forthwith send down one of its elect inspectors, equally craving employment, who would, on arrival at the luckless place of his destination, place himself in communication with the doctor or engineering adviser, who being the person who had communicated with the Board, would thus have acquired a *locus standi*; the united pair would then consult with the surveyor of the local board, whose opinion, seeing that he could only be removed by the central Board, would be sure to take only one direction, and, by this combination of powers, the principle of self-government was utterly violated under the constitution of the Board."

It is interesting to speculate on the working of Seymour's mind when he made these assertions, each with its small portion of fact economically admixed with a large amount of obliquity and suppression. In his limitations and assumptions Seymour is a type of a large and influential class, who, then and since, opposed the progress of social reform. The wildness of his accusations and the demonstrable inaccuracy of many of his statements lay him open to the gravest charges; but to explain his performance there is no need to postulate any deliberate falsehood, any planned and cold-blooded murder of the truth. It was not perhaps that he consciously cut and selected facts to suit his purposes, but rather that the facts were bent and patterned by the pull of a strong mind set in decided courses. The whole tenor of his thought was opposed to the Board of Health and what it stood for. A long process of conditioning by personal contacts in family and political relations had bred in him an aversion—so far removed from the sphere of reason that it might be termed instinctive—to the idea of interference with the business of the governing classes, whether that business was in the form of commercial undertaking or of local and central administration. He hated State interven-

tion, "the interfering with everything and everybody," as he called it, and at Gwydyr House he found himself associated with men who looked on such intervention as a duty. It was intervention, moreover, in matters whose importance he lacked the knowledge and the sympathy to appreciate in full. The technicalities of sanitation, the subject matter of sanitary investigation, were foreign to him; and, because foreign, diverting. He could scarcely repress his derision at the thought of a Board solemnly discussing the dimensions of earthenware sewer pipes or the construction of Reception Houses for the corpses of the poor. And, finally, he detested the members of the Board. They were enthusiasts. They stuck out for principles when they could have had an easier time by listening to the Treasury. Like one of the worldly-wise at a revivalist meeting, he was bored by their lecturing, resentful of their assumption of moral superiority, uneasy in the presence of their earnestness.

There was no one in the Commons sufficiently informed and sufficiently convinced to stand up to Seymour's onslaught. Many who heard him must have believed, like historians of a later generation, that he "spoke with authority because he had at one time been an ex-officio member of the Board."¹ Sir William Molesworth, the Board's official spokesman, did not open his mouth in their defence; and, if he had been willing, he knew nothing about the subject. When Shaftesbury rose to make his reply in the Lords, it was many hours later, after he had had time to see the reports in *The Times*. After Seymour's first attack he pointed out that Seymour had put in no more than seven appearances altogether at Gwydyr House, and that it was on the sixth of these that he made his proposition about metropolitan interments;² the impression given by Seymour that he had been driven away by the constant opposition of Chadwick and Southwood Smith was thus shown to rest on the slenderest foundation. The Lords gave him a sympathetic hearing when, after Seymour's second speech, he declared that there was hardly an assertion in it which might not be met by as flat a contradiction;³ but it had little effect on the Commons when he quoted the letter in which Seymour had stated that he would be unable to attend the Board

¹ J. L. and B. Hammond, *Lord Shaftesbury*, p. 166.

² *Hansard*, vol. cxxxv, pp. 236-8, 14 July 1854.

³ See Appendix.

without neglecting his duties at the Woods and Forests; or when he showed that the average attendances at the Board were not three or four minutes, but five, six, or seven hours, even ten during the cholera, and that his hard-pressed colleagues were obliged to take some of their papers home at night.¹

The crucial debate of 31 July, therefore, was a victory for Lord Seymour. A storm of hate and indignation burst over Chadwick's head. Before the fury of that general condemnation even his friends hesitated or were silent. His great public services were forgotten in an unreasoning gesture of revulsion. He was the bureaucrat and centraliser, who had sought to confine the liberties of the individual within the strait-jacket of a system; the ambitious careerist, perpetually intriguing for greater power and crushing without pity all who opposed his will. The legend was now complete.² And though his friends might comfort him with the reminder that Wellington had become a national hero after being pelted in the street,³ so long as Chadwick lived his character and ideas would never be entirely freed from the taint of that suspicion.⁴

¹ *Hansard*, vol. cxxxv, pp. 1079-83, 1 August 1854.

² The classic version is that given in the anonymous *Engineers and Officials*, 1856:

"In a word, Mr. Edwin Chadwick suggested the original inquiries; settled the plan of operations; marshalled, selected, and digested evidence; grew from secretary into a commissioner; issued rules, regulations, and maxims; chose his colleagues, his servants, and his witnesses, and in his official capacity, under the mantle of the Board, tried, condemned, and sentenced his opponents; and recommended the Board, that is to say, himself, for further powers, privileges, and honours. Never has the expedient of reiteration been so vigorously and unscrupulously used, page after page, volume after volume, pamphlet after pamphlet, speech after speech; the same reckless assertions are supported by the same fallacious evidence, selected and cooked for the occasion, and the same certain conclusions are arrived at, that is to say, that every city, town, and village may obtain universal health and a large income from the sale of sewerage on one sole condition—unquestioning, blind, passive obedience to the ukase, decree, bull, or proclamation of the autocrat, pope, grand lama of sanitary reform, Edwin Chadwick, lawyer and commissioner. . . . He was determined that the British world should be clean, and live a century, but on one condition only—that they consented to purchase the real patent Chadwickian soap, the Chadwickian officially-gathered soft water, and the true impermeable telescopic earthenware pipe, and when they did die, were interred by his official undertakers in the Chadwickian necropolis."

³ William Stuart to E. C., 19 August 1854.

⁴ When, two years later, a public subscription was being raised for Southwood Smith, the originators (Dr. Waller Lewis and R. D. Grainger)

On the following day Sir William Molesworth introduced a Public Health Bill, to constitute a new health department on the same lines as the Poor Law Board, comprising a President with a secretary and under-secretary. Edwin Chadwick was to be pensioned off with £1,000 a year.¹ In his letter of resignation to Palmerston, Shaftesbury had voiced with some bitterness his regret that their six years of intense labour, "productive, as will, hereafter, be seen, of great benefit to the country," had been rewarded with so much suspicion and calumny.² Chadwick was even more bitter. To endure the insults of the House of Commons was hard enough; they were made no more bearable by the thought of facing the future with an income cut by one-third—when if he had held an office abolished on account of its inutility he would have retired, like the Masters in Chancery, on a full salary. But the blow fell heaviest on the unoffending and uncompaining Southwood Smith, now sixty-six years of age, who, "without fault proved and indeed after extraordinary and successful labour is dismissed a ruined man without any compensation whatsoever."³

It would be some comfort if the Board fell into good hands. Lyon Playfair would be a great acquisition, Chadwick suggested, and the Inspectors would welcome him as secretary or chief executive officer.⁴ But the Government had decided that the capitulation was to be complete, and that to silence the critics they must be taken into partnership. Chadwick read with horror the announcement that the President was to be Sir Benjamin Hall, the voice of the Marylebone vestry, and the secretary Tom Taylor, the man who wrote lampoons for *Punch* when he should have been drafting bye-laws. It was "a huge imposture"—a President engaged ten hours a day in Parliament, occupied with the calls of society and his constituency, entirely ignorant of the business and with little time or opportunity to remedy his ignorance; he

decided to keep Chadwick's name off the Committee lest it "ruin the whole proceedings." "Moreover," Chadwick told Sir John Easthope (n.d. 1856), "they were of opinion that it was essential to the measure that it should be kept clear of the General Board of Health."

¹ *Hansard*, vol. cxxxv, pp. 1138-42, 1 August 1854.

² Shaftesbury to Palmerston, 27 July 1854.

³ E. C. to ?, 7 August 1854. He was later awarded a pension of £300.

⁴ E. C. to ? (Palmerston or Russell), 4 August 1854.

would inevitably be the "mere puppet of an intriguing secretary," whose knowledge was shallow and whose interests lay outside the department. For a time Chadwick thought wildly of a dramatic intervention in the forthcoming election contest in Marylebone, and even roughed out an address to the ratepayers, asking them to consider the strictures passed by the Lords on Hall's speech, and then go to the polls and give their votes as they would give a verdict before the country. He was denied this pleasure of seeing the usurper humbled by the judgment of the Marylebone voters, but fate dealt him satisfaction of a different sort. Very shortly after his appointment, as he watched the machinery Chadwick had designed and the men Chadwick had trained going to work in the cholera epidemic, Hall was confiding to one of the Inspectors that he was astonished to find how much there was to be done, and how much his derided predecessors had done; no three men, he observed, could possibly have worked harder.¹ "So far as I can judge," Dr. Sutherland told Chadwick, "the President seems quite disposed to make himself completely master of the sanitary subject, to avail himself of every means of information, and to take his place in the House at the beginning of next session, as a Reformer, resting his position on his own knowledge and observation, and ready to face any opponents who may appear. I may state in confidence, that both Mr. Austin and I are rather afraid of his going too fast, and raising the interests against him. It has indeed happened with him, as with every other person, who has taken any pains in the way of enquiry, that he is astonished at the magnitude of the evils with which he has to contend, while his sympathies appear to be all engaged in their removal."² And presently the "London Engineering Clique" was showing itself as dissatisfied with the new President as with the old Commissioners.³

Shaftesbury had found a fit text for the Board and their officers when they assembled for their parting dinner, in the shadow of public opprobrium and still smarting from the Parliamentary boot. "We are troubled on every side yet not distressed; we are

¹ E. C. to F. O. Ward, 26 April 1855.

² J. Sutherland to E. C., 11 September 1854.

³ J. Sutherland to E. C., 18 October 1854.

perplexed but not in despair, persecuted but not forsaken, cast down but not destroyed."

What thoughts passed through Chadwick's mind as he listened to Shaftesbury at that final banquet? Darkened with the bitterness of those last few weeks, they must yet have contained much to console and satisfy. A rest and a thousand a year had never been better earned. In the twenty-two years since Nassau Senior had introduced him into the public service, he had been engaged continuously in the diagnosis of social disease and the prescription of legislative remedies. He had been a major influence on three Royal Commissions of the first importance, and produced a series of State papers unequalled for the clarity and force of the administrative intelligence they displayed. Since its beginning he had been the heart and brain of the public health movement. His foresight had equipped the Registrar-General with authority to draw up the national balance sheet of sickness and death. From the Poor Law office he had guided the nation-wide inquest which paved the way for legislation. He had been the first to see as a whole the problems of municipal engineering, the interdependence of drainage, water supply, and sewage disposal. By the impact of his reports and the personal influence he had exerted on politicians and the leaders of outside opinion, he had in ten years educated the law-making classes to appreciate the issues at stake, and forced the first Public Health Act on the statute book. From Gwydyr House, with an inadequate Act, he had done what he could; and it is just to say that in his single-minded pursuit of the public welfare, and the fertility of his projects for social betterment, he had done more than any other man of his time would have had the courage, the ability, and the toughness to attempt.

Throughout these years the motive principle of his social philosophy was the "Sanitary Idea," the conviction that the wretchedness and ill-health laid bare by his investigations were preventable; while the characteristic element in his administrative theories was the assertion that this could be done by Government, the perception that the organised power of the State was a tool which could be sharpened and applied to the shaping of the social environment. To the men of his day his exposition of distasteful facts, with a brutal insensitiveness to the feelings of the respectable

interests concerned, was like surgery without anæsthetics. And the remedies he prescribed—the inspection of factories and mines, the regulation of building, the control of noxious trades, the recognition of employers' liability for workmen's accidents, the public ownership of railways and water supplies, the extension of Whitehall's authority into the localities—together constituted a confining system of rules and restraints which freedom-loving capitalists and Corporations regarded with horror, and for which they could find no greater condemnation than to trace it back to its un-English origins. On these questions the balance of opinion has radically shifted, and it has shifted in favour of Chadwick. A generation accustomed to Government intervention on a scale he never dreamed of will find little to shock in his centralising theories and will ascribe the outcry against the General Board of Health less to the violence of a doctrinaire department than to the restiveness of local authorities under an unfamiliar curb. In an age of municipalised gas and water and transport, of nationalised railways and coal-mines, of Ministries of Health, Labour, and National Insurance, of public Boards administering services as diverse as broadcasting and airways, the voices of the champions of *laissez faire* and private enterprise speak with diminished assurance and authority. It has been Chadwick's misfortune, however, that he has continued to be seen through the eyes of hostile contemporaries and judged by their standards. His reputation would rank higher if later historians had examined their witnesses and allies more closely, and asked whether in fact a George Lewis or a Lord Seymour stood for a more enlightened and humanitarian administration. Chadwick has been further unfortunate in that, of all his work, it is the Poor Law which is best remembered and which his name first calls to mind. It is not generally realised, first, that the maimed and partial measure of 1834 embodied only part of the broader schemes of preventive administration he had begun to plan; and secondly, that his years as a subordinate at Somerset House formed a less valuable episode in his career than his years as the controlling mind of the General Board of Health. For this reason, perhaps, he arouses in the authors of the "Minority Report on the Poor Law" of 1909 an antagonism one would not expect from the authors of the "London Programme" of 1892.

He lived thirty-six years after his retirement, busy, useful years, in which he played a prominent part in spreading the gospel of sanitary and administrative reform. We catch characteristic glimpses of him from time to time—quietly informing the Aberdeen Town Council that the normal death rate of their city was 14 not 24 per thousand; instructing Louis Napoleon in the virtues of sewer manure, and telling Bismarck how to spend the millions of the French indemnity by improving the towns of Germany; giving evidence to the Newcastle Commission on the effects of physical training in the half-time schools; contesting without success the University of London seat and three or four others; playing with new-fangled notions, overhead railways, the American writing machine, tricycles for policemen, ventilation towers for the great towns. He talked and wrote without rest, addressing the British Association on the benefits of competitive examinations, and the Social Science Association on the military lessons of 1870, and discussing at the soirées of the Society of Arts anything from irrigation in India to the best methods of constructing a school; turning out correspondence and pamphlets inexhaustibly, letters to *The Times* to urge an omnibus monopoly for the metropolis, memoranda to Mr. Gladstone on the advantages of a uniform cheap telegraph service, papers for Florence Nightingale on the health of the army in India. And near the end, when he was very old and forgotten, and his political friends were all dead or as forgotten as himself, we find him trying to persuade Lord Salisbury to get him a peerage. The Chairman of the Metropolitan Board of Works went to the Lords, he complained, but there was no official recognition of the services of the greatest of the sanitary reformers. Not till a few months before his death was he granted his delayed and disproportionate honour. "Had he killed in battle as many as he saved by sanitation, he would have had equestrian statues by the dozen put up to his memory."¹

We leave him as the writer of *The Times* obituary remembered him at the Athenæum, his "benevolent and leonine face, wrinkled with the lines of thought, and surmounted by the black skull cap"—his features wearing "an expression of severe complacency."² And why should he not be complacent? His countrymen had

¹ *Daily News*, 7 July 1890.

² *Times*, 7 July 1890.

good reason to thank him. He had played the chief part in founding a new and beneficent department of Government. More than any other individual he had been responsible for civilising the life of the great towns. Owing nothing to wealth or birth, by sheer indefatigable industry and ability he fought his way to a unique place in British administration. He did not enter a field of Government activity where he did not introduce some fertile idea or strengthen, with observation and experience, some proposition already advanced. It is true that while he was in Whitehall everything he touched seemed to crumble in his strong, clumsy hands into inertia and frustration and failure. In part that was due to his personal defects. To the end he remained an immense, tireless dynamo which it was difficult to harness. But his failures were the result less of his faults than his virtues—the courage that did not fear to challenge accepted principles, and the devotion to public duty which would not compromise with overmighty interests. It was the recompense for many disappointments, and the reward for his unquenchable optimism, that he should live to see the current of the age turn with him, and his enemies at the last confounded.