# CONTAGION, ISOLATION, AND BIOPOLITICS IN VICTORIAN LONDON

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# Contents

# Abbreviations

| | |
|---|---|
| AMO | assistant medical officer |
| LFH | London Fever Hospital |
| LGB | Local Government Board |
| MAB | Metropolitan Asylums Board |
| MBW | Metropolitan Board of Works |
| MOH | Medical Officer of Health |
| MRDRA | Medical Relief Disqualification Removal Act |

## Newspapers and Journals

| | |
|---|---|
| BJN | British Journal of Nursing |
| BMJ | The British Medical Journal |
| BMM | Borough of Marylebone Mercury |
| CKTG | Camden and Kentish Towns Gazette |
| CKTHHSPG | Camden and Kentish Towns, Hampstead, Highgate, and St. Pancras Gazette |
| CNWLP | Chelsea News and West London Press |
| ELO | East London Observer |
| HHE | Hampstead and Highgate Express |
| HKG | Hackney and Kingsland Gazette |
| ILN | The Illustrated London News |
| IPN | The Illustrated Police News |
| JRSI | Journal of the Royal Sanitary Institute |
| JSI | Journal of the Sanitary Institute |
| JSM | Journal of State Medicine |

| | |
|---|---|
| MTG | Medical Times and Gazette |
| MP | Medical Press and Circular |
| PH | Public Health |
| PMG | Pall Mall Gazette |
| PRSM | Proceedings of the Royal Society of Medicine |
| SPGCKTR | St. Pancras Guardian and Camden and Kentish Town Reporter |
| TEWHNMA | Tottenham and Edmonton Weekly Herald and North Middlesex Advertiser |
| TESL | Transactions of the Epidemiological Society of London |
| TNAPSS | Transactions of the National Association for the Promotion of Social Science |
| TSIGB | Transactions of the Sanitary Institute of Great Britain |
| TSMOH | Transactions of the Society of Medical Officers of Health |
| WCN | Westminster and Chelsea News |
| WLO | West London Observer |

## Government Reports

| | |
|---|---|
| [District] MOH for [Year] | Annual Reports of the Metropolitan Medical Officers of Health were published by respective Vestries and District Boards of Works. These had various titles and I have standardized them to this citation format. Most are collected at the Wellcome Trust Library, although some are still only available from Local Studies Centres operated by the districts' successor London Boroughs. |
| RCSFH | Report of the Commissioners Appointed to Inquire Respecting Small-pox and Fever Hospitals: With Minutes of Evidence and Appendix (*London: H.M.S.O., 1882*) |
| RSCCFL | House of Commons, *Report from the Select Committee on Contagious Fever in London* (*London, May 20, 1818*). |
| SCHFSH | House of Commons, *Report from the Select Committee on Hampstead Fever and Small Pox Hospital; Together with the Proceedings of the Committee and Minutes of Evidence* (*London: H.M.S.O., July 27, 1875*). |
| SRSCHLMH | House of Lords, *Second Report of the Select Committee of the House of Lords on Metropolitan Hospitals* (*London: H.M.S.O., 1891*). |

## Archival Sources

| | |
|---|---|
| LMA/MAB | London Metropolitan Archives, Metropolitan Asylums Board |
| LFHCM | *London Fever Hospital Committee Minutes*, Royal Free Hospital Archives Centre, Hampstead, London [LFH/1/C/4] (accessed March 2004) |
| LFHAR | *London Fever Hospital Annual Report*, Royal Free Hospital Archives Centre, Hampstead, London [LFH/1/C/1] (accessed March 2004) |

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CHAPTER 1

# Isolation, Liberalism, Biopower

In 1887, an unsigned article in *The Globe and Traveller* depicted the typical experience at an isolation hospital operated by the Metropolitan Asylums Board (MAB): "It requires a certain amount of courage when, after a few days of headache and depression, your doctor announces that you have scarlet fever, to take his advice and consent to be removed to the fever hospital." You have your family to think about though, and so the ambulance is sent for. Dressed in hospital garments, you are carried downstairs in a stretcher to a waiting ambulance, a nurse jumps in, and immediately you are "off through the streets." You recall being miserably sick for the first few days in a large scarlet fever ward, not a single private room being available. "The fever gradually abates, however; your nerves become less irritable, and you begin to watch all that goes on in the ward with interest." A medical student from St. Bart's in the next bed criticizes the nursing at every step. The other patients are a very mixed lot, but you are able to strike up friendships over common complaints; yours is the want of readable books (the hospital oddly being chock-full of "semi-religious rubbish and dirty French novels"). Visitors are not allowed unless you turn dangerously ill, and therefore "the feeling that you are either in a gaol or a lunatic asylum gradually grows upon you." Toward the end of the period of confinement, the subject of "peeling" occupies your mind. The lucky scarlet fever convalescent will expel the flaky rash in about six weeks and, knowing you will not be allowed to leave until this process is complete, you seek to hasten the process by scrubbing yourself with pumice stones and rough towels until raw



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all over. Finally, passing out through the hospital's iron gates at the end of this ordeal, you may take heart that your healthy family awaits you—"health which you probably secured to them by your timely flight from their presence."[1]

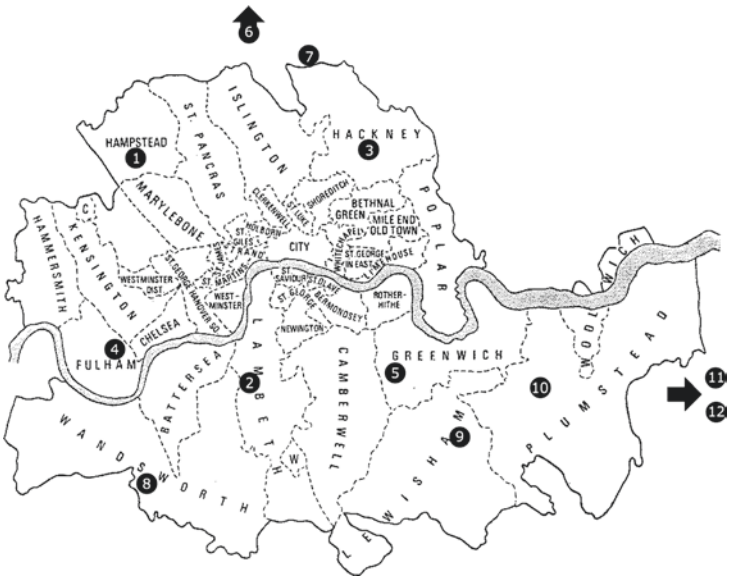
The journalist does not attempt to completely own the experience, and the second-person voice has the effect of inviting readers to place themselves in the hospital. Although it certainly may have been to some extent worrisome, the proposition of submitting to a period of isolation could not have been entirely strange in 1887, and the author makes it seem like an ordeal for which nearly everyone might do well to prepare. In fact, the author of the piece was Honnor Morton, a young hospital-trained nurse from a privileged background just starting to make a name for herself as a writer and activist in a number of causes.[2] Morton's short stories—mostly sketches of hospital life populated with nurses, doctors and patients—are strikingly backgrounded with figures of disease and suffering. They drive home the devastating extent to which infections like typhoid and scarlet fever were still relatively commonplace and amounted to a significant cause of death in London. Her piece for *The Globe and Traveller* is likely based on her own bout of scarlet fever in about 1887. "It was so ugly and lonely at that fever hospital," she recalls in a semi-autobiographical journal published years later. For Morton, the disappointment was an initiation to stark social realities that would mark her career in district nursing and an all-female settlement house in the East End slum of Hoxton. Another of her short stories involves the intense anxiety caused by a lack of vacancies for fever victims.[3] Typical of the intersection of socialism and feminism in her day, Morton also could be highly critical of the authority wielded by doctors. She wrote, for instance, about the dehumanization of women in the course of ordinary medical examinations, but made this an argument in favor of the municipalization of all hospitals.[4] A recurring theme in Morton's writing is isolation: personal, emotional, and institutional. While these appeared often as negative and limiting, it is worth noting that forms of separation also become in her stories (as in your sojourn at the fever hospital) the positive means of ordering life, safeguarding others, and realizing broader purposes.

Morton's little story touches upon the significant transformation of the hospital landscape in Victorian London—a transformation that structured in very powerful ways the individual experience and public regulation of infectious disease. She perhaps simply perceived a little

more intuitively than others at the time just how importantly *isolation* integrated one's individual performance as a central component of that governance. Sanitary detention and confinement was in the middle of a contentious process of becoming another mundane part of urban residence. Indeed, being shunted off to the infectious disease hospital for several weeks was soon no longer a necessarily extraordinary event. An epidemic did not need to be raging—it was a measure intended to manage the normal prevalence of urban contagion. When Morton's story appeared in 1887, the MAB had been in existence for two decades; it now operated nine fever and smallpox hospitals with a combined capacity of nearly 5000 patients. The MAB hospitals had originated as a collection of rickety sheds for sick paupers but rapidly grew into an adept network of specialist hospitals and ambulances for all Londoners. By 1903 it possessed fifteen hospitals and over 9000 beds (Fig. 1.1). Between 1870 and 1900 the MAB took in a total of 307,840 patients suffering from smallpox, scarlet fever, diphtheria, typhus, and typhoid. At the end of this period the fever and smallpox hospitals were receiving at least 25,000 Londoners per year. "No student of disease, or even of sociology, can fail to watch the work of the Metropolitan Asylums Board," remarked *The Lancet* in 1897.[5] Hospital isolation had emerged as one of the most common ways that ordinary persons came into contact with state medicine.

We can legitimately speak of a "great confinement" of infectious patients in London in the last decades of the nineteenth century. Yet this did not generally correspond to a great rise of epidemics. In fact, just the opposite: many of the most feared contagions like typhus and smallpox were rapidly fading into metropolitan obscurity. Others like scarlet fever and typhoid were as prevalent as ever, but actually declining in average deadliness. One writer surmised that fifty years earlier an edict for the removal of fever and smallpox patients from their homes would have met with "the most determined resistance." Nothing of the sort was needed now, he happily concluded, because

> … even among the most ignorant and suspicious of the London poor, these hospitals are mentioned with gratitude. The little patients are entrusted to them by the parents with unbounded confidence, and stories of kindness and real sympathy exhibited are related no less cordially when the disease has proved fatal than when the patient has been restored in full health to his friends.[6]




| | Fever and Smallpox Hospitals[1] | Location | Year Opened | Acreage in 1908 | Beds in1908 |
|---|---|---|---|---|---|
| 1 | Hampstead (North-Western)[2] | Hampstead | 1870 | 12 | 460 |
| 2 | Stockwell (South-Western)[2] | Stockwell | 1871 | 8 | 339 |
| 3 | Homerton (Eastern)[2] | Homerton | 1871 | 9 | 368 |
| 4 | Fulham (Western)[2] | Fulham | 1877 | 13 | 452 |
| 5 | Deptford (South-Eastern)[2] | Deptford | 1877 | 10 | 488 |
| 6 | Northern | Winchmore Hill[3] | 1887 | 35 | 738 |
| 7 | North-Eastern | Tottenham | 1892 | 33 | 662 |
| 8 | Fountain | Tooting | 1893 | 10 | 405 |
| | Grove | | 1899 | 22 | 518 |
| 9 | Park | Hither Green | 1897 | 19 | 548 |
| 10 | Brook | Shooter's Hill | 1896 | 29 | 568 |
| 11 | Temporary Smallpox Encampment | Darenth, Kent[4] | 1881[6] | ~ | ~ |
| | Gore Farm, Upper Hospital[5] | | 1887 | 160 | 922 |
| | Gore Farm, Lower Hospital[5] | | 1902 | | 610 |
| 12 | Hospital Ships(*Atlas, Endymion, Castalia*) | Dartford, Kent[4] | 1881[7] | ~ | ~ |
| | Joyce Green | | 1903 | 315 | 940 |
| | Orchard | | 1902 | | 800 |
| | Long Reach | | 1902 | 8 | 300 |

1 Does not include temporary hospitals
2 Hospitals renamed in 1883
3 Located outside metropolitan district, 9 miles north of central London
4 Located outside metropolitan district, 18 miles downstream from central London
5 Renamed the Southern Convalescent Hospital after 1908
6 Began as Smallpox Encampment in 1884
7 Disused in 1903

**Fig. 1.1** Hospitals of the Metropolitan Asylums Board

Even allowing for the usual amount of journalistic exaggeration, how could this have come to be? Londoners were asked to enter isolation, and eventually did so without very much fuss. They made themselves available to health authorities, allowed their bodies to be counted among the dangerously sick, and became liable in entirely new ways to bureaucratic structures of health management. As this book is about governance, health, and institutions, it will ask what policies, discourses, and materialities contributed to making the isolation hospital a constant possibility. As it is also about liberalism, the following chapters will enquire as to how the objectives of public health were determined by the sort of relationships that could be forged between institutions of sanitary governance and the persons who were to be sanitarily governed.

London's surprisingly extensive archipelago of hospital isolation was in some ways clearly an epitome of the bureaucratic state and its regulation of life. But this book is also interested in examining how that form of infectious disease control depended upon and in turn supported the conception of a self-governing citizenry. *The Times* was just one of a number of outlets that believed the successful mitigation of disease by hospitalization could "only be carried into effect by the intelligent cooperation of the public."[7] According to another writer, the isolation hospital provided an opportunity for practicing equal treatment in the face of a force of nature. The "dreams of democracy," he concluded, seemed to be "very nearly translated into fact by the strange bedfellows with which fever may nowadays make men acquainted." He reported that on a recent day one MAB ward contained a prosperous traveler who had been staying at the Hôtel Cecil and another person from a slum in Whitechapel.[8] Clearly, what at first glance might seem an enormous carceral arrangement for the detection, detention, and discipline of unruly bodies and social outcasts might be, upon any closer inspection, much more complicated and intriguing. This novel apparatus of health security transformed essentially all bodies into potential infectious threats, subject more or less to the same techniques of separation. A key goal of health authorities was to get the public to accept and even expect treatment for infectious diseases in such institutions. Isolation was a form of detention and confinement—but it was not always a lonely spot of exile or a place for stockpiling and forgetting society's outcasts.

This is not to say that the rise of hospital isolation was not controversial and disruptive in a number of ways. To be sure, it was viewed as potentially intrusive to the liberty and status of the individual and

the sanctity of the private home. The expanding network of hospitals undoubtedly contained more than a hint of incarceration, and never completely dispelled the strong punitive aroma of restraint, discipline, and control. And yet, in the end the isolation hospital was not incontestable. In fact, it was always actually highly contested, and London provided the biggest and most consequential arena for debates about the political control of contagion. This book suggests that this very contestability exemplifies the tensions existing between social regulation and the liberal state. As a policy, isolation generated friction around the aims and means of government. It served on the one hand as an epitome of liberal strategies of urban administration. The MAB hospitals, however, also epitomized the multiple points of conflict between that liberal order and the instruments of security that it used to define the city as a vital sphere and to seek to guarantee its existence. Mass hospitalization of this sort provided a model for intervening upon natural processes that characterize what we will call the "liberal biopolitics" of metropolitan governance.

Today, fever and smallpox hospitals have been largely forgotten as a common feature of sickness in late nineteenth- and early twentieth-century British cities. Hospital treatment is still also mostly overlooked and neglected in many histories of urban health governance. Gwendoline Ayer's very thorough administrative history of the MAB was published way back in 1971, with very little work focusing on London since then.[9] More recently a handful of valuable studies have considered hospital isolation in the context of British public health, and touch more or less upon the challenges and opportunities for governing health. Graham Mooney's detailed examination of late Victorian sanitary regulations reveals local health managers careful to balance the intrusiveness of municipal hospitals against the imperatives of civic reform and citizenly self-help. Isolation presented a difficult and persistent challenge to liberal principles, Mooney concludes.[10] A similar conclusion is reached by Tom Crook, who sees isolation hospitals forming an important part of wider systems of health governance that, while potentially expansive in their powers, were reigned in and made broadly compatible with the liberal political culture of Victorian cities.[11] These themes occur also in Alison Bashford's work on Australia and forms of border quarantine and interior disease management adopted at the turn of the twentieth century.[12] Interestingly, another location examined closely by a number of scholars is San Francisco, which has a particularly rich record of contentious

decrees, quarantines, and border controls that serve to intersect urban history with critical studies of international migration and race.[13]

Still, there has been no sustained analysis of the place of hospitalization within the broader narratives of public health and urban history. The first need is to historicize isolation as a strategy for managing population health—a strategy that was something still substantially new in the mid- to late-Victorian period. The separation of contagious persons had no doubt been practiced from time immemorial, but to doctors and health officials at the end of the century (and perhaps to patients as well), the isolation hospital bore little resemblance to the lazaretto, quarantine station, pest-house, or charitable fever hospital of earlier times. It was also a characteristically British institution. Nowhere else was the task of maintaining special sanitary hospitals followed through on the same scale or with equivalent thoroughness. All of this was the product of the final third of the century, and followed upon the more well-known, "heroic" era of sanitary reform and its scheme to prevent disease by preserving the integrity of the airs and waters. Fever and smallpox hospitals started to emerge in Britain on a large scale in the 1860s, and were first deployed as extemporized measures and charity to the poor. The need for infectious hospitals initially posed something of an embarrassment to local officials, but nonetheless quickly became a key infrastructural focus of urban public health. This was especially true in London, which, besides being the capital of nation and empire, also served as the foremost international center of isolation practice. A correspondent to *The Times* observed in 1888 that "while Englishmen go by hundreds to Edinburgh, to Berlin, and to Paris to study medicine and surgery, it is to London that doctors and sanitarians flock from all parts of the world to study the working of the infectious hospital system."[14]

The MAB's fever and smallpox hospitals profoundly re-spatialized contagious disease in London and fundamentally altered it as a natural and political feature on the urban landscape. They also transformed the experience of sickness and endowed medicine with new abilities and duties to intervene upon epidemics. The system of isolation both produced knowledge of disease as well as organized increasingly detailed knowledge of the city and its inhabitants. It necessitated a constant assessment of hospital needs and effects, which had the consequence of mapping the metropolis itself in new ways as a domain of analysis and preparation. It is crucial to consider how these developments affecting a

*natural* phenomenon at the same time describe a *political* technology. A generation of historians has taught that diseases and epidemics are never simply natural events, but episodes weighted with deep social, cultural, and political significance. This is entirely right and reasonable. It would be inadequate and problematical, Margaret Pelling convincingly notes, to regard contagion as a purely medical concept.[15] Ideas of contamination have incessantly structured societal conceptions of inside and outside, belonging and non-belonging, as classically argued by Mary Douglas.[16] The challenge is to pinpoint the places and ways that the "naturalness" of *catching diseases* has been incorporated as an essential part of modern government—or, in other words, how contagion has been captured and constituted as a field for governing.

This book examines how hospitals structured some of the ways that people in Victorian London were governed—and rendered themselves governable—in the name of controlling contagion. One of its overarching arguments is that hospital isolation helps illuminate the productive friction between liberalism and efforts to leverage biopower. Indeed, hospital isolation bore the imprint of the century's debates over border quarantine, medical police, and emergency sanitary interventions. It also raised some of the thorniest questions about the relationship between being a medical subject and a political subject. In seeking the removal of persons from their homes to hospitals, sanitary officials were helping to redefine the status of the sick individual in the eyes of the state. They were also interpolating concepts of public danger, private risk, and individual culpability. The rising importance of hospital treatment underpinned the ways that doctors and health administrators could measure, assess, rationalize, and resituate the hazards of disease. Here was a system that sought to manage the fear of infection, but that also depended itself upon those same fears. It introduces a long set of questions about the place of fear in liberal systems of security—systems that sought to make the population's liability to contagion knowable and to judge how normal risks might be amenable to the public and modified by its conduct. Hospital isolation thus spoke to how the government of the body and the self could be incorporated into the government of the city.

This approach involves bringing new questions to the history of hospitals. Scholars of nineteenth-century hospitals have primarily considered how these institutions perform as a technology of the body, supporting the development of medical knowledge, technique, authority, and professionalization. This book is more concerned with asking how, deployed

against the problem of governing epidemics, hospitals also become part of an apparatus for knowing and treating the *social body* (and even more importantly, as we shall see, the *population*). This cannot be separated entirely from another concern, mainly how hospitals have been sites for articulating the complex negotiations between medical power, civil society, and sick individuals. Modern hospitals are undeniably places marked by profound asymmetries of power—not least between doctors and patients. They are often portrayed as quintessential "total institutions," walled off from public oversight and concentrating the most oppressive forms of internal surveillance, control, and discipline. Several important histories of hospitals have explored these associations and for the most part found this caricature wanting—or at least insufficient to explain the full terrain of power that the hospital encloses.[17] This has been especially the case for Britain, where the liberal tradition required extraordinary justifications for institutions practicing exceptional control. Still, when agency on the part of inmates is explored, it is usually framed as an instance of resistance or contestation against overbearing power. It is not generally considered that the independence of the inmate might also be an instrument in the rule and governance of the hospital. Could we also see hospitals as sites at which individuals and the public are trained to shoulder the burden of governing society's health?

These questions require us also to reframe the political meaning of state interventions historically deployed against contagions and epidemics. A substantial historical literature stresses the disruptive effects of terror, panic, foreboding, dread, and disgust, which incline toward stigma, moral judgmentalism, and xenophobia and which result in ill-considered measures of ostracism and expulsion.[18] The dominant chord in most histories of epidemics is that of crisis and tense desperation, their moral tone either practically biblical or Gothic. They have at their narrative center the several measures used to distance the sick and the infectious, to keep them outside and fully separate. The standard storyline of an epidemic is one crowded with drama and extraordinary occurrences. The town in the grip of a deadly epidemic is ruled by visceral emotion, where fear impedes rational government and produces either haphazard measures at best or chaos at worst. This interpretative framework is probably most pronounced in the public health policy and sociology literature, which (ironically) frequently goes out of its way to stress the "deeper emotional and broadly aggressive character" of measures like isolation and quarantine.[19] No doubt part of this is due to the pointed lessons

drawn from the startling emergence and resulting strife of HIV/AIDS in the 1980s. Just to take one example, it suffuses Gunter Risse's account of the arbitrary and intense segregation of San Francisco's Chinatown during a plague outbreak in 1900. It is the lens through which he also views the very deplorable condition of the city's pest-house, which provided an all-seasons dumping ground for leprous Chinese, syphilitic prostitutes, and indigent tuberculars from the 1880s to the 1920s. He writes at length, and quite sensibly, of how the politics of fear and ignorance has a "propensity to ride roughshod over human rights."[20] This general line of approach is however often accompanied by another narrative: that abuses derive from being trapped within an historical field of scientific ignorance. That narrative seems to suppose, and sometimes explicitly states, that tempered and more humane government of disease comes only from the better and more accurate knowledge of disease.

The sudden appearance of isolation hospitals and allied institutions of disease regulation typifies, in a Weberian sense, "the tendency for ever larger spheres of social life and institutions to be brought under a unified and coherent system of rationalization and administration."[21] This is in some ways related to a "social control" school of analysis, which sees the impulse to multiply spaces of detention as an outgrowth of the desire to stabilize the material and moral order. Clearly too, as a great number of historians have shown, the expansion of medical authority and professional stature in the nineteenth century was irrevocably yoked to certain social goals that involved policing the boundaries of belonging. Amy Fairchild's study of American border medical inspection, for instance, argues that practices of screening immigrants for disease served to "discipline the labor force." This finely tuned tool for thwarting admission to the nation operated as a means of facilitating inclusion and defining the terms of assimilation.[22] On the other hand, hygienic separation and segregation have proven endlessly useful for bluntly ordering perceptions of "others" and legitimating their further exclusion. Nayan Shah, among others, details how San Francisco's Chinatown and Chinese immigrants were traversed, mapped, and cordoned by a powerful range of medical inspection and judgment. Susan Craddock uses Lefebvrian notions of the "social production of space" to explore how racial deviance in San Francisco was medically diagnosed, contained, and controlled.[23] The regulation of prostitution throughout the British Empire is another well-examined example of how Western methods of sanitary surveillance and arrest were exported around the world and adapted to local

circumstances, always in service to metropolitan needs.[24] Also, a growing historical literature looks at how the establishment of leper colonies in "exotic" locales in the nineteenth century relied upon and furthered the medical construction of leprosy as an antiquated and atavistic hazard to European civilization.[25]

In the typical constellation of ideas about historical epidemics, there is therefore a strong assumption that these natural events inevitably bode poorly for human freedom and that they strengthen the meshes of authoritarian power and bureaucratic controls.[26] Contagion seems to necessarily imply overriding normal considerations of deliberation, proportionality, and measuredness. The nature of "catching" diseases conjures a terrible excess of authority, exceptional formal controls, and unusual governmental license to suppress and forestall. It also, and perhaps to the same extent, gives rise to fantasies of domination and mastery. Hence the succession of new sites and geographies of disease control—lazarettos, quarantine stations, bills of health, shut-up houses, pest-houses, lock hospitals, sanitary cordons, concentration camps, and immigrant processing centers. Forestalling the plague becomes far too modest a prospect, and thus in the modern era the naturalization of epidemics and their control has almost always been accompanied by the promise (or at least the possibility) of total victory: eradication.[27]

There are many obvious, overt, and negative political uses to which epidemic disease has been put. This book however seeks to place the London isolation hospitals at another intersection of epidemics and governance. It asks: What is the political rationality that eschews eradication in favor of management, and what are its tactics? How has fear of disease been included within and used to support liberal strategies of control? Why did these spaces of institutional detention ultimately require political legitimization and public participation? What definitions of threat and practice allowed these hospitals to become not simply instruments for the regulation of the destitute and downtrodden, but mechanisms of a healthy society that worked upon the whole population?

A key and influential line of approach in the history of institutional detention and management has been Michel Foucault's account of "panopticism" and disciplinary modernity.[28] Foucault provocatively argued that in the eighteenth and nineteenth centuries the body became both the object and subject of a modality of power he called *discipline*. The hospital shared some key epistemological principles with other institutions of confinement and inspection like prisons, asylums, work camps,

schools, and workhouses. Most famously, this disciplinary power was distilled within the specific architectural features of Jeremy Bentham's Panopticon. Discipline carefully structures and determines time, space, gazes and hierarchies. In contrast to the powers of law, sovereignty and prohibition, its enclosed, carceral rationality of power was rooted in an "anatamo-politics" of knowing, training and normalizing individual bodies. And whereas the juridical subject had been constituted in law and in right, the disciplinary subject was produced by material forces and visibilities. Discipline proceeds from and requires a specific enclosure of space. Bentham's Panopticon was never built, it is true. But according to Foucault, the scheme exemplified and modeled a generalized apparatus of control that eventually hybridized, proliferated, and colonized all aspects of social life. *Discipline and Punish* presents a bleak vision of modern society completely traversed by numerous structures more or less embodying visual domination and surveillance, and producing docile subjects. And no doubt a remarkable proliferation of institutions to manage criminality, mental abnormality, sexuality, and epidemicity on a large scale took root in the nineteenth century.

As Stuart Elden and others have argued, Foucault's theorizations of discipline evidently owe more to early modern models of medical police, public health, and quarantine than has been appreciated.[29] The key precursor institution was the "plague town." The beginning of Foucault's chapter on panopticism in fact begins with a synoptic description of the "emergency plans" drawn up by jurists for cities in the grip of great epidemics. These invariably featured numerous and intense measures of surveillance and control. All people would remain at home and present themselves for view at appointed times. Affected houses would be shut-up, guarded, and systematically purified. The town itself would be re-precincted for patrols that look for infractions and mete out summary punishments. This constant oversight would produce detailed reports and statistics, useful for both tracking instances of infection and also gaining a sense of the overall situation. The desire was to compartmentalize the population, to impose a multiplicity of quarantines, and to understand what was happening at all times from a central position.[30] Foucault places the plague town at one end of a basic political genealogy. Previously there were health measures pertaining to lepers and similar outcasts; by the eighteenth century plague replaces leprosy as a model of political control. "The leper and his separation; the plague and its segmentations. The first is marked; the second analysed and distributed."

Whilst "the leper gave rise to rituals of exclusion … the plague gave rise to disciplinary diagrams" of inclusion and positive organization.[31] The leper was the target of the sovereign's negative power and right to ban, exclude, disqualify, exile, deprive—an effect of refusal and incomprehension. The plague victim instead was the object of rigorous regimentation and examination. It is important to stress the diagrammatic nature of this contrast. Epidemics provided the opportunity for hypothesizing the possibilities of power. As Foucault writes elsewhere, much of the imaginative literature of epidemics is "a kind of orgiastic dream in which plague is the moment when individuals come apart and when the law is forgotten." The statist literature produces another fantasy: "a political dream in which the plague is rather the marvelous moment political power is exercised to the full."[32]

Is the plague town, then, the model of medical power in the modern age? We are immediately confronted by an unavoidable problem. On the one hand, the plague town was inconceivable in the liberal nineteenth century and it quite simply falls far short of describing anything close to how public health mechanisms were instituted in Britain. It was definitely not the Victorians' "utopia of the perfectly governed city."[33] On the other hand, modern administrative spaces of separation, detention, and confinement are found in abundance in broadly democratic societies that place great value on formal markers of freedom. Indeed, while institutions of exclusion must no doubt be considered hallmarks of authoritarian rule, they have in most cases originated, developed, legitimated, and been perfected by liberal governments. So what happened to the plague town? And what relationship did this model have to nineteenth-century liberal societies and their mechanisms of isolation?

Foucault was not the first (nor even the most incisive) critic of how the architectures of enclosed discipline are a constant presence in the most "free" societies. It seems that isolation, writ broadly, must actually be considered a key feature of liberal democracies' historic tendency to apply methods of spatial containment and segregation, as a means of both denying rights and citizenship in some places as well as bestowing them disproportionately in others. As Uday Mehta puts it, the history of Western empires epitomizes nothing less than the selective universality of liberalism and betrays its impulse toward "strategies of exclusion."[34] These practices marked out groups believed to be incapable of rational action and self-control—women, children, the pauper class, the criminal element, the insane, the colonized—and brought them closer to the

center of rationales for governance as protection. In a collection of historical essays on isolation, Alison Bashford and Carolyn Strange note that "practices of exclusion proliferate over the modern period, precisely when legal and political concepts of 'freedom of movement' and 'liberty' were invented and inscribed." The spaces of confinement themselves "[sit] squarely inside classic liberal problematics of rights and obligations, wherein personal liberties and public benefits are constantly calibrated." Thus systems of institutional detention were not only justified by the general ideological commitment to freedom, but often seen as central to its operation. Isolation "was not an aberration from liberal government, but central to its internal logic."[35] This involved a deep reticence on the one hand toward the powers of detention but an equally strong desire on the other hand to determine their appropriate limit and applicability. In this context liberalism both enabled a language of protest and resistance to illegitimate confinement (at mental asylums, quarantine facilities, workhouses, prisons, etc.) and at the same time validated the basic rationale of state-instituted confinement.

Another strand in a very large scholarly field links these institutions to the fact that that the health of the population emerged as an imperative of governments. After *Discipline and Punish*, Foucault was increasingly interested in the relation of discipline to "the social" and how this was expressed in what he came to term "bio-power." It was a concept that saw a scant publication history during Foucault's life.[36] Distinct from the anatamo-politics of the individual body, this biopolitics of the population has commonly been understood as the assorted means for organizing healthfulness and rendering "life itself" useful to the state. Colin Gordon describes biopolitics as a power "exercised over persons specifically in so far as they are thought of as living beings: a politics concerned with subjects as members of a population, in which issues of individual sexual and reproductive conduct interconnect with issues of national policy and power."[37] In addition to interest in fecundity, biopolitics necessarily extends to other conduct relating to the "natural" features of health, illness, longevity, and genetic fitness. This "government of life" includes a subtle but important shift away from the exercise of power through repression, ban, command, and the right to kill, and toward the exercise of power founded on optimizing the capacities and utility of the population.

Biopower is often viewed as an invasive and totalizing form of dominance. Taking hold of life "all the way to the body," it is a power that

"grasps" life in a double sense: both a physical grip and a mental understanding.[38] It expressed itself historically in the science of eugenics, in the brutally rational acts of genocide, and in the productive management of famine and pestilence.[39] The concept has been taken up in the work of certain critical theorists—most influentially by Giorgio Agamben, who identifies the Holocaust not only as the exemplary instance of modern biopower but also as the key to showing biopower to be the hidden meaning of all forms of power from the ancient world to the present.[40] The Nazi concentration camps were not an odd throwback to a form of barbarism, according to Agamben, but a possibility enduring at the deepest recesses of all civilization and law. They demonstrate the ability of states to deprive individuals of rights and to reduce humans to "bare life" by declaring "states of exception" necessary to preserve sovereign rule. In suspending normal protections, instituting emergency powers, and creating legally marginal spaces, the camp organizes bare life and claims arbitrary power over life and death—but at the same time marshals and elicits the useful body. For Agamben the camp not only epitomizes biopolitics ("the bare essence of politics itself") but is also the "nomos of the modern." It is the tactics of forceful exclusion and territorialization, as in quarantine, that constitutes sovereignty. But Agamben's interpretation of biopower returns us to the historical problem of liberalism. His particular formulation does little to help us understand why strategies to regulate population occur with greatest finesse and sophistication in liberal societies. Nikolas Rose and Paul Rabinow contend that Foucault rightly considered the Nazi regime a "paroxysmal development" of biopower, but that it would be regrettable for us to take it as the single archetype of an irredeemably repressive and domineering "biopolitical machine."[41] As Thomas Lemke argues, Agamben's ahistorical version of biopower owes more to Carl Schmidt's ruminations on eternal sovereign law than to Foucault's relational, decentralized, and historicized account of modern power.[42] We still lack a detailed genealogy of *biopower* comparable to the one developed for *discipline*.

This book wants to propose taking seriously Foucault's assertion that liberalism was the historical context and precondition for modern biopolitics. It is a point initially developed in his lectures at the Collège de France from 1976 to 1979.[43] Intriguingly, Foucault conceives of "liberalism as the general framework for biopolitics." He then immediately adds a further ardency, contending "only when we know what this

governmental regime called liberalism was, will we be able to grasp what biopolitics is."[44] In this view, biopower does not reside in states of exception, but was historically developed in tandem with the regularization of liberal rule and its public spheres. Biopolitics forms an integral element of liberal governmental reason. They are siblings of modernity.

It will be worthwhile first to review how in the past two decades British liberalism has been reassessed as a mode of governmentality. A growing amount of work in political sociology,[45] literary theory,[46] historical geography,[47] and cultural studies[48] has approached nineteenth-century liberalism as a foundation for identity, a philosophical doctrine, and a system of governance. It is now generally accepted that liberal thought shaped the entirety of Victorian Britain's political culture and political institutions, albeit also with its predictably numerous slippery contradictions and uneven developments.[49] Some of the resurgence of interest in liberalism has stemmed from a desire to move "beyond the Panopticon," as it were, and to re-examine overly neat paradigms of social control in light of the intellectual challenges posed by feminism, queer studies, postcolonial studies, and especially by a political and academic landscape in the process of being transformed by neoliberalism.[50] It also has meant recognizing that a model of "disciplinary society" or "surveillance state" is unable to adequately account for the particularities of British political thought and practice in the nineteenth century.

One essential point in common with these analyses is thinking of liberalism not simply or even primarily as a political ideology, but as a variety of specific historical practices emerging from a sort of obedience to the nature of power. In this view, Victorian liberalism consisted of more than simply the program of the Liberal Party (a laissez-faire and non-interventionist political economy; an accountable, efficient, and meritocratic government; a politics of opinion constrained within constitutional instruments of representation; an injunction to improve and civilize the world). Rather, these particular policy themes must be seen as emerging from a general rationality of rule that centers upon the reflexive critique of state reason. A critical attitude toward *raison d'état* arises from recognizing the *unnaturalness* of arbitrary and unaccountable power—a critique, importantly, that serves as an intellectual limitation upon the scope and effectiveness of the state in the overall landscape of power. To govern liberal societies, Nikolas Rose explains, "is to be condemned to seek an authority for one's authority."[51] The "police" form of government rationality developed since the sixteenth century eventually gave way to

this principle of restraint. Systems of government at the end of the eighteenth century discovered "society" to be the true object of rule—but it was found to be "a complex and independent reality that has its own laws and mechanisms of reaction, its regulations as well as its possibilities of disturbance." This opened a vast new realm for governmental action, but it also ended up being a type of intervention tending to eschew powers of command in favor of powers of manipulability. Foucault famously describes liberalism as a moment when "it became apparent that if one governed too much, one did not govern at all—that one provoked results contrary to those one desired."[52]

The Foucauldian version of the birth of liberalism therefore has its principle of freedom following upon the practical need to allow natural forces to express themselves. Liberal rule constitutes a desire to govern and be governed "at a distance," as Rose puts it, in order to preserve this freedom.[53] Paradoxically, in liberal thought, freedom signifies "the antonym, the limit, and the objective" of governance.[54] Furthermore, this critical sociology of the state contends that freedom itself also emerges as a key instrument of governance. Liberalism is therefore one instance of the modern technology of power that extends from certain useful knowledges and practices. This view of liberalism requires approaching "government" in a much broader register than only those actions that exclude, ban, marginalize, and repress, or that conquer and defend territory. Instead, the "art of government" in the modern era has as much (or more) to do with relational strategies of management, administration, guidance, and direction. Foucault's "problematic of government" does of course include the genealogy of the modern state, but places it alongside and within the history of the governed subject. His plan was to chart political government from the eighteenth century onward against the production of rational knowledge about the individual and the population as a whole.[55]

Liberal rule therefore appears as a set of practices in which objectives are determined by their own limitations. In an important sense, this typifies a school of "governmentality studies" that finds the entire project of modern rule to resolve into a matter of liberal subjectivities, liberal materialities, and liberal rationalities of power. One strand of this literature focuses on a discursive culture of character-building and reflexive self-government. Victorian liberalism was thus keen to inculcate personal techniques of health, morality, and reputation, but at the same time reluctant to invest much power in machinery like Panopticons.[56] It

was an approach to rule relying more upon norms than laws, and involving numerous scales and fields of power: individual, municipal, imperial, and familial. A second strand of governmentality studies focuses on how material technologies gave rise to self-regulatory environments and self-critical forms of rule. Patrick Joyce provides one of the best outlines of this view, arguing in *The Rule of Freedom* that Victorian sewerage, lighting, street paving, and housing mediated the freedom of residents to act rationally in public and private space.[57] This sort of rule "from a distance" involved scopic regimes rather different than panoptic ones, as suggestively detailed by Chris Otter.[58] It also involved subduing the desire to determine the conduct of individuals and populations, and it remained generally satisfied with building measures for the "canalization of conduct." Thus some of the most important "governors" of the nineteenth century were engineers, technicians, map-makers, and doctors. A third strand of governmentality studies (although these are all complimentary to one another) examines liberalism as a strategy that deployed freedom as a self-limiting instrument of rule. Not only did it compulsively locate the true machinery of governance within and amongst the governed, liberalism proposed that the ability to practice freedom should be constantly accompanied by a questioning of its advisability and a monitoring of the political structures that both guarantee and threaten freedom. It presupposed, according to Nikolas Rose, "an exercise of inhibition of the self by the self, a kind of despotism of the self at the heart of liberalism."[59] Correspondingly, liberalism deployed an inhibition of the state as a technique of the state. To govern in this manner is "to presuppose the freedom of the governed … not to crush their capacity to act, but to acknowledge it and to utilize it for one's own objectives."[60]

As rich and provocative as these interpretations of governmentality have been, they would be well served by re-examining their place within Foucault's historical conceptualization of biopower and his genealogy of liberal technologies of security. The key historical phenomenon, Foucault explains in his 1975–1976 lectures, *Society Must be Defended*, was "the acquisition of power over man insofar as man is a living being"—a development taking definite form in the eighteenth century and finding more forceful applications in the nineteenth.[61] In a very broad sense, the stakes are a "biological threshold of modernity."[62] What Foucault means by this is the historical emergence of a "set of mechanisms through which the basic biological features of the human species became the object of a political strategy, of a general strategy of power."[63] One most important

contrast of this biopower is with the scope previously claimed by juridical mechanisms; with all its laws and prohibitions, the classical theory of sovereignty made no claim to fundamentally "take possession of life" (it merely reserved the power to "take life" and to "let live").[64] The object of biopolitics, however, was to help shape outcomes by enabling systems of government to find gripping places within "life itself" (and claim the ability to "make live"—or, more ominously, "let die"). Foucault envisions *mechanisms of discipline* participating in this biopower to the extent they employ a political technology of the body, but he reserves the concept of "biopolitics" primarily for what he calls *mechanisms of security* that pertain to a political technology of the population. On a basic level then, we have a tripartite model of power: Sovereignty—Discipline—Security, which in turn broadly corresponds to different objects and rationalities of power: Territory—Body—Population. These modes are genealogical, but not strictly successive. It is not that juridico-legal mechanisms are replaced entirely by disciplinary mechanisms, and so on, but rather that they work together in different combinations.[65]

Biopolitics, in short, is a strategy of rule that seeks to govern in accordance with and through the naturalness of the thing governed. This proposition is crucial and gets us beyond the simple view of modern power accruing from the effective management of health and vitality of the people. Foucault's notion of the apparatus of "security" is central, but is somewhat idiosyncratic and requires some explanation. The key text is his 1977–1978 lecture series, published as *Security, Territory, Population* (available in English only since 2007). To begin, security is ultimately another term for governmentality—the ability of states and authorities to administer and guide processes that essentially have their own internal logics, impulses, and dispositions. Foucault spoke at length about the differences between mechanisms of discipline and mechanisms of security. Whereas discipline tries to control everything and to determine outcomes within circumscribed and constructed spaces (like in the Panopticon and the plague town), security performs a "calculus of possibilities" and arranges for events to play out as they are found but in a more favorable fashion.[66] Foucault's examples of security apparatuses come from the eighteenth-century history of town planning, grain controls, and smallpox regulation. They conform to an era of post-mercantilist policies in which royal prerogative and military ordering give way to distant and calculative methods of management. So, planning for the needs of towns increasingly became less a matter

of situating them as symbols of the territorial sovereign or constructing everything according to a pre-arranged grid to give a sense of predictability and maximum control. Instead, what emerged was a notion that government might lend a hand in maximizing positive elements like circulation and minimizing risks and inconveniences like theft and disease, all the while "knowing that they will never be completely suppressed."[67] Foucault also examines mid-eighteenth-century French reforms removing an extensive series of prohibitions on pricing, hoarding, export, and cultivation of grains. These undid a juridical and disciplinary system that had been aimed at literally preventing food shortage before it became a reality (a goal never actually achieved). The physiocrats instead recommended freedom of commerce as a fundamental principle of economic government—in other words, they proposed an apparatus of governing by which the thing governed (scarcity) is "gradually compensated for, checked, finally limited, and, in the final degree, canceled out, without it being prevented or losing any of its reality."[68] This system made the fear of famine an important tool in prompting rational conduct, and therefore the possibility of food scarcity had to be preserved while at the same time actively "hedged" by indirect means. An apparatus of security, as Foucault defined it, would be an instrument of government "that, connecting up to the reality of [natural] fluctuation, will permit its regulation."[69]

This same rationality is seen in the adoption of smallpox inoculation—a completely novel and controversial procedure in Western medicine that ultimately benefited from the "mathematical support" of statistics and its "rationalization of chance and probabilities."[70] Inoculation did not attempt to prevent smallpox but instead prompted and ensured it in inoculated persons.[71] One had a 1 in 8 chance of dying from epidemic smallpox but only a 1 in 300 chance from inoculated smallpox. In contrast to earlier methods of epidemic control premised on barring all contact with the infected and squashing any possibility of disease transmission, this mode of governing disease invested in the usefulness of knowing the "normal" distributions of morbidity and mortality. An epidemic as the occasion for extraordinary powers of exclusion gives way to a reality of constant, endemic disease as the reason for constant and steady, but also moderate and restrained, powers of administration.[72] Crucial to all of these mechanisms of security is how they preserve the element of uncertainty. They presuppose a number of possibilities—prospects whose range might be narrowed but not completely singularized.

For Foucault, the attitude of security is to stand back sufficiently so that one can apprehend how things are taking place and grasp them at the level of how they naturally play out.[73] A certain amount of laissez-faire is indispensable: "acting so that reality develops, goes its way, and follows its own course according to the laws, principles, and mechanisms of reality itself."[74] It is in this way that the political technique of security and its biopolitical logic is "profoundly linked to the general principle of what is called liberalism."[75]

Biopolitics covers the technologies used to secure the population. It is not terribly challenging to see how population historically becomes *the concern of government*, but Foucault also had in mind a process by which population emerges *as the means of government*. This last thought requires some careful parsing, as it is fundamental to his notion of the "biological threshold of modernity" and its oblique but crucial relationship to liberal forms of government. Of key interest here is the "problem of the town"—or, how by the eighteenth century urban spaces posed special problems for governmental technique.[76] The difficult question had long been: how was the sovereign to govern towns? One answer, as proposed in numerous German treatises, was to develop the science of "police." These were essentially disciplinary instruments, which treated the government of towns and states as a matter of obedience and training and aspired to organize everything, penetrate everything, and have a say in all aspects of social life—from roads, canals, morals, and health to supplies, trade, liberal arts, the poor, and public safety. The perfectly surveilled and controlled "plague town" was one obsessive dream of these treatises, providing an enduring and ideal model for the exercise of "medical police."[77] It also epitomizes the attempt to produce and bring to itself "knowledge of the state"—statistics, or the "science of the state" in the eighteenth century. The important point here, for Foucault, was how this police governmentality was gradually and eventually detached as an activity of sovereign and juridical power, and reformulated as a technical action of rule in itself.[78] By the nineteenth century, the most advanced governments do not simply deal with territory and the individuals or people within, but also concern themselves with an "economic and political problem"—population.[79] As Foucault explained in his famous lecture on governmentality, population henceforth will "appear above all as the final end of government … to improve the condition of the population, to increase its wealth, its longevity, and its health." Even more important, but mostly overlooked, is his next statement: "the

instruments that government will use to obtain these ends are, in a way, immanent to the field of population."[80] What exactly did he mean by this?

First, systems of police-governmentality launched by the physiocrats and cameralists ran up against this realization of "population" as an entity in its own right marked by an obstinate "naturalness." The discovery of population (or its *production*, as some would have it[81]) consisted of recognizing that it encompassed something different from merely a collection of people or a multiplicity of individuals. The population depends upon a series of variables tied to climate, commerce, customs, mores, reproduction, means of subsistence, and so on—indeed a range of factors that mostly evade the straightforward application of law or the sovereign's will. In fact the population per se cannot be the subject of the sovereign, cannot be disobedient; it instead appears as "a kind of thick natural phenomenon."[82] This notion of population is not the same thing as the "social body" that appears in classical political thought. Very importantly, a population came to be seen as possessing its own regularities and norms and involving its own specific, aggregate affects that are irreducible to a multiplicity and that will respond neither to prohibitions nor prescriptions. And so the population itself cannot be fully grasped by disciplinary mechanisms, either.[83] In a very revealing passage, Foucault writes that "the idea of the panopticon is a modern idea in one sense, but we can also say that it is completely archaic" in that it only acts upon individuals and there is much that it is unable to gain access to.[84] A population thus constitutes a field of natural possibilities and risks that can be effectively approached only on terms of its own naturalness and by means of leveraging that naturalness.

Second, securing the population requires techniques of normalization different from those found in the process of disciplining individual and social bodies. Discipline operates by making the subject conform to a norm that has been constructed and invested in as optimal. A norm cannot be *imposed* in this way upon a population, as norms are something that already exist within it. The population's norms are natural features that must be discovered, understood, accommodated, and made use of according to their own rules. These can be seen and acted upon through the construction of life tables, rates of mortality from certain diseases, and so on. Furthermore, the new science of populations not only appreciates the existence of simple averages but also differential normalities—outcomes that vary across specific neighborhoods, classes, regions, ages,

sexes, and occupations.[85] So, a population consists of numerous, simultaneous, and diverging tracks of norms. The task of government is to identify "outliers" (perhaps, for instance, the unusual prevalence of scrotal cancer amongst chimney sweeps) and formulate measures to nudge these "unfavorable, deviant normalities" closer into line with the general normality.[86] The goal of this mode of governance is therefore to produce a more acceptable and tolerable norm, not to completely amend it or to reduce certain evils to zero (such as in eradicating scrotal cancer altogether). This is what normalization means within a political strategy of population.

Third, while mechanisms of biopower presuppose the population as a political *object*, they also require the population to act as a political *subject*. It is the population which is now "called upon to conduct itself in such and such a fashion" so as to display beneficial effects.[87] The liberal program of *security*, which displaces to some extent the theory of *sovereignty*, finds its task of rule to be conducting this conduct and ceding governance to a somewhat opaque and not entirely predictable population. It is here that we must consider the subjectification of the population in the same manner as the subjectification of the self within liberal rationales of governance. Foucault never fully developed these ideas, but had a few intriguing suggestions about the relationship between the science of governing populations and the new importance of the public sphere. He advised thinking of the public as simply the most formal and juridical strata of population—the level at which power could grasp the population and treat it as active subject.

## Notes

1. "The Scarlet Ward," *Globe and Traveler*, 10 December 1887, 6.
2. She lectured on first aid, infant care, and women's rights, won a seat on the London School Board and advocated for free meals, medical inspections, and the abolition of corporal punishment, and still found the time to author several nursing manuals. See profile of Morton in Ellen Ross, *Slum Travelers: Ladies and London Poverty, 1860–1920* (Berkeley: University of California Press, 2007), 161–4. "The Scarlet Ward" is included in Morton's *Sketches of Hospital Life* (London: Sampson Low, Marston and Co., 1888), 50–57. See also Morton, *From a Nurse's Note-Book* (London: Scientific Press, 1899); Morton, "The Story of a Nurse," *The Graphic*, 1 July 1892.

3. Honnor Morton and H. F. Gethen, "Will Eversley," in *Tales of the Children's Ward* (London: Sampson Low, Marston and Co., 1894), 100–01.
4. Honnor Morton, "The Municipalisation of Hospitals," *The Humane Review* (January 1902), 311–23.
5. *The Lancet*, 29 May 1897, 1482.
6. "Hospitals of the World. VII.—Infectious Disease Hospitals in London," *The Hospital*, 16 December 1893, 174.
7. *The Times*, 23 March 1896, 9.
8. "The Work of the Metropolitan Asylums Board," *The Hospital*, 11 January 1902, 258–59.
9. Gwendoline Ayers, *England's First State Hospitals and the Metropolitan Asylums Board, 1867–1930* (London: Wellcome Institute for the History of Medicine, 1971).
10. Graham Mooney, *Intrusive Interventions: Public Health, Domestic Space, and Infectious Disease Surveillance in England, 1840–1914* (Rochester, NY: University of Rochester Press, 2015).
11. Tom Crook, *Governing Systems: Modernity and the Making of Public Health in England, 1830–1910* (Berkeley, CA: University of California Press, 2016).
12. Alison Bashford, *Imperial Hygiene: A Critical History of Colonialism, Nationalism and Public Health* (New York: Palgrave, 2004).
13. Guenter Risse, *Plague, Fear and Politics in San Francisco's Chinatown* (Baltimore, MD: Johns Hopkins University Press, 2012); Guenter Risse, *Driven by Fear: Epidemics and Isolation in San Francisco's House of Pestilence* (Urbana, IL: University of Illinois Press, 2016); Nayan Shah, *Contagious Divides: Epidemics and Race in San Francisco's Chinatown* (Berkeley: University of California Press, 2001); Susan Craddock, *City of Plagues: Disease, Poverty, and Deviance in San Francisco* (Minneapolis, MN: University of Minnesota Press, 2000); Howard Markel, "Bubonic Plague Visits San Francisco's Chinatown," in *When Germs Travel: Six Major Epidemics That Have Invaded America and the Fears They Have Unleashed* (New York: Vintage Books, 2005), 54–77.
14. Letter from W. M. Acworth, *The Times*, 21 May 1888, 13.
15. Margaret Pelling, "The Meaning of Contagion: Reproduction, Medicine and Metaphor," in *Contagion: Historical and Cultural Studies*, ed. Alison Bashford and Claire Hooker (New York: Routledge, 2001), 16.
16. Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (New York: Routledge, 2002).
17. Apart from Risse, *Mending Bodies, Saving Souls*, some of the most important general surveys are: Lindsay Granshaw and Roy Porter, eds., *The Hospital in History* (New York: Routledge, 1989); Lindsay Granshaw,

"The Rise of the Modern Hospital in Britain," in *Medicine in Society: Historical Essays*, ed. Andrew Wear (Cambridge: Cambridge University Press, 1992), 197–218; John Henderson, Peregrine Horden, and Alessandro Pastore, eds., *The Impact of Hospitals, 300–2000* (Oxford, UK: Peter Lang, 2007).

18. Alan M. Kraut, *Silent Travelers: Germs, Genes and the Immigrant Menace* (Baltimore: Johns Hopkins University Press, 1995); Howard Markel, *Quarantine! East European Jewish Immigrants and the New York City Epidemics of 1892* (Baltimore: Johns Hopkins University Press, 1997); Richard Coker, *From Chaos to Coercion: Detention and the Control of Tuberculosis* (New York: St. Martin's Press, 2000); Emily Abel, *Tuberculosis and the Politics of Exclusion: A History of Public Health & Immigration to Los Angeles* (New Brunswick, NJ: Rutgers University Press, 2007); Philip Alcabes, *Dread: How Fear and Fantasy Have Fueled Epidemics from the Black Death to Avian Flu* (New York: PublicAffairs, 2009).
19. David F. Musto, "Quarantine and the Problem of AIDS," *Milbank Quarterly* 64, supplement 1 (1986), 98. See also Eugenia Tognotti, "Lessons from the History of Quarantine, from Plague to Influenza A," *Emerging Infectious Diseases* 19, no. 2 (February 2013), 254–59; Andrew Cliff and Matthew Smallman-Raynor, *Oxford Textbook of Infectious Diseases Control: A Geographical Analysis from Medieval Quarantine to Global Eradication* (Oxford: Oxford University Press, 2013).
20. Risse, *Driven by Fear*, x; Risse, *Plague, Fear, and Politics*.
21. Roger Cooter and Steve Sturdy, "Of War, Medicine and Modernity: Introduction," in *War, Medicine and Modernity* (Phoenix Mill: Sutton, 1998), 6.
22. Amy Fairchild, *Science at the Borders: Immigrant Medical Inspection and the Shaping of the Modern Industrial Labor Force* (Johns Hopkins University Press, 2003), 7. See also, *Medicine at the Border: Disease, Globalization and Security, 1850 to the Present*, edited by Alison Bashford (New York: Palgrave, 2006).
23. Nayan Shah, *Contagious Divides*; Craddock, *City of Plagues*.
24. Philip Howell, *Geographies of Regulation: Policing Prostitution in Nineteenth-Century Britain and the Empire* (New York: Cambridge University Press, 2009); Philippa Levine, *Prostitution, Race, and Politics: Policing Venereal Disease in the British Empire* (New York: Routledge, 2003).
25. Rod Edmund, *Leprosy and Empire: A Medical and Cultural History* (New York: Cambridge University Press, 2007); Carole Rawcliffe, "Creating the Medieval Leper: Some Myths and Misunderstandings," in *Leprosy in Medieval England* (Rochester, NY: Boydell Press, 2006), 13–43.

26. Some classic expressions of this include Richard Evans, *Death in Hamburg: Society and Politics in the Cholera Years* (New York: Penguin Books, 1990); Judith Walzer Leavitt, *Typhoid Mary: Captive to the Public's Health* (Boston: Beacon Press, 1996).
27. Nancy Leys Stepan, *Eradication: Ridding the World of Diseases Forever?* (Ithaca, NY: Cornell University Press, 2011).
28. Michel Foucault, *Discipline and Punish: The Birth of the Prison*, translated by Alan Sheridan (New York: Vintage, 1995).
29. Stuart Elden, "Plague, Panopticon, Police," *Surveillance and Society* 1 (2003), 240–53.
30. Foucault, *Discipline and Punish*, 195–99.
31. Foucault, *Discipline and Punish*, 198.
32. Michel Foucault, *Abnormal: Lectures at the Collège de France, 1974–75* (New York: Picador, 2004), 47.
33. Foucault, *Discipline and Punish*, 198.
34. Uday S. Mehta, "Liberal Strategies of Exclusion," in *Tensions of Empire: Colonial Cultures in a Bourgeois World*, ed. Frederick Cooper and Ann Laura Stoler (University of California Press, 1997), 59–86. See also Uday Mehta, *Liberalism and Empire: A Study in Nineteenth-Century British Liberal Thought* (Chicago: University of Chicago Press, 1999), and a debate over the "liberalism" of Britain's empire in Jennifer Pitts, *A Turn to Empire: The Rise of Imperial Liberalism in Britain and France* (Princeton, NJ: Princeton University Press, 2006).
35. Alison Bashford and Carolyn Strange, "Isolation and Exclusion in the Modern World: An Introductory Essay," in *Isolation: Places and Practices of Exclusion* (New York: Routledge, 2003), 1, 3, 4.
36. Scholarly attention has long been practically limited to the hauntingly original last section of *The History of Sexuality* ["The Right of Death and Power over Life"] and a single lecture from Foucault's series at the College de France in 1976 – ["Society Must be Defended."]
37. Colin Gordon, "Governmental Rationality: An Introduction," in *The Foucault Effect: Studies in Governmentality* (Chicago: University of Chicago Press, 1991), 4–5.
38. Timothy Campbell and Adam Sitze, "Biopolitics: An Encounter," in *Biopolitics: A Reader* (Durham, NC: Duke University Press, 2013), 13, 15.
39. Clare Hanson, "Biopolitics, Biological Racism and Eugenics," in *Foucault in an Age of Terror: Essays on Biopolitics and the Defence of Society*, eds. Stephen Morton and Stephen Bygrave (New York: Palgrave, 2008), 106–117; David Nally, "'That Coming Storm': The Irish Poor Law, Colonial Biopolitics, and the Great Famine," *Annals of the Association of American Geographers* 98 (September 2008), 714–41.

40. Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life* (Stanford University Press, 1998); Giorgio Agamben, *State of Exception*, trans. Kevin Attell (University of Chicago Press, 2005).
41. Paul Rabinow and Nikolas Rose, "Biopower Today," *BioSocieties* 1 (2006), 195–217.
42. Thomas Lemke, "A Zone of Indistinction: A Critique of Giorgio Agamben's Concept of Biopolitics," *Outlines* 1 (2005), 3–13.
43. Michel Foucault, *Society Must be Defended: Lectures at the Collège de France, 1975–1976* (New York: Picador, 2003); Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France, 1977–1978* (New York: Picador, 2007); Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France 1978–1979* (New York: Picador, 2008).
44. Foucault, *The Birth of Biopolitics*, 22.
45. Steve Woolgar and Daniel Neyland, *Mundane Governance: Ontology and Accountability* (New York: Oxford University Press, 2014); Andrew Barry, *Political Machines: Governing a Technological Society* (New York: Athlone Press, 2001); Nikolas Rose, *Powers of Freedom: Reframing Political Thought* (Cambridge University Press, 1999); Andrew Barry, Thomas Osborne, and Nikolas Rose, eds. *Foucault and Political Reason: Liberalism, Neo-Liberalism and Rationalities of Government* (Chicago: University of Chicago Press, 1996).
46. Elaine Hadley, *Living Liberalism: Practical Citizenship in Mid-Victorian Britain* (Chicago: University of Chicago Press, 2010); Mary Poovey, *Making a Social Body: British Cultural Formation, 1830–1864* (Chicago: University of Chicago Press, 1995); Pamela Gilbert, *The Citizen's Body: Desire, Health, and the Social in Victorian England* (Columbus, OH: The Ohio State University Press, 2007); Zarena Aslami, *The Dream Life of Citizens: Late Victorian Novels and the Fantasy of the State* (Fordham University Press, 2012).
47. Stuart Elden, *The Birth of Territory* (Chicago: University of Chicago Press, 2013); Stephen Legg, *Spaces of Colonialism: Delhi's Urban Governmentalities* (Malden, MA: Blackwell, 2007).
48. Tony Bennett, *The Birth of the Museum: History, Theory, Politics* (New York: Routledge, 1995).
49. This basic assumption about the centrality of a generalized liberalism can be traced from the most cautious and conservative histories to the more radical. See J. P. Parry, *The Rise and Fall of Liberal Government in Victorian Britain* (New Haven, CT: Yale University Press, 1993); Patrick Joyce, *The State of Freedom: A Social History of the British State since 1800* (New York: Cambridge University Press, 2013).

50. A brilliant recent study is Wendy Brown, *Undoing the Demos: Neoliberalism's Stealth Revolution* (New York: Zone Books, 2015).
51. Rose, *Powers of Freedom*, 27.
52. Michel Foucault, "Space, Knowledge, and Power," in *The Foucault Reader*, ed. Paul Rabinow (New York: Pantheon Books, 1984), 242.
53. Rose, *Powers of Freedom*, 49.
54. Andrew Barry, Thomas Osborne, and Nikolas Rose, "Introduction," in *Foucault and Political Reason*, 2.
55. Rose, *Powers of Freedom*, 3.
56. Lauren M. E. Goodlad, *Victorian Literature and the Victorian State: Character and Governance in a Liberal Society* (Baltimore, MD: Johns Hopkins University Press, 2003).
57. Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City* (New York: Verso, 2003).
58. Chris Otter, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800–1910* (Chicago: University of Chicago Press, 2008).
59. Rose, *Powers of Freedom*, 43.
60. Rose, *Powers of Freedom*, 4.
61. Foucault, *Society Must be Defended*, 239.
62. Foucault, *Society Must be Defended*, 242.
63. Foucault, *Security, Territory, Population*, 1.
64. Michel Foucault, *The History of Sexuality, Volume I: An Introduction* (New York: Vintage, 1990), 142–43; Foucault, *Society Must be Defended*, 240–42, 253.
65. *Security, Territory, Population*, 8–11. The historical dimension, however, is crucial, and one might trace a "shift in accent" from emphases on territory to concerns for population from the Absolutist to the modern period. Foucault is especially interested in examining how techniques for disciplining the body are joined at the end of the eighteenth century by techniques for securing the population. The newer technology of power does not displace discipline and its institutions because it "exists at a different level, on a different scale, and because it has a different bearing area, and makes use of a very different instruments." Foucault, *Society Must be Defended*, 242. See also Foucault, *Security, Territory, Population*, 10.
66. Foucault, *Security, Territory, Population*, 20, 59.
67. Foucault, *Security, Territory, Population*, 19.
68. Foucault, *Security, Territory, Population*, 37.
69. Foucault, *Security, Territory, Population*, 37.
70. Foucault, *Security, Territory, Population*, 59.
71. Matthew L. Newsom Kerr, "'An Alteration in the human countenance': Inoculation, Vaccination, and the Face of Smallpox in the Age of Jenner," in *A Medical History of Skin: Scratching the Surface*, ed. Jonathan Reinarz and Kevin Siena (London: Pickering and Chatto, 2013), 129–46.

72. Foucault, *Security, Territory, Population*, 57–62.
73. Foucault, *Security, Territory, Population*, 46.
74. Foucault, *Security, Territory, Population*, 48.
75. Foucault, *Security, Territory, Population*, 48.
76. Foucault, *Security, Territory, Population*, 64.
77. Elden, "Plague, Panopticon, Police."
78. Foucault, *Security, Territory, Population*, 274–75.
79. Foucault, *History of Sexuality, v.1*, 25.
80. Foucault, *Security, Territory, Population*, 105. Compare this phrase with the earlier translation in Michel Foucault, "Governmentality," in *The Foucault Effect: Studies in Governmentality*, ed. Graham Birchell, Colin Gordon, and Peter Miller (Chicago: University of Chicago Press, 1991), 87–104.
81. Stephen Legg, "Foucault's Population Geographies: Classifications, Biopolitics and Governmental Spaces," *Population, Space and Place* 11 (2005), 137–156.
82. Foucault, *Security, Territory, Population*, 71.
83. A point that was not made clear in Foucault's earlier published "Governmentality" lecture.
84. Foucault, *Security, Territory, Population*, 66.
85. Foucault, *Security, Territory, Population*, 63.
86. Foucault, *Security, Territory, Population*, 62.
87. Foucault, *Security, Territory, Population*, 42–43.

CHAPTER 2

# Victorian Plague Town: Quarantines, Hospitals, and the Political Birth of Isolation

Dr. Edward Seaton, the former medical officer for Nottingham and Chelsea and then the top health official for the County of Surrey, delivered the prestigious Milroy Lectures in 1896 on "The Value of Isolation and Its Difficulties." He could not help but start with an historical survey of the separation of infectious disease, including the Levitical injunctions on lepers, who later became the pathetic objects of "superstitious horror" in the Middle Ages and were subjected to a "strict social ban" and a life apart. Seaton places this alongside those "quasi-military defences and precautions" going by the name of *quarantine*, which had their origins in the Black Death and were subsequently developed throughout the European world in response to "ordinary Levantine plague." This history also encompassed the shutting-up of houses, cordons sanitaires, and similarly draconian measures taken up by plague-stricken towns in previous centuries that Seaton believed must be considered "equivalent to quarantine." The spirit of banishment, which Seaton states was still present in some countries' quarantine restrictions, was "in reality, though not intentionally, exceedingly cruel," and he warns that at any time the "old spirit" might be revived to the great peril of a free people. Not only did strict exclusionary measures have effects opposite to those intended (owing to the panic, defiance, concealment, and flight they inspired), they represented an intolerable control over individuals incompatible with modern English liberties.[1] For its nineteenth-century critics, quarantine was more a political tactic than a medical one. It was the means to prescribe sovereign territory, smacking



M.L. Newsom Kerr, *Contagion, Isolation, and Biopolitics in Victorian London*, https://doi.org/10.1007/978-3-319-65768-4_2

of a despotic desire to control everything and to forcibly determine outcomes.

As for his main topic—isolation as practiced in Britain at the time—Seaton goes on to insist that it bore almost no resemblance to earlier practices of medical imprisonment and that it reflected fundamentally different scientific *and political* principles. He took great pains to starkly delineate the historical relationship between isolation and quarantine and to divide their respective places in the spatial governance of public health. In the end though, Seaton admitted, that part of quarantine consisting of "intelligent isolation, kindly and thoughtfully carried out" must be a crucial part of any well-organized sanitary system. Quarantine, therefore, on the one hand represents everything opposed to the proper political organization of health, but on the other hand it also contains the kernel for a principle of separation that might be differently politically organized. It is in this context that Seaton goes on observe the work done by hundreds of municipal fever and smallpox hospitals created over the previous three decades, especially in London. At these establishments every "hygienic advantage" was extended to patients as well as to the public. Most importantly, they did not promote the spirit of ostracism and banishment, for at them the patient may expect "company rather than solitude." Indeed, according to Seaton, the first tenet of modern preventive hospitalization was that it should be "carried out in the spirit of tender care for the sick person and their friends" before any action that "savours rather of persecution."[2] One might infer that for Seaton the main difference between quarantine and isolation was a matter of *cruelty* (which he lavishly ascribed to the former), but we should perhaps be open to the likelihood that for him and his colleagues, *cruelty* was primarily a political quality. Moreover, recognizing this fact had become a matter of medical pragmatism. In any case, the public health at the end of the nineteenth century had been completely reshaped by the quick and efficient isolation of dangerously infectious persons and Seaton encouraged his listeners to cheer the fact that towns across Britain now possessed the capability to separate sufferers in ways far more pervasive, detailed, complete, and unquestioned than any previous system of quarantine.

How did it come about that this perspective on isolation (of which Seaton is simply one of the most prominent voices) needed to be precisely juxtaposed against quarantine? Victorian commentators tended to condemn earlier forms of medical detention in the harshest language

possible while at the same time to enthusiastically praise the new institutions of urban hospital sequestration. Where we might look for similarities in the two practices, the very architects of isolation chose to stress their differences. (And it should be noted that contemporaries did not think that the distinction between exogenous and indigenous disease was an important difference.) We are confronted with something of a paradox: plague in the nineteenth century had essentially disappeared as an epidemic threat in Britain and quarantine was effectively abandoned, but a new system for isolation had arisen to deal with the ordinary prevalence of deadly infectious disease. Might we conclude that this rationalization of epidemic containment was itself a political development as much as a medical one? Furthermore, should we see this as an instance of spatial politics—in other words, a question of how medicine and the state could organize space for health?

The historiography of public health is not much help in recognizing, much less explaining, this apparent paradox. Isolation has simply not been examined in any sustained manner, and has been largely relegated to the margins of the history of British public health. The quick rise and expansion of isolation hospitals after the 1860s is often explained (almost too neatly) as a practically inevitable and *natural* outcome of germ theory and its specific appreciation of contagion; to wit, bacteriology legitimated "exclusive measures" of prevention and therefore isolation hospitals sprung up.[3] The dubiousness of this explanation is suggested in the fact that Seaton's commentary had absolutely nothing to say about laboratory knowledge. Another conclusion drawn by some historians is that isolation emerged as a variation upon quarantine, or a reconciliation with it, which was begrudgingly accepted by liberal governments. This idea of isolation being part of a lesser, kinder, updated version of quarantine appears in Peter Baldwin's term, "neoquarantine," which frames hospital treatment as a concession to the more forceful methods of suppression following upon the reassertion of contagion in medical thought.[4]

This chapter suggests that such approaches simply will not suffice. It argues that the paradox can be best addressed by reference not to abstract philosophies of government but to the mentalities of governance—the techniques and rationales, the spaces and forces, that constitute *governmentalities*. In this regard, Krista Maglen's thesis on the relationship between sanitationism and quarantine in Britain is commendable.[5] She argues that the abandonment of quarantine per se was

related to the emergence of the "English System" of epidemic prevention. What this involved was the replacement of Georgian-era "sanitory laws," which pertained to policing the nation's border for disease, with legislation that treated the space of the nation itself as a "sanitary zone" but one that had the ability to expand beyond the bounds of the formal nation. This had the effect of accentuating the medical monitoring of the national border (with the establishment of Port Sanitary Authorities), but with the aim of supporting the medical management of health within the territory, not just at its littoral points of entrance. Maglen shows why the governing mentality should not be construed as "neoquarantinism" but rather a significantly new approach to how the spaces of containment could be politically arranged. A drawback to Maglen's book is its failure to recognize the extent to which the model of urban isolation hospitals prefaced and significantly molded the activities of the port authorities. At the end of the century Seaton called the latter "coast isolation," and credited the network of municipal hospitals as one reason why "it seems we can afford to let certain kinds of infectious disease be imported within our midst, if not with impunity, at any rate with definitely less danger than in former days."[6]

This chapter seeks to locate the political birth of isolation over the course of the nineteenth century. It suggests that in order to witness this emergence we should look less to national policy and more toward metropolitan reformers, medical charities, and municipal boards—especially in London. Hospital treatment eventually came to be considered a key component of English Sanitationism, although this was fraught with controversy and difficulty. In the first place, preventive hospitalization was burdened by the imprint of the lazaretto and other Victorian imaginings of the "plague town." This ensured an uncertain and ambiguous role for hospitals within the mid-century movement for urban governance and sanitary reforms. As a term to describe a public health strategy, "isolation" was not fully accepted until the 1880s. This chapter starts with a consideration of the early nineteenth-century fever hospital movement, in particular the London Fever Hospital (LFH). It notes that early "houses of recovery" (as they were also called) were arranged for the health of the patient apart from society. The idea of an "isolation hospital" had just started to develop in the 1860s, and described a space arranged for the health of patients as part of an urban social system.

An important aim of this chapter is to sketch some of the general ways that isolation represents a key intersection of public health and political

modernity—an argument that is developed more thematically in subsequent chapters. One central concern in the formation of British public health was the deep unease over the political meaning of contagion. Epidemics caused by filth might be remedied and prevented by indirect means of sanitation, but a truly contagious epidemic seemed to imply and even beckon extraordinary, police-like powers seeking to take direct charge of the body. As with quarantine, the political history of isolation is inseparable from the dangers that *contagion* posed to the program of liberal government. The crucial question therefore is, why did contagion come to be rearticulated as the justifiable domain of *liberal* governance? And how is it that the spaces for separating, enclosing, and disciplining sick persons (previously associated with emergency measures, the marking of sovereign territory, and arbitrary and oppressive government) were remade into sites for calculated, measured, and self-limited state power?

## Spatializing the Fevers

Typhus fever was by no means an unfamiliar disease at the beginning of the nineteenth century, but during this time it did take on substantially new medical and political meanings. The natural ecology of typhus is intimately related to conditions of malnourishment, infrequent change of clothes, and crowded habitations. This much had long been generally understood, although we now also know that typhus is caused by a germ transmitted by the body louse. For many early nineteenth-century medical thinkers typhus was simply a synonym for "fever," a disease type rather than a symptom of disease. The boundaries of what constituted typhus (and its place within the category of "continued fevers"[7]) were nonetheless contested and nebulous; it was not differentiated from typhoid fever or relapsing fever until the mid-1800s. Meanwhile there were intense debates over the meaning of "epidemic typhus," debates that played a crucial role in the development of English public health. To many, the disease seemed inseparable from the stresses of modern life found in the new industrial towns and in the metropolis. As later with cholera, typhus illustrates the generally ambivalent attitude and approach toward contagion that took root in British medicine and government. Indeed, an abiding hallmark of mid-century sanitary reform was its reticence toward contagion as a knowable and governable factor in the health of the population. The turn-of-the century fever hospital movement had previously drawn upon and emulated the intrusive state

measures traditionally arrayed against plague invasions. Controversies, however, quickly set in over what powers were commensurate with the perennial problem of urban fever and whether the logic of quarantine was appropriate.

It is commonly agreed that the movement for fever hospitals in Britain started with Dr. John Haygarth, who in 1783 persuaded the Chester Infirmary to set up special wards for the reception of town residents suffering from contagious fever. (The practice at most hospitals had been to rigorously exclude typhus and even immediately discharge all patients if it were to ever break out inside.) The theory and treatment of fevers—widely considered a "dark and abstruse subject"[8]—was clearly in a state of transition that brought doctors to focus on the hazards of enclosed, confined spaces.[9] Haygarth was motivated by the teachings of John Pringle on "gaol fever" and James Lind on "ship fever," and his experiment reflects rising general interest in spatial arrangements that might stymie the generation and spread of typhus. Haygarth laid down stringent rules for his fever wards: segregation from the rest of the hospital, provision of clean linen and clothes, immediate removal of patient discharges, systematic airing of blankets and clothes, constant ventilation by means of open windows, and so on. The fever ward was to be a realm of exceptional order, cleanliness, and restriction of movement.[10] Haygarth saw it as practically analogous to a lazaretto, and dependent upon the application of the type of police powers concentrated and developed in penal and naval situations.[11] He was the first to apply this machinery to the problem of fevers in the civil population, remarking on "the necessity of taking poor patients out of their small, close, and dirty dwellings, into spacious, airy, and clean apartments."[12]

Haygarth's audacious fever plan bore many similarities to his even more remarkable proposal for the extirpation of natural smallpox by rigorous surveillance, inoculation, and sequestration. A version was put on trial in Chester starting in 1778. The local Smallpox Society rewarded informants who could provide news about the existence of the disease. The society's inspector then visited the infected house and distributed a set of "rules of prevention," with a sum paid to families who followed the rules and a further reward to those which suffered no further infections.[13] In 1793 Haygarth sketched out a far more widespread and compulsory system of smallpox suppression in which he contended that inoculation must not only be encouraged but systematically "injoined." What was commonly provided through benevolence, Haygarth reasoned,

"the law might require to be universally performed."[14] Plague after all had been "exterminated" from Britain by the force of civil regulations.[15] Considerable rewards might most often effectively "secure the perfect obedience of the poor people,"[16] but he now suggested also fining those who transgressed the rules of prevention and publishing their names in the nearest newspaper (indigent offenders could be placed in a pillory for public humiliation).[17] Haygarth proposed a central Smallpox Commission, with ramifications for the entire country and a large staff of inspectors and officers having the power to enforce separation of the sick and erect pest-houses where needed. The plan echoes the humanitarian tone of prison reformers like John Howard, but in other ways owes more to Bentham's radical proposal for a national inspectorate of Panopticon penitentiary houses published two years earlier. Indeed, Haygarth envisioned extending the disciplinary machinery of the classical plague town over the entire nation and to periods of normal disease prevalence. His audacious proposal prompted much discussion amongst medical writers, but garnered practically no legislative traction (even less than Bentham's Panopticon). There was the no small matter of its frighteningly "despotick" measures of surveillance and intrusion. Perhaps just as important was the advent of vaccination at the turn of the century, which provided a relatively simple alternative to aggressive state controls. One of Haygarth's correspondents praised the plan, but observed that it would have "require[d] the assistance of government, and government is not in the habit of attending to such objects."[18] Endemic, indigenous scourges like smallpox and fevers were not (yet) objects of state reason in the same way as epidemic and exogenous plague invasions.

The "medical policing" of towns was at this time almost entirely a local responsibility of civil society. In 1795 a group of citizens and physicians formed a "committee for regulating the police of the towns of Manchester and Salford." This resulted in the establishment of a Board of Health that raised funds from public subscription and opened a "House of Recovery" adjacent to the Manchester Infirmary—the first stand-alone building for the exclusive reception of fever patients.[19] This institution operated under quasi-public authority, but was essentially a voluntary body that employed an informant and reward system to encourage notifications and removals. It provided the model upon which a number of similar hospitals were created, many of them growing out of established medical charities (such as at Liverpool, Norwich, Hull,

Dublin, Cork, and Waterford). The nascent fever hospital movement was a confident expression of civic self-governance, but nonetheless invited comparisons to the conventional sovereign institutions of quarantine. For instance, facing opposition from frightened neighbors who believed the fever hospital should be placed far outside Manchester, the directors replied that practically all lazarettos in the Mediterranean were situated within or adjoining towns.[20] As Kevin Siena, the historian of the medical theory of plague argues, both proponents of these new institutions as well as fearful neighbors employed the language of the lazaretto and lazar-house. The fever hospitals clearly had their antecedents in the old "plague hospitals" and "pest houses" that had fallen into disuse in the 1700s.[21] The Royal Infirmary of Glasgow's permanent fever-house grew to become a key part of its operations. In 1833 the directors proclaimed: "Our Institution is not merely an Infirmary for the diseased poor; it has become *an establishment of Medical Police—a Lazaretto for the seclusion of an infectious disease*."[22]

The most important and influential charity of this type was undoubtedly the London Fever Hospital, established by the Society for Bettering the Condition of the Poor in 1802. Originally located at Gray's Inn Lane, the "House of Recovery" moved into substantially larger accommodation alongside the Smallpox Hospital at King's Cross in 1815 and erected a new building at the Liverpool Road in Islington in 1849. The originators were a group of nonconformist and evangelical reformers, well-versed in a humanitarian discourse disparaging the moral and physical corruption of towns.[23] An early pamphlet in support of the charity by Christopher Stanger, a physician connected with the London Dispensary, described typhus as a constant specter that "originates, lurks, or rages" in "the districts of filth, vice, and misery." The contagion "must be sought in its source, traced in its secret channels, pursued in its lurking retreats, and exterminated wherever detected." It meant a "strict and perfect inquisition" to gain intimate knowledge of the poor. Stanger entreated parishes to employ inspectors to collect intelligence from jails, hospitals, dispensaries, workhouses, and private charities and to scour information about infected households from doctors, magistrates, clergymen, schoolmasters, tax collectors, and others.[24] Stanger assured the hospital's benefactors that dislocating the contagious propensity of urban fever would lead it to be "extinguished" in London.[25]

The belief was that infectious fevers invariably arose from the accumulation of "human effluvia" in "confined, crouded [*sic*], contaminated,

and disturbed dwellings."[26] This represents a continuation of the long-standing centrality of the "putrid" body, which was rigorously classed as one belonging to the lower orders.[27] Thomas Bateman, chief physician at the LFH from 1804 to 1818, believed it was "among the poor and uncleanly that epidemic pestilence principally spreads, and always begins."[28] The hospital's main objective was to disrupt those spatial conditions and to prevent cross-class infection, which itself essentially defined epidemics.[29] In its early years the LFH organized crews tasked with whitewashing and purifying fever-affected dwellings. Sick persons meanwhile were removed to its "lofty" and "abundant" rooms, which had beds spaced several feet apart and large windows to ensure the maximum dilution of malicious atmosphere.[30] Although gathered under one roof, fever in this way was not *concentrated*.[31] Bateman proclaimed that bathing the patient in abundant air and light had the ability to subdue the most violent fever "without any medicine whatsoever."[32] "Contagion" in this view was a substance or quality transferred from the sick to the healthy; but it also described a spatial milieu of "closeness" that, being the converse of cleanliness and ventilation, necessarily gave rise to a derangement of manners, morals, and health that could spread to all susceptible persons sharing the same crowded state. The fever ward therefore represented the antithesis and antidote of typhus contagion—it allowed the sick poor to be taken from their indigenous environment of disorder and corruption and to be *re-placed* into a specially arranged, essentially artificial, and constructed environment of recuperation. This form of distancing fed from a common assumption that fever would otherwise always make its way to the rich. Indeed, this became the stock-in-trade of the charity's perennial appeal to wealthy subscribers. One annual report bluntly referenced self-preservation as an incentive to support the charity and portrayed the hospital as a public good "benefiting the poor directly, the opulent indirectly."[33] This attitude probably had something to do with the additional financial support the fever charity received from Parliament (£3000 granted in 1804 and another £1000 in 1818). Official patronage at this level was highly unusual, and suggests that government authorities recognized an important state interest in the hospital's activities.

The London Fever Hospital had originated with the intention of reaching deeply into the metropolis, surveilling its murky regions, and actively policing the disordered bodies and abodes found there. In reality, the task of whitewashing the homes of the affected poor fell away

relatively quickly as a routine part of the LFH's work. The more passive work of bringing the sick into the hospital came to take priority instead (a distinct reversal of the Dispensary Movement model of treating the poor in their own homes). In reality though, relatively few LFH inmates came directly from the houses of the poor. The 1807 *Annual Report* proclaimed that the hospital afforded "the higher ranks an open receptacle for their domestics, when attacked with contagious fever, and likely to endanger the whole family."[34] In 1815 the hospital began admitting cases of scarlet fever—a deadly childhood ailment considered especially dangerous in "Private Families" when introduced "through the medium of Servants."[35] The hospital was thereby positioned as an aid to the governance of middle-class homes. In subsequent years the number of these servants was eclipsed by paupers sent from workhouses and patients transferred from general hospitals.[36] Instead of policing the slums, the hospital more often operated as a means of regulating the contagions of other institutions and of private households. The hospital's officers clearly found it difficult to actually penetrate and reform the haunts of disease. Moreover, it was entirely unclear what sort of overall effect the hospital (which maintained less than 40 beds prior to 1815 and only 60 afterwards) might have had on the prevalence of fever generally.

While frequently praised as an indispensable charity, the fever hospital also came under attack by prominent "anticontagionist" doctors and political opponents of quarantine. Bateman recalled that during the effort to relocate to King's Cross the directors were harassed "with great industry, and at considerable expense" by Dr. Charles Maclean, who evinced "all the zeal, and, I must add, the extravagance of an enthusiast" in maintaining that epidemic disease could only be caused by atmospheric corruptions, not contagions.[37] The notion would not have been unfamiliar—it echoed earlier debates over the usefulness of maritime plague quarantines and had become a centerpiece of partisan political bickering in America following the turmoil of yellow fever.[38] Maclean was the flamboyant and controversial figurehead of anticontagionism in England. Questioning the doctrine of contagion aligned perfectly with his personal vendetta against the "Old Corruption" pervading the medical colleges (which he incidentally blamed for dashing his professional prospects). The proposition remained eccentric and heretical until taken up with fervor by leaders of powerful trading companies, who funded an effort to persuade Parliament to revoke British participation in the

European system of quarantines, lazarettos, and bills of health built up over the previous three centuries.[39]

Erwin Ackerknecht's classic essay on anticontagionism outlines how contagion in the first half of the nineteenth century would, "through its associations with the old bureaucratic powers, be suspect to all liberals, trying to reduce state interference to a minimum."[40] Although undoubtedly a self-interested position in many respects, anticontagionism crystallized a new "biopolitical" critique of outdated governmentality, which it linked to the horrors of quarantine and the "plague town." At its most extreme (and many anticontagionists were prone to extremes), the entire idea of contagion simply propped up despotic authority and autocratic powers. Maclean declared contagion nothing else than mystical "dogmata" that had its origins in a secret "papal stratagem" for sustaining unassailable monarchical rule by sanitary cordons and other dubious boundary-making practices.[41] For those less prone to conspiratorial thought, there was an assemblage of other related and reinforcing objections: quarantine placed travelers in dangerously confined spaces, it slowed their journeys and subjected them to graft and corruption, it restrained the profitability of commerce and the expansion of civilization. To be sure, doctrinaire anticontagionism (if one may call it that) never gained a significant following in Britain.[42] Nonetheless, as historians of quarantine have shown, complaints and doubts about quarantine gradually occupied the very center of official British policy and medical thought.[43] Moreover, and close to the purpose of this chapter, the perceived illiberalism of quarantine laws came to cast doubt over the idea of suppressing urban typhus by means of hospital treatment. It is in this way that the governability of metropolitan fever intersected with debates over border quarantine. The LFH played an important role here—but not one which might be expected.

Remarkably, two of the foremost English anticontagionists were principal physicians at the LFH. The first, John Armstrong, attained this post in 1819 through influential Quaker associates, who convinced the board of governors to rescind a requirement that chief officers be licentiates of the London College of Physicians. The year prior to his appointment Armstrong failed the examination for admittance to the College (although he already had been practicing medicine for 11 years) and henceforth railed against the "wanton power" held by elite professional bodies.[44] His position at the LFH elevated Armstrong as a leading authority on fevers, but it was also during this time that he abandoned

previous beliefs about epidemic disease arising from human contagion. Armstrong's very popular clinical lectures lent greater respectability to the ideas of the inexorable Dr. Maclean. He now taught that all forms of typhus derived from "marsh effluvia."[45] The doctrine of contagion, he railed, caused typhus patients to be needlessly deserted by friends and "perish in crowds"—exactly as when plague victims had been pitilessly shut up in their homes. The selfish fear of contagion, Armstrong remonstrated, "entirely excludes humanity and sensibility from the hearts of men. It is the most cold, the most cruel, the most calculating doctrine that was ever advanced." Echoing Maclean, Armstrong identified plague restrictions as the means by which Napoleon imposed a tyranny in Spain "more baneful, more withering, and more detestable than the most deadly pestilence."[46] Anti-quarantine thought on plague linked up with a theory of urban fevers, which in turn placed the LFH in a critical light. Despite his "great respect" for its officials, Armstrong declared that the fever hospital had achieved "no good whatever in point of prevention" and the views of its founders were "entirely mistaken with regard to its preventive powers." He added that typhus had persisted in certain districts, "limited as it were by a law of nature to certain spots, in defiance of their hospital," and it would "prevail in London as long as the doctrine of contagion holds its place in the minds of those individuals who preside over it."[47] Armstrong resigned his position at the fever hospital in 1824.

Upon Armstrong's departure, the LFH governors selected two new physicians: Alexander Tweedie and Thomas Southwood Smith. Tweedie held more conventional attitudes toward typhus and contagion, for example citing the heavy toll that typhus extracted among the fever hospital staff.[48] A much more peculiar thinker, Smith would go on to become a pivotal figure in London sanitary reform. He was already a middle-aged Unitarian minister and a close friend of Jeremy Bentham. Shortly following his appointment at the LFH Smith authored two articles in *The Westminster Review* criticizing the logic of the quarantine laws.[49] Although Smith's specific views on the nature of fevers were somewhat eclectic, he nonetheless captured the general appreciation that the problem of urban fever was inseparable from the question of maritime quarantine. As Smith put it, typhus was plague modified by the climate of Britain; plague was nothing other than typhus modified by the climate of the Levant.[50] Neither disease was capable of being imported from one place to another, but instead arose individually from

indigenous conditions. Smith claimed the appearance of typhus was always strictly local—a line could be drawn around its seat of habitation in London as one marks a parish from its neighbor. He furthermore asserted that typhus never spread from fever hospitals and, in contrast to Tweedie, denied that fever hospital doctors suffered from the disease more often than others.[51] In fact, Smith went to great lengths denying that typhus shared any of the primary characteristics of contagion. He did allow, however, that an unusual concentration of a typhus patient's effluvia could generate the disease in another person—a property that he preferred to call "contaminative" in contrast to "contagious" (others used the term "contingent contagiousness").[52] He therefore still upheld the utility of cleansing the poor's homes and removing the stricken to fever hospitals.

Smith's *Treatise on Fever* offers a well-known passage uniting the natural sources of typhus in London and plague in the Orient. "The room of a fever patient, in a small and heated apartment in London, with no perflation [*sic*] of fresh air," Smith maintained, "is perfectly analogous to a stagnant pool in Ethiopia, full of the bodies of dead locusts" following a famine. The cause of general pestilence was the same in both cases: undiluted decomposition of animal matter amidst privation:

> Nature, with her burning sun, her stilled and pent-up wind, her stagnant and teeming marsh, manufactures plague on a large and fearful scale: poverty in her hut, covered with her rags, surrounded with her filth, striving with all her might, to keep out the pure air, and to increase the heat, imitates nature but too successfully.[53]

Fever afflicted the depraved metropolitan poor with the same predictable *naturalness* as plague struck at primitive colonial subjects. Whereas eighteenth-century thinkers thought of typhus as an inevitable product of constricted, constructed spaces (ships, jails, and hospitals), Smith proposed that there was an a priori naturalness to fever, which, although not a specific poison like smallpox, could be accentuated or aggravated into epidemic form in towns by social conditions and filth.[54] Infectious disease in other words obeyed its own natural laws, and society could no more exterminate fever than it could eliminate poverty (both, in Smith's necessitarian philosophy, were part of God's benevolent revelation of right living).[55] Man could aspire to more favorable results, but not to perfection, and certainly not without suffering painful lessons.

Consequently, it was not the objective of the fever hospital, in Smith's view, to alter, amend, or obstruct this beneficial naturalness. Instead, it offered a model of cleanliness, airiness, and orderliness, temporarily restoring to the sick body a healthy atmosphere and disposition, and thereby instructing the poor in the proper government of the self. Smith did not denigrate the fever hospital in the same way as Armstrong before him; however, he did suggest the charity was limited because it confronted a domain of natural sickness that possessed its own norms.

Although Smith questioned the LFH's benefit to the social body, he was far from alone in unambiguously affirming its medical utility and its power to produce knowledge about the "species body." Without a doubt, the fever hospital was far more effectively "medicalized" than the great metropolitan hospitals. A substantial portion of general patients still claimed the right to treatment by a governor's letter or subscriber's ticket, but admission to the fever hospital depended upon a specific diagnosis of fever. Tweedie and Smith transformed the LFH into a leading site for clinical investigation and teaching. They made morbid examinations routine, and in 1830 separately published major treatises based on hundreds of detailed clinical histories. The fever hospital facilitated their uninterrupted inspection of bodies across life and death and intersected with the intense controversies over making "the bodies of the dead useful to those of the living" that led to the Anatomy Act of 1832.[56] Generally, most doctors tended to believe that losing possession of the corpse was a way the poor could discharge the debt they owed for hospital treatment.[57] LFH rules in fact never required patients to consent to post-mortem examination, but the fever hospital physicians did not seem to consider permission necessary and they enjoyed unusually unhampered access to corpses. Visitors were generally barred from the grounds and burial after death from fever was usually performed quickly in sealed coffins stuffed with charcoal, which concealed visual evidence of anatomy. The 1843 Annual Report mentions 134 postmortems out of 187 hospital deaths.[58] These did not take place without the occasional protest. Authorities of the Great Synagogue complained to the LFH in 1838 that opening corpses went contrary to Jewish religion and informed the House Committee that, although it had instructed physicians "to consult the feelings of the friends as much as possible," this had not been rigorously observed.[59]

At the LFH, clinical examination and post-mortem study were of great importance for impounding the individual body, grasping it as an

object of knowledge, and compelling medical attention inward. The LFH became a prominent model of the new "hospital medicine." For decades "the continued fevers" had provided a rambling battleground for speculation in topics as abstruse and infertile as whether it was a localized or general affliction, an inflammation or debility, a result of excitation or depression, a single disease or many.[60] The form of clinical medicine emerging in Paris at the end of the eighteenth century and springing up in British institutions promised to cut to the heart of such debates with ruthless empiricism. It consisted of what Michel Foucault famously called the "anatomo-clinical gaze"—a semiotics of the body and disease and a system of clinical signs that once learned would uncover physiologically concealed truths.[61] The essence of this gaze consisted of matching the external symptoms seen in the hospital ward with the internal appearances uncovered on the post-mortem slab. Permitted a large field of observation and steady record-keeping over several years, Southwood Smith wrote,

> we acquire in the end the power of ascertaining, with a high degree of probability, the presence of an event which we cannot see, by the presence of its sign which we can see … In proportion as our knowledge becomes perfect, we are thus enabled, during life, and at the bed-side of the patient to see what is going on within his brain, within his lungs, and within his intestines, with as much distinctness and certainty as we could were the cases in which these organs are enclosed, and the organs themselves transparent.[62]

This cool, calculative, penetrating "geography of the corpse" gained a crucial institutional form when coupled with the rituals of bedside medical education.[63] The fever hospital, like other hospitals, offered up an indispensable menagerie of constantly renewing clinical material for the doctor to study and to demonstrate to students. Tweedie flatly stated that the LFH should be valued as much for supporting his tutoring as for "relieving fellow creatures from a contagious disease."[64] Without a doubt, nineteenth-century hospital medicine tilted the doctor–patient relationship to the advantage of physicians and impersonalized the scene of interaction.[65] It allowed the hospital physicians to position bodies, to arrange a series of cases, and to render disease observable in ways impossible in the outside world. It also created a key institutional context for the production of knowledge about the fevered body. Tweedie's protégé,

William Jenner, studied nearly 2000 cases at the LFH, enabling him in 1849 to establish (contrary to most British medical opinion, including Southwood Smith) the clinical distinction between typhoid and typhus fevers. London was unique amongst European cities in having roughly equal amounts of typhoid and typhus; thus the LFH provided an indispensable site of clinical inquiry, "collecting within its walls cases of continued fever from all parts of the great metropolis, [and] offer[ing] peculiar facilities for its study," Jenner wrote.[66]

## Sanitation Against Confinement

In an important essay, the late John Pickstone argues for the centrality of fevers to mid-century sanitary reform and for the indispensability of fever hospitals (the LFH in particular) in constructing a medical theory of disease amenable to the small but influential group of "ultra-sanitationists" allied with Edwin Chadwick.[67] One irony of this development is that this was an eclectic version of fevers that effectively demoted the status of medicine within the political strategy of sanitary reform. Another irony is that the doctrine of fever developed at the LFH, while underpinning the Chadwickean agenda, ended up undermining the hospital's own place in that program. Pickstone notes that it was not always the case, but that the new view of fever "*could* … involve a concentration on environmental sanitation and a rejection of fever hospitals as preventive agencies."[68]

Southwood Smith was again an unusually important figure here. His groundbreaking 1838 study of fever in East London for the Poor Law Commission described the physical causes of preventable mortality among the poor. This was a pivotal text establishing the new lexicon of "sanitary conditions."[69] In line with his writings on quarantine and plague, Smith framed urban fever as a matter entirely dependent upon *local influences.* "The records of the London Fever Hospital," he wrote, "prove indubitably that there are certain localities in the metropolis and its vicinity, which are the constant seats of fever, from which this disease is never absent."[70] Over the years these places had become "as familiar to the physicians of the Fever Hospital as their own names."[71] Smith's descriptions correspond to the emergence of a powerful literary trope: the urban "fever dens" or "fever nests." These were condensed, stagnant thickets of immorality and ill-health to which constant references occur throughout Chadwick's monumental 1842 *Report on the Sanitary Condition of the Labouring Classes.* If not in an active state of

diseasedness, these "fever manufactories" were nonetheless seen as the hearths of impending pestilence—ones that must be thoroughly cleaned out, paved, and drained, or else completely cleared out. This focus on the remediable environment, signaled by the formation in 1844 of the Health of Towns Association, tended to divert attention from individual bodies. Two of its leading members were Chadwick and Smith. Another, Dr. William Guy, reflected the change from the days of Haygarth. He declared that

> [fever] loves the banks of rivers, the borders of marshes, the edges of stagnant pools. It makes itself at home in the neighborhood of cess-pools, and badly-constructed drains, and takes especial delight in the incense of gully-holes. It has a perfect horror of fresh air, soap and whitewash, but when left to itself will linger for years amid scenes of filth and corruption, and fold in its deadly embrace all human beings who have the same depraved taste, or are so unfortunate as to be thrown into its company.[72]

A thinly veiled form of anticontagionism molded many of the central precepts of this great civic movement for sanitation. Thomas Osborne argues that the urban environmentalism of this era, rather than savoring the powers of conventional medical police, was overwhelmingly guided by liberal principles of *economy* and remained attracted to measures of security and forms of governance that "saved on interventions and costs in other sectors of the social order."[73] Even Chadwick maintained great diffidence toward the state intruding upon and controlling essentially private matters or the self-regulating properties of the economy. Christopher Hamlin shows how the fixation on localizing impurities allowed Chadwick to reframe the issue of "predisposing causes" in fevers (long considered a matter of poverty and deprivation) as a simple issue of disease-producing filth. Under this radical new materialist explanation, the state could attend to suppressing obvious nuisances without substantially treading on issues of low wages, exorbitant rents, and insufficient diets.[74] Toilets and sewers, street cleansing, and water provision would take precedence over any larger attempt to attack poverty itself. As far as governing individuals was concerned, sanitationism meant erecting an infrastructure that individuals could take advantage of, but were not forced to, and then could be blamed for their failure to do so. Moreover, it meant the sensitive topic of fever's *contagiousness* could be kept at arm's length. The state prepared for epidemics by facilitating

cleanliness—definitely not an exterminatory approach, and not one founded in measures of detention and blockade. This "English system" of epidemic prevention (disallowing disease to take root in home soil) aimed in essence to maintain the integrity of natural phenomena while also establishing the need for well-regulated, self-limited, and rationalized interventions upon them. Chadwick may have spoken in a lax manner about "medical police," but his basic rationale was a program for reversing the growth of government and for preserving on balance the greatest amount of laissez-faire.[75]

Many of the leading sanitationists remained decidedly unenthusiastic, if not outright hostile, toward employing hospitals as instruments of sanitary governance. Chadwick described fever hospital work as a mere "service of alleviation." Although it was laudable to take patients from filthy homes and mend them in a pure atmosphere, "the service of prevention" would always be a higher and more practical project. The truest philanthropy was to assail "the *habitat* of typhus."[76] Chadwick considered it a "dreary prospect" for doctors to feel content treating "endless streams of cases" and supporting fever hospitals "interminably without any further thought or action for drainage, or the removal of the nuisance whence the disease originate[s]."[77] The ever-cantankerous William Guy pressed the point. "If the governors of the London Fever Hospital were imbued with the true spirit of the coming era," he wrote, "they would expend the large funds at their disposal in destroying the fever nests of the metropolis" and replacing them with decent dwellings available at moderate rents for the poor. Such an approach would "soon prevent more fever cases than the hospital can possibly accommodate within its wards."[78]

A similar attitude shaped the general disinclination toward the use of hospitals for cholera, although this proved somewhat more controversial. Ultra-sanitarians often declined to consider cholera an imported epidemic and, as another epidemic of the disease loomed in 1848, the Metropolitan Sanitary Commission and the General Board of Health (both directed by Chadwick and Southwood Smith) declared that hospitalization had not proved successful in previous outbreaks. Instead of the "indiscriminate removal of the sick," they recommended local authorities institute house-to-house inspections and facilitate domestic cleanliness.[79] The only safeguard against cholera (as in fever) was sanitary arrangements, the Commission declared, not the separation of the sick.[80] The Board of Health used this same logic the following year in a report,

written mainly by Smith, recommending the abolishment of quarantine.[81] Here, as well as elsewhere, Smith seems to have been trying to straddle the uncomfortable space between two positions: denying hospitals' place in the true sanitary armament but also acknowledging their humanitarian value in relieving the afflicted. The tension of this stance played out in wider debates over whether cholera should be excluded from general hospitals.[82] The barring of cholera patients from hospitals greatly irritated the renowned editor of *The Lancet*, Thomas Wakley, who derided the General Board of Health's cholera recommendations as impractical, inconsistent, and dangerous and chided Smith for his role in the policy.[83] The return of cholera to London in 1854 was marked by a more positive official stance toward hospitals, but went to show that the debate was far from settled.[84]

Despite disagreements, a common thread through the 1840s and 1850s was general pessimism about the wider sanitary utility of hospitals for either special epidemics or ordinary urban fevers. The most that Southwood Smith could admit to was the ability of the LFH to exert a localized benefit at times. Given this cautiousness, the need to relocate the fever hospital (the site was wanted for the King's Cross rail terminus) resulted in a painful episode in 1848 that laid bare its uncertain status among health reformers and the public.[85] A committee of alarmed Islington residents argued that placing the fever hospital "in the centre of a highly respectable and densely populated neighbourhood" would endanger their lives and injure property.[86] Letters in the London press denounced the hospital as "a house of contagion."[87] A memorial signed by influential local gentlemen remonstrated that such establishments were "usually denominated pest houses" and "should be always erected at a distance from all dwellings."[88] This row demonstrates the true malleability of the term contagion. Hospital opponents shrewdly cited Smith's recent testimony to magistrates seeking to suppress a pile of rubbish in St. Luke's parish. Were the "vapours arising from a patient suffering under fever," they demanded, "of a less deleterious nature than those which Dr. Smith asserts arise from a dust heap?"[89] They had no difficulty finding doctors eager to give the opinion that "all Fever Hospitals are bad, they concentrate a poison which ought to be diluted."[90] Thomas Wakley, who was then an MP, took a particular interest in the controversy and supported the opposition with great verve (no doubt in part motivated by his long-standing enmity to Smith). Wakley brought about a clause in the 1848 Nuisances Removal and Diseases Prevention Act

requiring the General Board of Health to certify to the safety of any hospital proposed to receive infectious patients.[91] In the end, this uproar over the LFH compelled the government to finally agree to appoint a medical man to the General Board of Health—to Wakely's disgust, this turned out to be Dr. Southwood Smith.[92]

The LFH's new purpose-built structure became a key reference point in the movement for "hospital hygiene" in the 1850s. In many ways an offshoot of urban sanitationism, this movement was sparked by the medical scandals of the Crimean campaign, with Florence Nightingale and her circle of influential friends playing a crucial role. Fresh upon her celebrity from Scutari, Nightingale in *Notes on Hospitals* (1859) proposed that a system of architectural order and moral discipline itself could reduce deaths from diseases always rampant in hospitals. She provided a raft of statistics in support, arguing that hospital sickness exhibited a constant ratio to the density of bodies. Hospital mortality, she added, possessed a constant but modifiable relationship to deficiencies of ventilation and light, poor locations and soil drainage, defective ward layout and construction, inadequate laundry facilities, and insufficient discipline of nurses.[93] Nightingale's critique of specific institutions gave rise to an animated debate over whether urban hospitals suffered higher mortality compared to rural hospitals, and large versus small ones (a notion that fueled an unsuccessful campaign to have St. Thomas's Hospital rebuilt on a suburban site[94]). These debates reveal that the spread of fevers had become the "great sanitary test" not only of urban districts, but also of institutions like workhouses, barracks, tenements, and of course hospitals.[95] However, like the urban sanitationists, the hospital hygienists largely concluded that "contagion" itself was mainly a spatial quality. Typhus was not dangerous per se, but became so within enclosed spaces "vitiated" by emanations from a crowd of patients. A number of physicians began to conclude that the accumulation of fever patients in separate wards tended to "render the disease more severe, and the contagious miasmata more intense."[96] They expressed confidence that fevers could be "safely mingled" in a properly ventilated and clean general ward as long as they were evenly dispersed and did not exceed a certain proportion (no more than one fever case to five others, it was suggested).[97] As a result, many also came to believe there was "no particular advantage in fever hospitals" and by the 1850s the great London hospitals regularly admitted small numbers of fever cases.[98] Nightingale initially had declared the LFH one of the best-constructed hospitals in London, but

eventually came to argue there was no reason why any hospital could not be arranged to safely treat all fever cases.[99]

Hostility and ambivalence toward the LFH reached a peak in 1860. That year *The Lancet* and *The British Medical Journal* launched a concerted campaign against the proliferation of specialist hospitals in London. Included on the list of offending institutions, alongside eye hospitals and lying-in institutions, was the fever hospital. Although recognized for advancing the science of fevers, the LFH was now attacked as sequestering this knowledge from the rest of the profession and depriving students of opportunities to become fully familiar with a certain class of disease. *The Lancet* editorialist took the opportunity to argue that the LFH had originated from an obsolete understanding of contagion and, as with the Lock Hospital, "partook more of the nature of *cordons sanitaires*, or quarantine establishments, than of the modern hospital." The best policy of fever treatment was "scattering" it amongst medical patients, and thus fever hospitals and fever wards could be "be abolished with safety and advantage."[100] A report on the sanitary state of British hospitals conducted by the Privy Council came to similar conclusions. It found that the spread of typhus and scarlet fever in a general hospital was simply evidence of a defective sanitary state; it also observed that typhus had a tendency to poison the entire hospital when gathered together in a separate ward.[101] Aggregation itself was therefore a sanitary defect, and it was one that had proved "extremely dangerous" to doctors and nurses. This report found that attendants in fever wards ran a far higher risk of contracting and dying from typhus than medical patients amongst whom fever patients were sprinkled.[102] Some of the ultra-sanitarians now advocated disbanding the LFH as a sanitary measure and contended that fever hospitals and fever wards were "a crime against humanity and a disgrace to the age in which we live."[103] These criticisms set the stage for an attempt by the LFH's own president, Lord Monteagle (treasurer of the Nightingale Fund and close associate of Nightingale herself), to convert the charity into a general hospital and institution for training nurses. In a special memorandum, he cited the steadily declining admissions over the previous decade (from 1152 in 1854 to only 593 in 1859) as evidence of the charity's "diminished power of usefulness" and the cause of its dismal ability to attract public contributions.[104] Monteagle's plan was successfully opposed by the hospital's physicians (including Southwood Smith, who pressed the necessity

of fever hospitals), but the episode further underscores the precarious status of the LFH at this time.[105]

## Containment and Urban Crisis

In the 1860s *contagion*—as distinguished from the sort of *infectious* diseases associated with insanitation—reappeared as a serious public concern around issues of urban reform and also generally became a less divisive topic in medical theory. The reasons for this are complex, but the result was a reappraisal and a renewed appreciation of separate and special hospitals. This is immediately hinted at in the operation of the infamous Contagious Diseases Acts and in the rethinking of the etiology of cholera and allied "filth diseases" like typhoid fever. The reappraisal may be seen even more forcefully in responses to the multi-year typhus epidemic that afflicted London and to the rising alarm over scarlet fever. As one editorial in the *Cornhill Magazine* noted, these two diseases alone constituted the "modern pestilences" of the metropolis. They steadily decimated the population and evidently had not yet yielded to the labors of "practical sanitarians" who for years had waged "successful war upon dirt, overcrowding, and foul air." Their theories had put to sleep the fear of contagion and banished the precautions that used to bar the entry of epidemics to cities and dwellings. "Quarantine was abolished, and pest-houses were allowed to go to ruin, and now the extreme *laissez aller* prevails amongst the people as regards contagious disorders." The best means of perfecting sanitary practice, according to this author, was to be found in "the careful segregation of the sick in proper houses of reception."[106]

The typhus epidemic that struck London starting in 1862 demonstrated in no uncertain terms that the policy of scattering these patients in general hospitals had been a dreadful mistake. House physicians were alarmed by the deadly contrast of this "true" or "British" typhus with the more familiar typhoid fever. Typhus tore through the ordinary wards, sickening at least 150 fellow inmates and killing a high portion of them.[107] It also "ravaged" practically every metropolitan workhouse.[108] The LFH struggled to cope with an influx of typhus patients. From only twenty-five in 1860, annual numbers rose to 1827 in 1862 and 2497 in 1864; nearly 14,000 in total were admitted in 1862–1869. Another wing for 70 additional patients was hurriedly erected at the LFH in 1864.

Dr. Charles Murchison succeeded to the post of senior physician at the LFH in 1861 and from this position quickly became the highest recognized authority on continued fevers. Mainly as a means of ensuring orderly administration, in 1862 he began placing typhus, typhoid, and scarlet fever patients in different wards. Murchison was in fact the first to employ the term "isolation" for this practice. To his mind, this meant maintaining an internal spatial distinction and classification for the different infections instead of "diluting" them through intermixture.[109] This innovation was widely praised, and Murchison took every opportunity to contrast its results with the doleful outcomes of sprinkling fevers amongst ordinary patients at the general hospitals. (For the first six months of 1862 one LFH patient contracted typhus for every 40 typhus cases admitted and one died of this added infection to each 135 patients. By contrast, at six general hospitals one patient contracted typhus for every 3.8 cases placed in their wards and one died to each 12.9 ward patients.[110]) It was "barbarous," Murchison concluded, to bring a general hospital patient suffering some trifling disease into risk of contracting a deadly form of typhus or scarlet fever.[111] *The Lancet* agreed that the "most terrible results" had already followed from this course of action (but was less than forthright in admitting its own role advocating it in the first place).[112] Soon it was generally considered a "crime against humanity" to intersperse typhus through ordinary wards,[113] and by 1864 the London hospitals once more strictly excluded fever patients showing typhus characteristics.[114]

The high toll of contagion on LFH staff was also placed in a new light. Nine out of twenty-eight nurses died of typhus in 1862, and another five died in 1863.[115] The assistant medical officer (Dr. Wyber) was struck down in 1866. A long and admiring article in *All the Year Round*, Charles Dickens's very popular magazine, placed these losses amongst a long procession of sacrifice made by those engaged in a "sacred service."[116] A subsequent article, written in the form of a classic Dickensian morality tale, told readers about doctors and nurses "at peril of their own lives … engaged in mortal struggle with a disease that smites the poor and ignorant for neglects of the rich." The historian Michael Brown has drawn attention to the reshaping of "medical masculinities" after the Crimean War, during which the "active, intrepid, and warlike languages of courage and bravery" were often combined with "more passive languages of self-sacrifice, victimhood, and martyrdom."[117] In the case of the fever hospital, the trope spoke to hospital

physicians' open-eyed and *calculative* pluck. "Surely there are no men-at-arms who fight more truly and heroically the battles of their country than the hard-pressed medical officers" of the LFH, the *All the Year Round* article assures readers. The risk of hospital contagion "is real, and known; and it is met deliberately, as a solider meets the risk of battle." Furthermore, the "special risk" of contagion they assume substitutes for the "greater and general risk" to the community if typhus had been left to fester outside the hospital.[118]

Martyrdom aside, what this also hints at is how a more precise understanding of contagion within enclosed spaces was giving rise to more precise internal strategies of containment and risk reduction. Indeed, the probability of contracting a contagious disease within the delimited space of the hospital was coming to be seen as measurable and manageable in entirely new ways. Rules posted in the fever hospital in 1829 instructed staff to avoid the patient's breath, stand on the side of the ward where air enters, and avoid swallowing their own spittle (also making sure to clear their mouth and nostrils upon exiting).[119] These vague personal precautions, although still somewhat adhered to, were joined in the 1860s with more universal techniques of institutional management derived from hospital statistics. For instance, these showed that staff rarely suffered a second attack of typhus. Also, chances of recovery were great in young and tolerably healthy patients but very small in persons past a certain age and weakened by previous ill-health and fatigue. Consequently, no woman over the age of 45 or 50 (Murchison recommended 30) should be allowed to nurse typhus unless "seasoned" by previous illness, and senior physicians ought to be relieved by junior colleagues from the obligation to see fever patients. The well-known commentator on urban health, Francis Anstie, argued that these measures could be uniformly applied only at a fever hospital. Additionally, the odds of contracting disease and the circumstances that governed these odds could only have come to be known by congregating fever patients in fever hospitals. Alongside the LFH rising as a special place for the production of new etiological knowledge, Anstie believed, the main lesson was that "typhus may be absolutely shut within the typhus wards."[120]

Perhaps even more so than cholera, typhus in the 1860s was the disease that both epitomized urban crisis and also served as a cipher for understanding the misgovernment of outcast London. It came forward as a powerful reminder of the metropolis's precarious sanitary state *despite* improvements of sewerage. "Typhus fever," according to one

writer, was "the curse of our large, overcrowded cities, as typhoid is of our primitive, innocent hamlets, and our gossiping, ill-drained, country towns."[121] Perhaps most depressingly, typhus seemed to follow precisely the tracks of metropolitan "improvements" like railway projects and boulevard construction. These had advanced slum clearance as a sanitary side-project, but almost without exception the destruction of slum property actually compounded the overcrowding of adjacent areas and played a large role in producing fresh dens of destitution and fever. The disease had long been linked with poverty and deprivation, but the consensus was now that the unhappy "fever manufactories" of modern towns were themselves manufactured by unbridled greed and poor governance. A related apprehension was how disease bred in these conditions might no longer be confined to poor, but spill out and "extend its ravages to all classes of the community in our crowded cities."[122] In 1866 *The Times* expressed palpable unease that typhus might fully engulf all of London like the depopulating epidemics of the past, and it was in this attitude that it almost welcomed a repeat of the Great Fire of 1666 (which by popular legend had rid London of the plague)—"anything that would sweep away those execrable fever nests."[123]

One of *The Times*'s favored correspondents on London's fever nests was Horace Jeaffreson, Resident Medical Officer of the LFH from 1863–1865. He authored a number of blistering letters in which he presented the fever hospital as the ideal perch from which to comprehend London's dire state of local government. Typhus was now once again excluded from general hospitals. But many penny-pinching parishes, seeking to avoid paying the LFH's admission fee, had chosen to simply stockpile these cases in the workhouses, to the great danger of other inmates. St. Giles's parish, for example, apparently never sent pauper fever patients to the LFH, despite the disease's relentless toll in that district.[124] Jeaffreson lodged this specific charge at the beginning of a spate of scandals over the treatment of workhouse paupers, which would eventually result in the establishment of the MAB (as explained in Chap. 3). In the meantime, Jeaffreson contended that this state of affairs could not be separated from the entire issue of London's discombobulated system of governance. He explained that the bulk of LFH patients derived from a relatively small number of specific nests of infection—some few streets and courts had become as familiar to him as "household words." Draper's Place and Ashby Street in the St. Pancras district for example contributed "an almost continuous string of fever patients."[125] The

register books of the fever hospital were full of crucial facts like these, including the upsetting conclusion that typhus was increasingly found outside its traditional haunts. The charity's annual report drew attention to "the singular way in which the typhus epidemic had wandered, in 1865, beyond its customary limits, and had appeared in districts where there are few of the destitute and filthy class."[126]

The typhus epidemic put to rest (at least for a while) calls for the LFH to be converted to a general hospital. It also contributed to a great deal of new thinking about the fever hospital's place within a natural ecosystem of urban typhus. In a significant change from previous decades, the charity's annual reports started to unambiguously tout its ability to remove centers of infection from their "hotbeds" and thereby "protect the public from the spread of contagion."[127] In some ways this represents a return to the founding ideals of the fever hospital. But the LFH was also increasingly seen as a means of modifying urban disease never contemplated by its originators. For decades the LFH had constructed a specialized, clinical understanding of fever as well as supported a general understanding of the metropolitan topography of illness. But not until the 1860s was it looked upon as a central site for extracting detailed, measurable knowledge of the London population.

This new usefulness of the fever hospital corresponds largely with the career of Dr. George Buchanan, who was installed as the LFH's Resident Medical Officer in 1854 and elevated to Senior Physician upon Southwood Smith's death in 1861. Buchanan also served from 1856 to 1866 as the Medical Officer of Health to the notorious St. Giles's district Vestry, where he frequently tussled with his parochial employers. He left the fever hospital in 1869 to become a full-time medical inspector for the Medical Department of the Privy Council under John Simon. This led to appointments as Assistant Medical Officer of the LGB from 1871 to 1880 and Chief Medical Officer from 1880 to 1892.[128] Buchanan rose to the very pinnacle of the English public health bureaucracy as a recognized expert in typhus and typhoid fevers. Their clinical separation (established in part by research at the LFH, it should be remembered) supported the conclusion that the cause of each was also separate and distinct: typhus a barometer of overcrowding and contagion, typhoid of defective drainage and polluted drinking water. It was only in 1869 that the two diseases were distinguished in official mortality statistics, and until then the LFH served as the only statistical weathervane of London's fever-geography. Its record books were "the best,

if not the only index of the degree of prevalence of different forms of fever in the metropolis."[129] Buchanan took this a step further and proposed that admission records allowed him to probe this geography with great spatial precision and to discern the specific sanitary needs of certain districts: "For it is certainly known that epidemic typhus fever depends mainly upon the huddling together of uncleanly people upon too limited area, and into too confined rooms, and that where enteric [typhoid] fever exists, these defects of drainage and foulness of water are to be sought."[130] The fever hospital was in this way like an urban observatory, permitting close study of the city's uneven pathological terrain. This vantage point brought into view *the population* as the natural field of contagion and pointed the way for the hospital to become allied with techniques of metropolitan statistics and mapping. It should be noted that the hospital's external epidemiological work arose at the same time as it was taking on the goal of internally separating, arranging, and distributing the bodies of fever patients to illuminate the problems of hospital contagion. In both cases, having brought into view certain patterns and norms, the hospital could enable the identification of factors that modified these norms.

It was in this way that the LFH contributed to naturalizing the urban spaces of fever. There were on the one hand the notorious spots of urban decay and desperation where fever made its "nest." There was also the LFH: a wholesome "fever nest kept ready for the healing of the smitten poor," maintained the unsigned *All the Year Round* author (perhaps Dickens himself). The fever wards of that hospital, he continues, constituted "a nest which anybody born to wholesome things and wholesome thoughts might some day be not sorry to have helped in feathering."[131] This metaphorical connection between fever nest and fever hospital steadily multiplied, and can be seen in the conventions for describing London's fever-geography that arose in the 1860s. A series of reports on the "Old Cholera Haunts and Modern Fever Nests of London" in *The Lancet* states, without qualification, that with cholera imminent, the first step of prevention is to determine the localities where typhoid fever ordinarily prevails. *The Lancet*'s "photographic sketch" of one notorious "centre of infection"—the "St. Giles's Fever Preserve" along Drury Lane—repeatedly dwells upon its natural correspondence with the fever hospital.[132] The doors, walls, bedding, and clothes of a family in which the daughter had been stricken with typhus "distilled the penetrating odor of a pent-up fever ward."[133] Taking up the language of the

Registrar General relating to the chief "cholera fields" in south London, the reporter next decamped to St. George's Southwark and remarked how it had also provided "one of the richest fields" in the "annual fever harvest." He had learned this from examining the records of the "fever granary at Islington" (the LFH of course).[134] The existence of fever nests was in part made known from the fever hospital. Just so, the fever hospital would not exist if not for the fever nests. The fever ward was therefore no longer simply a *contrast* or *counterpart* to the den of fever, but its natural *compliment*. Each was the other's "other space." The result was a naturalization of the connection between the two and a new sense of the hospital's relationship to the urban terrain and its governance. To be sure, the hospital was less regarded as a space that squashed fever's nature and more seen as a place where disease could be regulated according to its naturalness by knowing its natural properties. It housed and arranged conditions so as to neutralize undesirable qualities, but did not itself negatively suppress or expunge disease. Most importantly, the fever hospital could be an effective means of improving public health *because* it was an extension of fever's natural urban habitat. In this way the hospital came forward as an institution that could be tasked with the positive management of metropolitan health, not simply the amelioration of suffering either at the margins or in individual instances.

Similar ideas were also staring to be applied to scarlet fever—the other main disease accommodated at the LFH. Here was another infection that was illuminated but also problematized by hospital practice. In 1864 Murchison published a short treatise on scarlet fever based on his observations at the LFH. He concluded that the disease, to which little attention had been given for decades but nonetheless exacted an appalling annual mortality, was certainly the result of a specific poison and could not be attributed to the insanitary conditions of dwellings. Any physician with actual experience in a fever hospital, he wrote, "can but smile at the dictum of certain modern sanitary reformers, that the contagion of scarlet fever is a myth." Murchison showed that at the LFH the separation of scarlet fever patients had brought to an end its common occurrence amongst other patients. Isolation that worked in a clinical setting must also be effective on a societal scale.[135] Buchanan's colleague at the Privy Council, J. N. Radcliffe, upheld these conclusions in a paper to the Epidemiological Society. Death certifications revealed "districts of inordinate mortality," which could be considered the nation's "*scarlatina fields*." This localization, however, provided lessons for the limitation and

prevention of the disease. Radcliffe proposed that the prevalence and distribution of scarlet fever would be significantly affected by a "strict system of isolation" at hospitals provided by the state for those who could not affect adequate isolation in their homes. Such a system would allow cases to be "weeded out of densely packed houses as they occur."[136] This conclusion was strongly endorsed at the Privy Council by John Simon, who pleaded that isolation of the sick was the only real means of modifying scarlet fever's "uncontrollable contagiousness."[137]

It was also during this time that the hospital treatment of cholera almost completely disappeared as a contentious matter. During the 1866 London outbreak, temporary cholera hospitals were deployed on a larger scale than ever before and one of the only debates regarded to what extent these should be considered institutions of *confinement and sequestration*. The government remained reluctant to impose any true restrictions on foreign travel and commerce, but recommended that special wards be set up to receive sick persons at ports of entry. The Metropolitan Medical Officers of Health agreed, stressing the importance of cities being prepared for the first cholera cases and having them "as perfectly isolated as possible."[138] The Council of the Epidemiological Society weighed in with a report surveying the opinions of dozens of leading medical authorities. This revealed disagreement over the best form of "separate treatment"—whether cholera patients should be interspersed in the general hospitals, placed in dedicated cholera wards, or congregated in completely distinct hospitals. Respondents did not think the problem was one of "direct contagion," but rather of the panic caused by the proximity of cholera victims. "Such a spectacle of suffering," one respondent claimed, would "prove offensive to the sight and the sensibilities of the surrounding patients and attendants," and simply would "not be endured by the public." Safely managing cholera patients therefore now also meant managing community sentiment and feelings.[139] The general consensus was that cholera needed to be treated in special spaces and *separately* from other patients. This separation itself made the disease more manageable. And thus the entire issue of cholera hospitals avoided being dragged into debates over quarantine. Health officials principally framed cholera preparedness as a matter of managing urban residents, not controlling borders. This was a model made possible in large part by the remarkable transformation of attitudes toward the fever hospital in that decade.

## The Birth of Isolation

In an 1868 essay Sir James Young Simpson, professor of medicine at the University of Edinburgh, proposed it was possible to "stamp out" smallpox and other contagious diseases. He restated the importance of strictly enforcing smallpox vaccination, but put new stress on gaining hold of the first cases of sickness and isolating them in order to deprive the disease of bodies in which to propagate. Smallpox could thus be effectively "extirpated" in Britain within six months or a year—a prospect that would apply nearly equally to scarlet fever, measles, whooping cough and typhus.[140] As noticed at the time, Simpson's system rehearsed many of the principles and arguments behind Haygarth's proposal from nearly 80 years earlier.[141] Yet it is significant that no similar exterminatory program had been seriously voiced for decades. Many historians have taken Simpson's startling proposal as evidence for a revitalization of quarantinist thought and link it to how new germ etiologies would transform public health.[142] Others have pointed to Simpson's essay as embodying the logic for the sprouting-up of municipal isolation hospitals over the next few decades. In fact, Simpson made no reference to "living germ" hypotheses to support his position, but he did draw explicitly on the experience of the devastating cattle plague (rinderpest) epidemic of 1865–1867. The term "stamping out" came from the government's draconian policy of culling whole herds that showed the slightest appearance of this epizootic and forbidding the movement of cattle from suspected districts. The apparent success of this scheme allowed Simpson to round the bend on the logic of "containment" and proceed directly to the language of "extermination." He wrote of the cattle plague being "lately banished out of England"[143] and simply suggested a slight adjustment in methods in dealing with humans: "The poleaxe was the chief and leading measure required to stamp out rinderpest. ISOLATION is the chief and leading measure required to stamp out small-pox."[144] Michael Worboys argues that the cattle plague played a key role in prompting a re-evaluation of contagion in medical theory.[145] Simpson's landmark essay itself actually dwells very little on the scientific basis of contagion, and rather amounts to an extended justification of intrusive government measures of disease suppression.

The notion of "stamping out" epidemics was taken up and extended by others, most notably by Dr. William Budd. Budd was already famous for vigorously pushing his theory that typhoid fever originated in all

cases in a specific poison emitted by sufferers. His speech to the National Association of the Promotion of Social Science in 1869 almost dogmatically declared all infectious ailments to be similarly "self-propagating" and made the confident assertion that "in all fundamental points the law of the propagation of these diseases is perfectly made out" (a claim that would astonish most of his contemporaries). His next proposition was that it was simply a matter of recognizing which diseases pass from the sick to the healthy in order to equip society with the means to bring about their "extinction" (a claim that was equally difficult for most to accept).[146] Demonstrating how novel and uncertain the language of "isolation" still was, Budd called for the "insulation of the sick."[147] Furthermore, neither Simpson nor Budd called specifically for hospital isolation (Simpson in fact held deep reservations toward aggregating disease in one place). Budd was nonetheless unequivocal about the necessity of direct state interference. As with many of his contemporaries, Budd believed that a contagious epidemic *naturally* called forth emergency powers far more sharp and aggressive than those pertaining to epidemics arising from insanitary conditions. Indeed, he suggested that the justification for this was "found in the very essence of [personal] infection itself." Should the task of obstructing contagion be left to "volunteers," "individual effort," and independent "municipalities"? For Budd, there could "be no hesitation as to the answer"; the "striking and terrible characteristics" of contagious disease placed it "at once within the sphere of State action."[148] Moreover, suppressing contagion was an action of the national government essentially analogous to its authority and ability for making war:

> By beating down these plagues wherever they appear, by crushing them in their small beginnings, by pursuing them into their strongholds, and rooting them out, by making every advantage gained the ground of new reprisals, by carrying on incessant, implacable, internecine war against them, as against our direst enemies … [we would] gradually pave the way to their extermination. No doubt, to many, such an idea as this will seem in the highest degree utopian; but to have any other is surely to take a very limited view of the power of the human mind, and to be strangely blind to the lessons its triumphs in other fields are every day teaching us.[149]

Although he offers echoes of a Darwinian struggle for survival, Budd pairs this with conventional language of the march of mind. "Stamping

out" is envisioned as an activity in which it is the *naturalness* of contagious disease that would be subdued. Stopping epidemics entirely was within reach, Budd insisted, but it involved the "subjection of the powers of nature to our will" and "the putting of the plagues of nature under our feet."[150] In subsequent years, the development of "living germ" models for disease had the effect of encouraging similar exterminatory dreams, which almost always were connected with justifications of extraordinary police powers and the subduing of contagious bodies. The principle that infections do not arise spontaneously and have no other source but prior sickness (the contagious proposition of germ theory) was taken to the logical conclusion that different species of disease were liable to extinction. They were "not merely preventable, in the ordinary sense of the word, but extinguishable, or abolishable diseases … Like the extinct species of plants and animals, and only the memory of them would remain to posterity."[151] In this case, it would be a natural characteristic of contagion (the dependence upon reproduction and propagation of its own seeds) that could be used against it. All that was necessary were stringent laws to affect the systematic isolation of sufferers, sanitary cordoning of affected places, and quarantine of contacts. This emerging vision of extermination was almost necessarily also a political dream and was often filled with images of the lazaretto and the classical plague town.

At the center of the "stamping out" model were mechanisms for *compulsorily isolating* patients, with additional powers for *compulsorily notifying* disease and *compulsorily disinfecting* homes. A number of contemporaries believed it to pertain to measures exactly similar to the expulsion of lepers under Abrahamic law. *The Times*, acknowledging Budd's proposal, ascertained the intention as "a kind of internal quarantine" and believed the principle was to "draw a cordon around each patient." It had more in common with the operation of the Contagious Diseases Acts than it did with ordinary border quarantine.[152] This of course was undoubtedly its source of appeal amongst many medical men, as well as its most objectionable quality for others. (The same conference at which Budd presented his proposal descended into "positively wild" debate over that intensely controversial legislation.[153]) It was one thing to bring strong powers down upon prostitutes and other social outcasts, but a true system of *stamping out* would have the authorities reaching into every home to ensure precautions were followed by all (as in Haygarth's Benthamite architecture for the "extirpation" of

smallpox). While impressed with Simpson's confidence in the eventual demise of smallpox, *The Times* editorialist believed that "nothing short of [a] universal sanitary despotism would enable us to indulge the idea of 'extinguishing' it."[154] Another editorial noticed that the government had hardly succeeded in making vaccination truly compulsory. Furthermore, "When Mr. Budd calls for a 'standing army, well trained and ably commanded to garrison the land,' he will too certainly alarm all but these soldiers, in other words, our doctors, themselves."[155]

In fact, doctors and health officials were often apprehensive about the powers that might be placed in their hands. *The Lancet* considered it unwise to repeat the punitive sanitary laws of the sixteenth century. "Our notions as to individual liberty of action have, for better or for worse, undergone some modifications—on the whole, doubtless, much for the better." Although recent science had revived the "old-fashioned doctrines of contagion," *The British Medical Journal* editorialist continued, "we cannot resort to any stamping-out measures as were found efficacious in the cattle plague; nor dare we even think of returning to the old laws and customs" of shutting-up houses or banishing the sick from towns altogether. "Our measures for the prevention of the spread of small-pox, typhus fever, cholera, scarlet fever, and the like, must be such as are suitable to human beings and to the most advanced conception of individual freedom."[156] Dr. William Stewart Trench, the Liverpool MOH, similarly dismissed Budd's call for greater sanitary intervention and declared himself astonished, and more than a little frightened, by the powers given to him by the Sanitary Act. It allowed him to invade the "sacred recesses of Englishmen's homes" and order any number of changes and punishments, including the confiscation of infected clothing. This was "government interference with a vengeance," and he did not believe it would be "tolerated for a moment except among a people who were convinced of its necessity." The first task then, according to Trench, should be to "educate the people for further interference" so that they would want to give assistance in the government of health.[157]

A prominent strain of liberal opinion held that the liberty of the subject was in all cases a crucial precondition for the success of health regulations. Sir Charles Hastings clarified the issue, stating "the law is always less powerful than public opinion in such matters."[158] According to this train of governmental thought, which would have been familiar to all involved in the problems of public health, government needed to prepare the "popular mind" and place the actual work of governing with the

governed themselves. In 1870 Mr. George Gibbs of Darlington asked: "Now, were the people prepared for isolation? If one of a man's children were seized with scarlet fever, must the law step in and take that child out of his house? Would its mother permit such a proceeding? No, certainly not." Legislation on this topic would never be successful, Gibbs contended, "until the people were educated to such a point that they would willingly receive it, and then they would no longer need legislation, because, by that time … the head of every household in the kingdom would be a medical officer of health."[159] James Russell, the first full-time MOH of Glasgow and future chief health officer for Scotland (and at the time the medical superintendent of Glasgow's municipal fever hospital), did not mince his words. "No process of 'stamping out,' though elaborate and perfect in print, and much to be desired in fact," he wrote, "can be prosecuted with success" as long as the people remained dull and apathetic:

> Indeed any appearance of compulsory power of removal, or of the interference of authority, even in the way of enquiry, is always found to render discovery [of disease] more difficult, and to increase the effort to conceal, even from the neighbours, who are generally ready to tell from selfish motives. 'Stamping out' therefore would result practically in stamping-in; and so would the original process as applied to cattle, had they only as much power of combined action, and as much to say in the disposition of their own affairs, as human beings, and especially the British, have.[160]

"Stamping out" did become general shorthand for disease *suppression*, even though the term itself always held a troublingly imprecise meaning in the lexicon of preventive medicine and public health. The common mantra was notification, isolation, and disinfection. Each of these suggested a greater amount of *direct, intrusive control* over infected persons than the sanitationist program of ensuring environmental cleanliness. Furthermore, "stamping out" implied some sort of spatial and temporal delimitation—it referred to a specific course of action that initiated wherever and whenever contagious disease presented, and then held it back. The term was thus reactive as well as preventive. It also implied that the boot of government would always be at the ready to pounce and perform the stamping. Metaphorically, it referenced the act of "extinguishing" a nascent fire, tamping down a flame so as to prevent the embers of disease from coming

together and raging into an epidemic. "Stamping out" described a forceful, even aggressive, gesture—one that suggested masculine force and determination. It was analogous to the "uprooting" or "clearing" of fever dens, but was directed primarily at bodies instead of places.

Paradoxically, to say the least, the rhetoric and logic of "stamping out" was fervently taken up by some of the leading opponents of mandated vaccination. For example, leading anti-compulsionist and vaccine skeptic Dr. Edgar Crookshank praised Simpson's "stamping out" scheme and felt it simply revived the main tenets of Haygarth's admirable proposal for smallpox police. There was great significance in the fact that the cattle plague had been completely suppressed without a vaccine. "Although slaughter is the most complete form of isolation," he wrote, "considerable success has been obtained without going as far as slaughter."[161] By the 1880s it was not uncommon for activists like Crookshank to consider isolation *the less intrusive* (and more scientifically sound) alternative to vaccination.[162] The idea received something close to a practical trial in the notorious anti-vaccination stronghold of Leicester, where the health authorities bowed to public pressure and instituted a system for rooting out cases of smallpox and directing them to the smallpox hospital. More stringent measures (referred to as "quarantine regulations") were put in place during an epidemic in 1892–1893, and required persons in contact with the sick to stay in their homes. Edward Seaton found it significant (and odd) that the word "quarantine," officially discarded in Britain in practically all other contexts, had come into use again at Leicester as a means of avoiding compulsory vaccination. The "amount of surveillance, domestic intrusion, and interference with personal liberty," he wrote, "bears some resemblance to the system of which was possible at the time of the plague."[163] Seaton marveled at the irony of the Leicester system of smallpox control, but he absolutely did not recommend it.

Some historians have taken the "stamping out" concept as virtually *the* defining principle of Victorian public health in the last three decades of the nineteenth century. Tom Crook, however, persuasively argues that, as a program, it was actually always contested and malleable. The program to stamp out disease was "assembled and legitimated as a system" by the "antagonisms and tensions" arising from the fact that it had no unifying or directing authority and was ramified in various forms through a complex range of national and local agencies and actors.[164] Crook suggests

that the program be seen less as an example of the growing agency of the modern state and more "of a piece with an emerging culture of governance"—a culture that placed more importance on developing an art of logistics to manage overall risks than on deploying juridical commands to neutralize specific dangers.

In fact, in regard to isolation, medical officers tended to seek ways for it to be made *indirect and systematic* as opposed to heavy-handed and targeted. A key concern was to distance fever and smallpox hospitals from the idiom of quarantine and to find ways they could be portrayed as extensions of conventional sanitary work. A key example of this is the 1874 report prepared for the LGB by George Buchanan, formerly of the London Fever Hospital. He surveyed the smallpox epidemic of 1870–1871 in various English towns, noting the degree and fluctuation of local mortality and correlating this to the amount of public hospital accommodation for separate treatment. This led him to conclude that smallpox and other infections were "capable of being wonderfully limited by isolation in hospital." Moreover, the amount of provision for such isolation "may be expected to affect materially the rate at which an epidemic of small-pox becomes extinguished."[165] That is, the amount of accommodation, measured as a portion of the population, had a statistical relationship to the behavior of epidemic disease. This all assumed, Buchanan stipulated, that the hospital isolation was in place before the first cases of an epidemic. He recommended that hospitals be planned and constructed in non-epidemic times, since they could never be satisfactorily secured during the panic of an emergency. If this were done, the hospital would have the most beneficial effect of lessening or even forestalling epidemic *crises*. A central part of Buchanan's report was his suggestion that towns maintain ten isolation beds for every 10,000 of the population—a ratio accepted as the standard rule of thumb well into the next century.[166]

Buchanan was careful in his choice of words to avoid the rhetoric of overt, direct interventionism. He argued that the systematic and timely provision of isolation accommodation on a sufficient scale had shown the ability to exert an "arresting influence" on epidemics.[167] He thus shifted the focus of action from seizing the sick person to grasping and adjusting the natural event. Others were less equivocal. As one MOH stated: "Like the queen wasp in a garden, the first case of infection must be got hold of, whatever the cost."[168] Still, the interest was primarily focused in intervening upon the epidemic at its own level and

understanding it upon the scale of its occurrence. Of course the strategy depended upon successfully breaking individual links in the chain of infection, but Buchanan seemed to feel that isolation as a program would be politically legitimated by its overall outcomes. His primarily statistical mode of understanding the effects of hospitals supported a primarily statistical concept of action. The task was to examine the norms of epidemics and look for ways to affect these norms *at the level of the norms*. A policy of isolation, therefore, would not seek to negate an epidemic's essential nature, but rather preserve it and modify it in order to create more favorable averages. One could not compel an epidemic to behave in a certain way, but it could be guided. In almost the exact same sense, Buchanan felt that applying strong compulsory measures to the sick themselves was unnecessary. He suggested shaping and encouraging new social conventions, or in other words normalizing hospital treatment for those people likely to take advantage of such hospitals. His report predicted that providing infectious hospitals on a large scale would cause them to become accepted and even popular—again, in essence locating the governance of contagion with the people as much as possible.[169] Simply constructing a "standing supply" of hospitals would obviate the need for a "standing army" of officials to thrust persons into them. The local authority's key function, in Buchanan's view, was simply to ensure a sufficient amount of isolation and to not stand in the way; when accommodation became properly proportionate to population, the people's conduct would be changed.

Buchanan and others were involved in the process of transforming the age-old question of hospital sanitation and hygiene into a new possibility: the hospital as an agent of societal sanitation and hygiene. This is laid out clearly in Buchanan's annual oration to the Medical Society of London in1875, in which he considered how hospitals for infectious disease might serve as key *bulwarks* against epidemics. One day soon, he predicted, an "organized system of sanitary hospitals" could be considered "a standing part of the sanitary defences of the country."[170] Isolation obviously supposed a spatial strategy at the level of the hospital itself, but it could also imply some sort of broader spatial fortification or barrier in a similar way to how the "English System" of good sanitary government was talked of as forming a "sanitary wall" around the country. Showing how this could be conceived on both local as well as national scales, one hospital architect declared that isolation hospitals

formed "a most important feature in the 'defences' of a sanitary district against invasion by infectious diseases."[171]

It was in this way that isolation came to be seen as necessitating a constant state of alert and preparedness. Hospitals had to become the permanent infrastructure lying in wait, ready to spring into action at the moment required. This would entail investment in continuous, expensive upkeep. It also meant that the dream of exterminating epidemic disease must be diminished or dispelled altogether. Intellectually, this conception of the powers of isolation owes far more to epidemiology than to bacteriology. And as such, "stamping out" would be as much or more a biopolitics of the population than the anatomo-politics of contagion conceived by Simpson and Budd. The notion of stamping out epidemics that eventually came to prevail in Britain placed a great deal more emphasis on *managing* infectious disease than *abolishing* it altogether. The most common analogy was to the utility of fire suppression. A paper delivered to the Social Science Association in 1878 recalled the "vivid picture" one magazine recently provided of the Fire Marshall in London,

> … surrounded by wires which communicated with every part of the metropolis; men, horses, and engines ready to dash off at a instant's notice to extinguish the first outburst of flame; and I could not [help] wishing as I read, that a parallel sketch might some day be possible of the officers presiding over the health of that great city, sitting with ambulances and staff in attendance for the first telegraphic intimation of a case of typhus or small-pox, ready to convey it to a place of safety and to stamp out all traces of the disease.[172]

The analogy was telling: fires will always occur, and they will always need a system to bring about their *extinguishment*. This attitude toward stamping out, which framed it essentially as an art of logistics, is explored in subsequent chapters of this book. As a culture of governance, this was both politically more palatable and also medically more realistic than the version of stamping out framed by the juridical powers of quarantine and police. Finally, this statistical and probabilistic conception of isolation significantly shaped public health objectives. As the MOH for St. Pancras explained, the aim was "not so much to annihilate infectious disease as to prevent endemic infectious disease from becoming epidemic, and to enable us to control it before, and not after it has assumed epidemic

proportions. We are not so utopian as to expect to eradicate infectious disease in a twinkling."[173]

By the end of the 1860s it was widely agreed that the task of isolating the sick could not be sufficiently accomplished by voluntary institutions alone. In places such as Newcastle and Carlisle, charitable infectious hospitals were transferred to the local sanitary authorities. At others, notably Manchester, municipal government subsidized the continuance of a private fever hospital. The ability of local authorities to provide hospital accommodation was encouraged by the 1866 Sanitary Act, but it was permissive instead of obligatory and the creation of hospitals was therefore neither smoothly nor consistently implemented. Some cities such as Glasgow went all in for hospital construction, but others did not. Edinburgh did not open its City Hospital for infectious diseases until 1885. Many towns took no action until faced with an emergency like a smallpox outbreak. Certainly by the mid-1880s it was generally assumed that any sanitary authority that neglected to provide hospital isolation had "failed to fulfil one of the great purposes for which it was instituted."[174] Interestingly (as seen in subsequent chapters) this was also one of the main difficulties in London, which lacked a unified sanitary government. The metropolis's three-dozen independent sanitary districts essentially either ignored or abandoned the difficult job of establishing hospitals. The Poor Law (Metropolitan) Reform Act of 1867 created the Metropolitan Asylums Board for the sole purpose of providing "asylums" for sick paupers—*not* sanitary hospitals for the benefit of the public health. The MAB managers nonetheless from their very commencement expressed interest in working to stamp out disease. In 1871, one suggested they should not "rest content with dealing with epidemics as they arise," but rather "deal with epidemics before they made themselves felt."[175] The London Fever Hospital, meanwhile, felt a loss of purpose after the creation of the MAB. It eventually refashioned itself into a charity for the treatment of the class above paupers and a comfortable pay-hospital for the middle-classes.[176]

The term, "Isolation" Hospital, had not yet fully lost its inverted commas in the 1880s.[177] There continued to be some debate over whether they should be called "Infectious Hospitals" or renamed "Epidemic Hospitals" or something else.[178] Some preferred "Isolation-Home," thinking this would excite less public prejudice.[179] In 1884 the MAB decided that its institutions not receiving smallpox would be called "Fever Hospitals." This is only some indication of the large variety of

**Table 2.1** Isolation hospital accommodation as rate per population

| | *Beds per 10,000 population* | | | | | |
|---|---|---|---|---|---|---|
| | *1882* | | | *1910* | | |
| | *Fever* | *Smallpox* | *Combined* | *Fever* | *Smallpox* | *Combined* |
| London | 1.4 | 2.4 | 3.8 | 14.8 | 4.2 | 19 |
| Liverpool | 0 | 0 | 0 | 13.9 | 2.1 | 16 |
| Manchester | * | * | 7.3† | 8.1 | 0.9 | 9 |
| Leeds | 2.5 | 1.9 | 4.4 | 10 | 4 | 14 |
| Edinburgh | * | * | 16.8 | 15.4 | 1.3 | 16.7 |
| Glasgow | * | * | 12.6 | 10.5 | 2.5 | 13 |
| Dundee | * | * | 4 | 7.4 | 1.2 | 8.6 |
| Aberdeen | * | * | 12.4 | 9.8 | * | 9.8 |
| Sheffield | 0 | 0 | 0.2 | 10.3 | 0.7 | 11 |
| Birmingham | 0 | 0 | 0 | 10 | 2.1 | 12 |

Alexander Collie, *RCFSH*, 139; *Report of the Medical Officer of Health of the City of Glasgow, 1910* (Glasgow: Glasgow Corporation: 1911), 71.
*Fever and Small-Pox accommodation not differentiated
†For 1893

names, plans, styles, and sizes of isolation hospitals that arose nationwide between 1870 and 1900. In 1879, only 296 out of 1593 sanitary authorities in England and Wales claimed to provide a hospital for infectious diseases, and some of these were of the very rudest description.[180] By 1891 that number had risen to about 400. Isolation Hospitals Acts were passed in 1893 and 1901, which resulted in at least 755 fever hospitals and 363 smallpox hospitals by the beginning of the Great War.[181] Although *the hospitals* demonstrated a tremendous variety in size and quality, health officials' most common and agreed-upon measurement of *the method of isolation* was the standard of accommodation per portion of population (Table 2.1). Viewed as a technology of governance, the isolation hospital was meant to affirm and prove the necessity of the well-proportioned sanitary intervention.

Edward Seaton gave another prestigious address at the end of his career, this time the Chadwick Lectures in 1911. On this occasion he again dwelt mainly on the effects of hospital isolation as a general public health measure, and he took special pains to delineate how the objectives

had changed. "The phrase *stamping out*, as applied to infectious diseases," he regretted to say, "was far too commonly used" four decades earlier and no doubt it had contributed to the false hope that scarlet fever and other diseases would be eliminated by strict isolation and disinfection.[182] This had clearly not occurred, but thankfully the expectation of eradication had "given place to a feeling of satisfaction when large numbers of cases are brought within the benefits of hospital treatment at the public expense." Moreover, the success of the system was regarded as a question of preventing these diseases from assuming epidemic proportions.[183] This is what was now meant by "extinguishing" epidemics.

Seaton's comments neatly demonstrate some of the ways that hospital treatment of the infectious sick had been integrated into the British model of sanitation, where it had previously been held at arm's length as reminiscent of quarantine. Over the course of the nineteenth century the hospital moved from representing the site of exclusion and negative power and toward functioning as an instrument for the positive government of urban space and the urban population. This occurred, it is important to note, while British health officials held close to the idea that quarantine, in its essential aspects, was a spatial practice of simple and backward people. One American writer captured the British position succinctly. He allowed that isolation was "essentially local or sporadic quarantine," but insisted that "in highly civilized countries [it was] more perfect and successful on the whole, than the wholesale or frontier quarantine." Isolation in fact differed in every important respect from the blunt quarantines practiced by poorly governed people and still sadly clung to by "less civilized nations."[184] Over roughly one hundred years contagion fell away and then re-emerged as a critical project of modern urban government, although under a significantly different mode of governmentality. The management of contagious disease diminished as a direct, intrusive power (as in quarantine and the "plague town") and enlarged as part of a general strategy of indirect and probabilistic government. Subsequent chapters explore how the isolation system in London presented both challenges and opportunities for reconciling liberal government with the desire to *stamp out* epidemics. In the end, though, we can be certain that the Victorians were just as anxious to avoid the classical "plague town" as they were to avert contagious diseases.

## Notes

1. Edward Seaton, "The Value of Isolation and Its Difficulties," *The Lancet*, 7 March 1896, 601–10. See also *The Lancet*, 14 March 1896, 698–702.
2. Seaton, "The Value of Isolation…," 603–4.
3. See for example George Rosen, *A History of Public Health* (New York: M.D. Publications, 1958). This is not exactly the position of Michael Worboys, but he does come close to it in *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865–1900* (Cambridge: Cambridge University Press, 2000).
4. Baldwin, Peter. *Contagion and the State in Europe, 1830–1930* (New York: Cambridge University Press, 2005), 139–64. For Baldwin the mere establishment of a hospital during an epidemic is evidence of a "quarantinist bent" (135).
5. Krista Maglen, *The English System: Quarantine, Immigration and the Making of a Port Sanitary Zone* (New York: Manchester University Press, 2014).
6. Seaton, "The Value of Isolation…," 603.
7. In medical terminology, the general term, "fever" (or simply "typhus"), represented a larger group of common fevers (continued, intermittent, typhus-like or *Typhoid*, etc.) that stood apart from the "distinct exanthema" denoting skin eruptions like smallpox, scarlet fever, and measles.
8. James Lind, *Two Papers on Fevers and Infection. Which were read before the Philosophical and Medical Society, in Edinburgh* (London: D. Wilson, 1763), 1.
9. W. F. Bynum, "Cullen and the Study of Fevers in Britain, 1760–1820," *Medical History, Supplement no. 1* (1981), 135–147.
10. John Haygarth, *A Letter to Dr. Percival on the Prevention of Infectious Fevers* (London: Cadelll and Davies, 1801), 105–07, 125.
11. A favorable description of Haygarth's scheme was included in John Howard's monumental book on lazarettos, and this work was frequently cited as justification for the fever wards' arrangement of cleanliness, ventilation, and separation. See John Howard, *An Account of the Principal Lazarettos in Europe, 2nd Edition* (London: Johnson, Dilly and Cadell, 1791), 208–09; *Cowdroy's Manchester Gazette, and Weekly Advertiser*, 30 April 1796, 3.
12. Haygarth, *A Letter to Dr. Percival, 95.*
13. Francis M. Lobo, "John Haygarth, Smallpox and Religious Dissent in Eighteenth-Century England," in *The Medical Enlightenment of the Eighteenth Century*, edited by Andrew Cunningham and Roger French (New York: Cambridge University Press, 1990), 217–53; Arthur Boylston, *Defying Providence: Smallpox and the Forgotten 18th Century*

*Medical Revolution* (North Charleston, South Carolina: CreateSpace Independent Publishing, 2012), 193–202; M. C. Buer, *Health, Wealth and Population in the Early Days of the Industrial Revolution* (New York: Howard Fertig, 1968 [1926]), 185–86.

14. John Haygarth, *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain; and to Introduce General Inoculation, v. I* (London: J. Johnson, 1793), 128.
15. Haygarth, *A Sketch of a Plan*, 155.
16. Haygarth, *A Sketch of a Plan*, 183.
17. Haygarth, *A Sketch of a Plan*, 116–17.
18. Dr. James Currie, in *A Sketch of a Plan to Exterminate the Casual Smallpox from Great Britain, v. II*, 449. See also Edgar M. Crookshank, *The Prevention of Small-Pox, with Special Reference to the Origin and Development of the Stamping-Out System* (London: H. K. Lewis, 1894), 26–27.
19. M. C. Buer, *Health, Wealth and Population in the Early Days of the Industrial Revolution* (London: Routledge, 1926), especially Chap. 15; John Pickstone, *Medicine and Industrial Society: A History of Hospital Development in Manchester and Its Region, 1752–1946* (Manchester: Manchester University Press, 1985).
20. *Cowdroy's Manchester Gazette, and Weekly Advertiser*, 16 April 1796, 3.
21. Kevin Siena, *Rotten Bodies: Class and Contagion in Eighteenth-Century Britain* (New Haven: Yale University Press, forthcoming).
22. Quoted in J. B. Russell, "The Policy and Practice of Glasgow in the Management of Epidemic Diseases, with Results," *TESL* n.s. 1 (1881–82), 75.
23. W. F. Bynam, "Hospital, Disease and Community: The London Fever Hospital, 1801–1850," in *Healing and History: Essays for George Rosen*, ed. Charles E. Rosenberg (New York: Science History Publications, 1979), 97–115.
24. Christopher Stanger, *Remarks on the Necessity and Means of Suppressing Contagious Fever in the Metropolis* (London: W. Phillips, 1802), 12, 38. See also Thomas Archibald Murray, *Remarks on the Situation of the Poor in the Metropolis, as Contributing to the Progress of Contagious Diseases; With a Plan for the Institution of Houses of Recovery for Persons Infected by Fever* (London: Society for Bettering the Condition of the Poor, 1801).
25. Stanger, *Remarks on the Necessity*, 35.
26. Stanger, *Remarks on the Necessity*, 23–24, 11.
27. Siena, *Rotten Bodies.*
28. Bateman, *A Succinct Account*, 157.
29. Siena, *Rotten Bodies.*

30. Bateman, House of Commons, *Report from the Select Committee on Contagious Fever in London* (London, 20 May 1818) (*RSCCFL*), 12.
31. Bateman, *RSCCFL*, 14.
32. Thomas Bateman, *A Succinct Account of the Contagious Fever of this Country* (London: Longman, Hurst, Rees, Orme, and Brown, 1818), 104. Matthew L. Newsom Kerr, "Fevered Metropolis: Epidemic Disease and Isolation in Victorian London" (Ph.D. diss., University of Southern California, 2007), 40–7.
33. *LFHAR* for 1834.
34. *LFHCM*. From the Annual Report presented to Annual General Meeting May 1, 1807.
35. *LFHCM*, from the 12th Annual Report presented to Annual General Meeting April 29, 1814. Practically all promotional literature subsequently referenced the numbers of domestic servants received, the humane treatment meted out, and the thankfulness of young families "relieved from the apprehension of suffering by the spreading of the disease." *LFHAR* for 1833. See also *LFHCM*, 26 October 1827.
36. Newsom Kerr, "Fevered Metropolis," 66–73.
37. Bateman, *A Succinct Account*, 11–12.
38. Simon Finger, *Contagious City: The Politics of Public Health in Early Philadelphia* (Ithaca: Cornell University Press, 2012).
39. Maclean himself was certainly an abrasive and divisive figure, accused by his many detractors of harboring a delusional monomania. [See "Fever—Contagion—Quarantine," *Medico-Chirurgical Review* 6 (January 1825), 18.] Maclean played an important role at two Parliamentary inquiries considering reform of the quarantine laws in 1819 and 1824. Catherine Kelly, "'Not from the College, but Through the Public and the Legislature': Charles Maclean and the Relocation of Medical Debate in the Early Nineteenth Century," *Bulletin of the History of Medicine* 82 (2008), 545–69.
40. Erwin Ackerknecht, "Anticontagionism between 1821 and 1867," *Bulletin of the History of Medicine* 22 (1948), 567.
41. Charles Maclean, *Suggestions for the Prevention and Mitigation of Epidemic and Pestilential Diseases* (London, 1817).
42. Pelling refutes the idea that anticontagionism was even a cohesive movement, apart from some fanatics like Maclean. Margaret Pelling, *Cholera, Fever and English Medicine, 1825–1865* (New York: Oxford University Press, 1978).
43. Maglen, *The English System*.
44. Francis Boott, *Memoir of the Life and Medical Opinions of John Armstrong, M.D.* (London: Baldwin and Cradock, 1833), 29–31. See also John V. Pickstone, "Dearth, Dirt and Fever Epidemics: Rewriting the History of

British 'Public Health', 1780–1850," in *Epidemics and Ideas: Essays on the Historical Perception of Pestilence*, edited by Terence Ranger and Paul Slack (New York: Cambridge University Press, 1992), 140–42.

45. John Armstrong, *Lectures on the Morbid Anatomy, Nature, and Treatment of Acute and Chronic Diseases; Delivered at the Theatre of Anatomy, Webb Street*. Edited by Joseph Rix (London: Baldwin and Cradock, 1834), 531.
46. Armstrong, *Lectures on the Morbid Anatomy*, 547–48.
47. Armstrong, *Lectures on the Morbid Anatomy*, 546.
48. According to Tweedie, every physician except one connected with the LFH had contracted fever, and three out of eight had died; every single resident medical officer, nurse, matron, porter, laundress, and servant had also sickened. Alexander Tweedie, *Clinical Illustrations of Fever* (London: Whittaker, Treacher & Co., 1830), 88–90.
49. "Contagion and Sanitary Laws," *Westminster Review* 3 (January 1825), 134–67; "Plague—Typhus Fever—Quarantine," *Westminster Review* 3 (April 1825), 499–530. *The Lancet* accused Smith of filching many of his views from Armstrong's lectures—a charge he indignantly denied. *The Lancet*, 4 June 1825, 280–81.
50. "Plague—Typhus Fever—Quarantine," 514.
51. "Plague—Typhus Fever—Quarantine," 514–18.
52. "Plague—Typhus Fever—Quarantine," 519–21. The distinction in terms was a hazy one at best, but nonetheless fueled animated debates in the 1830s and 1840s. E. W. Goodall, *William Budd: The Bristol Physician and Epidemiologist* (Bristol: Arrowsmith, 1936); Pelling, *Cholera, Fever and English Medicine*.
53. [Thomas] Southwood Smith, *A Treatise on Fever* (London: Longman, 1830), 362–64.
54. Pickstone, "Dearth, Dirt and Fever Epidemics," 145.
55. Michael Brown, "From Foetid Air to Filth: The Cultural Transformation of British Epidemiological Thought, ca. 1780–1848," *Bulletin of the History of Medicine* 82 (2008), 515–44.
56. Southwood Smith authored the unsigned article, "The Use of the Dead to the Living," in the Benthamite *Westminster Review* in 1824. Smith also famously preached a philosophical sermon over the body of his friend Jeremy Bentham during a public autopsy in 1832. Less well known is that Armstrong also donated his body for anatomization and that he enjoyed the same fate in the same operating theater. See T. Southwood Smith, *A Lecture Delivered Over the Remains of Jeremy Bentham in the Webb-Street School of Anatomy and Medicine, On the 9th of June, 1832* (London: Eftingham Wilson, 1832); Boott, *Memoir of the Life and Medical Opinions of John Armstrong*, 102.

57. Ruth Richardson, *Death, Dissection and the Destitute, 2nd edition* (Chicago: University of Chicago Press, 2000).
58. *LFHAR* for 1843, 12. See also Pickstone, "Dearth, Dirt and Fever Epidemics," 143–44.
59. *LFHCM*, 28 December 1838.
60. Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick: Britain, 1800–1854* (New York: Cambridge University Press, 1998); Pickstone, "Dearth, Dirt and Fever Epidemics."
61. Michel Foucault, *The Birth of the Clinic: An Archeology of Medical Perception*, trans. A. M. Sheridan Smith (New York: Vintage, 1994).
62. Smith, *A Treatise on Fever*, 177.
63. Pickstone, "Dearth, Dirt, and Fever Epidemics," 141.
64. Tweedie, *Clinical Illustrations of Fever*, 14.
65. N. D. Jewson, "The Disappearance of the Sick-man from Medical Cosmology, 1770–1870," *Sociology* 10 (1976), 225–44; Mary Fissell, "The Disappearance of the Patient's Narrative and the Invention of Hospital Medicine," in *British Medicine in an Age of Reform*, edited by Roger French and Andrew Wear (London: Routledge, 1991), 92–109.
66. William Jenner, *The Identity or Non-Identity of Typhoid and Typhus Fevers* (London: John Churchill, 1850), 4–5. See also *The Lancet*, 22 December 1849, 679–81.
67. Pickstone, "Dearth, Dirt and Fever Epidemics."
68. Pickstone, "Dearth, Dirt and Fever Epidemics," 138.
69. "Report on some of the Physical Causes of Sickness and Mortality to which the Poor are particularly exposed; and which are capable of removal by Sanatory Regulations, exemplified in the present condition of the Bethnal Green and Whitechapel Districts, as ascertained on a personal inspection by Southwood Smith, M.D., Physician to the London Fever Hospital," *Sessional Papers of the House of Lords, 1837–38, v.45: Poor Law Commission, England* (London, 1838), 83–96.
70. Ibid., 84.
71. Quoted in William Guy, *Unhealthiness of Towns, Its Causes and Remedies* (London: Charles Knight, 1845), 29.
72. Guy, *Unhealthiness of Towns*, 25.
73. Thomas Osborne, "Security and Vitality: Drains, Liberalism and Power in the Nineteenth Century," in *Foucault and Political Reason: Liberalism, Neo-Liberalism and the Rationalities of Government*, edited by Andrew Barry, Thomas Osborne and Nikolas Rose (Chicago: University of Chicago Press, 1996), 104–05.
74. Hamlin, *Public Health and Social Justice in the Age of Chadwick*.
75. Osborne, "Security and Vitality," 102–04.

76. *Health of Towns: Report of the Speeches at a Meeting Held at the London Coffee House on the 17th of August, 1847 to Promote a Subscription in behalf of the Widow and Children of Dr. J. R. Lynch…* (London, 1847), 8.
77. Edwin Chadwick, "Administration of Medical Relief to the Destitute Sick of the Metropolis," *Fraser's Magazine* 124 (1866), 363.
78. [William Augustus Guy], *The Evils of England, Social and Economical* (London: John W. Parker, 1848), 80. On Guy, see Anne Hardy, "Development of the Prison Medical Service, 1774–1895," in *The Health of Prisoners: Historical Essays*, edited by Richard Creese, W. F. Bynum, and J. Bearn (Atlanta, GA: Rodopi, 1995), 59–82.
79. *London Gazette*, 6 October 1848, 3619.
80. "Are Cholera Hospitals Beneficial or Injurious?" *London Medical Gazette*, 8 September 1848, 419–21.
81. General Board of Health, *Report on Quarantine* (London, 1849).
82. "The Metropolitan Hospitals–Cholera Patients," *London Medical Gazette*, 7 September 1849, 417–21.
83. *The Lancet*, 11 November 1848, 532–33; *The Lancet*, 4 August 1849, 128–30.
84. *The Lancet*, 24 September 1853, 305.
85. The Great Northern Railway agreed to pay for the hospital's relocation to the Liverpool Road. Private Act of Parliament (9 & 10 Vic., Chap. 71, clause 45).
86. Islington Central Reference Library Yp/H610, *Report of the Proceedings of the Committee appointed at a Public Meeting of the Inhabitants, June 4th, 1847, to Oppose the Erection of The London Fever Hospital in the Liverpool Road, Islington* (Islington Green, London: J. H. Jackson, 1848), 3. A similar public agitation set up over the erection of parochial "fever sheds" in Liverpool in 1847. See Paul Laxton, "Fighting for Public Health: Dr. Duncan and his Adversaries," in *Body and City: Histories of Urban Public Health, edited by Sally Sheard and Helen Power* (New York: Routledge, 2000), 59–88.
87. Letter from "Many Inhabitant Householders," *The Times*, 4 June 1847, 6.
88. Islington Central Reference Library, Y/H610/LON *Copy of the Memorial laid before the General Board of Health, on the 21st of February, 1849, by the Committee opposing the Erection of the London Fever Hospital in Liverpool Road, Islington* (n.d.), 2.
89. *Copy of the Memorial laid before the General Board of Health*, 2.
90. *Report of the Proceedings of the Committee*, 4.
91. 11 and 12th Vic., Chap. 123. A similar measure failed as a separate bill in 1847. *The Times*, 13 July 1847, 4.
92. *The Lancet*, 1 September 1849, 251.

93. Florence Nightingale, *Notes on Hospitals* (London: Parker, 1859); ibid., *Notes on Hospitals, third edition* (London: Longman, 1863).
94. *MTG*, 29 October 1859, 435.
95. *The Lancet*, 5 November 1859, 465. The emergence of fever was soon viewed as a better gauge of healthfulness than institutional mortality rates alone. *The Lancet*, 27 February 1864, 250.
96. *Edinburgh and London Monthly Journal of Medical Science* 2 (1842), 392–93; *MTG*, 20 February 1864, 210.
97. Christison, "On the Distribution of Fever Patients in an Hospital," *Monthly Journal of Medical Science* 10 (March 1850), 262–72.
98. Edward Latham Ormerod, *Clinical Observations on the Pathology and Treatment of Continued Fever, From Cases Occurring in the Medical Practice of St. Bartholomew's Hospital* (London: Longman, Brown, Greens, and Longmans, 1848), 26.
99. *The Times*, 15 January 1862, 12; Nightingale, *Notes on Hospitals, third edition*, 10.
100. *The Lancet*, 14 July 1860, 40. See also *The Lancet*, 21 July 1860, 65; *The Lancet*, 28 July 1860, 88; *The Lancet* 1 September 1860, 216; *The Lancet* , 8 December 1860, 567, 574. See also Lindsay Granshaw, "'Fame and Fortune by Means of Bricks and Mortar': The Medical Profession and Specialist Hospitals in Britain, 1800–1948," in *The Hospital in History*, edited by Lindsay Granshaw and Roy Porter (New York: Routledge, 1989), 199–220.
101. "Report by Dr. John Syer Bristowe and Mr. Timothy Holmes on the Hospitals of the United Kingdom," in *Sixth Annual Report (for 1863) of the Medical Officer of the Privy Council* (London, 1864).
102. "Report by Dr. John Syer Bristowe and Mr. Timothy Holmes," 471.
103. Charles Murchison, *A Treatise on the Continued Fevers of Great Britain* (London: Parker, Son, and Bourn, 1862), 609. See also *LFHAR* for 1863, 9 and *MTG*, 20 February 1864, 210.
104. *LFHCM*, Monteagle, "Memorandum Respecting the London Fever Hospital" (dated 9 February 1860).
105. *LFHCM*, 9 November 1860.
106. [William Strange], "Plague and Pestilence," *Cornhill Magazine* 11 (May 1865), 591–603.
107. *The Lancet*, 11 February 1865, 151.
108. *The Lancet*, 11 April 1863, 423.
109. Murchison, *Treatise on the Continued Fevers*, Chap. 8.
110. *LFHAR* for 1862, 9–10; Charles Murchison, "On the Isolation of Infectious Diseases," *MTG*, 20 February 1864, 210–11.
111. Murchison, "On the Isolation of Infectious Diseases," 211.
112. *The Lancet*, 2 April 1864, 391.

113. *The Lancet*, 11 February 1865, 151. See also Edward Long Fox, "Where Should Typhus be Treated?" *Edinburgh Medical Journal* (January 1866), 592–612; Francis Edmund Anstie, *Notes on Epidemics: For the Use of the Public* (London: Jackson, Walford, and Hodder, 1866), 53–55.
114. *Edinburgh Medical and Surgical Journal* v.9, pt.ii (May 1864), 1043.
115. *LFHAR* for 1862, 9; *LFHAR* for 1863, 10.
116. "Growth of a Hospital," *All the Year Round* (10 August 1861), 475–80.
117. Michael Brown, "'Like a Devoted Army': Medicine, Heroic Masculinity, and the Military Paradigm in Victorian Britain," *Journal of British Studies* 49 (July 2010), 601.
118. "A Fight with Fever," *All the Year Round* (28 January 1865), 16–18.
119. *The Lancet*, 22 August 1829, 657.
120. Francis Anstie, "Distribution of Fever Cases in General Hospitals," *The Lancet*, 10 June 1865, 632–33. Murchison, *A Treatise on the Continued Fevers of Great Britain, second edition* (London, 1873), 697; Alexander Wynter Blyth, *A Dictionary of Hygiene and Public Health* (London: Griffin, 1876), 280.
121. "British Epidemics," *British Quarterly Review* 43 (January 1866), 37. On the social and economic insecurity associated with typhus, see Anne Hardy, "Urban Famine or Urban Crisis? Typhus in the Victorian City," *Medical History* 32 (1988), 401–425 and Gareth Stedman Jones, *Outcast London* (New York: Pantheon, 1984), Chaps. 3–5.
122. Anstie, *Notes on Epidemics*, 71–72.
123. *The Times*, 5 January 1866, 6. See also *The Times*, 3 January 1866, 9.
124. Letter from Horace Jeaffreson, *The Times*, 10 April 1865, 11. See also *The Times*, 12 April 1865, 11; *The Times*, 18 April 1865, 7; *The Times*, 24 April 1865, 12; *The Times*, 15 September 1865, 10; *The Times*, 18 September 1865, 6; *The Times*, 3 January 1866, 5.
125. Letter from Horace Jeaffreson, *The Times*, 14 April 1865, 8. See also *LFHAR* for 1865, 12.
126. *LFHAR* for 1865, 13.
127. *LFHAR for 1861*, 10. See also *The Times*, 17 January 1862, 12.
128. Anne Hardy, "Buchanan, Sir George (1831–1895)," *Oxford Dictionary of National Biography* (Oxford University Press, 2004).
129. *LFHAR* for 1872, 5.
130. *LFHAR* for 1865, 12.
131. "Growth of a Hospital," *All the Year Round* (10 August 1861), 475.
132. "Reports on the Old Cholera Haunts and Modern Fever Nests of London," *The Lancet*, 4 November 1865, 522. See also *The Lancet*, 25 November 1865, 602–04; *The Lancet*, 9 December 1865, 656–58.

133. *The Lancet*, 4 November 1865, 521, 523. The Jewish East Side in New York City was dubbed "the typhus ward" in the 1890s. Priscilla Wald, "Communicable Americanism: Contagion, Geographic Fictions, and the Sociological Legacy of Robert E. Park," *American Literary History* 14, no. 4 (Winter 2002), 670.
134. *The Lancet*, 25 November 1865, 602.
135. *The Lancet*, 13 August 1864, 175. See also *The Lancet*, 18 June 1864, 694–96; *The Lancet*, 25 June 1864, 724–26.
136. J. Netten Radcliffe, "On the Prevalence, Distribution, and Limitation of Scarlet in England," *TESL* 2 (1867), 262–277.
137. Hardy, *Epidemic Streets*, 60.
138. *The Lancet*, 9 June 1866, 637.
139. "Report of the Council on Cholera Hospitals, adopted July 9th, 1866," *TESL* 2 (1862/63-1865–66), appendix, 1–30.
140. Sir James Y. Simpson, "Proposal to Stamp Out Small-Pox and other Contagious Diseases," in *Anaesthesia, Hospitalism, Hermaphroditism, and a Proposal to Stamp Out Small-Pox and Other Contagious Diseases* (Edinburgh: Adam and Charles Black, 1871), 543–53. First published in *MTG*, 4 January 1868, 5–6; *MTG*, 11 January 1868, 32–33.
141. *The Lancet*, 1 February 1868, 172.
142. Worboys, *Spreading Germs*, 119; Hardy, *Epidemic Streets*, 123–25, Baldwin, *Contagion and the State in Europe*, 322.
143. Simpson, "Proposal to Stamp Out," 544.
144. Simpson, "Proposal to Stamp Out," 545.
145. Worboys, *Spreading Germs*, 43–72. See also Abigail Woods, "The Construction of an Animal Plague: Foot and Mouth Disease in Nineteenth-Century Britain," *Social History of Medicine* 17 (2004), 23–39.
146. William Budd, "Can the Government Further Beneficially Interfere in the Prevention of Infectious Diseases?" *TNAPSS* (London, Longman, Green, Reader and Dyer, 1870), 389.
147. Budd, "Can the Government Further Beneficially Interfere," 398.
148. Budd, "Can the Government Further Beneficially Interfere," 392.
149. Budd, "Can the Government Further Beneficially Interfere," 400.
150. Budd, "Can the Government Further Beneficially Interfere," 401.
151. [George Drysdale], "The Extinction of Infectious Diseases," in *State Measures for the Direct Prevention of Poverty, War, and Pestilence* (London: E. Truelove, 1885), 18. Another key source is Sir Thomas Watson, *The Abolition of Zymotic Diseases, and Other Similar Enemies of Mankind* (London: C. Kegan Paul, 1879).
152. *The Times*, 5 March 1868, 8; *PMG*, 5 March 1868.
153. *The Lancet*, 9 October 1868, 522.

154. *The Times*, 5 March 1868, 8.
155. *The Times*, 5 October 1869, 7.
156. *BMJ*, 30 April 1870, 439.
157. Trench, "Discussion—Can the Government Further Beneficially Interfere in the Prevention of Infectious Diseases?" *TNAPSS* (London, Longman, Green, Reader and Dyer, 1870), 408–09.
158. Quoted in Sir Rutherford Alcock, *TNAPSS* (1883) 74.
159. Gibbs, "Discussion—Can the Government Further Beneficially Interfere in the Prevention of Infectious Diseases?" *TNAPSS* (London, Longman, Green, Reader and Dyer, 1870), 411.
160. James B. Russell, *Report of the City of Glasgow Fever Hospital, from 1st May, 1867, to 30th April, 1868* (Glasgow: Robert Anderson, 1868), 16–17.
161. Crookshank, *The Prevention of Small-Pox*, 35.
162. This was the argument of dissenting members of the Royal Commission on Vaccination. *Final Report of the Royal Commission on Vaccination* [c.8270] (London, 1896), 202–216.
163. *The Lancet*, 7 March 1896, 603. See Stuart M. Fraser, "Leicester and Smallpox: The Leicester Method," *Medical History* 24 (1980), 315–332.
164. Tom Crook, *Governing Systems: Modernity and the Making of Public Health in England, 1830–1910* (Berkeley, CA: University of California Press, 2016), 243.
165. "Dr. Buchanan's Report on Infectious Disease in Birmingham and Aston, and the Hospital Accommodation of those Places," *Reports of the Medical Officer of the Privy Council and Local Government Board: Annual Report to the Local Government Board with Regard to the Year 1874* (London, 1875), 106–22.
166. E. W. Hope, *Text-Book of Public Health* (Edingburgh: Livingstone, 1915), 170.
167. "Dr. Buchanan's Report," 118.
168. Edward T. Wilson, "Isolation as a Means of Arresting Epidemic Disease," *Practitioner* 22 (February 1879), 145. See also *The Lancet*, 30 January 1875, 170–1.
169. "Dr. Buchanan's Report," 119–20.
170. George Buchanan, *English Hospitals in their Sanitary Aspects: Being the Annual Oration Delivered before the Medical Society of London* (London: Harrison and Sons, 1875), 20. See also George Buchanan, On the Use and Influence of Hospitals for Infectious Disease," *Practitioner* 29 (July–December 1882), 470–80.
171. Percival Gordon Smith, "Planning and Construction of Hospitals for Infectious Diseases," *TESL* n.s. 2 (1882–83), 141–58.

172. Edward T. Wilson, "Isolation as a Means of Arresting Epidemic Disease," *Practitioner* 22 (February 1879), 141–42.
173. *TSIGB*, *1886–87*, 151.
174. Alexander Wynter Blyth, *A Manual of Public Health* (London: Macmillan, 1890), 557.
175. Timothy Holmes, quoted in *The Times*, 31 January 1871, 4.
176. Newsom Kerr, "Fevered Metropolis."
177. Edward Seaton, "Metropolitan Defences against Infectious Diseases," *Transactions of the International Medical Congress, v.IV* (Philadelphia: Fell and Co., 1887), 492.
178. *PH* 12 (June 1900), 666.
179. *BMJ*, 30 April 1870, 440.
180. Thorne Thorne, "Report to the Local Government Board on the Use and Influence of Hospitals for Infectious Diseases," 395.
181. Crook, *Governing Systems*, 217.
182. *The Lancet* 6 July 1912, 27–28.
183. Edward Seaton, *Infectious Diseases and their Preventive Treatment* (London: University of London Press, 1911), x–xi.
184. William Sedgwick, *Principles of Sanitary Science and the Public Health* (New York: Macmillan, 1911), 313–14.

CHAPTER 3

# Persons Out of Place: Seclusion and Scandal in the Workhouse Hospital

In an 1871 article titled "What the Poor Think of Small-Pox," a journalist for *The Echo* newspaper examined the views of Londoners ravaged by the most severe and deadly outbreak of that disease in the century. He found that the "respectable poor" make every effort "to keep prying eyes from discovering 'cases'" and "conceal sickness as they would a crime." In the reporter's assessment, this apprehension was somewhat sensible given the stigma attached to assistance given under the Poor Law. He concluded that "The horror of pauperism among this class exceeds their horror of the small-pox, and well it might, for, on the whole, if it is not a more terrible disease, [pauperism] is one from which there is far less hope of recovery."[1] Another observer of the smallpox crisis repeated the common wisdom stressing it was necessary to deter the honest poor sufferers from the workhouse sick wards in order to preserve "the self-respect which stands in the way of their own present descent to the pauper class."[2] Key officials implicitly endorsed the repulsive, degrading, and punitive reputation of the typical London workhouse. When questioned about reports of sick persons dying unattended in their homes, George Goschen (President of the Poor Law Board and author of the famous "Gochen Minute") declared himself "almost glad" to still find an "extraordinary feeling" persisting among the poorer classes that induced them to hide smallpox from parish officials.[3] It was an attitude and a policy that increasingly worried many doctors and public health officials, who recognized that workhouses were often the only places where the infectious sick could be effectively isolated.



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This chapter explores the difficult relationship in London between pauperism and infection. It sketches how the MAB emerged from a spate of scandals that had highlighted tensions between the workhouse treatment of sick persons and the deterrent ideology of the Poor Law. Although created in a spirit of reform, these new institutions for the separate treatment of infectious diseases were not easily dissociated from pauperism's place within a system of deterrence, deprivation, and degradation. This was dramatically expressed at the MAB's first infectious hospital, where a scandal concerning the treatment of smallpox patients captivated the London press in 1871. The great majority of these patients at the Hampstead Smallpox Hospital were of the "respectable poor," swept up during a panic and finding themselves "out of place" in the workhouse. Not only does this episode underscore the centrality of sickness to the experience of poverty, it also shows how illness and its treatment could be strategically employed to destabilize the meanings and practices of pauperism. A great deal of recent work by Poor Law and welfare historians is interested in the possibilities of pauper resistance and voice.[4] Much of this has come out of recognizing that a disproportionate amount was written about the dependent poor by others on their behalf and that their agency, owing to their official status, was necessarily complicated, contested, and contingent.[5] The public inquiry concerning Hampstead Hospital provided an unusual forum for "paupers" to speak, which they did at great length and in detail. Former inmates produced a remarkably rich record of conditions and perceptions. They depicted the hospital as an inhumane site of exclusion from the outside world—a dark, oppressive, almost Gothic realm of deprivation that they linked to the New Poor Law. In seeking to present themselves as *patients* not *paupers*, inmates of the Hampstead Hospital demonstrated the sick body's ability to disrupt the punitive spatial rationality of the workhouse. This scandal played upon the problematic epistemology of that notorious institution, and featured themes of unjust confinement already central to the narrative conventions of working-class melodrama. Occurring at the commencement of the MAB system, the scandal conspicuously problematized the lingering relationship between the public infectious disease hospital and the Poor Law.

## "As Repulsive as Is Consistent with Humanity"

The New Poor Law of 1834 was arguably the most important piece of social legislation in the nineteenth century. It conceived and gave rise to the era's most important moral architecture of bodily discipline and social regulation: the Victorian workhouse. The workhouse not only provided the physical means by which the increasingly "lonely figure" of the pauper was systematically surrounded by a micropolitics of physical deprivation and control, it also produced powerfully productive metaphors of ostracism and stigma that were intended to work as inducements to personal improvement and regulation of appetites. The ideal was to have all parish relief tied to workhouse residence, whose undesirability would serve as a tool for testing applicants' actual needs, annulling the poor's traditional rights to parish support, and deterring all but the most destitute. The workhouse was intended to architecturally embody the new doctrine of "lesser eligibility": conditions inside the workhouse could be no better than those obtainable by the independent poor outside. When assessed under mechanisms of strict deterrence, these internal conditions might in principle be very low indeed. However, as envisioned by the architects of the New Poor Law, this rigorously austere space would provide a physical object lesson in the penalties of idleness and profligacy. One Assistant Poor Law Commissioner memorably insisted that, viewed from the outside, the workhouse should be physically imposing and act as a "terror to the able-bodied population."[6] Internal semiotics of the model workhouse supported the same goals. It "should be a place of hardship, of coarse fare, of degradation and humility," the Reverend H. H. Milman explained to the New Poor Law's chief architect, Edwin Chadwick; "it should be administered with strictness—with severity; it should be as repulsive as is consistent with humanity."[7]

The "ideal" Victorian workhouse exemplified the new utility and rationality of the enclosed, docile body, but it also typified the political technologies of population that sought to reach far beyond workhouse walls. As Felix Driver argues, the workhouse must be situated "at the intersection of two histories, those of modern government and institutional discipline." It was the product of legislative objectives and economic philosophies that both reflected and constituted a discourse about "society."[8] And thus the New Poor Law was significantly premised upon the belief that tools might be created through which to know the natural contours and averages of poverty (to the extent they derived from

dependence and idleness) and simultaneously by which to place poverty within certain self-regulating limits. Therefore, despite becoming the site for experimenting with inward-looking instruments of surveillance, rationalization, and control (which were always tenuous and contentious), the workhouse was arguably even more concerned with enunciating a broad societal vision of the liberal, self-governing subject who did not need to be subjected to these harsh, intrusive measures of correction. In other words, the meaning of the workhouse was not merely inscribed into the abject bodies of inmates but more importantly broadcast to an external audience of non-pauper, "independent" poor. Pauper clothing, pauper burials, pauper internment at the workhouse—these were all of course important ways to keep the poor rates low, but they also imprinted a reputation of stigma, shame, and humiliation that would inculcate aversion toward being associated in any way with the parochial authorities.[9] In this way, the typical workhouse was intended to radiate a beneficial influence, correcting improvident habits in the community and normalizing the middle-class ethics of independence, self-restraint, and good character. In the eyes of many of its supporters, "deterrence [was] so effective, and pauperism so much the artificial product of bad laws, that the workhouse's ultimate object [was] to eliminate its own constituency."[10]

Central to the Victorian workhouse as an outcast and oppositional space was the construction of gastronomical boundaries. Poor Law Commission investigator Sir Francis Bond Head believed that the easily obtainable relief under the Old Poor Law had operated upon "false principles of arrant gluttony" and thus encouraged "the swinish government of the belly."[11] Under the New Poor Law, parishes were instructed to attend solely to subsistence and provide a dietary deliberately starved of meaning and pleasure. Pauper presented mouths in which to place a bare minimum; they did not possess palates to placate. On many different levels, the cheapness of parochial food supported the construction of ideas about the independent subject. For instance, meat could only be wasted on workhouse inmates who had already proven themselves incapable of appreciating the moral qualities of that powerful "patriotic emblem": roast beef.[12] Pauperism instead became a problem of disordered appetite, which allowed sustenance to be yoked with other desires. Head and a host of commentators worried that food relief led the "rude, amorous ploughman" to disregard the disadvantages of early marriage. The prospect of receiving "heavy lumps of savoury food" from the parish was the

same as offering him "the blooming girl of his heart"—and "the warm bribe, like the bride, must be irresistible."[13] Management of libidinous forces thus in some way starts with the mouth and stomach. The health of the social body would be restored once "gouty charity" was banished, Head prophesied, but this required the workhouse becoming "wholesomely repulsive" and, moreover, devoid of the corruptively enticing "smell of hot joints."[14]

"Pauper gruel" continues to provide an abiding metaphor for the policy of deprivation governing Victorian workhouses. Caustically ridiculed in *Oliver Twist*, the pauper meal was famed for its principled cheapness, monotony, roughness, blandness, and cold efficiency of distribution. Salt was the only officially recognized flavoring. Meat was included in official dietaries, but a point was usually made of it being boiled instead of roasted, with exhaustive efforts to calculate the average loss of flesh in cooking and serving. "Work'us stuff" placed recipients outside the sphere of discriminating choice and emphasized both dependence and discipline.[15] The Poor Law Commission's meticulous directives regarding workhouse food underscore how the rationalization of pauperism was believed to rest upon gathering and analyzing knowledge of the "species body." These objectives resulted in the earliest studies of modern nutrition; these focused on calculating baselines of human need and pinpointing the physiological moment of starvation (an extent of deprivation not allowed under Poor Law rules). There was "no obligation to give [paupers] more than the quantity and quality [of food] which will serve the ends of existence," explained a pioneering early nutritionist. "Hence it is that when a subsistence ration is to be studied, scientific men all over the world go to these institutions for data."[16]

There is no doubt that these methods of scientifically managing poor relief were applied very unevenly across Britain. Many parishes simply balked at central control and others raised principled objections to this instrumental suppression of pauperism. The result was a rather variegated implementation of the workhouse test and conditions.[17] Many historians therefore now question the extent to which the New Poor Law actually enacted an enforceable system of methodical, bureaucratic administration. A number have also begun to look again at the spotty and complicated legacy of the New Poor Law upon pauper medical assistance, questioning the timing and significance of the development of more "systematic" institutional care. Just as importantly, the punitive philosophy of the New Poor Law was the target of emphatic and sometimes

violent local resistance. As Nadja Durbach shows, a broad range of critics attacked the new austerity as an attempt to renegotiate terms of social rights and national belonging. Perhaps more so than medicine, food always provided a reliable polemic cornerstone and clearly echoed the "politics of provisions" that had marked popular responses to dearth prior to the emergence of a national market economy.[18] For example, abolitionist and factory reform firebrand Richard Oastler worried that the principle of less eligibility starved the populace of its national birthrights and heralded a general lowering of the fare of the poor. "[T]he people of England shall, hereafter, live on a '*coarser sort of food*,'" he bemoaned.[19] Rather different attitudes about negligible medicine and dietary also eventually gave rise to a wave of middle-class moral dissent that sought to soften the roughest edges of the workhouse test and at the same time strengthen the charitable (and hierarchical) bonds between rich and poor.

## "A Disgrace to Our Civilisation"

Workhouse conditions were a reliable source of public scandal that solidified the pervasive popular impression of institutions rife with callous abuse and casual negligence. In one of the most notorious cases, newspaper readers were shocked to learn in 1844 that hungry inmates of the Andover Workhouse were reduced to gnawing bones the authorities had contracted to crush into fertilizer with pauper labor.[20] Some critics alleged that the fearful reputation of workhouses was officially condoned and that this sustained a noticeable amount of outdoor starvation. Coroner courts periodically ruled deaths by hunger resulting from terror of parochial relief.[21] In London this perception was commonplace by the 1860s, with poor parishes like Bethnal Green in the heart of the East End achieving particular notoriety. Both the Radical and Conservative press attributed deaths in the streets and dark garrets there to "the dread the Bethnal-green poor have of their workhouse."[22]

Popular depictions of the average London workhouse as chaotic and brutal vied somewhat with assessments of its cold rationalization and organized system of austerity. Both criticisms thrived upon the perception that workhouses remained stubbornly impenetrable to civic oversight and inspection. The workhouse was therefore also a lingering epistemological problem: a strange and inaccessible space, difficult for outsiders to know and understand. The ghoulish frequency with which

scandals bubbled into the public sphere gave rise to calls for independent supervision. An early example is the Workhouse Visiting Society organized by Louisa Twining, which in the 1850s took up "the arduous task of penetrating the mysteries of the workhouses."[23] Its female members directed attention toward the plight of sick inmates and pressed for "that kind and degree of publicity … which is obtained by the free admission of non-official persons."[24] It was this type of work that introduced Frances Power Cobbe to public reform and shaped her conviction that it was genteel oversight by "the *Womanly element*" that checked the stingy obstinacy of parochial boards.[25] A turning point came in 1865 with two highly publicized deaths of London workhouse inmates. This prompted *The Lancet*'s ambitious, eighteen-month-long "sanitary survey" of the metropolitan pauper infirmaries (in reality the sick wards attached to workhouses), during which it observed sufficient examples of abuse, bad nursing, sickness, filth, inadequate space and ventilation, bad construction, and improper food and medicine to support its denunciation of the London workhouses as "a disgrace to our civilisation."[26]

This convergence of criticism took place almost entirely through the activities of moral and medical reformers, who tended either to exclude the voice of the pauper or to relay it second-hand. Apart from a sense of sanitary catastrophe, their attention to workhouse spaces was almost completely limited to a few themes. First was the perceived lack of classification. Visitors and investigators drew attention to a confusing admixture of children, infirm, elderly, infectious, mental cases, and others. They also reported a distressing admixture of unfortunate but decent persons with "confirmed" paupers. Reformers were consistently appalled at common accommodations "where all characters, and vices, are mixed together in one indiscriminate depot."[27] Second was a deeply worrying anxiety about nursing and attendance. Until the 1880s the vast majority of workhouse attendants were themselves pauper inmates (acquiring a reputation worse than Dickens's fictional Sairey Gamp, that memorable icon of mercenary care-giving). Twining believed the intractable cruelty of pauper nurses required the "constant supervision of superior persons,"[28] while *The Lancet* flatly stated they were "not to be trusted."[29] The female workhouse nurse achieved a dismal stereotyped form: she was the epitome of craggy working-class womanhood invariably exercising "terrorism" over those in her care and exciting the "thrill of horror" that would play a crucial role in the movement for professional nursing.[30]

Third, fault-finding assessments of London workhouses revealed official workhouse dietaries that varied greatly from parish to parish. Critics repeatedly charged that the very lack of variation could harm sick inmates and urged that doctors be allowed to prescribe food as they saw fit for the well-being of patients. "[For] those who know what sickness is," wrote one, "how very much, not only comfort but recovery depends upon patients getting food which they can fancy, the cruelty of [the Poor Law Board's] rigid ruling will be best known."[31] Many reform-minded poor-law doctors believed the best treatment for poor patients was often substantive food—especially viands of a "stimulating" sort, such as mutton chops, brandy, and wine. Penny-pinching parochial boards, however, framed these food orders as "medicine" itself ("medical extras" in poor law parlance) that should come from the officer's salary; they also effectively banned consumables such as beer and champagne and insisted on tests to determine whether applicants were faking illness.[32] In response, the founder of the Poor Law Medical Officers Association, Joseph Rogers, famously waged epic battles with his union to gain control over the dietaries of the Strand Workhouse (and was sacked twice for his temerity).[33] Yet *The Lancet* inquiry also discovered many instances in which medical officers did not even try to prescribe extra foodstuffs as medicine, and expressed dismay that the nutritive value of meals was highly arbitrary.[34]

Still, the public mood was not sufficiently stirred until the dramatic success of James Greenwood's sensational "undercover" exposé of the Lambeth workhouse in January 1866. Writing as "the Amateur Casual," Greenwood gave a picture of disguising himself as a tramp to gain admission to the Lambeth casual ward for a night, where he endured filthy towels, hard bread, a cold sleeping shed, vermin, obscene language, riotous insubordination, and other "unspeakable" acts.[35] Public commentary obsessively returned to the horrors of his introductory bath, performed in a tub already used by several men and containing a liquid Greenwood describes as "disgustingly like weak mutton broth." One writer recalled years later of "standing in imagination beside the Amateur Casual as he plunged into that bath like weak mutton broth—pah! the flavour of which has not yet passed from our palate."[36] It was said of Greenwood that his brand of sensationalist journalism "leads the upper classes into a new land—a land perhaps which they will never have either the wish or the opportunity to explore for themselves."[37] Indeed,

practically overnight this highly theatrical and provocative depiction of the workhouse became "a narrative all England read and shuddered at."[38]

But controversy around Greenwood's tale also solidified the workhouse as a difficult epistemological terrain. He flaunted his *flâneur*-like ability to transgress class boundaries, but his reliability rested uneasily upon his capacity to endure degradations. To his admirers, Greenwood was the objective outsider testifying from inside—the gentleman who saw but was not seen. He had endured the horrors of the workhouse and, in true sensationalist form, lived to tell about it. But Greenwood was also out of place, a man who did not belong to the workhouse, and for some this ruse disqualified him to pass judgment. The Rector of Lambeth suggested that "a narrative of a workhouse interior by a man who drives up in a brougham must necessarily be exaggerated."[39] A metropolitan Poor Law inspector remarked that he did not desire to encourage Greenwood to repeat his dip in the bath, "for that is a matter entirely for his own taste."[40] Others questioned Greenwood's character: he was "some Pall Mall swell" who enjoyed inflicting on the sensitive reader "unnecessary horrors" that "only a man who *could* go through the mutton-broth bath ordeal would have had the taste to write."[41] Debate over the Amateur Casual allegations carried on for months, partly because of a new spate of deaths at the Bethnal Green Workhouse (that much-maligned symbol of Poor Law rottenness) and a cholera outbreak that summer. While the critical press continued to hail the usefulness of both unofficial exposés and official investigations, it also questioned whether inmates could act as reliable judges of workhouse conditions. *The Daily News*, for instance, affirmed the seriousness of charges against London workhouses despite what it called the inherent "untrustworthiness of pauper witnesses." Meanwhile *The Pall Mall Gazette* maintained there was "something absolutely revolting" about the widespread neglect supposedly suffered at the hands of pauper attendants.[42] Even for those who sympathized with reform, the voice of the workhouse inmate could be both distressing and disruptive.

A turning point had finally arrived for the London pauper population and its institutional management.[43] Workhouse visitor groups allied with medical reformers to form the Association for the Improvement of the Infirmaries of Workhouses (and received the backing of reform celebrities like Florence Nightingale and Charles Dickens). This Association observed that the "in-door" pauper sick far outnumbered patients at

the charity hospitals. The metropolitan workhouse infirmaries were, for all intents and purposes, the "real hospitals of the land," yet they were almost completely devoid of the treatments and comforts touted by modern hospital medicine.[44] Taken as a whole, too, the London workhouses had become huge aggregations of the sick and infirm poor. They provided for the majority of special patients not accommodated by private charity: lying-in wards for poor women, black wards for venereal diseases, as well as vast cramped wards containing the whole range of desperate, hopeless cases that general hospitals did not want (such as tuberculosis and cancer) or ones they deemed too dangerous to bring under the same roof (the fevers and smallpox).[45] Since 1834, so it appeared, the "true pauper element" (e.g., able-bodied persons) had been rendered "all but extinct" in London workhouses.[46]

The tone of discovery and disclosure that surrounded the London workhouses had by this time also become thoroughly theatrical, which had the effect of conferring a sense of pathos to the environment and injecting questions of justice to the state management of sickness. *The Charities' Record* remarked that the workhouse had until recently been "almost a sealed chamber to us." The lady visitors, the Association, *The Lancet*, and the Amateur Casual had forced it open, it announced, and "disclosed a chamber of horrors. We can only find a parallel in history going back to the worst days of the Fleet Prison and Newgate."[47] It was a conclusion that furthered the association of sickness with blamelessness, and reflected an undercurrent of thought which desired the workhouse sick be treated as patients, not as paupers.[48] As Nightingale wrote: "So long as a sick man, woman or child is considered administratively to be a pauper, to be repressed and not a fellow creature to be nursed into health, so long will these shameful disclosures have to be made. The sick, infirm, or mad pauper ceases to be a pauper when so afflicted."[49] Taken to its logical conclusion, this would incur the rejection of the workhouse structure as a proper site for medical treatment. "The sick can never be properly treated in the same establishment as the able-bodied pauper," Nightingale maintained, recalling recent scandalous revelations; "there is absolutely no more real connection between an infirmary and a workhouse than between an infirmary and a railway establishment."[50]

Others found this a terribly dangerous idea. The Rev. J. Llewelyn Davies, a co-founder of the Charity Organisation Society, warned against the Poor Law becoming "purified and enlarged and softened." Humane people might naturally desire the pauper infirmaries "to be made a little

more comfortable, the dietary a little more appetizing," Davies admitted, and yet degradation served a purpose. "All workhouse improvement, so far as it makes the Poor-law system less repellent, would tend to draw our poor into a kind of life from which they ought to shrink with disgust, and, if it diluted, would also extend, a grievous social malady." Conditions publicized in *The Lancet* and elsewhere were "abuses and cruelties which are simply unequivocal horrors," Davies confessed. But in no case had complaints arisen from the inmates themselves—and if it required outsiders to perceive discomfort and distaste, and if paupers themselves sensed no great wrong, then where lay the offense?[51]

In addressing some of the imbalances and laxities in London's parochial governance, the Metropolitan Poor Act of 1867 also attempted to satisfy some of the conflicting concerns expressed by the likes of Nightingale and Davies. The Act created the Metropolitan Asylums Board and empowered it to manage funds collected from a new Common Metropolitan Poor Rate and to erect and oversee special asylums for the separate accommodation of infectious and "imbecile" paupers.[52] The common fund eased the imbalance between low poor rates in wealthy parishes and high rates in poorer ones. (It in effect subsidized the medical care of certain paupers in eastern and riverside parishes, whose ratepayers were often themselves but one step removed from pauperism. Bethnal Green, for instance, had recently seen a mass refusal of residents to pay the local poor rates.[53]) As for the accommodation of patients themselves, the Act's sponsor, Gathorne Hardy, voiced the sentiments of Poor Law critics in deploring that the harsh workhouses test had been applied to the sick, "who are not proper objects for such a system." But the formation of the MAB was a move that many austerity ideologues could also cheer. "The main object is to classify the inmates," Hardy stated, and since sickness was "one of those items which cannot be jobbed," separate infirmaries would aid the identification of deservedness.[54] Indeed, with the separate provision of the infectious sick, workhouses might again be considered a true test of destitution and outdoor relief scaled back with a clear conscience.[55]

The 1867 Act disappointed advocates for workhouse reform. The Workhouse Infirmaries Association had urged consolidating all the parochial sick into new institutions disconnected from actual workhouses.[56] That joint infirmaries for elderly, infirm, and general sick cases never materialized led many critics to declare the Act a "practical failure."[57] They had also emphatically pressed for the new infirmaries to be in the

charge of consulting physicians, as at the great London charity hospitals, and to provide opportunities for the clinical instruction of students and training of nurses. Twining believed these arrangements essential to achieving proper independent oversight. *The Lancet* agreed that "publicity is the real safeguard against slovenly routine" and warned that the position of a resident medical superintendent was "morally speaking, inferior to that of perfectly independent visiting physicians, whose public reputation affords so strong a guarantee of good management and skillful treatment."[58] Although included in the 1867 Act, these provisions were removed by legislation the next year over concerns that parishes might exert disagreeable influence in choosing physicians and beliefs that students should be excluded from paupers. All of this underscores just how much these new institutions were conceived as Poor Law institutions. Indeed, they were nothing less than workhouse hospitals in legal fact and in actual practice.

## "Frantic in the Excess of Vituperation and Execrative Expressions"

The smallpox patients who arrived at the MAB hospital in the north London suburb of Hampstead in late 1870 might have known (to the extent they could perceive anything clearly during the early stages of that painful disease) that they would likely spend the next month or two there. That is, if they survived—mortality hovered around 18%. What they perhaps were less likely to have anticipated was the collection of single-story temporary barracks that constituted the hospital and that locals derisively referred to as "sheds." These had been erected the previous year during an outbreak of relapsing fever amongst workhouse inmates. Now smallpox was bearing down on the metropolis and most of the patients streaming toward Hampstead had come directly from their own homes. The smallpox of 1870–1872 was the greatest epidemic of that disease in London's history. The committee in charge of the Hampstead Hospital several times erected additional temporary huts made of wood, felt, and corrugated iron (increasing the number of beds fivefold over six months to hold up to 560 at once), but still the accommodation remained insufficient. The crowding was so great at times that two patients were placed in the same bed. By August 1871 the Hampstead Hospital had treated nearly 6000 cases of smallpox.[59] Very few of these

patients originated from the London workhouses. In fact, according to the hospital's medical superintendent, the bulk were recruited from employments that had caused them to come into contact with smallpox: "barmaids, shop men and women, 'bus- and cab-drivers, &c."[60] As detailed further in Chap. 4, even at this early date the MAB patients were a relatively diverse group of London poor. They undoubtedly in the main shared one thing though: a great loathing to ever see the inside of a workhouse, even one arranged to resemble a hospital.

The efforts of the MAB during the smallpox crisis received much admiration in the London and medical press, eager to see the new hospitals fulfill the want for improved treatment of the pauper sick. Responsibility for nursing was placed with the East Grinstead Sisterhood, a lay Protestant order of women who had provided service during the East End cholera epidemic of 1866.[61] *The Illustrated London News* prominently depicted these "Sisters of Mercy" in an etching that showcases a ward's bright, orderly, and tranquil atmosphere managed by tastefully demure women epitomizing the Nightingale ideal of competent and kindly nursing (Fig. 3.1). The hospital structures themselves were hailed as presenting the most up-to-date examples of economical sanitary engineering and hospital hygiene.[62] A typically glowing impression of the Hampstead Hospital appeared in the *Medical Times and Gazette*, which could not "avoid reiterating our admiration of the entire plan and arrangements; the perfect order, cleanliness, and neatness pervading the establishment; and the sweetness of the atmosphere in the wards." It was compelled to conclude it "would be strange if, with the liberal diet provided, [patients] were not content, and rather sorry to leave such good quarters when discharged."[63]

A rather different impression of Hampstead Hospital was steadily forming amongst patients and their families, if we are to judge by what appeared in other London newspapers. Theirs was an image of a hospital completely overwhelmed by the demands placed upon it and distinctly colored by cruelty and indifference. One man claimed that his wife nearly astonished him out his wits by returning home a fortnight after he had been told she died at the hospital.[64] In another case, a working man wrote to a local newspaper to explain that he learned of his six-year-old son's death at the hospital a full week after it occurred and only upon calling at the hospital to inquire on his condition. Proclaiming it "unnatural and heartless," the *Camden and Kentish Town Gazette* allowed the man to voice his extreme displeasure: "I am not surprised at the disease


**Fig. 3.1** Hampstead Smallpox Hospital, venerated. *Illustrated London News*, 7 October 1871, 345. Courtesy of Wellcome Trust Library, London

spreading and people hiding cases," he wrote. "Little did I think there existed men who forget the common feelings of humanity… I can only say that I have one little boy left, and were he so unfortunate as to take smallpox, neither fear of its spreading, nor force, should tear him from me, let the consequences be what they may."[65] The public's attention was also roused by a report that a five-year-old patient, Elizabeth Bellue, went missing at the hospital and was never found.[66] Her father allegedly retrieved two other children "completely covered with vermin." A magistrate hearing his complaint shuddered in disgust: "Abominable state of things! I should not have thought it possible in these days in such an institution."[67] Such tales easily resonated with a public already familiar with well-worn narratives of workhouse abuse and neglect, although

their force was still somewhat diminished by the fact that they were issued by persons who were technically paupers.

The public was less able to dismiss the set of complaints by three former assistant medical officers (AMOs) contained in an inflammatory letter to *The Times* in August 1871. In it they alleged that "gross mismanagement" by the Medical Superintendent, Dr. Robert Grieve, and the managing committee had caused needless harm to patients. This initiated an exchange of bitterly worded missives and completely reshaped the Hampstead Hospital as a site of public scandal. Dr. Grieve publically accused the junior officers of flagrant insubordination (he added that they had consumed massive quantities of Bass Ale and kept dogs on the premises for rat-killing competitions).[68] This remarkable spectacle of medical gentlemen publically hurling insults at one another led the LGB to quickly form an official commission of inquiry. It evidently intended to limit evidence to official sources, but attorneys hired by the former medical assistants insisted on receiving testimony from former patients. This decision unleashed a torrent of complaints. The commission would eventually sit for thirty-three sessions from September to November and hear testimony from 115 witnesses. Several London newspapers as well as medical journals covered the proceedings.[69] Importantly, the tone of this inquiry differed from previous workhouse scandals in that it prominently featured the recollections of former inmates. Indeed, several simply showed up to the hearings after reading about the commission in the newspapers.

It was difficult to dismiss the testimony of former Hampstead Hospital patients as the vulgar noise of paupers. Instead, their accounts captivated the London reading public for some weeks and proved redolent of literary themes of wrongful confinement. Indeed, many melodramatic elements and conventions of the popular stage were present—especially those where the decent poor suffered modern misfortune and navigated the unfamiliar roles of the "outcast." *The Medical Press and Circular* noticed the strong emotions unleashed:

> It would be easy to underrate, but hardly possible to overestimate, the significance and the importance of this investigation, which, at the onset, forced itself into the rank of '*les causes celebres*' of our times. The prodigious impression not in this metropolis alone, nor even England alone, but far and wide over the civilised world, which the opening record of this enquiry produced will not be soon forgotten. Some idea may be formed

> of the intensity of the emotion, roused by the charges [of the junior medical officers] … from the violent language and violent conduct used by the offended public against the nurses and the Hospital staff. Letters have been received by [hospital officials] frantic in the excess of vituperation and execrative expressions. The public feeling has been deeply stirred. The Government has been appealed to, and the whole press of the country have watched every phasis [*sic*] and every step of the inquiry with unabated patience.[70]

The attention of the London public, however, was worn down by the tedium of the testimony. Allegations were examined in "wearisome detail," in the words of an evidently bored *Times* reporter.[71] And so the inquiry proved not only scandalous but also monotonous. Although public interest soon waned, the exhaustive testimony collected and reported over several weeks provides an unusual glimpse into an institution explicitly premised on its separation from the outside world.

## "Completely in Their Power"

Negligent and abusive nursing featured prominently in individual criticism by former patients. Several described corpses neglected for scandalously long periods.[72] At least one child reportedly died in a ward occupied only by other sick children.[73] Young patients reportedly tumbled out of bed on a regular basis,[74] and nurse witnesses admitted it would have been impossible for them to "get on" without physically restraining these and other troublesome patients.[75] Much of the flagrant neglect could be attributed to severe understaffing; for example, it was not uncommon for one nurse and one sister to have charge of forty children in a single ward (and at times as many as sixty-five).[76] The chairman of the hospital committee testified to the difficulty of attracting persons to take up what everyone recognized as hard labor in an exceptionally unpleasant environment. They had "exhausted every means of getting nurses, often in vain, even though we were offering the most liberal wages," he explained.[77] And so most of the hospital's paid attendants were recruited from the ranks of recovered patients.

While there may have been little actual social difference between them, Hampstead patients tended to view the ordinary nurses as "true" paupers with whom they had little in common (Sisters of Mercy performed almost only supervisory functions). George Tidbury, a tailor,

claimed the ward nurses got drunk on the stimulants stolen from patients too ill to complain.[78] A young patient declared that a nurse called "Frisky" shook her fist and vaguely threatened him with punishment. (Some patients considered Nurse Fisk—or Frisky—to be literally mad.)[79] Albert Emerson Denton, a solicitor's clerk, complained that the nurses "had them completely in their power, and patients were punished by them for complaining."[80] Little comforts could become the currency of negotiation between inmates and attendants, but also the occasion for petty tyrannies. Some patients told of not complaining because they feared being "served out" by spiteful nurses, such as by having their rations reduced.[81]

A large proportion of Hampstead patients were convalescent at any one time, meaning they were through the most dangerous part of the disease but not free of infection or well enough to leave. These patients were required to help the nurses in ward work, such as emptying slops and commodes, sweeping floors, and making beds. Labor had long been required from able-bodied workhouse inmates, but in this hospital patients were expected to assist the institution's upkeep. Those who graduated to the convalescent wards could expect extra rations of beer and meat in return for their labor and could wear little stars to distinguish themselves.[82] Several former patients recalled that they willingly and happily did what they were asked. But smallpox was particularly gruesome. James Henry Wills refused to help lay out the body of a fresh corpse because it was in "such an offensive condition."[83] Inmates risked being disciplined as refractory paupers if they failed to perform certain tasks. Arthur Partridge, a bootmaker, complained at the inquiry that his beer was cut off when he declined to assist in scrubbing a ward.[84] In these and other ways, the hospital exactly resembled a workhouse (which it legally was) and conformed to the shame-inducing pauper regime.

Some of the most resentful testimony involved former patients who had been straightjacketed or pinned with bed linen during periods of feverish delirium, ostensibly to prevent their wandering around the ward, falling out of bed, and otherwise injuring themselves or others. James Henry Wills, a clerk, deposed that during his residence nurses had tied him to the sharp edges of a bedstead, as the marks on his legs still showed.[85] John Channon, a gold and silver plater, testified that there were always at least 20 patients raving in some way and subsequently restrained, usually at night. Still, there was "always such a 'lot of hollering'" and he could not sleep."[86] The medical officers testified that they

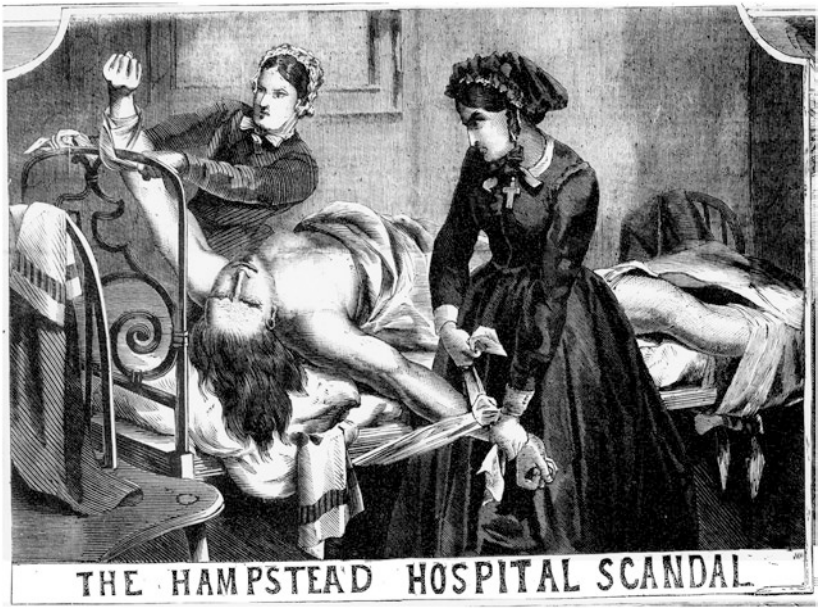


**Fig. 3.2** Hampstead Smallpox Hospital, vilified. *Illustrated Police News*, 30 September 1871. © The British Library Board

did not advise restraint in smallpox and charged that nurses had tied up patients against their wishes. Few images had the ability to pique the interest of the wider public more than those of persons suffering under mechanical restraint. They echoed both the dread of the pauper nurse as well as the populist suspicions of medical villainy.

*The Graphic*'s fanciful depiction of nurses binding and virtually torturing a helpless patient shows how the halfpenny press combined these interpretations (Fig. 3.2). It depicts the dangers of brawny, empowered working-class womanhood and the perverse pleasures of High Church religious extremists (one of the sadistic attendants is an Anglican Sister). Demonstrating perhaps the extent to which melodramatic conventions structured the public consumption of institutional scandals like this, one of the most eagerly circulated speculations surrounding the hospital was the rumor that one of the Anglican Sisters (they were frequently decried as "popish"[87]) had hurried the missing child Elizabeth Bellue off to a convent to be raised under Catholic rites. The specific theme of

bondage, meanwhile, already occupied a thoroughly theatrical existence in a mainstream Victorian narrative culture preoccupied with scenarios of dungeons and wrongful confinements. If these allusions to manacling call to mind the iconography of abolitionism and the campaign to eradicate shackles and cages from mental asylums, the straight-waistcoat served as a dead giveaway of duplicitous motives.[88]

Many complaints at the official inquiry stressed the Hampstead Hospital's sanitary deficiencies. One witness was insulted by being required to share four or five towels among 113 patients.[89] Another common grumble involved bug-ridden linen.[90] Several patients were horrified by rampant personal infestation by vermin (lice on heads, maggots in wounds, and the like),[91] while MAB witnesses responded that paupers were invariably teeming with "nits" before coming to the hospital.[92] Lice, therefore, were used as a rough measure of true pauperism, but one that many patients found unfair.[93] The strain upon laundry facilities caused a lack of clean sheets and clothes, meting out another stigmatizing sign of destitution. Edward Wilson, a chair-maker, claimed that upon admission to the hospital he had "served out to him a 'lady's nightgown' for a shirt," and he "made shift" with it for some time.[94] Some patients were placed in beds directly after another left. William Charles Peters testified that "the bed allotted to him was in such a disgusting condition, from the sheets being defiled with 'gore, matter, and lice,' that he preferred walking about all night to sleeping in it."[95] Elizabeth Fowle, a watchmaker's wife, stated that her dress was not changed nearly often enough, and when she was transferred to a convalescent ward after the death of her child it was "stiff up to her arms with filth." She also recalled disgusting tubs of water almost black with the grime of previous washers, reminiscent of the Amateur Casual's notorious plunge five years earlier.[96] Such claims effectively convey a sense of transgression and dangerous intermixture. Like James Greenwood these patients found themselves persons out-of-place, but unlike in his escapade they were made to unwillingly and unprofitably masquerade as paupers.

## "Unfit for Sick Men"

Former patients complained most persistently and emphatically about the poor quality of the Hampstead Hospital food, which had about it the taste of the workhouse. Numerous individual objections stand out.

It was "impossible to distinguish the tea from the coffee."[97] The potatoes were usually bad, moldy, or spotty (patients joked that the "taturs" also suffered from smallpox).[98] The butter was rank (one witness asserted that "he would not grease a cartwheel with it").[99] While still in hospital, several patients had signed a petition to Dr. Grieve regarding the tea, coffee, meat, and short measure of beer. They testified that the food improved shortly afterwards, but soon fell back into its bad state.[100] Miserable hospital food clearly resonated with the indignity of pauper gruel, yet some patients challenged its suitability under even poor-law standards. James Henry Wills, a clerk, very deliberately said that he thought the food was "vile" and "not fit for paupers" (persons he evidently thought far below his station). He had "what was called boiled mutton handed to him on an ice cold plate, and potatoes not fit for a pig."[101] This theme of inhuman consumption paralleled the degradation of pauper consumption. The petition sent to Dr. Grieve contained a statement that the meals were neither fit for a dog nor enough for a dog.[102] And indeed, comments of this sort marked practically every session of the inquiry, with former patients seemingly very eager to devise ever more evocative culinary condemnations.

Meat served as a potent symbol of the Hospital's daily institutional fare, which left patients hungry and indignant. For some, its disagreeableness could be traced to a lack of care in preparation, which itself was resonant with pauperism: interminably boiled and unseasoned, either repeatedly inferior beef or repeatedly low-grade mutton. One patient swore he could not tell the difference by how they tasted.[103] Denton, the solicitor's clerk, could not identify what part of the sheep the meat came from, for he had "never seen such a joint before. … It was a third lean, a third fat, and had a like quantity of bones."[104] Another former patient stated that the mysterious meat, though over-boiled, could not be made tender.[105] Many resented that the nurses and officers received roasted meat whereas patients only got boiled.[106] Others believed it was fair in quality but always badly cooked. A butcher, Thomas Owen, remembered the meat "stewed as if the goodness was stewed out of it" and that the plate-meat contained "stickings" (inferior parts of the carcass suitable only for making beef-tea or soup).[107] Meat could convey a sense of degradation like few other foodstuffs. A variety of witnesses, almost entirely men, rained down abuse on the tough, coarse, indigestible flesh, with more than a few remembering occasions when it was "distinctly decomposing."[108] On one occasion, fourteen patients refused to consume

their dinner until the medical officer had seen the meat.[109] A bootmaker, Arthur Partridge, claimed to have sometimes opened a window and thrown the disappointing stuff out.[110] The relative absence of fleshy viands had long marked the deprivation and degradation of the pauper meal, yet its presence in an offensive form could convey that ignominy just the same.

Several male patients pointedly insisted that the "very middling meat" was "unfit for sick men."[111] Fleshy viands were strongly gendered within Victorian patterns of consumption and representation. The pauper regime at Hampstead Hospital was therefore also an insult to the manly culture of meat-eating and the chops of British citizenship. William Charles Peters, a wine and commission agent, stated that he did not admire Parisian beef, "yet he would say that French beef was better than Hampstead beef" (evidently a cosmopolitan yet also very damning patriotic assessment).[112] Patients like Elizabeth Fowle, the watchmaker's wife mentioned above, were also insulted by the degraded domesticity of the hospital and had grown indignant at bad meat. It was "served out in coarse and vulgar-looking pieces; it was like cats'-meat," she testified. Perhaps cognizant that this was a typically masculine complaint, Fowle added quite emphatically that they were "certainly not 'ladylike-looking' pieces."[113] The crudity of pauperism was boiled into this coarse fare, but it was a humiliation that had to be expressed differently by men and women. The variety of complaints about hospital meat is one indication that this was an important public means of asserting self-respect and, at the same time, of bringing the complex politics of private consumption into what was intended to be a highly normalizing institution.

In addition to (and perhaps in spite of) this disappointing dietary, patient after patient also deprecated the small portions allowed by hospital authorities. Many ruefully assumed it was part of the "starvation diet" stipulated by the Poor Law Board. John Channon related the strange mixture of repulsion and attraction, there usually being hungry patients ready to snatch what others had left on plates in disgust.[114] Another witness concurred that there were "always plenty of candidates to eat it," since no one could get enough; patients got "about four good mouthfuls [of meat], and if more was supplied it was an accident."[115] Several former patients, all men, deposed that they received far less than the official dietary's stipulated 6 ounces of meat. Thomas Johnstone, a machine maker, drew laughter from the court when he estimated his average cut of meat at about 1/16 of an inch thick.[116] The butcher, Thomas Owen,

stated to his AMO that he was doing pretty well in the hospital except that he was "nearly starved," to which the doctor replied that it was out of his power to give more to eat. Receiving food from outside was apparently against the rules, but Owen wrote to his relatives and had them send parcels of bacon, cheese, cakes, biscuits, anchovies "and cetera." He testified to frizzling the bacon in the ward during the doctors' rounds expressly to show that there was not enough to eat, and this reportedly became the "talk of the hospital" (and no doubt the smell of the hospital as well).[117] The official dietary also could be undermined in other ways. One patient confessed that he could trade postage stamps for milk, indicating something of an authority-defying underground barter within the hospital.[118] Disobediences of this sort and the somewhat embellished nature of complaints serve to emphasize how sick inmates strove to portray themselves as inappropriate subjects of workhouse discipline and austerity.

Former patients who appeared at the Hampstead Hospital inquiry repeatedly stressed how out-of-place they had felt. During their hospitalization they had pined for homely comforts, especially those requisite invalid foods such as beef-tea, arrowroot, and milk. Peters, the wine agent who did not like French roasts, said he could not "make out" the beef-tea and accounted for its bad taste by a rumor that it was made from Liebig's meat extract (an imported South American condensed beef jelly).[119] In home-nursing, the preparation of beef-tea was an honored craft of womanly attentiveness and was supposed to derive from actual joints of meat stewed into thick broth.[120] The hospital, however, provided cheap, industrially processed "slop." Decent milk and arrowroot (traditional invalid foods) were also scarce and dearly missed, due, patients presumed, to workhouse restrictions on wholesome victuals. Each drink held a place in the *habitus* of sickness and therefore also carried the burden of representing social respect and care. Henry William Clicker, a foreign tailor, claimed that he did not get enough milk. He did testify to having been offered water, but amused the inquiry by stating that he "never drank water in his life."[121] These preferences should not be passed over as mere petulant grumbling. The Hampstead patients were asserting claims to the domestic comforts expected by sick persons of the "decent class." They placed these "medical comforts" before and against what they saw as their superficial and artificial, yet official, status as paupers.

Scanty food provisions for patients formed part of the original complaints to *The Times* that had prompted the inquiry. Albert Kynaston, one of the dismissed medical officers, explained that during his casual visits the wards "would be like a Babel, from a lot asking for food at once."[122] He and his colleagues testified to their persistent inability to get the amount of eggs, milk, and wine they deemed necessary for the recovery of specific patients—a malprovision they traced to the hospital's poor-law status.[123] Until June 1871, the smallpox hospital operated under emergency powers granted by the Poor Law Board, meaning that the institution had not received orders governing its conduct. Cautioned about expenditure, Dr. Grieve drew up three standard patient dietaries: low, ordinary, and full. Patients later complained of being kept on the "low" diet and noted the rarity of the "ordinary" diet. Apparently Grieve did not authorize "full" diets at any time, though he justified this exclusion as a medical measure in smallpox treatment.[124] Austerity was even more rigorously enforced after the hospital received its poor-law orders in June, with Grieve now reserving the right to nullify food prescriptions given by the junior officers. Kynaston testified that up to that time he could order port, sherry, brandy, whisky, extra bread, milk, and beef tea, but henceforth it was stipulated (as in all workhouses) that no "extravagances" would be tolerated.[125] The AMOs had great difficulty getting the one item they previously could prescribe in abundance: eggs. Forbidden to intervene in any matters not strictly "medical," the junior officers maintained that smallpox treatment was essentially a question of diet and comfort.[126] So, while ample food was considered a luxury under the poor law, the ward-level doctors saw it as a therapeutic necessity. They went so far as to argue that the high mortality amongst child patients could be traced to insufficient nursing and nourishment. Kynaston heatedly argued with Grieve that deaths in the hospital would be halved if the dietary (principally milk) were doubled.[127]

## "He Was Only a Pauper"

Patients' framing of their experiences as an issue of sustenance, taste, and civility illuminate their negotiation of an uncertain and contested gulf between deservedness and pauperism. Several former patients corroborated the statements of Charles M'Laren, a bricklayer, who claimed he was told not to complain because "while he was there, he was only a pauper."[128] Michael Croakes, the 15-year-old son of a master tailor,

testified of being denied milk. When asked why he did not complain at the time, Croakes explained that a wardsman had threatened to take him off to the "the cells" and feed him bones for dinner.[129] Sarah Daly, a nurse, however, rebutted this talk of a hospital dungeon, saying that Croakes had been a "dirty boy" who could not be trusted: "[W]hen he came in his head was afflicted [with lice], and his hair was cut off."[130] Defence lawyers also challenged the testimony of James George Palmer (who had complained that meals were not fit for dogs) by tracking his movements after being discharged from the hospital. They showed that Palmer had immediately visited the Newport Market Refuge for the Destitute and received clothes from this charity for the homeless.[131] The implication was clear: paupers could not legitimately talk about taste or judge discomforts, nor could they be trusted to tell the truth. Miss Harrison, a Hampstead nurse who *The Times* noticed as having the "manners and speech of a well-cultured person," testified that "this hospital was one of the places provided for those who could not be treated in their own homes when smitten with this disease; it followed that there were many brutal, blasphemous, and violent persons in the wards at times."[132] Making reference to the ongoing inquiry and the "painful details" filling the columns of daily newspapers, *The Illustrated London News* felt it necessary to remind readers that this was not a voluntary hospital: "It is nothing more or less than a pauper institution."[133]

Patients generally insisted that they had been compelled to perform pauperism. A mechanical draughtsman, Thomas Jones, testified to only taking the beef-tea once, and "he never tasted such a cup of nastiness in his life." He also took issue with the condescending conduct of the medical superintendent:

> I told Dr Grieve that I wanted to know under what authority he opened my letters, and he asked me what I thought I was. I told him I was a draughtsman, that was what I was, and I would see when I got out all about it. He told me I was a refractory pauper. It was the general feeling in the ward that it was no use to complain to Dr Grieve.[134]

Upon cross-examination, Jones admitted that he had entered the hospital "on the parish" (St. Pancras) and had not reimbursed the parochial authorities for the costs of his maintenance. The MAB's legal counsel maintained he was therefore a pauper. While Jones insisted that he was in the hospital through contracting smallpox, the attorney explained that

others had paid something toward their treatment and suggested that non-payers like Jones had less ground from which to voice complaints.[135] In fact, only a few patients paid anything toward their costs (as seen in Chap. 4), and those that did received absolutely the same treatment. A patient chargeable to Islington parish, Edward Beuyon, a draper's assistant, did later pay for his keep and "was, therefore, not a pauper," *The Times* account made sure to note. He testified "quietly and in an unexaggerated manner," but the substance of his complaints was indistinguishable from many others. The meat was "like Gutta percha," the butter "very bad," the bath filthy, and wards infested with loathsome vermin; it usually took an hour to have a dead body removed, even when it smelled very much; and so on.[136] Beuyon's testimony serves as a reminder that "pauperism" in the context of the isolation hospital was a largely arbitrary designation, and one that nearly all its inmates rejected.

Still, some former inmates expressed a relatively complex attitude toward their confinement, both criticizing the conditions of their treatment and also expressing their begrudging appreciation. For example, Edwin James Barter, a bank clerk who talked in detail of revolting sanitary conditions and unpalatable food, had pleaded with Dr. Grieve to be allowed to stay a few additional days because his father expressed fear of infection.[137] Several patients who were servants by occupation chose to be hired at the hospital for such reasons.[138] It was a concern shared by Thomas Hatcher, a waiter who complained bitterly about the food and vermin in the hospital and yet who stayed longer than necessary because, as he testified, "with the marks on my face I could not get work."[139] This, however, also offered another source of complaint, with some former patients remarking that they received no specific treatment for the boils and lesions peculiar to smallpox (which could leave permanent scars). Nurses were instead more likely simply to cut off patients' hair to help control the hospital's epidemic of "nits"—an action that again resonated with workhouse degradation and could cause a patient to become homeless after discharge.[140] The non-pauper Edward Bueyon decried that he never saw a nurse wash a patient, nor did he witness them attending to the offensive skin discharges.[141] This seems to have been the case also with James George Palmer, the man exposed by MAB attorneys as essentially homeless following his hospital stay and who had also expressed significant anxiety about going out before his face had healed.[142] It is not clear whether Palmer had been homeless before, but the hospital experience certainly may have contributed to his subsequent

destitution. In the end, treatment at the Hampstead Hospital extended needed shelter and private benefit to patients, including those physically tainted by smallpox, but it also could confer a burden that made socially recovering from the disease more difficult. Undoubtedly, for many of London's poor the hospital itself epitomized the arbitrary and terrifying connection between the vulnerabilities of sickness and the abasements of pauperism.

As the MAB took its turn to present evidence at the inquiry, assessments of conditions at Hampstead Hospital more openly involved estimates of witnesses' characters. James Salmon, a cabman described in *The Times* as a "respectable man of his class," stated that there was sufficient and good food and that patients had "no cause whatever for complaining of anything." He further claimed that the dirty habits of the patients themselves contributed to the "sloppy state" of bathrooms and other parts of the hospital.[143] Indeed, a procession of witnesses expressed satisfaction and gratitude for their hospital stay. Stephen Wakefield, who could earn 24 shillings per week as a bricklayer's laborer, deemed the food in the hospital "quite as good as he got out of doors, and as good as a working man could wish for." Similarly, Charles Alderson, "a respectable man of the artisan class," found the bread and beer especially good, the latter much better than could be had in public houses.[144] Masoah Walker, a former patient subsequently employed as the hospital's coachman, swore that "everything was done in the hospital for the comfort of the patients."[145] Much of this type of exonerating testimony was weakened by the fact that it came from former patients who were now employed by the hospital. However, perhaps by distancing themselves from the stereotype of the ungrateful rascal, these witnesses were also pursuing a different personal strategy for refuting the accusation of pauperism. Flowers Allpress, a master saddler, maintained that he could not have been more kindly or better attended to at the hospital if he had been a child cared for by his mother. He blamed all discontent on a "dirty lot—the kind of men one saw at public-house corners."[146] With clearly contradictory evidence in play, it is no surprise that final assessments of the scandal turned to a scrutiny of the complainants' respectability.

## "Not in Charity to Themselves"

By the time the official report on conditions at Hampstead Smallpox Hospital was issued in January 1872 the scandal had long ceased to interest the public, which evidently had heard enough revolting details about bedbugs and boiled mutton. On the whole, the commissioners were entirely dismissive of complaints made by former patients and regretted that the assistant medical officers' allegations had been "based upon such slight and insufficient grounds."[147] For most casual newspaper readers though, this fawningly exculpatory report went almost completely unnoticed. The inquiry itself had no doubt already confirmed for them the usual horrors of London workhouses, with or without the unpleasant addition of a loathsome illness.

To be sure, the public narrative following the scandal was more nuanced than suggested by the official report. In the first place, subsequent commentary was convinced that the majority of inmates had been paupers in title only. *The Morning Post* typified this explanation, writing that "not one of these complainants was of the pauper class." Even more conjecturally, it concluded that true paupers "not only did not grumble at their fare, but expressed themselves as highly delighted with the luxury in which they had been maintained."[148] In other words, complainants had successfully presented themselves as patients, not paupers. As *The Lancet* recalled some years later, the inquiry had "showed very many well-to-do people coming forward as witnesses about tough meat and other things which real paupers would hardly have cared much, or as much, about."[149] Confirming this narrative of persons out-of-place, the *Medical Times and Gazette* reasoned that the average treatment at the hospital would not "suit the requirements of persons who had been accustomed to the comforts with which the lower middle-classes surround themselves in this country. The Hospital may have been fairly good for a pauper Hospital, but it was not suited for the reception of patients of various grades of society."[150] Not only were these misplaced persons disqualified from passing judgment upon pauper treatment, their complaints acted to justify and naturalize the degraded treatment of paupers.

One of the most important consequences of the Hampstead Hospital scandal, apart from corroborating the vile reputation of London workhouses, was to illustrate in dramatic fashion the palpable conflict between governing pauperism and governing public health. *The Morning Post*,

although congratulating the "triumphant acquittal" of the hospital authorities, also conceded that most patients had been admitted "not in charity to themselves, but in order to prevent their infecting others."[151] Their admittedly strict and rough treatment was difficult to reconcile with general sanitary goals of isolation. At least some London medical officers were awakening to how scandals of this sort might endanger the public health. The St. Giles MOH reported that revelations about Hampstead Hospital alarmed the people of his district and led them to refuse to allow sick friends and relatives to be removed to Asylums Board hospitals. A consequence was that after August 1871 many more patients suffered smallpox in their own homes, the disease increased in fury, and the local death rate nearly quadrupled.[152] It is impossible to evaluate precisely to what extent the Hampstead scandal may have shaped these outcomes, but the St. Giles medical officer clearly perceived that the popular dread of workhouses might effectively obstruct the public value of hospital isolation.

The Hampstead Hospital scandal points to a new type of consideration given to the condition, feelings, and voice of the "pauper." Sickness no doubt conferred a degree of sympathy and attention, as well as an audience, typically denied other workhouse inmates. Also, the infectiousness of the disease added an amount of significance to the proceedings and broke through some of the public ambivalence toward listening to complaints that had not originated from middle-class reformers and sensationalist journalists. Another crucial context was the now customary and almost unsurprising exposures of Poor Law administration. *The Borough of Marylebone Mercury* editorialist explained that the Hampstead inquiry stirred a public already disposed to hear of the "harsh and even cruel treatment" typical of London workhouses and ready to denounce the "rottenness of the poor-law arrangements."[153] He agreed though that the scandal had a wide practical consequence, since driving the public away from the isolation hospitals "would be the greatest public calamity. The isolation of infectious diseases is a necessary sanitary precaution for the welfare of the state." Those who were "removed from their homes for the good of others on sanitary grounds," he continued, "should have secured for them efficient medical attendance, food and nursing, and not be subject to horrors of uncleanliness worse than that expected by the amateur casual."[154] The Hampstead patients had dramatically personified what would become some of the most pressing questions about the relationship between pauperism and public health.

## Notes

1. *The Echo*, 9 March 1871, 2.
2. *Pall Mall Gazette* (*PMG*), 5 May 1871, 10–11.
3. *Hansard's HC Debates* (28 February 1871), col.1032. *The Times*, 23 February 1871, 5.
4. David Englander, "From the Abyss: Pauper Petitions and Correspondence in Victorian London," *London Journal* 25/1 (2000), 71–83; David R. Green, "Pauper Protests: Power and Resistance in Nineteenth-Century London Workhouses," *Social History* 31/2 (May 2006), 137–159.
5. Andreas Gestrich, Elizabeth Hurren, and Steven King, eds, *Poverty and Sickness in Modern Europe, Narratives of the Sick Poor, 1780–1938* (New York: Continuum, 2012).
6. Felix Driver, *Power and Pauperism: The Workhouse System, 1834–1884* (New York: Cambridge University Press, 1993), 59.
7. Quoted in Ian Anstruther, *The Scandal of the Andover Workhouse* (London: Geoffrey Bles, 1973), 16
8. Driver, *Power and Pauperism*, 2; Michell Dean, *The Constitution of Poverty: Toward a Genealogy of Liberal Governance* (New York: Routledge, 1991).
9. Ruth Richardson, *Death, Dissection and the Destitute, 2nd Edition* (Chicago: University of Chicago Press, 2000 [1987]); Thomas Laqueur, "Bodies, Death and Pauper Funerals," *Representations* 1/1 (February 1983), 109–131.
10. Lauren M. E. Goodlad, *Victorian Literature and the Victorian State: Character and Governance in a Liberal Society* (Johns Hopkins University Press, 2003), 55.
11. [Francis Bond Head], *English Charity* (London: John Murray, 1835), 19, 20, 26 (reprinted from "English Charity," *Quarterly Review*, v. 53 (February–April 1835), 473–539).
12. Nadja Durbach, "Roast Beef, the New Poor Law, and the British Nation, 1834–63," *Journal of British Studies* 52/4 (2013), 963–989; Ben Rogers, *Beef and Liberty* (London: Chatto & Windus, 2003), 9.
13. [Head], *English Charity*, 30.
14. [Head], *English Charity*, 32, 30, 10–11.
15. Charles Dickens, *Oliver Twist, or The Parish Boy's Progress* (New York: Penguin Books, 2002), 13–14, 53; L. Smith, S. J. Thornton, J. Reinarz, and A. N. Williams, "Please, Sir, I Want Some More," *British Medical Journal* (17 December 2008), 1450; Valerie J. Johnstone, *Diet in Workhouses and Prisons, 1835–1895* (New York: Garland, 1985).
16. Ellen H. [Swallow] Richards, *The Cost of Food: A Study in Dietaries, 2nd Edition* (New York: John Wiley and Sons, 1913), 60–61. See also

John Coveney, *Food, Morals and Meaning: The Pleasure and Anxiety of Eating, 2nd Edition* (New York: Routledge, 2006), 65–75.

17. Steven King, *Poverty and Welfare in England, 1700–1850: A Regional Perspective* (New York: Manchester University Press, 2000); Anne Digby, *Pauper Palaces* (Boston: Routledge, 1978); M. A. Crowther, *The Workhouse System, 1834–1929: The History of an English Social Institution* (Athens, GA: University of Georgia Press, 1981).
18. Durbach, "Roast Beef, the New Poor Law, and the British Nation"; John Bohstedt, *The Politics of Provisions: Food Riots, Moral Economy, and Market Transition in England, c.1550–1850* (Burlington, VT: Ashgate, 2010).
19. Richard Oastler, *Damnation! Eternal Damnation to the Fiend-Begotten, "Coarser Food" New Poor Law* (London, 1837), 19. See also Nicholas C. Edsall, *The Anti-Poor Law Movement* (New York: Manchester University Press, 1971), 21–23; Peter Gurney, "'Rejoicing in Potatoes': The Politics of Consumption in England during the 'Hungry Forties,'" *Past and Present* 203 (May 2009), 99–136.
20. Anstruther, *Scandal of the Andover Workhouse*.
21. *All the Year Round*, 2 March 1861, 500–501; *Morning Post*, 16 January 1867, 7; *PMG*, 19 September 1866.
22. *John Bull*, 20 January 1866, 40–41. See also *Bell's Life in London and Sporting Chronicle*, 31 October 1863, 2.
23. "Our Poor Law Administration." *British Quarterly Review* (1 April 1868), 305.
24. Louisa Twining, "Workhouses," *TNAPSS*, 1857 (London, 1858), 571.
25. Louisa Twining, *Workhouses and Women's Work* (London: Longman, Brown, Green, 1858); Frances Power Cobbe, "Workhouse Sketches," *Macmillan's Magazine*, 3 (April 1861), 448–461. See also Jonathan Reinarz and Graham Mooney (eds.), *Permeable Walls: Historical Perspectives on Hospital and Asylum Visiting* (New York: Rodopi, 2009).
26. *The Lancet*, 15 April 1865, 410.
27. Louisa Twining, *A Letter to the President of the Poor Law Board on Workhouse Infirmaries* (London: William Hunt, 1866), 13; Cobbe, "Workhouse Sketches."
28. Twining, *Workhouses and Women's Work*, 13.
29. *The Lancet*, 18 November 1865, 576.
30. [Margaret Roberts], *Sick and in Prison* (London: Bell and Daldy, 1873), 43; Alison Bashford, *Purity and Pollution: Gender, Embodiment, and Victorian Medicine* (New York: St. Martin's Press, 1998), 21–39.
31. *Sick and in Prison*, 19–20.
32. M. W. Flinn, "Medical Services under the New Poor Law," in *The New Poor Law in the Nineteenth Century*, edited by Derek Fraser (New

York: St. Martin's Press, 1976), 45–66; Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick* (New York: Cambridge University Press, 1998), 90–102.

33. Joseph Rogers, *Reminiscences of a Workhouse Medical Officer* (London: Fisher Unwin, 1889), 59–60; Ruth Richardson and Brian Hurwitz, "Joseph Rogers and the Reform of Workhouse Medicine," *BMJ*, 16 December 1989, 1507–1510.
34. *The Lancet*, 1 July 1865, 20.
35. Seth Koven, *Slumming: Sexual and Social Politics in Victorian London* (Princeton, N.J.: Princeton University Press, 2004), 25–87.
36. A Templar, *The Gladstone Government; Being Cabinet Pictures* (London, 1869), 322.
37. *London Society*, v. 25 (January 1874), 95.
38. J. C. Parkinson, "A Real Casual on Casual Wards," *Temple Bar* (March 1866), 498.
39. *John Bull*, 20 January 1866, 40.
40. *The Standard*, 18 January 1866, 6.
41. *Fun*, 10 February 1866, 213; *Fun*, 27 January 1866, 192.
42. *Daily News*, 19 January 1866, 4; *PMG*, 12 January 1866.
43. David Green, *From Artisans to Paupers: Economic Change and Poverty in London, 1790–1870* (Brookfield, VT: Scolar Press, 1995), 233–236.
44. *The Lancet*, 1 July 1865, 16. See also Ernest Hart, "Metropolitan Infirmaries for the Pauper Sick," *Fortnightly Review* 4 (1866), 459–463.
45. Nearly 90% of inmates were categorized as sick or infirm. A survey in 1866 found only 1850 able-bodied persons out of 23,500 London workhouse inmates. Ayers, *England's First State Hospitals*, 18–19.
46. Samuel W. North, "What Means ought to be adopted for Improving the Management of Workhouses?" *TNAPSS*, 1866 (London, 1867), 632; Lynn Hollen Lees, "Survival of the Unfit: Welfare Policies and Family Maintenance in Nineteenth-Century London," in *The Uses of Charity: The Poor on Relief in the Nineteenth-Century Metropolis*, edited by Peter Mandler (Philadelphia: University of Pennsylvania Press, 1990), 74–76.
47. *Charities' Record*, 30 November 1867, 50.
48. David Green, "Medical Relief and the New Poor Law in London," in *Health Care and Poor Relief in 18th and 19th Century Northern Europe*, edited by O. Grell, A. Cunningham and R. Jütte (Burlington, VT: Ashgate, 2002), 220–245; Derek Fraser, *The Evolution of the British Welfare State, 3rd Edition* (Palgrave, 2003), 100–102.
49. Quoted in Ayers, *England's First State Hospitals*, 9.
50. Quoted in Ruth G. Hodgkinson, *Origins of the National Health Service: The Medical Services of the New Poor Law, 1834–1871* (University of California Press, 1967), 521.

51. J. Llewelyn Davies, "The Poor Law and Charity," *Macmillan's Magazine* (November 1866), 135, 134.
52. Infectious persons were simply defined as sufferers of "fever and smallpox." The Act described the MAB's mental patients as "such harmless persons of the chronic or imbecilic class as could lawfully be detained in a workhouse. No dangerous or curable person such as would under the statutes in that behalf require to be sent to a lunatic asylum shall be admitted."
53. David R. Green, *Pauper Capital: London and the Poor Law, 1790–1870* (Burlington, VT: Ashgate, 2010), 209–212, 235; David R. Green, *From Artisans to Paupers*, 236–241; Pauline Ashbridge, "Paying for the Poor: A Middle-Class Metropolitan Movement for Rate Equalization," *London Journal* 22 (1997), 107–122.
54. *Hansard's HC Debates*, 8 February 1867, c.163, 161.
55. Costs for some indoor relief were now taken from the Common Fund, but outdoor relief was still the responsibility of local parishes and unions—creating an incentive to reduce the latter. After 1867, expenditure on London workhouses was dominated by sick and insane ward construction. Driver, *Power and Pauperism*, 89; Green, *Pauper Capital*, 236–237; M. E. Rose, "The Crisis of Poor Relief in England, 1860–1890," in *The Emergence of the Welfare State in Britain and Germany, 1850–1950* (London: Croom Helm, 1981), 52.
56. *The Lancet*, 15 April 1865, 410; ibid., 15 July 1865, 71; "The Condition of Our State Hospitals," *Fortnightly Review* 3 (1865), 217–221; Hart, "Metropolitan Infirmaries."
57. "Our Poor Law Administration." *British Quarterly Review* (1 April 1868), 320.
58. *The Lancet*, 6 August 1870, 191; *The Lancet*, 29 January 1870, 174
59. Wyatt, SCHFSH, 12–16.
60. *The Lancet*, 18 March 1871, 372. See also *MTG*, 6 May 1871, 519.
61. *The Times*, 7 October 1871, 11.
62. *The Lancet*, 29 January 1870, 173–174.
63. *MTG*, 3 June 1871, 634.
64. *PMG,* 19 June 1871, 4.
65. Letter from Henry Walker, *Camden and Kentish Towns Gazette* (*CKTG*), 10 June 1871, 2; ibid., 17 June 1871, 2.
66. She was sometimes referred to as the "Bellew" girl. *Morning Post*, 15 September 1871; *The Times*, 15 September 1871, 9; *The Times*, 23 September 1871, 10; *The Times*, 27 September 1871, 11; *Illustrated Police News* (*IPN*), 30 September 1871; *The Times*, 13 November 1871, 4; *The Lancet*, 23 September 1871, 359; *North Londoner*, 9 September 1871, 4; *North Londoner*, 23 September 1871, 5.

67. *Lloyd's Weekly Newspaper*, 10 September 1871.
68. *The Times*, 29 August 1871, 8; *The Times*, 30 August 1871, 8; *The Times*, 1 September 1871, 8; *The Times*, 5 September 1871, 8; *The Times*, 12 September 1871, 3; *The Times*, 15 September 1871, 3. The Scottish-born Grieve had previously served as a naval surgeon; when the Hampstead Hospital closed in 1875 he emigrated to British Guiana, becoming the superintendent of the Public Lunatic Asylum in Berbice and Surgeon General of the colony. Letizia Gramaglia, "Dr. Robert Grieve (1839–1906): An Apostle of Science," in *The Asylum Journal* (The Caribbean Press, 2010), xiii–xxviii.
69. *The Times*, *The Lancet*, *The Medical Times and Gazette*, *The Echo*, *The Standard*, *Lloyd's Weekly Newspaper*, *The Daily News*, *The Morning Post*, *The Illustrated Police News*, and undoubtedly many more.
70. *Medical Press and Circular* (*MP*), 8 November 1871, 413. On melodrama and the New Poor Law, see Elaine Hadley, *Melodramatic Tactics: Theatricalized Dissent in the English Marketplace, 1800–1885* (Palo Alto, CA: Stanford University Press, 1995), 77–132.
71. *The Times*, 5 October 1871, 11.
72. *MTG*, 30 September 1871, 421–422; *MTG*, 14 October 1871, 477.
73. *MTG*, 30 September 1871, 423; *The Times*, 28 September 1871, 9.
74. *MTG*, 30 Sept 1871, 424; *The Times*, 29 September 1871, 9.
75. *MTG*, 30 September 1871, 423; *The Times*, 27 September 1871, 11; *The Times*, 7 October 1871, 11.
76. *MTG*, 30 September 1871, 421; *MTG*, 14 Oct 1871, 477.
77. *The Times*, 13 October 1871, 9.
78. *The Times*, 5 October 1871, 11.
79. *The Times*, 27 September 1871, 11; *The Times*, 5 October 1871, 11.
80. *IPN*, 30 September 1871, 2.
81. *MTG*, 30 September 1871, 421; *The Times*, 4 October 1871, 11.
82. *The Times*, 26 September 1871, 9.
83. *The Times*, 22 September 1871, 9. See also *IPN*, 30 September 1871, 2.
84. *The Times*, 5 October 1871, 11.
85. *The Times*, 22 September 1871, 9.
86. *The Times*, 26 September 1871, 9; *The Times*, 7 October 1871, 11; *IPN*, 30 September 1871; *IPN*, 14 October 1871; *MTG*, 30 September 1871, 421, 422; *MTG*, 14 October 1871, 478.
87. Sioban Nelson, *Say Little, Do Much: Nurses, Nuns, and Hospitals in the Nineteenth Century* (Philadelphia: University of Pennsylvania Press, 2001), 56–79.
88. Peter McCandless, "Liberty and Lunacy: The Victorians and Wrongful Confinement," *Journal of Social History* 11/3 (Spring 1978), 366–386; Akihito Suzuki, "The Politics and Ideology of Non-Restraint: the Case of the Hanwell Asylum," *Medical History* 39 (1995), 1–17.

89. *MTG*, 30 September 1871, 419.
90. *The Times*, 23 September 1871, 11; *MTG*, 30 September 1871, 420.
91. *MTG*, 30 September 1871, 419. Patients unaffectionately called the lice "speckled backs" or "Hampstead donkeys," and it was said that nearly all the patients in an infested ward acquired them. *The Times*, 3 October 1871, 9; *The Times*, 4 October 1871, 11.
92. *The Times*, 7 October 1871, 11; *The Times*, 26 October 1871, 11.
93. *The Times*, 10 October 1871, 9.
94. *The Times*, 5 October 1871, 11.
95. *MTG*, 30 September 1871, 422; *The Times*, 27 September 1871, 11.
96. *MTG*, 7 October 1871, 452; *The Times*, 4 October 1871, 11.
97. *Borough of Marylebone Mercury* (*BMM*), 30 September 1871, 2.
98. *The Times*, 27 September 1871, 11.
99. *The Times*, 5 October 1871, 11.
100. *The Times*, 26 September 1871, 9.
101. *The Times*, 22 September 1871, 9; *MTG*, 30 September 1871, 419.
102. *The Times*, 4 October 1871, 11.
103. *The Times*, 4 October 1871, 11.
104. *The Times*, 26 September 1871, 9.
105. *The Times*, 27 September 1871, 11.
106. *The Times*, 4 October 1871, 11.
107. *The Times*, 26 September 1871, 9.
108. *MTG*, 30 September 1871, 419; *The Times*, 27 September 1871, 11.
109. *The Times*, 4 October 1871, 11.
110. *The Times*, 5 October 1871, 11.
111. *The Times*, 22 September 1871, 9; *The Times*, 23 September 1871, 11; *The Times*, 3 October 1871, 9.
112. *The Times*, 27 September 1871, 11.
113. *The Times*, 4 October 1871, 11; *MTG*, 7 October 1871, 453.
114. *The Times*, 26 September 1871, 9.
115. *The Times*, 22 September 1871, 9.
116. *The Times*, 22 September 1871, 9.
117. *The Times*, 26 September 1871, 9.
118. *The Times*, 27 September 1871, 11.
119. *The Times*, 27 September 1871, 11.
120. The kindly Mrs. Bedwin prepared Oliver Twist "a basin full of broth strong enough to furnish an ample dinner, when reduced to the regulation strength, for three hundred and fifty paupers, at the very lowest computation." There was, for Dickens "between slops, and broth well compounded, … no affinity or connexion whatsoever."
121. *The Times*, 6 October 1871, 9.
122. *The Times*, 11 October 1871, 11; *IPN*, 14 October 1871, 2.

123. *The Times*, 28 September 1871, 9.
124. *The Times*, 17 October 1871, 12.
125. *The Times*, 11 October 1871, 11; *The Times*, 27 September 1871, 11; *MTG*, 30 September 1871, 423; *IPN*, 14 October 1871, 2; *MTG*, 21 October 1871, 506.
126. *MTG*, 30 September 1871, 424; *MTG*, 14 October 1871, 479.
127. *The Times*, 7 October 1871, 11; *MTG*, 14 October 1871, 478; *The Times*, 27 September 1871, 11.
128. *MTG*, 30 September 1871, 420. See also *The Times*, 22 September 1871, 9.
129. *The Times*, 27 September 1871, 11.
130. *The Times*, 20 October 1871, 11.
131. *The Times*, 5 October 1871, 11; *The Times*, 6 October 1871, 9. On the Refuge, see Edwin Pratt, *Catherine Gladstone: Life, Good Works, and Political Efforts* (London, 1898), 65–99.
132. *The Times*, 4 November 1871, 6.
133. *Illustrated London News* (*ILN*), 7 October 1871, 346.
134. *The Times*, 3 October 1871, 11.
135. *The Times*, 3 October 1871, 11.
136. *The Times*, 5 October 1871, 11.
137. *The Times*, 22 September 1871, 9.
138. *The Times*, 2 November 1871, 11.
139. *The Times*, 22 September 1871, 9.
140. The Glasgow MOH was against the practice of uniformly shaving the heads of fever patients because "so branded, they become homeless—no lodging house keeper will admit them." James B. Russell, *Report of the City of Glasgow Fever Hospital, May 1867 to April 1868* (Glasgow, 1868), 18–19.
141. *The Times*, 5 October 1871, 11.
142. *The Times*, 4 October 1871, 11.
143. *The Times*, 24 October 1871, 11.
144. *The Times*, 24 October 1871, 11.
145. *The Times*, 21 October 1871, 9.
146. *The Times*, 25 October 1871, 11.
147. *MAB Minutes, v. 5* (6 January 1872), 551.
148. *Morning Post*, 5 January 1872, 4.
149. *The Lancet*, 16 December 1876, 864.
150. *MTG*, 11 November 1871, 590.
151. *Morning Post*, 5 January 1872, 4.
152. George Ross, *St. Giles MOH for 1871*, 7.
153. *BMM*, 2 September 1871, 2.
154. *BMM*, 30 September 1871, 2.

CHAPTER 4

# Sanitary Citizens: Masculinity, Consent, and Franchise

In October 1878 the name of John Adley was challenged before the Revising Barrister considering the voting list for Tower Hamlets. Adley had been an eligible parliamentary voter on the householder register for four and a half years but the previous March his children had contracted smallpox and were removed to the MAB's Homerton Hospital. Attorneys for the Conservatives in this closely contested constituency considered it a clear-cut case: Adley had received poor relief, which must prove "legally fatal" to his claim of the franchise.[1] The matter at hand went to a bedrock constitutional tenet: the pauper must not vote. A man who required parochial assistance could not be considered a fit political subject. The barrister considered arguments concerning whether repayment of the hospital costs would regain Adley his vote, but ultimately decided to avoid ambiguous legal territory altogether. He declared insufficient evidence and decided to retain the name on the voter list.

While this case drew some attention in the London press (mainly because of its curious set of circumstances—Adley was clearly no destitute pauper), it became something of a rallying point for public health officials seeking to bring about the isolation of infectious patients. The MOH for Kensington, T. Orme Dudfield, complained that parish relief could not only make a man the object of partisan malice but also cause him to "be branded a pauper, and be disfranchised for doing his duty toward his family and his neighbours."[2] Another case that year in Kensington actually resulted in a name expunged from the voters' list.[3] Dudfield and other health officials warned that the law governing pauperism



M.L. Newsom Kerr, *Contagion, Isolation, and Biopolitics in Victorian London*, https://doi.org/10.1007/978-3-319-65768-4_4

created a threat to the public health. As the Medical Superintendent of the MAB's Homerton Hospital proclaimed: "Let it be well understood that any person having the disease will be admitted on presentation. Our object as public health authorities is to induce people to go into hospital; that of the poor law authority is to keep people out."[4] With few means to compel removal of the infectious sick to hospitals, sanitary authorities depended upon the consent of respectable poor men like Adley, for whom hospitalization of a family member might still cause the sacrifice of "cherished civil and political rights."[5]

This particular legal conflict over state medical provision was viewed by many health officials as a vital pragmatic matter of health government *precisely because* of its relation to the civic principles of self-governing masculinity. This chapter considers the campaign to "depauperize" London's infectious disease hospitals and argues that it represents a pivotal intersection of pauperism, workingmen's citizenship, and the governmentality of state medical services. Patients of the MAB were separated from the formal label of pauperism in 1883. This measure formed the precedent for debates surrounding the Medical Relief Disqualification Removal Act 1885, which eliminated political penalties for parochial medical assistance nationwide. José Harris succinctly observes that the Act was "a seemingly miniscule measure but one that nevertheless breached the hallowed constitutional principle that voting rights should never be exercised by those without independent means of support."[6] It also marks a key symbolic attempt to govern public health by the civic recognition of individual behavior. The need to hospitalize the infectious sick posed difficult questions to cultural and legal traditions of the "liberty of the subject" in Britain. Lacking legal means to enforce isolation and hesitant to employ heavy-handed measures, London's health officials turned to the political and social status of the male householder as the mechanism by which they might mobilize consent. The personal civic dimension of hospitalization therefore involved not so much the sick persons themselves but rather revolved around the fathers and husbands authorizing their removal. By investing in the sanitary citizenship of men like John Adley, medical officers could avoid external mandates and instead seek to "govern through the family."[7] The campaign to depauperize public health did not simply conform to the gendered exclusions of the parliamentary franchise, this chapter argues; it legitimated and upheld a particular vision of workingmen's household sovereignty, parental authority, and social duty characteristic of the era's expectations of "manful assertion."[8] This

approach aligns with what historians and theorists influenced by Foucault have referred to as "governmentalities": the practices and knowledges deployed by a liberal state to produce consenting subjects. Warwick Anderson, Alison Bashford, and others have explored the biopolitics of citizenship in rather different contexts as the means by which civil status is deployed in order to guide conduct affecting the public health.[9] In late nineteenth-century London, the franchise represented a system of gendered rewards for workingmen deemed sober, thrifty, dispassionate, and dependable. Health officials saw the vote as a powerfully symbolic inducement by which the private government of the family could be yoked to the public governance of society and through which submission to the isolation hospital might be proffered as an act of independence.

## The Pauper Disqualification in Householder Suffrage

The clause in the 1832 Reform Act expressly disqualifying paupers from voting has received relatively little attention from historians. This is more than a little unusual, as it formed a core constitutional exclusion from the political nation and remained mostly intact (except for the medical exemption) until 1918.[10] While the electoral disqualification simply codified nationally what had already been common local electoral practice, the Act nonetheless encapsulated a set of emerging ideas about the fit political subject that informed all the great franchise debates of the nineteenth century.[11] The New Poor Law of 1834 added its panoply of social humiliations and deprivations to this legal framework, effectively framing the pauper as the quintessential "anti-citizen."[12] While it regularized and made more democratic the election of parochial boards, the New Poor Law also confirmed that poor relief must necessarily entail a political degradation. This was expressed by Harriet Martineau, one of the law's greatest champions, who wrote: "Except [for] the distinction between sovereign and subject, there is no social difference in England so wide as that between the independent labourer and the pauper; and it is equally ignorant, immoral, and impolitic to confound the two."[13] As a legal and social category, pauperism served as a mechanism to draw an unambiguous line between independent and abject persons—a distinction that remained central to Victorian political thought.

Pauperism underscores the gendered criteria of the democratic subject. Even the most radical proposals for manhood suffrage had long been premised upon criteria involving familial self-sufficiency and

sensible saving. The aspiring male voter had to demonstrate a prudent character by successfully providing for dependents and managing his household.[14] Matthew McCormack argues that masculine self-government was initially also framed by performances of emotional attachment to wife and children.[15] It is a matter of some debate whether the affectionate bond between patriarch and dependents became more a mark of civilized behavior or domestic weakness, since, as others have argued, the male breadwinner's financier role tended to be presented as a paramount duty that overshadowed emotional closeness to children and wives. In either case, pauperism signified the nadir of domestic disarray and financial collapse, and it was upon the adult male pauper that was concentrated the intense stigma of fatherly shame.[16] After 1834 pauperism was in almost all cases a reflection on the character of the husband/father, in effect normalizing the respectable male breadwinner ideal. Petition to relieve a wife or a child under sixteen was considered to have originated with the delinquent paterfamilias himself. If parish authorities rejected outdoor aid for child or wife in preference to workhouse relief, then the head of household would be legally required to enter the workhouse in order to secure assistance for his dependents. Conversely, wives "had no autonomous existence"; they too became paupers even if their husbands only received medical assistance.[17] Finally, workhouse residence broke up families, verifying that the pauper family was a failed unit that could not be allowed to perpetuate. In every important way, pauperism was meant to "un-man" the family in which it occurred.

The franchise debates of mid-century framed masculine self-government and political rights almost entirely by reference to middle-class virtues of frugality, savings, and domestic economy. For the artisan, tradesman, and clerk classes, the visible demonstration of these ideals was participation in insurance schemes, sick-benefit funds, burial clubs, and other contribution mechanisms by which the head of household purchased protection against contingencies without resorting to charity or the parish.[18] Benefits, however, were paid upon the injury, sickness, and disability of the male breadwinner, not wives and offspring—and so reinforced the latter's position as dependent upon their menfolk's industriousness and sobriety, not upon state or social institutions. Membership and subscription fees signified the workingman's successful performance of the family "financier" role, his prudent planning of domestic resources, and his civilized inclination to sacrifice the desires of today for the needs of tomorrow. In reality, the working-class family's strict constancy as a

self-contained and self-reliant economic unit proved eminently unpractical.[19] Nonetheless, it was this vision of an independent householder that underpinned the Second Reform Act of 1867, which contemporaries likened to "hearthstone suffrage." Anna Clark argues that maintaining a family in comfort (signified by the rated householder franchise) functioned as a moral passport to political rights. The Act was intended to extend the vote to that portion of "respectable" workingmen living in urban boroughs whose savings and sobriety reflected "piety, intelligence, and good conduct."[20] Referred to by some as the "labour aristocracy franchise," it was also buttressed by the principle of absolutely withholding the vote from the "residuum" of "improvident, uninstructed, brutal and venal, labourers and paupers."[21] Householder and lodger qualifications acted as one barrier; but the Poor Law also helped to sort the dangerous classes from the politically fit. Indeed, as Keith McClelland has shown, these modest inclusions to the political nation were based upon an even more detailed system of further exclusions: of women, the Irish, the thriftless poor, and paupers—all of which were constructed as natural outsiders in this period's masculinization of popular politics.[22]

## What Is a Pauper?

The category of the sick pauper had been significantly problematized by the workhouse reform movement in the 1860s. It was further undermined in practice by smallpox and the other epidemic diseases streaming into MAB hospitals in the 1870s. The great majority of these inmates were in no way "destitute," and yet all were necessarily classified as paupers. At least 70% of inmates treated during the 1871–1872 smallpox epidemic had never received parish relief prior to admission—a figure that rose to something like 90% over the next decade.[23] A survey of male patients treated at the Hampstead Hospital reveals a panorama of occupations, bearing out a metropolitan Poor Law inspector's finding that the "great bulk" of inmates were "respectable working people, of varying degrees of poverty, living in lodgings or as servants in private families" (Table 4.1).[24] The MAB was in theory only bound to accept persons certified by parish relieving officers as destitute, yet there was often simply no other place to which a desperately ill person could be taken. Superintendents of MAB hospitals by and large decided to admit any person presenting themselves for treatment. As the chairman of the MAB explained, "The people presented themselves at the hospital in a

**Table 4.1** Occupations of male patients at Hampstead Hospital from 15 November 1876 to 31 December 1877

| | | | | | |
|---|---|---|---|---|---|
| Asphalter | 1 | Furniture Designer | 1 | Pawnbroker's Assistants | 10 |
| Bellhanger | 1 | French Polishers | 5 | Pianoforte Makers | 5 |
| Bargemen | 2 | Fireman | 1 | Rope Maker | 1 |
| Butchers | 10 | Grooms | 7 | Railway Porters | 11 |
| Bookseller | 1 | Grocers' Assistants | 7 | Railway Guards | 6 |
| Basket Maker | 1 | Gasfitters | 7 | Soldiers | 3 |
| Bakers | 8 | Gardeners | 9 | Sailors | 3 |
| Blacksmiths | 4 | Glass Cutter | 1 | Stonemasons | 5 |
| Bookbinders | 3 | Greengrocers | 3 | Safe Maker | 1 |
| Barmen | 6 | Hawkers | 7 | Stoker | 1 |
| Brass Finishers | 4 | Horsekeepers | 17 | Shoemakers | 7 |
| Bricklayers | 14 | Hosier's Assistant | 1 | Shopmen | 10 |
| Boatmen | 2 | Harness Maker | 1 | School Boys | 39 |
| Brushmaker | 1 | Hairdressers | 2 | Servants | 10 |
| Coach makers | 5 | Hatter | 1 | Slater | 1 |
| Clothmaker | 1 | Ivory Turner | 1 | Stay-bust Maker | 1 |
| Carmen | 39 | Ironmonger's Assistant | 1 | Seedsman | 1 |
| Corkcutter | 1 | Infants | 155 | Silk Dresser | 1 |
| Carriage Washer | 1 | Japanner | 1 | Saddler | 1 |
| Cabmen | 8 | Labourers | 186 | Stone Sawyers | 2 |
| Commercial Travellers | 7 | Letter Carriers | 2 | Signalmen | 2 |
| Cook | 1 | Law Writer | 1 | Shunter | 1 |
| Cheesmongers | 2 | Labour Master | 1 | Shoeblack | 1 |
| Cabinet Makers | 4 | Messengers | 4 | Tailors | 8 |
| Card Maker | 1 | Milkmen | 11 | Ticket Examiners | 2 |
| Chimney Sweepers | 4 | Machine Ruler | 1 | Tanners | 2 |
| Carvers and Gilders | 4 | Mat Maker | 1 | Tinplaters | 4 |
| Coachmen | 14 | Musicians | 6 | Trunk Makers | 2 |
| Carpenters | 30 | Millers | 2 | Tobacconist | 1 |
| Costermongers | 4 | Machinists | 2 | Toll Collector | 1 |
| Clerks | 19 | Nil, or unknown | 159 | Type Founders | 3 |
| Catsmeat Men | 2 | Opticians | 2 | Tram Conductors | 3 |
| Cellarmen | 2 | Omnibus Conductor | 1 | Tobacco Manufacturer | 1 |
| Compositors | 3 | Plumbers | 5 | Umbrella Maker | 1 |
| Carpet Planner | 1 | Paperhanger | 1 | Upholsterers | 2 |
| Custom House Officer | 1 | Potmen | 10 | Wheelwrights | 6 |
| Dyers | 4 | Platelayers | 3 | Wood Choppers | 3 |
| Drayman | 1 | Printers | 7 | Wood Turners | 2 |
| Dustmen | 2 | Poulterers' Assistants | 2 | Warehousemen | 5 |
| Donkey Driver | 1 | Plasterers | 2 | Wire Worker | 1 |
| Druggist | 1 | Paper Bag Makers | 1 | Watch Makers | 4 |
| Engravers | 2 | Paper Collar Maker | 1 | Waiters | 6 |

(continued)

**Table 4.1** (continued)

| | | | | | |
|---|---|---|---|---|---|
| Engineers | 7 | Picture Frame Maker | 3 | Whitesmiths | 4 |
| Errand Boys | 41 | Painters | 15 | Watchmen | 1 |
| Engine Driver | 1 | Porter | 37 | | |

House of Commons, "Report of Dr. Bridges on Small Pox in the Hospitals of the Metropolitan Asylums Board, from 1876 to 1878," (24 February 1880), 10–11

flowery stage of disease. What were the Board to do?"[25] After the 1871 smallpox epidemic, the MAB briefly refused to accommodate non-paupers, but was heavily criticized by commentators such as the editor of *The Lancet*, who considered it "monstrous" for such hospitals "not to be open for the reception of anyone who chooses to put himself in *formâ pauperis* by knocking on their doors."[26] Many MAB managers complained that patients could only be considered paupers. One wrote to *The Times* about the injustice of poor persons "who have hitherto maintained themselves industriously [receiving] a taint of pauperism which experience teaches us will in too many of the cases cling for life."[27]

The pressing circumstances of epidemics tended to confound the tidy distinction between pauper and non-pauper required by law and still widely considered vital for maintaining the poor's independence. For instance, the Union of St. George's, Hanover Square, debated whether the parish infirmary could accept gentlemen's servants who had been turned out after contracting smallpox. Admiral Duncombe insisted that private houses had no right to throw persons upon the rates and that sick servants could not be accepted as paupers.[28] Five years later, however, the Union was confronted with a similar question of whether a female servant sick with smallpox should be directed to the MAB hospitals. On this occasion it was argued "the girl was out of place, and should have been removed to the hospital." Admiral Duncombe agreed that while it was difficult to define the word "pauper," in this case the girl clearly was one. The Union ultimately resolved to treat any doubtful cases "as those of a pauper character" and send them to the MAB hospitals.[29] A local newspaper considered it best to err on the side of securing public health. If shut out of hospital the infectious sick would be forced "to go to some crowded back alley to disseminate the disease under which he or she may suffer, broadcast." A servant or other person in similar circumstances, the editorial continues, "merely becomes, to an extent, a pauper, a fit and

proper subject."[30] This combination of legal specificity ("a fit and proper subject") with moral vagueness ("to an extent") underlines the distressing ambiguity that surrounded the MAB hospitals. "It was," according to *The Sanitary Record*, "the great question, What is a pauper?"[31]

While in the main not destitute, patients of the Asylums Board were nevertheless drawn almost entirely from economically precarious positions. A mechanic earning the respectable wage of £2–3 per week having no other options for treatment of an infectious disease might be brought to the pauper hospital.[32] So would a sick servant turned out of a house "with indecent haste," which occurred often enough to attract frequent condemnation. "The thing had been winked at by the [hospital] authorities in order to prevent danger," but the principles of Poor Law administration could not normally encompass their assistance.[33] The St. James's Vestry expressed outrage upon learning in 1877 that MAB hospitals contained at least fifty-four domestic servants whose earnings amounted to £40 or £50 per year; they were astonished also to learn that patients had arrived with clothes and jewelry in their possession.[34] A Chelsea Guardian reacting to the same report maintained that a person with a watch or diamond ring was no pauper and had no business in a pauper hospital, and he demanded the parish seize such property upon the death of inmates.[35] Meanwhile, the Chelsea MOH attempted to explain that patients who had entered hospitals wearing watches and jewels would be "very indignant if they were told they were paupers."[36]

Meanwhile, the Asylums Board's permissive policy continued to alarm critics such as Albert Pell, Conservative MP and vocal supporter of the Charity Organisation Society, who contended that it might "invite persons into the asylums at the cost of the rates" and dissuade workingmen from making provisions for inevitable family sickness by subscribing to provident dispensaries, friendly societies, and sick-benefit clubs. It unquestionably invited them into "assuming pauperism."[37] The wisest course, according to Pell, was to eliminate parochial medical assistance as well as all outdoor relief, as this invariably brought about "wonderful results in the reduction of the number of paupers and promotion of industrious habits."[38] Pell's attack on the MAB was part of a broader assault upon indiscriminate charity and the perceived demoralization of the poor—a campaign grounded in part on strengthening the disciplinary hand of the Poor Law.[39] This went hand in hand with the new rhetoric of "hospital abuse" embraced by groups like the Charity Organisation Society, which proclaimed that use of free medical

charities by persons able to pay for medical attention caused "respectable working men" to lose their independent spirit and be "trained to pauperism as in a school."[40] Charity was properly restricted to persons who met philanthropy half way and reformed themselves; the Poor Law must be reserved for those who would not accept personal responsibility. The Reverend Brooke Lambert explained this threat to independent manhood was always imminent, warning "once let him yield to pressure, and he becomes, in nine cases out of ten, a whining suppliant, ready to cringe for all he can get."[41] A driving force of these anxieties concerned the moral composition and self-control of the new electorate created in 1867. The fortitude to forgo medical charity, stated another commentator, could not fail "to have an important bearing upon their character and an influence upon our social and political condition for years to come."[42] H C. Burdett, the most prominent critic of "hospital abuse," fretted that charitable and parochial assistance was losing its stigma, and many had "thus fallen from the high estate of manly independence, which used to be the pride and boast of Englishmen."[43] There were "many ways of ruining a country," he stated; "a foreign invasion may do it quickly and, with great noise, but it will not do half so effectually and permanently as will the gradual but certain pauperising of vast masses of its people."[44]

Critics insisted that the MAB make some effort to require non-pauper patients to contribute something toward their care. Even a nominal payment would sufficiently distinguish them from bona fide paupers.[45] Albert Pell suggested that parishes be allowed to investigate patients they sent to the MAB so as to recover costs of relief and "prevent patients escaping who could pay." Failing that, he advised admitting self-evident non-paupers only if they first signed a document promising to pay back the costs of their care.[46] Burdett, who was also the primary supporter of introducing pay wards at the main charitable hospitals, praised the system established at many American hospitals whereby "all pay who cannot prove their inability to do so."[47] He confidently explained that "every man should have the privilege of paying what he can"; moreover, it was the only means by which "thrifty and self-respecting" men might continue to "enjoy the glorious liberty of being independent."[48] A number of like-minded commentators wondered why the MAB might not provide wards for paying patients separate from those for paupers. Some MOHs were attracted to this idea, such as the Paddington MOH, who believed that

"the less the two classes are brought into contact the better." He added that it was necessary for "patients of a better class" not to be "subjected to unnecessarily disagreeable surroundings, or made to experience any sense of degradation."[49] All these proposals aimed to create a mechanism for identifying and segregating "true pauperism," while also systematically directing all other claims toward insurance and fee-for-service transactions. Desperate to disambiguate and classify the hospital inmate, Pell and others longed to be able to say: "That man is a pauper. He cannot pay."[50]

Although some commentators optimistically assumed that "plenty of people are only too willing to pay who now became a charge on the rates,"[51] actual payments remained minimal. Of the 16,459 patients treated by the MAB in its first three years of operation, costs of maintenance (1*s.* 3*d.* per day) were recovered from only 191. The MAB never possessed the authority to request prepayments or repayments, but the parishes (which had more clear legal grounds) also had little success.[52] For example, St. Pancras parish averaged about £16 a year in receipts from hospital patients against an average yearly expenditure of £950.[53] St. Marylebone parish sent nearly 600 persons to MAB hospitals in 1871 and despite its best attempts received repayment from not a single one. Edwin James Barter, an Oriental Bank clerk, replied to St. Marylebone's summons with his own letter. Indignant that he had been described as a "pauper" when at the Hampstead Smallpox Hospital and resentful at the quality of his treatment (see Chap. **3**), he considered it unnecessary for him to pay anything.[54] As this suggests, few patients were enamored by the moral benefits of the hospital bill. Moreover, at least some cases of payment came about from the mistaken belief that a fee was required for admission. That was evident in the case of a public house owner who had given over £3 4*s.* to the Hampstead parish for a servant treated at an MAB smallpox hospital. Upon learning that a fee was not legally required, he angrily asked a magistrate to compel the parish to return it.[55] Finally, it is clear that most patients themselves would have been simply unable to afford the costs of hospital care. In 1879 the MAB's flat rate for an entire course of treatment was £4 4*s.* (at least four weeks wages for the average respectable tradesman or clerk). Only four out of 835 patients of the MAB's Homerton Hospital in 1880 were marked as having been able to repay these costs. The next year, out of 3100 inmates in all MAB hospitals, no more than £60 was collected from seventy-nine patients, showing that even persons who repaid did not usually do so in full.[56]

Over the 1870s the MAB hospitals quickly grew into another of the important institutions making up poor London's "economy of makeshifts." It provided free health services amidst a general state of precarious family finances that left little room for costs-sharing. Most workingmen in the metropolis never became regular subscribers to sick-clubs or provident dispensaries—either out of ineligibility, or casual employment, or simply lack of spare funds in the family budget.[57] Furthermore, rates of sickness were regularly much higher among even the "respectable poor" than the middle classes and amounted to a consistent burden that few fee-for-service commentators would have appreciated. Friendly societies captured a small number of unskilled male workers. They also frequently suffered bankruptcies—just another of the "catastrophes which occasionally befall the provident among wage-earners," George Gissing observed in *The Nether World*.[58] Even more importantly, off-work benefits were only provided to the male wage-earning subscriber, not his dependents. This also meant that payouts from an insurance scheme would have been little use in infectious disease; hospital isolation was what public health officials recommended, and benefit clubs would never reimburse pauper authorities. Payment to the fever or smallpox hospital would in almost all cases have had to come from a family's savings, assuming there were any. Thus infectious disease posed a particularly dire threat to shaky family economies, with sickness of the main wage earner possibly portending collapse and dispersion of the family.

Even when family survival was not at stake, it remained unclear whether submitting payment to the MAB would effectively absolve the stain of pauperism. *The Lancet* considered it "a mere quibble" to say that paying patients had been pauperized by their stay in a workhouse hospital. This, however, remained a hazy corner of the law, and no consensus existed either about the franchise position of a man who had received relief "on loan."[59] Practically all patients existed in a legal limbo regarding *status pauperis*. In one instance several privates of the Life Guards were sent to the MAB suffering from smallpox and "paid for" by the regiment, but they remained on the books of the MAB as "paupers" because there was simply no other designation allowed by the Poor Law Orders.[60] Would these "quasi-paupers" suffer the same civil disqualifications as paupers? Did a patient remain a pauper if the nominal fee or repayment did not recompense the full cost of care? Could a MAB hospital patient avoid pauperization if provided for out of the district sanitary rates and not the poor rates? No clear resolution to any of these questions was ever reached.

## The Poor Man's Spare Bedroom

The 1867 Reform Act confirmed the spaciousness and condition of a home as one key measure of social citizenship and formal franchise rights. At roughly the same time there were significant changes in thinking about the ordinarily home's ability to harbor and contain infectious diseases. The domestic sphere had long been the gendered terrain of nursing and care, with women holding sovereign responsibility for the domestic management of sickness.[61] Only slowly did home and mother loosen their hold on the contagious family member. The amount of space in family advice manuals devoted to the home-treatment of infections gives the impression that, while this required an exceptional state of household routine, "fever nursing" was almost as commonplace a domestic skill as the "confinement" of expectant mothers.[62] The domestic sickroom no doubt also enabled middle-class families to frame the experience of infection as a private crisis and thus exempt the home from the realm of the "the social." It invariably involved bringing into use the "spare bedroom" located at the top of the house (which in most cases actually meant requisitioning the servants' quarters), and initially it consisted of little more than "a few self-evident precautions" to minimize the spread of disease through the household.[63] "Amongst those who have space, money, intelligence, and the desire to save life," a physician at King's College Hospital explained in 1870, it was relatively simple to safely treat a disease like scarlet fever at home. This was quite clearly impossible however "in the overcrowded dwellings of the poor, where the healthy, the sick, and even the dead, are often found occupying the same apartments."[64]

Quite apart from the problem of those classes lacking a "spare bedroom," physicians over the next decade found it necessary to compile lengthier and more complex lists of precautions and appliances necessary to protect the household from the infectious patient. Home isolation as a result rapidly grew more intricate and technical, as shown by books such as *Our Homes, and How to Make Them Healthy*, edited by Shirley Murphy, the MOH for St. Pancras and former physician for the London Fever Hospital.[65] Experts now advised that infectious nursing required the regulation of the room's temperature and ventilation (taking care at the same time to avoid draughts), management of light (to prevent darkness and glare), administration of baths (once a day at the correct temperature), enforcement of absolute silence (difficult in a functioning household), preparation of a special diet (according to medical

direction), judicious use of alcohols and spirits (but avoiding overstimulation), and production of sleep (as it would not come easily to the delirious). It was recommended to keep the infectious sickroom fairly austere, stripping it of all unnecessary items, since everything eventually would have to be chemically disinfected or put through a process of baking. Another abiding feature was to hang across the door of the spare bedroom a sheet kept constantly wet with disinfectant.

Infectious disease care was increasingly a task requiring specialized skills sometimes only found in good hospitals. The trained nurse for hire was a growing option for the middle classes. Her disaffiliation from the family could be a boon for safety, some argued, as she presumably would be less hesitant to undertake the disgusting and humiliating tasks essential to prevent the spread of infection. For example, in the event of death disinfectants should be used freely until burial and in these and other things, another writer warned, "unhealthy sentiment should not be permitted to interfere with obvious duty."[66] The "spare bedroom" as a moral site of tender attentiveness therefore generally gave way to a technical space for detailed precautions and impersonal routine, at least where dangerous infection was involved. Definitely smallpox, but also increasingly scarlet fever as well, was considered too dangerous to keep in the home—a development that served to masculinize the care of infectious patients in important ways. For instance, it buttressed the growing medical consensus that local sanitary authorities had a duty to provide hospitals for infectious sick persons who were not paupers. Home treatment of the common fevers was now cast in a dismally foreboding and uncertain light and increasingly seen as a palpable risk to middle-class households—especially to its female members, whose zeal to heal would necessarily place them in special danger. As Murphy intoned, "It is not every woman who can make a nurse, although we are not infrequently told that women are born nurses." He wrote at length about why removal of the infected person was "the simplest and wisest course in the great majority of cases."[67]

One alternative to the standard middle-class spare bedroom was the London Fever Hospital. This charity, dating from 1801, had mainly served patients admitted on payment from parishes (paupers in other words). After the creation of the rates-supported Asylums Board, the LFH explicitly barred paupers and began to aggressively promote itself as a space where patients could enjoy "the greatest practicable amount of privacy and comfort."[68] For a fee of £3 3*s.* per week, the well-off could receive "comforts to which they [were] accustomed in their

own homes."[69] (This included single-bedded rooms, individual nurses, unlimited visits by friends, private baths, even use of the tennis court on the premises!) The LFH thereby became one of the first successful pay hospitals for persons of the middle class and upward.[70] The London Smallpox Hospital, a charity founded in 1746, took up a similar strategy after 1870 (charging £4 4*s.* for admission) and thus preserved its relevance after the creation of public isolation hospitals. Both of these "pay hospitals," however, were far too small to much affect the public health and far too expensive for most Londoners.

The lack of space—including absence of a spare bedroom—was a defining feature of the typical workingman's home. Indeed, the civic importance of a relatively comfortable household became a key line of demarcation in the terms of the Second Reform Act's "hearthstone suffrage."[71] Yet in some ways capaciousness itself came under strain as a reliable marker of respectability, especially as the entire issue of working-class housing was rethought in the 1870s–1880s. These involved new ways that the dwellings of the poor were discussed as a sanitary problem. On the one hand, this era witnessed the emergence of a certain breed of pessimistic, quasi-Darwinian thought applied to social problems. It perceived an unreachable criminal and pauper class: a residuum or submerged tenth, the malformed offspring of urban degeneration, practically hereditarily predisposed to idleness and filth, and incapable of anything else than fouling their living spaces.[72] On the other hand, there was also an increased recognition that slum conditions were a question of wages, simply put.[73] This spurred attention to the political economy of urban squalor, and it was supported by a series of exposés finding a great number of respectable families who followed the virtues of self-help and temperance, avoided vice and poor budgeting, and yet could not afford decent, healthy abodes. Dudfield, the MOH for Kensington, stated flatly that the main causes of insanitary overcrowding were poverty and high rents.[74] In other words, blame for ill health was increasingly attributed to large structural forces that weighed down upon and limited personal options. Prominent Liberal proponents of expanded suffrage like the radical Joseph Chamberlain tended to disparage the rhetoric of a hereditary residuum, and instead attacked the evil influences of avaricious builders and landlords, incompetent local regulations, excessive rents, and competition for dwellings near sites of employment. "When the man is unable to alter his surroundings, his surroundings make the man," Chamberlain wrote, maintaining it was the duty of the state to

improve the condition of housing stock.[75] Just as the regrettable sanitary condition of a middle-class man's house would not necessarily reflect upon his character (there were rising concerns about jerry-built suburban tracts), in the same way a workingman's family affected by infection was increasingly able to be seen as a victim of epidemics that essentially struck from outside the household.

One consequence of these new attitudes was the rising belief that the rate-supported hospital might legitimately serve as "the poor man's spare bedroom." But this could only be if it was both dissevered from the Poor Law and made perfectly free. As one MOH wrote:

> Poverty may be, if not in most cases a crime, at least a well-deserved penalty for neglected opportunities and wasted resources, but it has yet to be shown that for a man to be visited by infectious disease is otherwise than a pure unmerited calamity, which should challenge all possible sympathy and assistance, rather than provoke, as it so often does, repulsion and neglect. Abundant experience shows that the unwillingness to enter the workhouse when sick is strongest in that class of the population which is only one remove in reality above pauperism. It is a cruel thing to say, in effect to this class—'It is true that you are not actually paupers, but we will give you no help in dealing with this calamity with which you are stricken, unless you enter the workhouse and so assume the badge of pauperism.' To do this is gratuitously to pauperise and degrade the recipients of such aid.[76]

The problematization of the middle-class home as a space for disease containment helped to deproblematize the rate-supported hospital as a service for the working poor. Importantly, it also aided district Medical Officers in their attempts to distance public health work from the Poor Law. It is true that an older generation of MOHs remained opposed to inducing the general public into infectious hospitals. This was the case in Liverpool.[77] Also, the Holborn MOH, Dr. Septimus Gibbon, remained skeptical of the MAB's large hospitals and preferred to allow patients to be treated at home except in the direst circumstances (for which he was also severely criticized by his colleagues).[78] Many more MOHs, though, saw a troubling analogy with the public provision of smallpox vaccine. The problem was that free vaccination since 1840 had been conducted through the local Poor Law authorities and caused the procedure to "stink in the eyes of some people."[79] Its association with pauperism and its compulsoriness after 1853 had been key factors fueling the anti-vaccination movement. John Simon famously disparaged the influence of the Poor Law bureaucracy in

matters relating to public health, believing that it largely ignored medical opinion, both at the local and national level. Frustrated, he resigned his position as Medical Officer to the Local Government Board over these matters.[80] In the 1870s many MOHs had come to a similar view of how the tasks of managing pauperism tended to limit the scope and ambitions of public health as a special branch of the medical profession.

Most London MOHs came to believe it was vital that the infectious hospitals not relay the Poor Law's degrading and deterring taint. For Dudfield, the principles upon which recipients of aid were regarded would directly shape the practical effectiveness of public isolation:

> [W]hy need they be pauperised, even supposing they are not able to maintain themselves? … Is it reasonable, then, to pauperise an artisan … because he, unwillingly indeed, but from a sense of public duty, and for the benefit of the community, consents to go, or let his child go, to a rate-supported hospital? … [A]ll distinctions of pauper or non-pauper should be abolished. Treat all alike as suffering from a personal calamity, which may grow into a public danger, and act on the principle *salus populus, suprema lex*.[81]

This goal of socializing the spare bedroom was inseparable from that of depauperizing the MAB. In 1876 the Society of Medical Officers of Health resolved that hospitalization for infectious diseases be "completely dissevered from any relation to pauperism." Two years later a conference of London Vestries came to the same conclusion.[82] Arguing that no delay could be suffered in "stamping out" the first embers of an epidemic, Dudfield praised the MAB's previous "wise disregard" of the "strict letter of the law" in admitting all applicants.[83] Nonetheless, a more formal arrangement was needed to recognize this anomalous situation and to "throw open wide the doors of the hospitals."[84] Dudfield promoted an analogy between isolation hospitals and fire brigades, contending that both were maintained in the interests of the ratepayers although the former should "be regarded as a premium paid for insurance against a risk as much more serious than fire, as health and life are more precious than property."[85] As another MOH stated: "Such hospitals were undoubtedly maintained for the benefit of the whole public, and not for the patients themselves, though the latter undoubtedly participated in the benefit."[86] In order for this to be the case, though, the hospitals needed to be funded not out of the poor rates, but instead the public rates—a reform that many believed would amount to the same thing as depauperization.

In some places in Britain where costs of isolation hospitals came from public rates, charges on individual patients were attacked as a type of double payment. Free admission to the infectious disease hospital was made an "election cry" in Warrington's 1880 municipal elections, and afterwards no further attempts were made to collect charges.[87]

Metropolitan health officials increasingly disapproved of collecting admission fees and repayments.[88] This was also the feeling of the Royal Commission appointed in 1881 to review the workings of London fever and smallpox hospitals, which concluded that the MAB should be made responsible for all Londoners, not just paupers, and its actions should rest "with primary reference to the general prevention and extirpation of epidemic infectious disease."[89] This goal would justify, in the minds of the Commissioners, the advisability of "attract[ing] to these hospitals, even by the bribe of gratuitous treatment, all who will go thither."[90] Another official went so far as to suggest it would be beneficial to pay the infectious patient £1 a week for undergoing hospitalization.[91] In line with this view, Dudfield and others feared that providing separate wards for paying patients would in essence preserve the pauper stigma for non-payers and so prove "fatal to any scheme which aims at complete isolation."[92] In one case in Kensington, he reported, a respectable artisan had been persuaded to let his two sons be removed to a smallpox hospital, but refused when he learned he would be asked to pay.[93] In 1881 Dudfield was able to convince the Kensington Board of Guardians to abstain from seeking payment for any parishioner treated in the MAB hospitals. Having rendered it "absolutely free" for persons in his district, Dudfield wrote, "from that date there had never been any difficulty" in removing cases to hospital.[94]

The success of the "poor man's spare bedroom" rested not only upon removing negative hindrances and stigmas, but also in creating positive enticements. Richard Thorne Thorne's extensive survey of infectious disease hospitals outside London in 1881 found that a large number had stopped charging all fees, although he did not believe that this was always the most important reason for their increased use by the public.[95] He admitted that a pauper atmosphere deterred the appreciation of hospitals among "the more respectable of the labouring classes." Health officials should therefore carefully avoid the conditions popularly associated with the Poor Law—dilapidated facade, shabby interior, proximity to the local workhouse, coarse food, anything resembling pauper uniforms.[96] The distasteful reputation of isolation hospitals, to the extent it still arose, derived not so much from the presence of *paupers* as from the distinctive *markers*

*of pauperism*, which seems to underline the extent to which the distinction was largely situational and tenuous in the first place. Health officers were coming to agree that the more important consideration in gaining the cooperation of those "classes in a better position of life" was to strip hospitals of the overt signs of the Poor Law and at the same time pay closer attention to ordinary comforts such as "food, fittings, furniture, and so on"—the typical appearances, in other words, of the relatively austere middle-class home sickroom.[97] As discussed in Chap. 3, an abiding belief for decades had been that assistance obtained under the Poor Law must be rendered "wholesomely repulsive." But medical officers and hospital planners were coming to a new consensus: that "in appearance, and even in name, no less than in administration and management, [the infectious disease hospital] should be as little repulsive as possible."[98] For the good of the public health, hospital isolation had to act as a force of attraction to individuals, meaning that it would occupy a significantly different space within the political discourse of freedom and consent.

## Governing Consent

*The Times* observed in 1876 that the previously feared Asylums Board hospitals had become apparently "extremely popular" among the poor, who in cases of smallpox were now "clamorous for [patients] to be removed without delay." It cited *The Lancet*, which was already declaring them "in every respect first-class institutions." Although inmates were still technically paupers, these hospitals had been purged "so largely of the taint of pauperism that the distinction has come to be for practical purposes rather verbal than real."[99] A few years later, Dr. Thorne Thorne described himself as "astonished" at the ease with which parents permitted their little ones to be taken away for diseases like scarlet fever. He noticed that nationwide, where a well-administered hospital acquired a good name, it was "marvellous how soon that disinclination to allow the removal of children passes away." Equally marvelous in his opinion was the great infrequency in which compulsory powers were applied by the health authorities to achieve these results. To Thorne Thorne's knowledge, legal compulsions had been threatened or resorted to in no more than a few dozen cases in England and Wales.[100]

Health officials' statements about the public's keenness for hospitalization should be treated cautiously. And yet, a key aspect of isolation as a health strategy in this period is the careful political organization of

compulsion and consent (and indeed the complex social relation between external pressure and individual acquiescence). London MOHs during this time repeatedly remarked upon the difficulties and drawbacks of mandating removal to hospital. In fact, they generally doubted the practicality of forcible measures. W.M. Acworth, an influential MAB manager, explained that it was "no use talking in London just yet" about compulsory laws; the several Vestries "could not if they would, and would not if they could, carry out such a policy." Acworth instead placed his trust in the "strong pressure that a doctor can bring to bear" on individuals and recommended making the hospitals welcoming and accessible.[101] As a general approach, health administrators sought to facilitate and mobilize a version of consent by employing tactics of persuasion and strategies of enticement.

To be sure, medical officers rarely compelled removal because in most circumstances they simply lacked the legal power to do so. The Common Lodging Houses Act of 1853 provided for the police to affect the removal of "dossers" to suitable hospitals, and starting in 1864 the Contagious Diseases Acts infamously empowered justices to order the detention of infected prostitutes at Lock Hospitals (although this was never in force in London). The 1866 Sanitary Act on the other hand applied to the general population and included a clause permitting a magistrate to issue an order removing to hospital an infectious person "being without proper lodging or accommodation, or lodged in a room occupied by more than one family, or being on board any ship or vessel." For a number of reasons this provision of the Sanitary Act remained mostly idle. Judges were inclined to assume that "proper accommodation" referenced the needs of the sick person rather than the safety of the other residents and thus declined to issue orders if a person did not occupy a room containing more than one family (an indication of extreme poverty).[102] The key clause was ambiguously worded and cautiously interpreted, thus rendering the law "for practical purposes useless," grumbled one Islington doctor.[103] It deliberately circumscribed the powers of health authorities, causing them to go through magistrates who might disagree with a MOH's certification of improper accommodation. In one case, a petition to compel a Wandsworth man with smallpox to hospital against his will was rejected, as it was not evident to the magistrate that this patient lacked proper lodging. He instead ordered a constable "to go to the woman [nursing the man] and tell her that she was acting very wrongly in the matter."[104]

The thin powers accorded to health officials were clearly not a mistake, since the same language was repeated in subsequent legislation

in 1875 and again in 1891, even though sweeping new authority to remove and bury infectious corpses were unambiguously added.[105] Moreover, it is important to note that the hospital managers themselves had no independent prerogative to obtain or detain patients against their will. In 1871 a magistrate refused to issue a summons sought by the MAB against three male inmates who had escaped over the wall of the Stockwell Smallpox Hospital.[106] By an 1890 Act a magistrate could order the continued detention in hospital of an infectious patient, but this only applied to persons who had already entered.[107] Altogether, the weakness of legal coercions must also be placed alongside the fact that organized opposition to removals remained rare, another fair indication that the public generally did not feel the application of the law to be heavy-handed.[108] The energetically vocal opposition to vaccination had provided a well-known template for resisting the legal imposition of medical authority, and yet a similar outcry was never sustained about removal to hospitals.

The legal ambiguity of compulsory removal to hospital is a reminder that sanitary administration largely operated within a sphere of accountability and liberal disinclination to coercive government. Of course, the law was unquestionably less ambiguous when applied to marginal bodies, such as infected prostitutes and denizens of common lodging houses—although, once again, the first measure remained tremendously controversial and the second could only be enforced if the local sanitary authority had a hospital in which to place the infected lodger. In practice, the law gave great caution to measures that would seek out and take charge of the free citizen's body. In an article titled "Citizenship and Sanitary Work," the future Chief Medical Officer of the LGB, George Buchanan, maintained that compulsory laws were not actually "all that is wanted for sanitary progress" and that these would remain pointless if they could not be enforced. As a practical matter, he wrote, "just as the occasion for compulsion comes from ignorance and bad citizenship, so ignorance and bad citizenship will surely resent the proposed compulsion. The ignorant and careless must be reduced to a minority before they can be compelled to do the bidding of sanitary Acts." Buchanan insisted that regulation of health rested firstly upon the education of the people and secondly on the trust they have in officials directing the regulation.[109] Compelling obstructive and recalcitrant persons into hospitals, in other words, had to be made permissible by first shaping public opinion and creating general consensus, not vice versa. Many observers felt

that mandatory isolation of the sick was an idea whose time had not yet come (and perhaps would never be required).[110] *The Times*, for instance, predicted in 1868 that the theoretical power to pluck persons from society and confine them to hospitals might eventually be conferred, but

> at the present it would be injurious rather than beneficial. Our sanitary laws must, for a long time, be educational in their character, and must conciliate instead of offending. The power to send a sick relative to a hospital is a privilege; the necessity to send him would to many persons seems [*sic*] a cruelty. When the privilege has been largely given, and when its benefits are widely appreciated, the Legislature will be supported by public opinion in declaring that cases of infectious disease shall no longer be retained in small or unwholesome houses.[111]

This is a magnificent articulation of liberal governmentality and its techniques of rule by opinion. The public had to be trained to recognize the benefits of hospital isolation; moreover, and crucially, once this occurred *there would be little need for compulsory powers.* A decade later, another *Times* editorial returned to this point, maintaining that removal to MAB hospitals could not be made truly compulsory unless they were already "widely known and appreciated." It noted that this had almost been achieved, but again observed that this popularity would undercut the justification for more sweeping compulsory powers.[112]

Pause was regularly paid to how a system of compulsory hospitalization would necessarily be unequally applied, but this also tended to become a question of balancing freedom and consent with safety and security. The Sanitary Act's provisions for compulsory removal were "for the poor only, and not for the rich," according to one critic who argued that everyone should be uniformly subject to the same requirements.[113] This unpleasant fact no doubt contributed to an impression that the MAB hospitals contained "for the most part, poor people, [who were] *compelled to become inmates*, sometimes very much against their will."[114] Whether or not this was actually the case, the Wandsworth MOHs (who reported annually as a group) sought to justify the inequity. They admitted that the law on its face might be objected to as "class legislation," but went on to explain that "a law may be required for the illiterate which is not for the educated." Indeed, these MOHs remained dissatisfied with their actual capabilities and continued to press for "more summary power in dealing with infectious disease among the lower

classes."[115] "It seems no infringement of the spirit of our liberal constitution," they wrote in another report to their Vestry, that the law should give local authorities broad discretion to remove infectious persons whenever the health of others was at stake, especially when this was the proven means of stopping a deadly epidemic.[116] Programmatic deployments of coercion took place upon the ground of competing freedoms, and in this case the incarceration of the sick in isolation hospitals was justified by the value of gaining freedom from disease. The St. Pancras MOH, John F.J. Sykes, was emphatic: "The Public must realize the fact that compulsory 'protection' from Infectious Disease is in the best interests of the community, and that uncontrolled 'free trade' in Infectious Disease is the least desirable form of free trade."[117]

It was in this context that many London MOHs regularly pleaded for more forceful legislation giving them summary authority to remove and detain particularly troublesome sick persons. Just as consistently, however, they coupled these appeals with assurances that such powers would be rarely used and practically unnecessary in almost all cases. Sykes urged that orders for compulsory removal be entrusted to local sanitary authorities, with opportunities for appeal left to magistrates. "Without [compulsory] power as a last resort in exceptional cases," he cautioned, "the control [of disease] is incomplete." He went on to explain that "the power of compulsory removal is looked upon as a horrible bogey, but it is not at all terrible if looked at in an unprejudiced light." Patients were usually very willing to go to hospital, and besides, the alternative of shutting down a shop or a place of employment would subject men and their families to ruin. Taking patients to hospitals was often the "kindest" option, and householders typically recognized this when properly informed. Moreover, having more assured powers to remove the patient did not necessarily entail their greater use. Sykes pointed to Edinburgh, where Scottish law of removal was more severe; in 1882 the health authority had received 7063 notifications of infectious disease but found it necessary to use compulsory powers in not a single case sent to hospital.[118] Several others, including the MOH for Camberwell, anticipated that merely possessing compulsory powers would have the effect of "leavening the public mind with the practical truths of sanitary science" and thereby bolstering the influence of a health officer's recommendations.[119]

As this suggests, health officers tended to be far more invested in the informal authority residing between expert and layperson than the

binding power conferred in statutes—although the latter legitimated the former. In the end, these health authorities also generally believed that in most cases their aims would be achieved more effectively through unofficial influences than formal impositions. Dudfield claimed that he would have applied for magistrate's orders more frequently if the law had permitted it.[120] However, he clearly preferred to first prevail in "the task of persuasion—for that is the form of 'compulsion' employed in ninety-nine cases out of the hundred."[121] He proudly reported that in cases of smallpox his inspectors "rarely meet with an absolute refusal"[122]; the "greatest difficulty" on the other hand was encountered in obtaining parental consent for taking children sick with scarlet fever. In 1884 Dudfield knew of at least thirty young scarlet fever cases kept at homes he considered unsuitable for isolation, but he sought no orders for their removal.[123] An example of his approach was detailed in his annual report for 1875. It involved a child suffering from scarlet fever in a room shared with his parents and four other children. The parents absolutely refused removal. Vestries at this time could not apply for orders removing cases to the MAB hospitals, so Kensington had instead made an arrangement with the LFH. Dudfield was then able to set up legal proceedings against the father who, now realizing that the child must go one hospital or another, agreed to accompany the child to the MAB's Stockwell Hospital. The parents, he reported, were "so well pleased with the hospital, and with the child's treatment therein, as to have spontaneously declared that in the event of their ever having infectious disease in their family again they would seek the assistance afforded by the establishment of the hospital in question."[124] Dudfield had obtained by somewhat circuitous means the *ability* to seek an order, and this proved the decisive factor in guiding parents toward what they deemed a less onerous option—which in Dudfield's opinion achieved an even more desirable outcome because, through engendering a sense of goodwill, it lessened the probability of future unpleasant encounters in this family and others.

As the MAB Hospital Superintendent E.W. Goodall explained, no patient entered a general hospital as a rule without the consent of himself or of his family or friends; on the contrary, "a considerable amount of persuasion, to say the least of it, is at times necessary to compass the removal of a patient to a fever hospital."[125] His comment certainly helps to call into question what might be considered genuine consent, especially in the shadow of contagion. Most medical officers, however, sidestepped this aspect of the issue. For them, consent was intimately tied

to the governance of health and, like health, it was also something to be organized and managed. "Persuasion," as Dudfield and others considered it, could of course mean many different things, but it typically implied careful attention to civility and negotiation. A treatise on sanitary law co-edited by Shirley Murphy advised that while it would be necessary in certain cases to rely upon a magistrate's order for removal, "the necessity for doing this may often be obviated by a little tact and discretion on the part of the sanitary authority and their officers." He added that it would be truly undesirable for the hospital to become "regarded as a place to which the sick are habitually removed compulsorily, and it is of course far better that hospital treatment be regarded as a privilege, to which the ratepayer is entitled, than as a penance, which he is compelled to undergo by legal proceedings in the event of contumacy."[126] Some MOHs argued that it would be practical to acquiesce in some particulars, if this meant that the removal might occur more rapidly and with fewer objections. In a case of scarlet fever in the house of a respectable tradesman on a fashionable thoroughfare, for example, the ambulance could be made as discrete as possible and arrive at "a time and in a manner least calculated to attract observation."[127] The public's health also depended upon the approachability of the person of the MOH and his sanitary inspectors, who would ideally inspire belief that one would be treated fairly and in accordance with established rules. The Lambeth MOH spoke to this issue of trust when he attributed a large part of his success in urging vaccination and hospitalization to *not* being a representative of the Poor Law.[128] This seems somewhat reasonable, given the antipathy of many people to the mere odor of pauperism. At any rate, it is more convincing than the statements of a Glasgow physician who credited the success of the fever hospital to the city's well-trained staff of sanitary inspectors and their mission to "get[ting] the people to regard them not merely as officials, but friends ready and willing to help in time of sickness."[129]

We should be skeptical about claims of chummy relations between residents and their local sanitary officers. Graham Mooney surmises that there must have been a great deal of "hidden coercion" around contested removals and that these measures were likely more intrusive and bullying than the ones recorded in official documents. Mooney, however, also goes further and maintains first, that working-class parents were left with little choice but to relent, and second, that health officers would not have been able to fill their hospitals without the "legally enforceable

weapon of compulsion lurking ominously in the background."[130] No doubt, the MOH's toolbox of persuasion could include both implied intimidations and direct threats. Dudfield's actions in the 1875 case of scarlet fever described earlier could be interpreted as a not-too-gentle form of prodding. Indeed, officers regularly mentioned the salutary effects of simply threatening to obtain a magistrate's order.[131] The St. Marylebone MOH, having been disappointed by families who reconsidered at the last moment, chose to seek magistrate's orders as a matter of course in cases he considered untrustworthy; he held these in reserve and applied them as a last resort.[132]

Nor were these the only informal means of pressure and manipulation. Medical officers might inform a man's employer if his family member was not taken to hospital.[133] This form of intimidation had also been used to ensure vaccination. Although limited in their ability to force removals, medical officers were not as restrained in seeking the prosecutions for incautious public exposure of infection (defined in the 1866 Sanitary Act and the 1875 Public Health Act). They also had more straightforward powers to close a business or workplace harboring infectious disease and seek charges against persons for the reckless distribution of infected items. Furthermore, there were ample opportunities to deliberately mislead parishioners about the obligation to hospitalize. Dudfield wrote of how a family's decision to accede to removal often hung by a thread; he suggested to his sanitary inspectors that they simply not mention that removal to hospital was optional, since it was discovery of this fact that sometimes "turned the scale."[134] Dr. Goodall recalled that occasionally children were removed during their parents' absence and that more than once he had to allay the anger of a father who claimed he would have stayed home to prevent the removal if he had known about it.[135] Many health officials no doubt believed the various species of manipulation would become unwarranted as the benefits of hospitals were generally recognized, but these were nonetheless "hidden coercions" perhaps always more common than the recourse to a legal order. It was in the same vein that, pressed by a Parliamentary Committee taken aback that there were no powers to detain an infectious patient wanting to leave a hospital, one MAB manager responded that he did "not know that we should have the power to imprison a man, but it could very easily be managed."[136] Lacking formal powers, informal powers often sufficed.

Still, while accounting for the frequently awesome social authority of doctors, such extralegal pressures themselves simply cannot adequately account for the rapidly rising rates of hospital isolation in London. There can be little doubt that health officials and hospital authorities were significantly more reliant upon fostering a good reputation of the local hospital than resorting to legal measures, underhanded devices, or blatant intimidations.[137] The Poor Law medical inspector for London, John Bridges, reported in 1880 that, while there was certainly some unwillingness among the public to enter institutions operated by Poor Law authorities, this feeling was "neither wide nor deep" with regard to the MAB hospitals. There, the "nursing staff, the mode of treatment, and everything connected with the hospital, all is stripped of every association with the idea of pauperism." Furthermore, the infectious asylums benefited from being physically distant from most patients' neighborhoods, as this allowed people to view them less as workhouses and somewhat like general hospitals.[138] Indeed, a "dying out of the popular prejudice" against treatment in infectious hospitals (a topic continued here and in Chap. 6) goes the furthest in explaining why steadily rising demands for accommodation became a perennial strain upon the MAB.[139]

In far more cases than otherwise, we can be fairly certain, the success of the hospitals as public health instruments owed to their exerting a pull upon patients—not to people being pushed into them. This is probably the most significant aspect of the political rationality characterizing isolation hospital provision. Indeed, central to this general approach to governing contagion was a preference to undergird individuals' own ability to contribute to the public health. The "poor man's spare bedroom" had become a crucial spatial component in this strategy of arranging consent. Edward T. Wilson, a frequent commentator in sanitary matters, declared the law for mandating removal "a dead letter" but did not mourn the loss. Rather, he wrote, the success of an isolation hospital "requires many things which no Acts of Parliament or Local Regulations can supply." Luxuries usually were not looked for in times of personal illness and "a clean airy room would, in most cases, satisfy the most fastidious, provided only that it had a homely look instead of the mean and beggarly appearance so characteristic of the present race of fever hospitals." Most importantly, the thing "must be done in a kindly and considerate spirit or the public will withhold that support in the absence of which all compulsory clauses are of little avail."[140]

## (En)Gendering Consent

To elicit consent for hospitalization was to shift the work of governance to the male householder and head of family, and in this way inevitably intersected with debates and anxieties about the workingman as an active subject of self-government. As in the franchise itself, this construction of consent was deeply gendered, with public health officials seeking to imagine a reliable ally in the household and upholding the decent poor man's domestic authority in very specific ways. "Governing through the family" required the respectable workingman be invested as the singularly responsible member of the household. To be sure, and as historians of the Victorian family have noted, while these abstract *rights* over the household and children were legally allocated to husbands and fathers, it was the many physically onerous *duties* within the home that fell to wives and mothers.[141] Workingwomen felt the realistic demands of everyday domestic management, including housework, meals, cleaning, shopping, and overseeing the family budget. And so, while the law invested the male wage earner with formal authority in matters such as whether a child was enrolled in a Board School, signed into an apprenticeship, or sent to a hospital, social workers toward the end of the century had to begrudgingly recognize that, "despite their anomalous civic status, it was mothers who were the 'heads' of families when children were the issue."[142]

The keenness of medical officers at this time to bring about the treatment of infected children in hospitals was only one specific issue in a broad re-evaluation of working-class parenthood and citizenship.[143] The emphasis on child welfare in the late nineteenth century created new state, philanthropic, and institutional interventions, and shifted legal relationships between parents and children, husbands and wives.[144] Much of the discourse placed the workingman on the physical periphery of the family and yet also invested his "natural" authority as central to the properly patriarchal household. Julie-Marie Strange's study of Victorian working-class fatherhood observes that previous histories have largely relied upon these official discourses, which overwhelmingly emphasize the figure of the absent father—one who is either the drunk and violent target of scorn or whose positive image is refracted entirely through the prism of struggles for suffrage and the family wage. This means that, while key to legal and political definitions of the family, fatherhood has been further inscribed as largely marginal to the family as an emotional unit.[145] This without a doubt narrows the immense variety

and complexity of actual family lives, but it also typifies an approach toward "governing through the family" that ultimately sought to mold behavior with prescriptive norms rather than proscriptive laws and aimed to guide consent by means of the formal symbols of citizenship.

In many cases the involvement, much less consent, of the male householder was a fiction that proved difficult to maintain and generally in need of shoring up. This was evident in instances involving infectious disease hospitalization. For example, in 1881 the Hampstead Board of Guardians pursued a legal action to recover £1 17*s.* 6*d.* from Arthur Bloomfield, whose child had been treated at the MAB's Fulham Smallpox Hospital. Bloomfield's wages as a railway ganger averaged 36*s.* a week, and two sons living with him earned 27*s.* and 30*s.* Bloomfield ignored the bill several times until his wife finally appeared in court for her husband. She boldly stated that she thought 9*s.* a week was far too much for the maintenance of a six-year-old and, besides, *she* could not afford to pay. Ultimately, the summons was adjourned under the understanding that *her husband* would discharge the bill in weekly installments of 5*s.*[146] While the court found it impossible to conduct business without steadfast reference to the man's responsibilities, it was Mrs. Bloomfield who brazenly bargained regarding the hospital bill. This simply illustrates the reality that coping with disease or other emergencies in poor families was not always handled in strict accordance with the law's focus upon the male wage earner. Despite responsibility for sick children resting with male financiers, concrete authority for the care of children tended to reside primarily with female managers of households.

It was the workingwoman's independent dominion in the home that increasingly most distressed public health authorities. Where family budgets lacked stability, they nursed the ill and scrounged to supply comforts, medicines, and sometimes doctors.[147] Women also constituted the vast majority of applicants for free children's medical care at community dispensaries and charity hospitals. They just as often consulted less-than-orthodox practices: herbal remedies, local druggists, spiritualist treatments, and female lay healers. As the historian Ellen Ross shows, illness formed a "central theme in neighborhood and family gossip" in poor neighborhoods, and it was networks of "working-class neighborhood exchange" that provided advice and access to lent materials and money.[148] Preventive medicine, undergoing its own transformation into a profession seeking prestige and respect, viewed poor women's mutual aid with dismay. Their insular personal relations were largely resistant

to sound advice by outsiders. At least decent workingmen were supposedly in regular contact with their social superiors. The lack of privacy of the plebian household was interpreted as a dangerous porosity. A typical letter to *The Lancet* complained that the poor did not look upon infectious disease with the same alarm as the middle and uppers classes and that when such as cases arises, "it is not uncommon for a sort of jury of matrons to be impanelled, who proceed to give their opinions on the case, probably with the accompaniment of a cup of tea and unlimited gossip in the sick room."[149] On his rounds during a smallpox outbreak in 1871, the Islington MOH found that women had failed to correctly follow directions about hanging disinfecting sheets on the entrances of sickrooms, and indeed had left doors open so that anyone could walk into places containing sick persons. Sitting on steps outside their homes, these poor women (whom he evidently found rather intimidating) "made very light of [the smallpox]." He concluded that this form of aggressive female authority justified more intrusive external measures of correction, writing that "nothing will check this kind of thing but a power of compulsory and immediate removal of such dangerous people to a Hospital."[150]

The typical workingman, although still the object of much debate over fitness to govern, was far more often treated as a budding object of training in the rights and duties of citizenship—indeed, he was viewed this way perhaps in inverse proportion to the increasingly exasperating specter of his wife. It would not be until the turn of the century that the long-running attempts to expose "slatternly" wives to the uplifting influence of middle-class matrons and district nurses would give way to a discourse on the "endowment of motherhood" and new approaches to state maternal services.[151] In the meantime, "ignorant mothers" were routinely blamed for stubbornly high infant mortality rates. Health officials directed a great deal of worry at the contagious potential of workingwomen's home-labor: dressmaking, laundering, mangling, and other "sweated work." Dudfield periodically warned about the distribution of washed clothes from laundresses whose houses harbored sick persons, and in 1877 he brought the first prosecution of a woman under the Sanitary Act for this type of infectious exposure.[152] Medical officers also expressed annoyance that poor women would willingly expose healthy children to scarlet fever, measles, and other ailments, reckoning that "they'd better have it and be done with it."[153] (To be fair, treating the "children's diseases" as an inevitable rite of passage had also been typical in middle-class households until recently.) Ernest Hart, editor of the

*British Medical Journal* declared that these sorts of female impediments to masculine sanitary science were sadly typical amongst "ignorant people of the Mrs. Gamp order" and exemplified the dangers of entrusting too much household authority with uneducated women.[154] Although she could be accused of inhumane stoicism and reckless indifference, another fear concerned how the "ignorant mother's" over-abundance of sentiment could serve to undermine domestic well-being. It was widely believed that the chief obstacle to removal of the infectious to hospitals was "the objection to part with a child upon whose face the mother may never look again."[155]

A similarly derisive tone was reserved for "unmanly" fathers and husbands who opposed hospitalization. However, this discourse created opportunities to reframe workingmen's sanitary and civic agency into a form which could be normalized, elicited, and rewarded in ways that female conduct could not. There was, on the one hand, the difficult work of thoroughly training poor women in the unending and exhausting duties of good mothering and housework. On the other hand, correct masculine household authority might be validated through the workingman's essentially symbolic assent to professional advice. A proper amount of decisiveness needed to be preserved here. Caring for a sick child at home was a domestic impulse that properly sprang from a woman's nurturing nature, whilst the duty to allow for its removal to hospital rested upon a man's capacity for rational self-discipline. If in many other ways it was criticized, the workingman's perceived aloofness and emotional detachment from his family was something close to a virtue when it came to matters of health and sanitation. It could allow him, for example, to dispassionately and manfully consent to a family member being trucked off to the fever hospital.

These views paralleled how medical officers framed the civic and gendered obligations of vaccination. In the first place, acquiescence to hospital was often taken as evidence of support for vaccination. (As explained in Chap. 2, this could not have been a safe assumption, since many anti-vaccination groups were coming to view hospital isolation favorably, or at least preferable to vaccination.) The anti-vaccination movement was steeped in the discourse of parental rights, masculine independence, and manhood suffrage while also generally approving of the image of militant working-class motherhood. By contrast, as Nadja Durbach shows, public health officials presented vaccination as a way to "incorporate working people into the national community as citizens through participation

in maintaining the public's health."[156] Moreover, the medical establishment's hopes rested more squarely on an image of conscientious fatherhood and voluntary male acceptance of expert authority—although at the same time the choice to go against their advice also often led health officials to question the reliability of the workingman's "conscience."[157]

In this way resistance to hospitalization became linked in the eyes of most medical professionals with opposition to vaccination (although the latter measure was enforceable under much more clear-cut legal mandates).[158] The failure to hospitalize was akin to the failure to vaccinate, and in each case hinted at an absent or diminished masculine influence. Dudfield wrote a lengthy report on a smallpox outbreak in 1876 at one house where he could get no one to go to the hospital. Eleven sickened and four died. It was the mother of one of the deceased who afterward confessed she had changed her residence repeatedly to escape notice of the vaccination officer, "having formerly an objection to vaccination, which she no longer entertains!"[159] The Newington MOH drew attention to a similar case in which smallpox spread through a house occupied by several poor families owing to the "most culpable retention and concealment" of the sick. He took care to single out for blame the "great prejudice" against vaccination and hospitalization fostered by the infamous Miss Jessie Craigen, a working-class suffragist and professional "platform woman" who had personally visited the house in Newington in order to thwart the sanitary inspectors.[160] Individual cases like these, where removal to hospital was refused, were often attributed to the influence of an excitable mother.[161] Following this gendered logic, the defaulting father might be denounced as an uncaring brute. But if he subscribed to the anti-vaccination heresy, he would be more likely portrayed and denounced as an effeminate, irrational fanatic who endangered his family and others out of an infatuation with a theory.[162] The MOH for Rotherhithe described one occasion in which a "hot headed anti-vaccinationist" was the cause of twenty cases of smallpox and sixteen deaths in one house because he refused to let members of his own family be removed to hospital.[163] It is thus likely that the presence of the anti-vaccine heresy was considered a more damning reflection upon a poor man's domestic authority than the meek spaciousness of his home.

Health authorities' tendency to depict instances of non-cooperation as some combination of feminized and fanatical family government also coalesced around an impression of foreignness. Irish households, representing equal measures of obstinance and indolence, were habitually

singled out for blame as the most mulish and violent obstacles to sanitary progress. One medical officer wrote: "Doubtless those who would oppose removal [to an infectious hospital] belong to a class (and their name is legion) who have ingrained into their very nature a rooted antipathy to the parish beadle (be he the constable, the nuisance inspector, or the school board visitor); this contingent being largely recruited from the Emerald Isle."[164] The MOH for Camberwell regretted that in one recalcitrant case of smallpox, his officers "would have had to have a hand-to-hand fight with an Irishman covered with scabs in order to get him into the hospital." As this would itself perhaps pose a greater danger, he decided to let the matter lie and hope for the best.[165]

To be sure, London medical officers felt entirely comfortable pursuing legal charges against the most recalcitrant heads of households, especially in cases of smallpox. In 1877 a man and his son-in-law living in Stoke Newington were charged with obstructing the removal of a child suffering from smallpox. The Hackney MOH had previously determined that the house was a small one and that several persons lived in it. A magistrate issued an order, but the pair of men refused to obey and actually physically ejected the sanitary inspector from the house when he came for the child. They were found guilty and fined 20*s.* each.[166] Another case in 1877 drew sustained press attention. It involved a Thomas Cave of Kensal New Town, who threatened to knock down anyone attempting to execute a magistrate's order for the removal of his two children suffering from smallpox. Dr. Dudfield had certified that these patients lacked sufficient accommodation, the entire family residing in the kitchen of a house whose other rooms were let out to other families. A week later the Kensington Vestry filed a prosecution and the magistrate fined Mr. Cave £5. The order was then read to his wife, who also refused to have the children removed and thereby earned her own summons before the Hammersmith Police Court. Finally, the next day she and her husband again appeared in court and he stated his willingness to let the children go. Addressing Mrs. Cave, the magistrate said "he fully understood the feelings of a mother in not wishing to have her children removed from her while ill, and neither he nor [the other magistrate] would be disposed to punish her unless it were absolutely necessary."[167] Clearly, greater culpability was seen to reside with the refractory father. There was also much reluctance to penalize motherly affections.

That reticence, however, did not always prevail, especially in the absence of a male head of household. This was seen in the case of a Mrs.

Salisbury, a widow dressmaker living in Lamb's Conduit Street, whose daughter was certified with smallpox in 1901 by a private doctor. The Holborn MOH confirmed the diagnosis and against Mrs. Salisbury's strenuous objection sent an ambulance for her removal to the smallpox hospital outside London. According to one account, a "painful scene ensued" with the little girl and mother clinging to one another. A magistrate's order was then obtained and police were employed to forcibly extract the girl from her mother's clutches, "their clothing suffering considerably in the process."[168] Ultimately the child was determined to be suffering from chickenpox and Mrs. Salisbury sued the private doctor for negligence in his incorrect diagnosis.[169] This was no doubt an unusual case of aggressive and inflexible enforcement, and it occurs at the end of a period in which hospitalization for the most dangerous infections had been successfully normalized. Nonetheless, it also shows that parental consent was always deemed far less valuable and necessary for the fatherless and husbandless household.

## Franchise and the Medical Pauper

Expressing the hopes of his fellow medical officers regarding the emerging hospital system in London, Dudfield cautioned that they still "may tremble at the prospect before us" if "to any other reasons that may disincline a man to go, or send his children, into an hospital, he should find himself branded a 'pauper.'" Surely, the success of isolation as a sanitary project would be decided by its disconnection from pauperism, and for health officials this inevitably coalesced around the exclusion of respectable householders from the parliamentary vote. "I do not think men would be willing to sacrifice their political rights even to secure gratuitous hospital treatment," Dudfield concluded.[170] He noted, though, that the Tower Hamlets case involving Mr. Adley had "exited considerable stir" in London local government and had "good effect" in galvanizing support for reform.[171]

The first legislative attempt to depauperize the MAB hospitals was brought before Parliament in 1878 by the well-known reformer William Rathbone, who urged it on the basis of "constitutional fairness." Referencing the recent Tower Hamlets case, Rathbone contended it was "impolitic and unjust that a man should sacrifice his political life because his children, suffering from small-pox, were sent to an hospital."[172] The great value of the proposed reform, according to an editorial in the *Pall*

*Mall Gazette*, was removing an "indisposition" among the poor to sending family members to fever and smallpox hospitals, which occasionally had "disastrous consequences. Indeed, it would be strange if the poor did not entertain such a feeling."[173] Some opponents of his bill countered that the threat to man's franchise had not deterred the popularity of MAB hospitals, while others worried about the cost of billeting "the whole of the lower middle classes" upon the rates.[174] Using decidedly stronger language, Albert Pell denounced Rathbone's bill as constitutionally "mischievous," saying it would demoralize a class of men responsible for providing for themselves and their families. He maintained that it was "one of the not infrequent attempts … to nibble away the fringe of the Poor Law of 1834" and warned that they "should be very jealous of any attempt at reform or amendment of that code of laws."[175] Attacked in the House of Lords as infringing the "sacred" principles encompassing the electoral law, the bill was amended to remove electoral disqualifications only for men who repaid hospital expenses.[176] Promoters of the measure refused to accept this change and the bill stopped.

Given this resistance, it is somewhat surprising that legislation transforming the civil status of MAB patients passed just a few years later—and that it went almost completely unnoticed at the time. An outbreak of cholera in Egypt prompted Parliament to consider and quickly pass the Disease Prevention (Metropolitan) Act 1883. Among a long list of provisions empowering the MAB to respond to cholera was an obscure clause simply declaring that persons admitted to hospitals of the MAB would no longer be considered in receipt of parochial relief and could not thereby be deprived of any rights or privileges. Cholera failed to arrive in England that year, but the law had nonetheless been altered.

The formal depauperization of MAB hospitals was in the end almost anti-climactic, but its terms set the precedent for a much more contentious debate over the implementation of franchise legislation. The Third Reform Act of 1884 affected a compromise between Liberals and Conservatives to extend the vote mainly to male agricultural laborers. The ability of state medical services to mold this new electorate was raised as an issue at the very start of debate, and included an ill-fated clause to repeal voting disqualifications nationwide for all varieties of Poor Law medical relief. Its sponsor observed that the civil disabilities attached to medical relief had dispelled many worthy men from the political nation. He also suggested that "unwholesome and mischievous persons" had employed the pauper disqualification for partisan abuse, and

"went about seeking grounds on which they might disfranchise their neighbours."[177] Generally considered as a distraction from the main issues of franchise reform, this amendment stood little chance of recognition and was held back by the government.

The political penalty of pauperism assumed a more pivotal role during the next year's negotiations over the Registration Bill. The Liberal MP Horace Davey proposed a clause exempting parochial medical aid from disqualifications in parliamentary elections. Davey's proposal passed the House of Commons on a thinly attended third reading, but was then struck out by the House of Lords. At this point, the Radical Joseph Chamberlain defied the position of his Liberal government by issuing inflammatory speeches calling it a "monstrous injustice" and a Conservative plot to restrict the new franchise as far as possible.[178] Medical pauperism, he declared, would be used to exclude at least a quarter of the new voters recognized under the previous year's Act.[179] Chamberlain's supporters alleged that medical relief had been given rather freely recently "for political purposes" of striking out unwanted electors.[180] His allies also stressed the pragmatic consequences of constitutional principles, describing it "unwise to add another obstacle, so serious as the loss of political status, to those that already exist against measures [hospital isolation] so conducive to the public health." The threat of losing the right to vote so soon after winning it gave the poor man a reason to conceal his child sick with scarlet fever, for instance, and a "whole district may in consequence be ravaged by a deadly disease."[181]

In June 1885 Chamberlain's fellow Birmingham Radical, Jesse Collings, introduced a separate bill abolishing the electoral disqualification for parochial medical relief.[182] "Disfranchisement for receipt of medical relief," he declared, "is a great hardship, and a cruel injustice done to the poor. It is indeed to proclaim poverty a crime to be punished by the deprivation of the rights of citizenship."[183] His proposal was supported in London by a mass meeting in Hyde Park of around 15,000 workingmen associated with several metropolitan labor and Radical clubs. Their resolution declared "the deprivation of the rights of citizenship of a large portion of the electorate because of the receipt of medical relief is a grievous wrong deliberately inflicted on a poor and helpless class of our fellow countrymen." A second resolution stated that "the existence of a large number of otherwise duly qualified voters, smarting under a sense of injustice, is a danger to the commonwealth." The medical relief question had become an outlet for plebian protest against the

Lords and the "privileges of the ruling classes." Great cheers rang out at the assertion that "Poor persons were first made ill, and were then punished for being ill."[184]

Collings's bill came at a pivotal moment in the intersection of English public health, pauperism, and masculine citizenship. It also was a timely device of partisan maneuvering over the next electorate. After the Liberal government fell in June 1885 the incoming Salisbury cabinet promised to support the bill—clearly an effort to appeal to new voters and perhaps also, as some suggested, to "dish" Chamberlain.[185] Many disgruntled Liberals denounced this "bold and reckless bid for popularity."[186] "The pauper will 'go' Conservative," one remarked, "and thus realize in outward shape and existence what has hitherto been a somewhat hazy dream, for he will be the first product of the Tory democracy."[187] Critics from both parties characterized it as "an unfortunate departure from the principles of political economy" that redounded upon the quality of the electorate.[188] Foremost amongst opponents was Albert Pell, who insisted that application for medical aid *should* mark the head of household as improvident and politically unreliable. It was, he claimed, "the most mischief-making measure ever considered" since he had been a Member of the House.[189] Others contended that no sanitary harm had resulted from civil disqualifications, since endangerment of "his electoral rights was not likely to trouble the mind of a man who had a cherished wife or child laid low by illness."[190] Several other critics implied that these qualities of manly independence stood prior to political privileges: "self-help, thrift, providence, independence, were the most valuable possessions the working men could have, and were even more valuable than the possession of a vote."[191] The 1832 Reform Act had codified the wisdom of ancient common law on pauperism, according to the Liberal MP Leonard Courtney; "the unfree man, the man who was unable to support himself, who was in a dependent position and in the receipt of public charity, was not a person on whom it was expedient to confer the electoral right." Sickness befell everyone, and providing for that contingency must be considered "one of the primary necessities of a self-supporting man." To apply for medical relief, according to Courtney, had to remain "a form of degradation."[192]

For many commentators, the easing or removal of that degradation coincided with fears about the political volatility of the masses. "[T]o throw upon the State the duty which belongs to the head of the family" was "the high road to Communism," read one letter to *The Times*.[193] The Earl of Pembroke, speaking before the Liberty and Property

Defence League, thought it right to "warn the people of the danger of giving the smallest encouragement to pauperism … [and] to impress on them that it is noxious weed that can only be kept down by continual effort." Dismayed by his Conservative party's cynical political maneuvering, Pembroke persevered that it was not right for a man to get his medical expenses from the rates unless driven to it by sheer necessity: "The exception of to-day is the precedent of tomorrow. Each one that is added to the list weakens popular belief in the principles of freedom and inclines toward those of Socialism."[194] Collings's bill appeared to many as the "thin edge of the wedge" by which all deterrents to pauperism would be rescinded. One skeptical MP asked if they were "prepared to set up a polling station in each workhouse?"[195]

Supporters of the bill meanwhile went to great lengths to stress the compatibility of rates-supported medicine and independent manhood. Infectious disease was an especially relevant example of how assistance could be an inadequate measure of social and political suitability. According to one Conservative MP, medical assistance was "on a totally different footing" to other state relief because its need usually came on suddenly and at the most difficult times, throwing even the respectable families of the lower middle classes into crises.[196] A family might be struck by fever, "which no human ingenuity can avert," but remain essentially unlike paupers who lived upon the poor rates.[197] It was the unfortunate poor man suffering the "casual misfortune" of illness who was unjustly "denied the rights of citizens and electors"—perhaps owing to his consenting to a doctor's recommendation to remove a child to the smallpox hospital.[198] "Apart from a man's duty to his family, there was a duty that he owed to the public to prevent the spread of sickness," maintained one MP.[199] Others wondered if it was not the stigma of pauperism under such circumstances that would do more to "break down [one's] manliness of character and sense of independence?"[200]

These ideas about state medical aid clearly possessed majority support in the Commons, but radical leaders associated with Chamberlain were eager to push them further in order to prompt the Conservative government to back away from the bill. Collings suddenly complained that the depauperization of "medical relief" would not necessarily include "medical extras" or "medical comforts"—food and stimulants like beef tea or port wine, or anything other than drugs and advice that a doctor deemed useful for the patient's recovery. He then moved an amendment to "make the Bill a real Bill," condemning it as "a mere sham" unless

it depauperized all subsidiary aid to sick parishioners.[201] *The Pall Mall Gazette* agreed that it was "quite absurd … first to tell a man that medical relief was not to disqualify him, and then to disqualify him, after all, because that relief took the form, not of a glass of physic, but of a glass of brandy."[202] An exasperated Albert Pell angrily insisted that any such assistance, "even to the extent of giving a teaspoon of brandy," must continue to disfranchise a householder, since any person might mock illness to secure nourishment.[203] *The Standard* supported his objection: "It is easy to draw the line between a bottle of medicine and a bottle of port; but it is not so easy to draw the line between comforts and necessaries. The latter might often be made to pass for the former, and the pauper be enabled to vote in the disguise of a patient."[204] Characteristically bombastic, Chamberlain retorted that with "medical extras" still pauperizing, the enfranchisements of the Reform Act would be denied to 70% of the nominal new voters.[205] The plebian press took up his tone, wailing that a patient prescribed anything beyond "a pill or a powder" would still be disqualified. For one who required a full and nutritious diet to recover from an injury or fever, "the first ounce of meat or spoonful of broth he swallows at the expense of the parish would at once deprive him of the vote!" Conservatives, *Reynold's Newspaper* insisted, had discovered "a left-handed method of wholesale disfranchisement of the poor. … The trick is a thorough Tory one, and has all the meanness, dirtiness, and selfishness that invariably characterize the policy of the party."[206]

Recognizing that the legislation was sliding beyond what they had contemplated, Conservative front-benchers withdrew their support. But it was too late. The Commons passed Collings's amendment to define "medical assistance" as anything authorized by the medical attendant. The Lords, not daring to go against a decided House majority and risk manufacturing anti-Tory agitation in the imminent election, allowed the change, which became law as the Medical Relief Disqualification Removal Act (MRDRA). For men accepting parochial medical relief, it effectively removed disqualifications on voting in all elections except local elections for Boards of Guardians and other bodies that distributed poor relief.[207]

Although not a few commentators prophesied that the depauperization of the MAB hospitals and the MRDRA would "entirely revolutionize the Poor Law,"[208] this was clearly not what happened. The notion that the medical pauper should not be viewed as a pauper was given official recognition, and this conceivably contributed to the improvement of Poor Law medical services and nursing at the end of the century. Some

historians see these reforms as removing obstacles to the development of a robust municipal hospital system in Britain after the turn of the century.[209] Others have identified them as vital ideological precedents for the dismantling of the entire Poor Law system and the emergence of the welfare state.[210] Although these genealogies are credible, Elizabeth Hurren has argued that franchise protections had a very different and unintended effect: namely, sharpening parish austerity for non-medical aid in the short term and emboldening the "crusade against out-relief" waged by officials like Albert Pell.[211] As Marjorie Levine-Clark shows, the Poor Law continued to be a powerful mechanism for censoring dilatory masculinity and diminishing the citizenship of men on the dole.[212] Even an "advanced radical" like Joseph Chamberlain continued to believe it necessary always to "secure the power of being very strict with the loafer or confirmed pauper."[213] To be sure, though, the debates concerning the franchise rights of men receiving medical assistance suggest the rising and special importance of population health to the health of the state. They just as strongly underscore the centrality of the parliamentary vote in cultural measurements and civil inscriptions of masculinity.

It is impossible to know how many men in fact lost their ability to vote because of parochial medical assistance. Nor can we hint at an estimate of those disfranchised in London prior to 1883 as a result of hospitalization by the MAB. Given the unreliable and sporadic revision of electoral registers, one might rest assured that the actual number in both cases was extremely small.[214] The Vestry clerk of St. Pancras told the Royal Commission that he personally had struck men off the voter lists for resorting to the MAB hospitals, but he did not indicate how many and implied the total was nominal.[215] Even Mr. Adley of the famous Tower Hamlets case had been challenged but not disqualified. It simply was not an issue that arose with any regularity, except amongst reformers by the likes of Dudfield. The metropolitan Poor Law medical inspector, John Bridges, reported in 1880 that the possibility of losing the franchise had "in two or three cases, but, so far as I am aware, in two or three cases only, roused a feeling of repugnance" toward the MAB hospitals. The apathy on this head he attributed to the disfranchisement not being widely known, both among the public and electoral officials. He also took it as demonstrating the extent to which the hospitals had already been largely disassociated from pauperism in the minds of the poor.[216] Dudfield and others may have believed it was just as well that this chronic non-enforcement arose from ignorance of the law, but

the concerted campaign to depauperize the London isolation hospitals shows that they believed their free use went to the heart of a new political approach toward health management.

## Competing Governmentalities

The medical project of segregation undertaken on a huge scale by the MAB was built upon inducements to self-governance more than it relied upon compulsions and involuntary detentions. Not to deny that coercions were possible and present in a multitude of forms, this chapter has nonetheless argued that the political impulse underlying hospital isolation in late Victorian London was to mobilize consent within a legal and cultural context wherein masculine domestic authority held a close connection to formal designations of citizenship and political fitness. Pauperism was key to how compulsion was problematized, and the "depauperization" of the MAB thus represented a scheme to govern health through the population, as opposed to over or against it. Most striking is that health officials identified and invested in a gendered version of household consent as a critical element of the success of hospitals. This amounted to a strategy of governmentality that historians such as Patrick Joyce have argued characterize the political reason of the nineteenth-century "liberal state"—an approach to rule "that systematically deploys political freedom as a means of governance."[217]

In stressing the importance given to consent and citizenship in the practice of hospital isolation, it is again crucial to recognize the gendered construction, and indeed the historically masculinized basis and limitations, of this self-government. It was an approach reflective of both the tensions and opportunities that public health faced in the last decades of the century as it was increasingly drawn to issues of contagion, individual bodies, and personal spaces. Indeed, it was in the MAB hospitals that health officials discovered a large class of "respectable poor" whose natural heads (fathers, husbands) might be expected to act more like *subjects* of their own government and who would thus require to be treated very differently from paupers. The management of contagion therefore did not necessarily resolve into dominating specific bodies as much as it involved knowing and regulating the population practically as a whole. This strategy centered on governing society itself, rather than society's others. It required also recruiting a substantial part of the public into the project. The Victorian isolation hospital was, in the end, a definite space

of confinement and separation, but it was not generally deployed other than as a site that also marked a type of inclusion and that made constant concessions to consent and citizenship as valuable mechanisms of government. The subtle and almost invisible coercions lurking at the back of hospital isolation were rarely seen by officials as compulsion because they had already invested so much in making sure these choices counted as an exercise of self-government by respectable workingmen, even if they required a little encouragement in order to emerge.

## Notes

1. *Law Times*, 5 October 1878, 385; *The Standard*, 2 October 1878, 2; *The Standard*, 3 October 1878, 2; *The Times*, 3 October 1878, 8.
2. Dudfield, *Kensington MOH for 1879*, 27. See also *The Sanitary Record*, 15 May 1885, 504–05. On Dudfield, see Andrea Tanner, "Thomas Orme Dudfield: The Model Medical Officer of Health," *Journal of Medical Biography* 6 (1998), 79–85.
3. *Sanitary Record*, 11 October 1878, 233; *Sanitary Record*, 25 October 1878, 259; *PMG*, 13 December 1878, 6.
4. Alexander Collie, "On Some Public Health Points in the Management of a Small-Pox Hospital," *MTG*, 5 June 1880, 605.
5. *BMJ*, 22 September 1883, 586.
6. José Harris, *Private Lives, Public Spirit: Britain, 1870–1914* (New York: Penguin Books, 1994). See also Elizabeth Hurren, *Protesting About Pauperism: Poverty, Politics and Poor Relief in Late-Victorian England, 1870–1900* (London: Royal Historical Society, 2007), 193, 209–12.
7. Pamela Gilbert, "Producing the Public: Public Medicine in Private Spaces," in *Medicine, Health and the Public Sphere in Britain, 1600–2000*, ed. Steve Sturdy (New York: Routledge, 2002), 43–59; George Behlmer, *Friends of the Family: The English Home and its Guardians, 1850–1914* (Palo Alto, CA: Stanford University Press, 1998).
8. Sonya Rose, "Fit to Fight but not to Vote?: Masculinity and Citizenship in Britain, 1832–1918" in *Representing Masculinity: Male Citizenship in Modern Western Culture*, ed. Stefan Dudink, Karen Hagemann, and Anna Clark (New York: Palgrave Macmillan, 2007), 131–50.
9. Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Durham, NC: Duke University Press, 2006); Alison Bashford, *Imperial Hygiene: A Critical History of Colonialism, Nationalism and Public Health* (New York: Palgrave Macmillan, 2004). See also Pamela Gilbert, *Cholera and Nation: Doctoring the Social Body in Victorian England* (Albany, NY: SUNY Press, 2008).

10. Sidney and Beatrice Webb, *English Local Government, Volume 9. English Poor Law History, Part II: The Last Hundred Years* (Hamden, CT: Archon Books, 1963), 814; Nicoletta F. Gullace, *The Blood of Our Sons: Men, Women and the Renegotiation of British Citizenship during the Great War* (New York: Palgrave Macmillan, 2002).
11. The 1832 Act defined the electorate for the first time as exclusively male. It also singled out pauperism as a disqualifying position. In boroughs, men who received parochial relief (or supported family members doing so) in the previous twelve-month were struck from the annual compilation of the list of electors for parliamentary and local elections. (6 Will. IV. c.45, s.36.) This was further refined in 1867 under the Second Reform Act (see 30 & 31 Vict. c.102, s.40; 39 & 40 Vict. c.61, s.14), where the pauper disqualification was extended to the counties. Prior to the 1832 reforms, under common law parochial relief given in particular emergencies, like the outbreak of cholera or smallpox or as the result of unforeseen accidents, was held not to disqualify the recipient. Afterwards, even relief that the parish had promised would not disqualify or was given without the knowledge of the recipient was held to nullify the recipient's vote. *Rogers on Elections, Registration, and Election Agency, 13th Edition* (London: Stevens and Sons, 1880), 194–96.
12. Pamela Gilbert, *The Citizen's Body: Desire, Health, and the Social in Victorian England* (Columbus, OH: Ohio State University Press, 2007), 46.
13. Harriet Martineau, *A History of the Thirty Years' Peace, vol. II* (London, 1877 [orig. 1849–50]), 502.
14. Anna Clark, "Gender, Class and the Nation: Franchise Reform in England, 1832–1928," in *Re-Reading the Constitution: New Narratives in the Political History of England's Long Nineteenth Century*, edited by James Vernon (New York: Cambridge University Press, 1996), 230–253.
15. Matthew McCormack, "'Married Men and the Fathers of Families': Fatherhood and Franchise Reform in Britain," in *Gender and Fatherhood in the Nineteenth-Century*, ed. Trev Lyn Broughton and Helen Rogers (New York: Palgrave Macmillan, 2007), 43–54.
16. Megan Doolittle, "Fatherhood and Family Shame: Masculinity, Welfare and the Workhouse in Late Nineteenth-Century England," in *The Politics of Domestic Authority in Britain since 1800*, ed. Lucy Leap, Ben Griffin and Abigail Wills (New York: Palgrave Macmillan, 2009), 84–108; Megan Doolittle, "Fatherhood, Religious Belief and the Protection of Children in Nineteenth-Century English Families," in *Gender and Fatherhood in the Nineteenth-Century*, ed. Trev Lyn Broughton and Helen Rogers (New York: Palgrave Macmillan, 2007), 31–42.

17. David Englander, *Poverty and Poor Law Reform in Britain* (London: Addison Wesley Longman, 1998), 17–18; Anna Clark, "The New Poor Law and the Breadwinner Wage" Contrasting Assumptions," *Journal of Social History* 34/2 (Winter 2000), 261–81.
18. Simon Cordery, *British Friendly Societies, 1750–1914* (New York: Palgrave Macmillan, 2003).
19. Steven King and Alannah Tomkins, eds, *The Poor In England, 1700–1850: An Economy of Makeshifts* (Manchester: Manchester University Press, 2003).
20. Clark, "Gender, Class, and Nation," 239–40. See also Marc Brodie, *The Politics of the Poor: The East End of London, 1885–1914* (New York: Oxford University Press, 2004), 44–74. A qualifying "householder" was defined as one occupying for twelve months any part of a house maintained as a separate dwelling and also personally paying the local poor rates. In 1869 this was expanded to include "compounded rates," or taxes paid through the landlord.
21. F.B. Smith, *The Making of the Second Reform Bill* (New York: Cambridge University Press, 1966), 13.
22. Keith McClelland, "England's Greatness, the Working Man," in *Defining the Victorian Nation: Class, Race, Gender and the British Reform Act of 1867*, ed. Catherine Hall, Keith McClelland, and Jane Rendall (New York: Cambridge University Press, 2000), 71–118. See also Keith McClelland, "Masculinity and the 'Representative Artisan' in Britain, 1850–80," in *Manful Assertions: Masculinities in Britain since 1800*, ed. Michael Roper and John Tosh (New York: Routledge, 1991), 74–91; Robert Saunders, *Democracy and the Vote in British Politics, 1848–1867: The Making of the Second Reform Act* (Burlington, VT: Ashgate, 2011), 19.
23. *House of Commons, Return of Number of Cases Received into Metropolitan Fever and Smallpox Hospitals, to June 1872* (10 August 1872); London Metropolitan Archives, Metropolitan Asylums Board (LMA/MAB)/703, *General Purposes Committee Minutes*, 22 February 1877; *MAB Minutes, v. 14* (29 May 1880), 297, 302; *MAB Minutes, v. 18* (25 October 1884), 930–35.
24. *House of Commons, Report of Dr Bridges on Small Pox in the Hospitals of the Metropolitan Asylums Board, from 1876 to 1878* (24 February 1880), 19.
25. Dr. William Brewer, quoted in *Hampstead and Highgate Express* (*HHE*), 21 October 1876, 3.
26. *The Lancet*, 13 April 1872, 515–16.
27. Letter from William S. Cortis, *The Times*, 2 September 1871, 8.
28. *BMM*, 18 February 1871, 3; ibid., 25 February 1871, 2.
29. *BMM*, 2 December 1876, 3.
30. *BMM*, 18 November 1876, 2.

31. *Sanitary Record*, 15 May 1880, 437.
32. William Francis Jebb, *Report of the Commissioners Appointed to Inquire Respecting Small-pox and Fever Hospitals: With Minutes of Evidence and Appendix* (*RCFSH*), 20.
33. *HHE*, 11 May 1872; *HHE*, 18 May 1872.
34. *BMM*, 10 March 1877, 3.
35. *Chelsea News and West London Press* (*CNWLP*), 3 February 1877, 2.
36. *Sanitary Record*, 3 May 1878, 284.
37. Albert Pell, "The Proper Mode of Dealing with Cases of Infectious Diseases Occurring in the Class above Paupers," in *Reports of the Poor Law District Conferences, 1878* (London, Knight and Co., 1879), 463–64, 446.
38. *The Reminiscences of Albert Pell, Sometime M.P. for South Leicestershire*, ed. Thomas Mackay (London: John Murray, 1908), 278. See also Albert Pell, "Poor Law Medical Relief," *Reports of the Poor Law District Conferences, 1883* (London, Knight and Co., 1884), 426.
39. Gareth Stedman Jones, *Outcast London* (New York: Pantheon Books, 1984), 241–61. On the "crusade against out-relief," see Hurren, *Protesting About Pauperism*.
40. *HHE*, 23 November 1872. For an overview of this debate, see Kier Waddington, "Unsuitable Cases: The Debate over Out-Patient Admissions, The Medical Profession and Late Victorian London Hospitals," *Medical History* 42 (1998), 26–46.
41. Lambert, *Pauperism: Seven Sermons* (London, 1871), 110.
42. F. Fairlie Clarke, "The Use and Abuse of Hospitals," *Macmillan's Magazine* (April 1872), 454.
43. Henry C. Burdett, "Hospital Reform," *Fraser's Magazine* (April 1881), 504.
44. *The Hospital*, 31 August 1889, 345.
45. Several parishes and Vestries charged token admission fees, but others made completely remunerative demands, such as £1 per week. *The Lancet*, 2 September 1871, 325; *The Times*, 28 October 1871, 11. The St. Marylebone temporary smallpox hospital erected in the parish stoneyard in 1871 required a 2 guinea admission fee and featured nursing by two "stout paupers" from the workhouse. *MTG*, 29 July 1871, 136. That same year the St. Pancras Vestry's hospital also charged 2 guineas but was only able to collect £141 13*s.* out of a total hospital cost of £1,728 17*s.* 4½*d*. *CKTG*, 11 November 1871, 3.
46. Pell, "The Proper Mode of Dealing," 451–52, 464. Pell suggested abolishing the Metropolitan Poor Relief Common Fund as a way of placing pressure on local guardians to shake down patients possibly able to pay. For recovery of costs of relief, see Aschrott, *English Poor Law System*, 110.
47. Letter from Henry C. Burdett, *The Lancet*, 21 June 1884, 1141.

48. Burdett, House of Lords, *Second Report of the Select Committee of the House of Lords on Metropolitan Hospitals* (*SRSCHLMH*) (London, H.M.S.O., 1891), 729.
49. Letter from James Stevenson, *The Times*, 19 January 1877, 5. Separate wards were provided in some jurisdictions outside London. Mooney, *Intrusive Interventions*, 77.
50. Pell, "The Proper Mode of Dealing," 452–54.
51. *Sanitary Record*, 3 May 1878, 284.
52. *House of Commons, Return of Number of Cases Received into Metropolitan Fever and Smallpox Hospitals, to June 1872* (10 August 1872).
53. Thomas Eccleston Gibbs, *RCFSH*, 175.
54. *The Times*, 31 October 1871, 11.
55. *The Times*, 18 September 1871, 11; ibid., 19 September 1871, 9; ibid., 20 September 1871, 9.
56. *MAB Minutes, v. 14* (29 May 1880), 297, 302; *Kensington MOH for 1883*, 55; William Francis Jebb, *RCFSH*, 20.
57. David Green, "Medical Relief and the New Poor Law in London," in *Health Care and Poor Relief in 18th and 19th Century Northern Europe*, ed. Ole Peter Grell, Andrew Cunningham, and Robert Jütte (Burlington, VT: Ashgate, 2002), 224.
58. Cordery, *British Friendly Societies*, 125–51; George Gissing, *The Nether World* (New York, 1889), 181.
59. *The Lancet*, 13 January 1871, 68.
60. *Reports of the Poor Law District Conferences, 1878* (London, Knight and Co., 1879), 454–55.
61. Miriam Bailin, *The Sickroom in Victorian Fiction: The Art of Being Ill* (New York: Cambridge University Press, 1994).
62. Bell Dale recoils in horror to a suggestion that she temporarily change residence after her sister comes down with scarlet fever. "I don't ever like to hear of a woman running away from illness; but when a sister or daughter does so, it is intolerable": Anthony Trollope, *The Small House at Allington* (New York: Harper and Brothers, 1864), 177.
63. *The Times*, 20 November 1868, 4. See also William Budd, *Scarlet Fever (Sometimes Called Scarlatina) and its Prevention* (London: Simpkin, Marshall, 1870).
64. George Johnson, "A Lecture on Scarlet Fever and Its Prevention," *BMJ*, 19 November 1870, 545, 546.
65. Shirley Foster Murphy, ed., *Our Homes, and How to Make them Healthy* (London: Cassell, 1885).
66. Fothergill, *Maintenance of Health*, 309.
67. Murphy, *Our Homes*, 899, 902.
68. *LFHCM*, Sub-Committee Minutes, 20 October 1870.

69. *BMJ*, 28 July 1877, 113.
70. Matthew L. Newsom Kerr, "Fevered Metropolis: Epidemic Disease and Isolation in Victorian London" (Ph.D. diss., University of Southern California, 2007).
71. Richard Price, *British Society, 1680–1880*, 283. See also Brodie, *The Politics of the Poor*, 44–60.
72. José Harris, "Between Civic Virtue and Social Darwinism: The Concept of the Residuum," in *Retrieved Riches: Social Investigation in Britain, 1840–1914*, ed. David Englander and Rosemary O'Day (Ashgate, 1995), 67–87; Allen, *Cleansing the City*, 117–23.
73. Anthony Wohl, *Endangered Lives: Public Health in Victorian Britain* (Cambridge: Harvard University Press, 1983), 325.
74. *PH* (January 1890), 277.
75. Joseph Chamberlain, *The Radical Programme [1885]* (Brighton: Harvester Press, 1971), 69.
76. F.T. Bond, "Spread of Infectious Fevers," *TNAPSS, 1876* (London, 1877), 484.
77. Sally Sheard, "Reluctant Providers? The Politics and Ideology of Municipal Hospital Finance, 1870–1914," in *Financing Medicine: The British Experience since 1750*, ed. Martin Gorsky and Sally Sheard (New York: Routledge, 2006), 123.
78. *The Lancet*, 20 May 1871, 697; House of Commons, *Report from the Select Committee on Hampstead Fever and Small Pox Hospital; Together with the Proceedings of the Committee and Minutes of Evidence* (*SCHFSH*), 72.
79. Carpenter, *RCSFH*, 256. Nadja Durbach, *Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907* (Durham, NC: Duke University Press, 2005).
80. John Simon, *English Sanitary Institutions* (London, 1897).
81. Dudfield, *Kensington MOH for 1876*, 17.
82. *Kensington MOH for 1878*, 26–27.
83. *Kensington MOH for 1879*, 39.
84. T. Orme Dudfield, "Observations," in *Transactions of the Society of Medical Officers of Health* (*TSMOH*), Session 1880–81, 89.
85. *Kensington MOH for 1879*, 39.
86. *PH* v. 3, n.25 (May 1890), 5.
87. Richard Thorne Thorne, "On the Use and Influence of Hospitals for Infectious Diseases," *10th Annual Report of the Local Government Board, Supplement containing report on the Use and Influence of Hospitals for Infectious Diseases* (London, 1882), 278.
88. *BMJ*, 8 November 1884, 921.
89. *RCFSH*, vii.
90. *RCFSH*, xii.

91. Francis Vacher, "Hospitals for Infectious Cases—Should they be free, or a charge made for maintenance?" *TSIGB, 1886–87*, 161.
92. *Kensington MOH for 1876*, 20, 15.
93. *Kensington MOH for 1876*, 28.
94. *Kensington MOH for 1881*, 61.
95. Thorne Thorne, "On the Use and Influence of Hospitals," 197–98. See also Mooney, *Intrusive Interventions*, 74.
96. Thorne Thorne, "On the Use and Influence," 49, 140, 174–75, 198, 240, 260; *RCSFH*, 82.
97. Thorne Thorne, *RCSFH*, 82.
98. Percival Gordon Smith, "Planning and Construction of Hospitals for Infectious Diseases," *TESL* n.s. 2 (1882–83), 141.
99. *The Times*, 25 December 1876, 7.
100. Thorne Thorne, "On the Use and Influence," 28; ibid., *RCSFH*, 83.
101. Acworth, "Scarlet Fever in the Metropolis," *Murray's Magazine* (October 1887), 444.
102. Thomas Stevenson and Shirley F. Murphy, eds., *A Treatise on Hygiene and Public Health, Vol. III: Sanitary Law* (London: J. & A. Churchill, 1894), 164–65. Not until 1899 (in *Warwick vs Graham*) was this language ruled to include the protection of those other than the sick person. Section 65 of the Public Health Acts Amendments Act 1907 made removal powers applicable to all infectious persons whose accommodation could not secure the protection of others.
103. W.H.W. Wilkinson, "The Small-Pox Outbreak in Islington," *Lancet*, 14 October 1876, 543.
104. *The Times*, 22 June 1876, 12.
105. Section 124, Public Health Act, 1875; Section 66, Public Health (London) Act, 1891. For removal of corpses: Section 142, Public Health Act, 1875. No petition was brought under the 1891 Act until 1896. See *Wandsworth MOH for 1896*, 64. An attempt to strengthen the language of "insufficient accommodation" failed in 1893. See *Kensington MOH for 1893*, 150.
106. *MAB Minutes v. 5* (May 13, 1871).
107. Section 12, Infectious Disease (Prevention Act), 1890; also Section 67, Public Health (London) Act, 1891. See Mooney, *Intrusive Interventions*, 77–78.
108. Mooney notes angry demonstrations in Nottingham in 1890, but that in many ways was a singular instance. *Intrusive Interventions*, 78.
109. George Buchanan, "Citizenship and Sanitary Work," *Practitioner* v. 17 (November 1876), 384–400.
110. *The Lancet*, 17 October 1874, 558.
111. *The Times*, 20 November 1868, 4.

112. *The Times*, 14 May 1878, 9.
113. [George R. Drysdale], *State Measures for the Direct Prevention of Poverty, War, and Pestilence* (London: E. Truelove, 1885), 61.
114. Wilson Pash, *The Scandal at the Stockwell Hospital* (London, D. Jones, 1886), 5.
115. *Wandsworth MOH for 1876*, 10–11
116. *Wandsworth MOH for 1876*, 11. See also *Bethnal Green MOH for 1877*, 14.
117. *St. Pancras MOH for 1885*, 18–19.
118. John F.J. Sykes, "Organisation and Administration for the Control of Infectious Diseases," *TSIGB, 1886–87*, 152. Orders for removal also had presumably never been sought in Nottingham. Mooney, *Intrusive Interventions*, 79.
119. J.S. Bristowe, "President's Address," *TSMOH 1880–81*, 18. After 1889 most MOHs seemed satisfied that the provisions for compulsory notification of infectious diseases would achieve the same results in a more agreeable fashion than a law securing powers of compulsory removal. See *PH* 5 (February 1893), 144.
120. *Kensington MOH for 1880*, 19.
121. *Kensington MOH for 1878*, 27.
122. *Kensington MOH for 1877*, 8.
123. *Kensington MOH for 1884*, 23–24.
124. *Kensington MOH for 1875*, 13–14.
125. E.W. Goodall, "Some of the Difficulties Incident to the Administration of Fever Hospitals," *PH* 12 (June 1900), 649.
126. Stevenson and Murphy, *Treatise on Hygiene and Public Health, Vol. III*, 165.
127. Edward T. Wilson, "Notification in Infectious Disease and Certificates of the Cause of Death," *Practitioner* 48 (1892), 398.
128. Archer Farr, *RCSFH*, 133–34.
129. Andrew Furgus, *TNAPSS, 1876*, 491.
130. Mooney, *Intrusive Interventions*, 70, 81.
131. *Hackney MOH for 1878*, 7; *Hackney MOH for 1879*, 9; *Hackney MOH for 1880*, 9; *Bethnal Green MOH for 1880*, 18.
132. Alexander Wynter Blythe, *St. Marylebone MOH for 1881*, 161.
133. Mooney, *Intrusive Interventions*, 80. See also Benjamin Browning, *RCSFH*, 239.
134. *Kensington MOH for 1881*, 62.
135. Goodall, "Some of the Difficulties," 649.
136. Dr. Francis Sibson, *SCHFSH*, 27.
137. H. Franklin Parsons, *Isolation Hospitals* (Cambridge University Press, 1914), 146.
138. *House of Commons, Report of Dr Bridges on Small Pox in the Hospitals of the Metropolitan Asylums Board, from 1876 to 1878* (24 February 1880), 10; Bridges, *SRSCHLMH* (London, 1891), 619, 621.

139. *MAB Minutes, v. 13* (6 March 1880), 830.
140. Edward T. Wilson, "Isolation as a Means of Arresting Epidemic Disease," *Practitioner* (February 1879), 145–47.
141. John Tosh, *A Man's Place: Masculinity and the Middle-Class Home in Victorian England* (New Haven, CT: Yale University Press, 1999), 159.
142. Ellen Ross, "Hungry Children: Housewives and London Charity," in *The Uses of Charity: The Poor on Relief in the Nineteenth-Century Metropolis*, edited by Peter Mandler (Philadelphia: University of Pennsylvania Press, 1990), 185.
143. Lydia Murdoch, *Imagined Orphans: Poor Families, Child Welfare, and Contested Citizenship in London* (New Brunswick, N.J: Rutgers University Press, 2006).
144. Roger Cooter, ed. *In the Name of the Child* (New York: Routledge, 1992); Behlmer, *Friends of the Family*; Anthony Fletcher and Stephen Hussey, eds. *Childhood in Question: Children, Parents and the State* (Manchester: Manchester University Press, 1999); John Tosh, *A Man's Place*.
145. Julie-Marie Strange, *Fatherhood and the British Working Class, 1865–1914* (Cambridge University Press, 2015), 2–6.
146. *The Standard*, 19 May 1881, 2; *Camden and Kentish Towns, Hampstead, Highgate, and St. Pancras Gazette* (*CKTHHSPG*), 21 May 1881, 2.
147. Ellen Ross, *Love and Toil: Motherhood in Outcast London, 1870–1918* (New York: Oxford University Press, 1993), 167.
148. Ross, *Love and Toil*, 178.
149. Letter from Herbert Goude, *Lancet*, 28 November 1885, 1021–22.
150. *MTG*, 29 April 1871, 485.
151. Seth Koven, "Borderlands: Women, Voluntary Action, and Child Welfare in Britain, 1840–1914," in *Mothers of a New World: Maternalist Politics and the Origins of the Welfare States*, ed. Seth Koven and Sonya Michel (New York: Routledge, 1993), 94–135; Lara V. Marks, *Metropolitan Maternity: Maternal and Infant Welfare Services in Early Twentieth-Century London* (Atlanta: Rodopi, 1996).
152. *Kensington MOH for 1877*, 9; *Kensington MOH for 1878*, 70.
153. M[argaret]. Loane, *The Queen's Poor: Life as they Find it in Town and Country* (London: Edward Arnold, 1909), 227. See also Hardy, *Epidemic Streets*, 274; *Kensington MOH for 1880*, 21.
154. *BMJ*, 24 March 1883, 600.
155. *The Lancet*, 4 March 1871, 319. See also *Padington MOH for 1900*, 79.
156. Durbach, *Bodily Matters*, 75.
157. Nadja Durbach, "Class, Gender, and the Conscientious Objector to Vaccination, 1898–1907," *Journal of British Studies* 41/1 (January 2002), 58–83.
158. *Kensington MOH for 1876*, 29–31.

159. *Kensington MOH for 1876*, 30–31.
160. William Iliff, *TSMOH, 1884–85*, 95–97.
161. *The Lancet*, 4 March 1871, 318–19.
162. *BMJ*, 23 May 1896, 1290; *MTG*, 8 October 1881, 448; *Camberwell MOH for 1881–82*, 101.
163. Browning, *RCSFH*, x, 238. See also *Kensington MOH for 1876*, 30–31.
164. Letter from Dr. Frederick Churchill, *MTG*, 19 June 1880, 678–79.
165. John S. Bristowe, *RCSFH*, 46.
166. *The Standard*, 13 April 1877, 6.
167. *The Daily News*, 22 January 1877; *PMG*, 22 January 1877; *PMG*, 27 January 1877; *PMG*, 29 January 1877; *PMG*, 30 January 1877; *Sanitary Record*, 23 February 1877, 122.
168. *Medical Brief* (December 1901), 1840–42.
169. *BMJ*, 30 January 1904, 282; *Justice of the Peace*, 9 April 1904, 158.
170. Dudfield, *Kensington MOH for 1879*, 27.
171. *Kensington MOH for 1878*, 26–27; Dudfield, *Journal of the Royal Sanitary Institute* (*JRSI*) 20 (1899), 418.
172. *Hansard's HC Debates* (11 December 1878), c.624.
173. *PMG*, 13 December 1878.
174. Thomas Salt, *Hansard's HC Debates* (11 December 1878), c.630; *MP*, 18 December 1878, 501–02.
175. Albert Pell, *Hansard's HC Debates* (14 February 1879), c.1276.
176. *Hansard's HC Debates* (21 March 1879), c.1417–1420.
177. Dr. Andrew Commins, *Hansard's HC Debates* (19 June 1884), c.860–61.
178. *The Times*, 13 June 1885.
179. *Speeches of the Right Hon. Joseph Chamberlain, M.P.* (London: Routledge and Sons, 1885), 135. See also Luke Blaxill, "Joseph Chamberlain and the Third Reform Act: A Reassessment of the 'Unauthorized Programme' of 1885," *Journal of British Studies* 54 (January 2015), 88–117.
180. Letter from T.S. Townsend, *The Times*, 25 May 1885, 7.
181. Balthazar Foster, *The Times*, 25 May 1885, 7.
182. *The Times*, 18 June 1885, 7.
183. *York Herald*, 17 June 1885, 7.
184. *The Daily News*, 29 June 1885.
185. *Leeds Mercury*, 24 July 1885.
186. Bryce, *Hansard's HC Debates* (21 July 1885), c.1430.
187. Leonard Courtney, quoting the Rev. T.W. Fowle, Rector of Islip, *Hansard's HC Debates* (21 July 1885), c.1418.
188. *The Times*, 16 July 1885, 9.
189. Pell, *Hansard's HC Debates* (23 July 1885), c.1652; ibid., (21 July 1885), c.1450.

190. *Hansard's HC Debates* (21 July 1885), c.1444.
191. James Bryce, *Hansard's HC Debates* (21 July 1885), c.1430.
192. Leonard Courtney, *Hansard's HC Debates* (21 July 1885), c.1412, 1416.
193. *The Times*, 28 July 1885, 10.
194. *National Review*, v. 5 (1885), 788–9.
195. *Hansard's HC Debates* (21 July 1885), c.1442.
196. Thomas Frederick Halsey, *Hansard's HC Debates* (21 July 1885), c.1435.
197. Oswald John Simon, *The Times*, 25 May 1885, 7.
198. *Daily News*, 29 May 1885. See also letters from Balthazar Foster and "A Radical," *The Times*, 25 May 1885, 7.
199. Thomas Frederick Halsey, *Hansard's HC Debates* (21 July 1885), c.1435.
200. *North-Eastern Daily Gazette*, 24 July 1885.
201. Jesse Collings, *Hansard's HC Debates* (23 July 1885), c.1640.
202. *PMG*, 24 July 1885.
203. Albert Pell, *Hansard's HC Debates* (23 July 1885), c.1652.
204. *The Standard*, 24 July 1885, 4.
205. *Hansard's HC Debates* (21 July 1885), c.1464.
206. *Reynold's Newspaper*, 2 August 1885.
207. *48 & 49 Vict. Ch. 46.*
208. *Newcastle Weekly Courant*, 24 July 1885.
209. Sheard, "Reluctant Providers?"
210. Bernard Harris, "Charity and Poor Relief in England and Wales;" Bernard Harris, *The Origins of the British Welfare State: Society, State, and Social Welfare in England and Wales, 1800–1945* (New York: Palgrave, 2004), 56, 97; Michael Flinn, "Medical Services under the New Poor Law," in *The New Poor Law in the Nineteenth Century*, ed. Derek Fraser (Macmillan, 1976), 45–66; David Englander, *Poverty and Poor Law Reform in Britain: From Chadwick to Booth, 1834–1914* (New York: Longman, 1998), 25.
211. Elizabeth Hurren, *Dying for Victorian Medicine: English Anatomy and Its Trade in the Dead Poor, c.1834–1929* (New York: Palgrave, 2012), 134–35, 196–97.
212. Marjorie Levine-Clark, *Unemployment, Welfare, and Masculine Citizenship: 'So Much Honest Poverty' in Britain, 1870–1930* (New York: Palgrave, 2015).
213. Quoted in Pat Thane, *Foundations of the Welfare State, 2nd Edition* (New York: Longman, 1996), 38.
214. Davis "Slums and the Vote;" Sidney and Beatrice Webb, *The Break-Up of the Poor Law: Being Part One of the Minority Report of the Poor Law Commission* (London: Longmans, Green, 1909), 544–46.

215. T.E. Gibb, *RCSFH*, 175.
216. *House of Commons, Report of Dr Bridges on Small Pox in the Hospitals of the Metropolitan Asylums Board, from 1876 to 1878* (24 February 1880), 10.
217. Patrick Joyce, *The State of Freedom: A Social History of the British State since 1800* (New York: Cambridge University Press, 2013), 3.

CHAPTER 5

# Machines of Security: Architecture, Geography, and Metropolitan Governance

In a presentation to the 1884 International Health Exhibition, Surgeon-Major G. J. H. Evatt marveled at the ambitious plan recently embarked upon by the Metropolitan Asylums Board for managing infectious disease in London. It enlarged the system of urban hospitals, established a number of ambulance stations, wharves, and ambulance steamers, placed a large convalescent fever hospital outside London, and positioned a series of floating hospitals for smallpox several miles downstream. Evatt's strikingly topological map of the hospital system depicts a networked, metropolitan infrastructure standing ready to meet any occurrence of epidemic disease (Fig. 5.1). A visiting French delegation, meanwhile, was "fairly astounded" at the rapidity and orderliness with which patients could be fetched from their homes and securely moved along parts of the isolation network. It pronounced these hospitals, ambulances, and other preparations the "realisation of a dream of perfection."[1] Londoners, for their part, also realized it as a profound departure from earlier parish-based responses to contagious outbreaks that relied on hurriedly improvising or borrowing temporary sites of treatment and containment wherever they could be found. The expansion of hospital isolation under the MAB was made more remarkable in that it occurred during a perceived crisis of London governance, which had led many to question its ability to cope with natural emergencies like smallpox epidemics. As this chapter aims to show, the emerging hospital network itself was a font of controversy and served to crystallize disputes about the appropriate sources, sites, and scales of metropolitan government.



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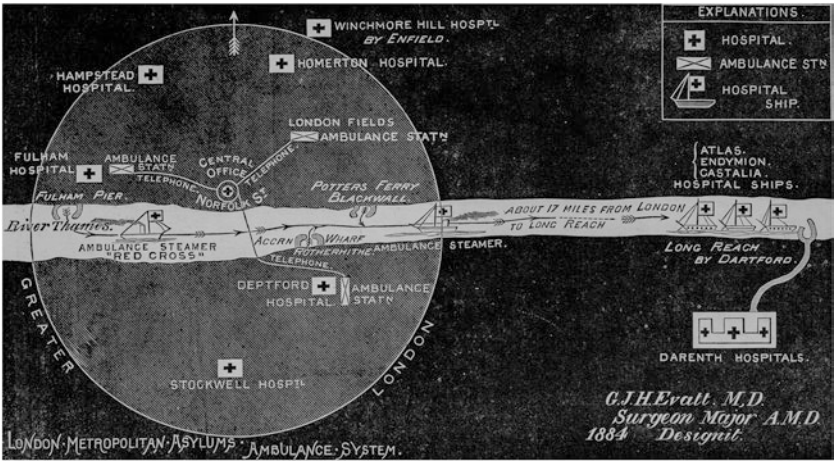



**Fig. 5.1** Diagram of security: The MAB hospital system, 1884. Surgeon-Major G. J. H. Evatt, *Ambulance Organization: Equipment and Transport* (London, 1884), 29. Courtesy of Wellcome Trust Library, London

An extensive historical literature queries the nineteenth-century "revolution" in British government and asks what the nature of that transformation may have been. There are those who see a victory for centralized bureaucracies and systems of expert authority,[2] whereas others stress the importance of liberal ideals of accountability, representation, and individual character-formation.[3] Still others notice only a string of pragmatic and ad hoc responses to crises mostly at the parochial and municipal level, which provided no single or unambiguous answer to the question of how to delineate the boundaries and powers of the local state but nonetheless reflect broadly liberal preferences for limited government.[4] There is also a growing literature of the state influenced by Foucault that locates a revolution in *governance* in the nineteenth century, by which the institutions of rule are increasingly captured by a biopolitical imperative and defined by mechanisms of "security" that seek to manage but not dominate and determine the natural equilibriums intrinsic to the workings of fields like the economy and health. In this sense, biopolitics is also associated with liberalism.[5] This chapter aims to pursue a series of questions arising along two axes of Victorian governability: first, the bodies of formal self-government and administration delimiting the

reach of the local state, and secondly, the discourses and practices rendering the natural population not only the object but also the means of governance.

The fitfully developed but ultimately highly methodical system of hospital isolation in London erected between the 1870s and the 1890s bears out the contentious but productive interplay between liberalism, biopolitics, and metropolitan government. This forms a history of infrastructure, freedom, governmentality, and security. It is generally assumed that architecture and territory declined in importance alongside the rise of liberalism. Yet as Patrick Joyce and others note, these material instruments of power continued to be central to the liberal state's "conduct of conduct."[6] This chapter surveys how outbreaks of disease increasingly disrupted and challenged the political logic of parochialism in London. It then proceeds to show how the MAB's burgeoning archipelago of infectious disease hospitals exemplifies the new ways that cities were being reconceived as technical objects of thought and regulation. The growth of the infectious hospitals represented in Evatt's impressive diagram match what Thomas Osborne and Nikolas Rose describe in a seminal essay as the moment in the nineteenth century "when the long-standing *tactical* problem of the government of cities, concerned with the suppression of this or that danger, is succeeded by the *strategic* dream of a generalised urban governmentality." This amounted to a vision of metropolitan planning in which the city is represented less as a metaphor for good government or a domain of legitimate authority, and more as a materiality, "the site of a kind of systematic pragmatism, a concrete milieu of government."[7]

## "The Worst Governed City in the Empire"

The political organization of London government provided an abundant source of debate and contention in the nineteenth century. There was general agreement that the metropolis at the beginning of Queen Victoria's reign presented "a confused and anomalous wilderness" of overlapping and discordant jurisdictions that were "whimsically unequal in their scope and tenor, and frequently irreconcilable in their pretensions and powers."[8] Problems arising from the vast and unplanned conurbation continued to "spawn a kaleidoscopic variety of ad-hoc remedies by local act"[9] and produced a heterogeneous mass of governing bodies making the map of London government "more complex than the most

complicated of Chinese puzzles."[10] It consisted of an untidy medley of incongruous administrative units: sewer commissions, police divisions, and districts for the Building Acts, for the registration of births and deaths, and for postal, inland revenue, gas and water, and parliamentary purposes. Unlike the great towns organized by the Municipal Corporations Act, London outside the City lacked a single government until 1889 and had no distinct, fixed boundaries. It remained "a foreign concept even to its natives,"[11] a "mere geographical expression."[12] Instead, a wide array of local powers were bestowed on dozens of representative bodies—the Poor Law boards and civil Vestries that together amounted to little more than "a collection of contiguous but hostile principalities."[13] Numerous critics continuously lamented that the metropolis had "outgrown its governing powers" and, skipped over by legislation modernizing municipal charters, it suffered from too many governments at the same time as from not enough governance.[14]

And yet the "centrality of locality," to use Philip Harling's phrase, grew from genuine parish-level suspicion toward external administration.[15] In London the fear was of a single, immense metropolitan authority that would prove distant, heavy, and impersonal. The capital city's incoherent political geography was therefore in large part the result of visceral hostility to "centralization," especially in regard to sanitary reform and Poor Law administration. A crucial figure was that inveterate "apostle of parochialism," Joshua Toulmin-Smith, who concocted an appealing mythology of the ancient Saxon folkmote and influenced a number of misty histories of English constitutionalism. This was a deeply localist epistemology, one whose geographic ideal was that of proximity and near horizons and of fixed territory occupied by those who "belong to the parish." Government was best guided by the paternal interest and "bond of neighbourship" found in all healthy communities, not by the "functionary machinery of a cold and hard bureaucratic system."[16] Parochialist thinkers like Toumlin-Smith voiced an aversion to what they saw as a growing divide between mechanistic governance and true citizenship. "No central authority," he wrote, "can ever, by any possible human machinery, know—as the inhabitants must always do—the circumstances and conditions of a district, and so know how its affairs may be best managed."[17]

As the historian John Davis notes, contemporaries employed the phrase "local self-government" far more often than "local government."[18] Parochialism thus stood against treating community members

as mere numbers or as a population in the abstract. Rather, the parochial realm was both based upon and itself sanctioned the hierarchical acquaintances and personal reputations that bonded the families of gentlemen, ratepayers, and paupers. Intense parochial identity was one reaction to the frightening anonymity and rootlessness experienced in the modern metropolis. Toumlin-Smith continued to write wistfully about "the Folk and the People" as true agents of self-government. In the 1850s he famously condemned proposals to treat the metropolis as a unified sanitary area. "What commonness of interests and management," he wondered in regard to London's proposed sewer system, "can Whitechapel have with Paddington, or Lambeth with Hackney?"[19] Sensing the high stakes in preserving the political culture of the locality, he warned that to manage the metropolis as a single unit was merely an odious preamble to continental-style despotism reeking of Crown-council orders and police powers.[20]

Nonetheless, it was the experience of epidemics and the mounting threat of further outbreaks that played a key role in shaping London government and pushing it toward greater centralization. Cholera, the shock disease of the era, underpinned the urgency of permanent sanitary works and allowed for the establishment of a Metropolitan Commission of Sewers in 1848 (including on its board the paragon of centralization, Edwin Chadwick). The return of cholera prompted the 1855 Metropolis Local Management Act and the creation of a novel first-tier representative body, the Metropolitan Board of Works (MBW). The enormous number of London parishes and commissions were reorganized into thirty-nine directly elected Vestries and District Boards of Works, which were to oversee street repair, public lighting, housing codes, and sanitation in their respective localities. These in turn submitted delegates to the MBW, responsible for funding and administering common drainage, open spaces, and other public works requiring metropolitan coordination. The MBW was in fact a weak top-tier central body, and its structure kept most decision-making power with constituent Vestries.

Concerned mainly with large projects of sanitary engineering, the MBW had practically nothing to do with the *medical* aspects of public health invested in the district MOHs. Indeed, there was a near complete lack of coordination in relation to contagious diseases like smallpox. When this disease struck in 1860 the St. Pancras parish spent several months seeking a suitable house to rent as a temporary hospital, but eventually gave up and decided to redouble its efforts at vaccination.[21]

During another smallpox outbreak in 1863, the St. Marylebone Vestry tried but failed to convince other districts to build a shared hospital on the outskirts of London.[22] Parliament contemplated legislation compelling the parishes to provide accommodation for the infectious sick, but this was strongly resisted as harmful to local autonomy. An article in *Once a Week* complained that where residents desired a smallpox hospital, safe ambulances, or decent housing for the poor, they would occur "by a simple exercise of our powers and our influence as citizens." Such things would be "better managed by the citizens in bodily presence on the spot than by the remote and intangible abstraction called Government, which falls into some mistake when it attempts to interfere in local details."[23]

Attitudes like this, and the mood of inaction they seemed to rationalize, led advocates of metropolitan reform to take an exceedingly dim view of parochial government, especially in relation to public health. The judgment of historians has been similarly negative: the Vestries and Boards of Guardians were strongholds of the "dirty party," the "anti-sanitarians," the special-interests and laissez-faire ideologues who insisted on [the] right of communities to resist costly health reforms, to live free, and to die early.[24] J. F. B. Firth, president of the London Municipal Reform League, complained in 1876 that "The first City of the world—the center from whence are governed larger areas and greater populations than ever were ruled from any city since the world began—is itself without any method, or system, or order in its government."[25] London still seemed barely capable of lurching from crisis to crisis and relied upon improvised and assorted responses to practically existential threats. For Firth and his colleagues, the proper object of government was the "new conditions of life" arising in the modern metropolis and affecting the "physique of the people."[26] The main functions of a metropolitan municipality thus would be those related to health infrastructure, such as drainage, drinking water, sanitary housing, baths, washhouses, disinfecting rooms, and mortuaries. "Municipal government exists for the united benefit of aggregations of people," he maintained, "not for the cultivation of their tastes, or their acquaintanceship."[27] Protection of the population was the purpose of government, and moreover this could be defined statistically and apportioned rationally. London itself, no matter its immensity, amounted to a "community of interest" and it could be rendered self-governing with the right machinery.[28]

This notion that the rationale of government was to regulate the corporeal and material milieu of life became the rallying cry of those pushing for a single London municipality. It is not that such tasks had never been viewed as the proper sphere of government. What was new, however, was a belief that civil authority was in large part legitimated through its ability to manage the natural forces pertaining to the great towns. Sir Arthur Hobhouse, for instance, declared London "a great natural whole" that had been "artificially divided" by archaic boundaries. All the material conditions making a difference between a smooth daily existence and a difficult one were "not separable according to the divisions, either territorial or legal," which then persisted.[29] Hobhouse's radical conclusion was that the shape of metropolitan districts should conform to these vital conditions of life, and that London's civil jurisdictions should reflect the distributions and attributes of the urban population as a whole instead of the antiquity of the parishes.[30] Speaking in support of the failed 1884 London Government Bill, William Gladstone upheld that "London, large as it is, is a natural unit." He cited mortality statistics to show that some metropolitan districts were well managed and other far less so.[31] Irregularity of government meant irregularity of outcomes in terms of disease and death. It shows that the general thrust of London municipal reform was to make the health and security of the population the foremost gauge of political legitimacy.

The Metropolitan Asylums Board was created in 1867 as part of an effort to wrest responsibility for sick paupers away from parochial authorities. A string of workhouse scandals had solidified the dismal reputation of local boards, presumed to be dominated by small tradesmen "chiefly anxious to save the rates and inclined to every kind of cheese-paring" to ingratiate themselves to electors.[32] To many observers, the want of a disinterested gentlemanly class had permitted the worst abuses. The London parishes were "in the main composed of men who have not yet acquired that independence of thought, which seems somehow or other (however we may be to confess it,) to go with independence of position."[33] Workhouse scandals sickeningly revealed "how men of breeding and of feeling have been driven from the boardrooms, and the vulgar and noisy brawlers who have no sympathy with the poor … have shambled into their seats."[34] *The Lancet*, which had led the campaign drawing attention to the insanitary state of workhouse infirmaries, complained that "the worship of local self-government" had been "a sort of fetishism" suffered only "because we thought it 'English' and national."[35]

Victorian liberalism, while generally apprehensive of public-government-by-large-apparatus, also accepted that the right sort of centralization might aid the selection of officials whose geographic disinterestedness and attention to public good extended from their independence of means and their distance from parochial concerns. This was a central thesis of John Stuart Mill's *Considerations on Representative Government* (1861), in which he discusses the importance of balancing central legislative powers with the local institutions of public opinion. In parliamentary debate on workhouse reform in 1867, Mill himself upheld the indisputable "value of large bodies representing large constituencies, as compared with small bodies representing small districts." As with the management of destitution, so in any instance of an epidemic threatening the whole of London. A central body would possess the ability to bring the resources of the whole metropolis to the aid of an ailing district (and thereby protect the interests of all other districts).[36] Mill went on to strongly imply it would be impossible to expect that the difficult and arduous work of managing the workhouse sick could be adequately performed by numerous bodies composed of ill-educated men of the Guardian class. Rather, these lowliest representatives of the public should be more strictly subjected to the supervision of highly skilled and sharply responsible men who could devote their whole time to such work.[37]

Constituted under the Metropolitan Poor Act of 1867, the MAB broadly reflected these concerns to blend local and central powers. Its sixty members (or "managers") were comprised of forty-five delegates chosen by the parishes and fifteen *ex officio* government nominees. Guardian managers were considered the "elective element" and expected to "represent parsimony" and local interests. Nominee managers (gentlemen with a personal ratal qualification over £100) "represented liberality" and were intended to take a "wider view" of the MAB's responsibilities. In 1867 it was not immediately clear how this arrangement would work. Some believed that MAB managers represented "the cream of the Boards of Guardians," and for good or ill more closely captured public opinion.[38] Others questioned the wisdom of a board "composed of two elements antagonistic *ab initio*" and feared that the predominance of tightfisted grocers would quickly wear out the patience of public-minded gentlemen.[39] In practice, the influence of nominee managers over time tended to permeate and guide the MAB's agenda.[40] J. F. B. Firth believed this machinery practically ensured that responsibility for policy resided at its top and not with constituent parishes

and went on to praise the MAB as "one of the best if not the very best organization ruling the whole of London for any purpose."[41]

The MAB immediately set about preparing to erect hospitals that would serve the metropolis as a common administrative district. Sites for three infectious hospitals were chosen with the distribution of London population in mind (two north of the Thames, at Hampstead and Homerton, and another in the south, at Stockwell) roughly in the pattern of an equilateral triangle. The large scale (as well as the geometric precision) of the hospitals scheme was just what champions of parochialism had feared. A conference of London Poor Law Guardians declared the Asylums Board's plans "subversive to the principles of local self-government." The St. Pancras representative to this conference angrily stated his parish's determination to preserve "the right of keeping the sick poor under their governance."[42] An editorial in the *Weekly Times* complained that this "great factory scheme" for the amalgamated management of strangers from all over London would obliterate the more sympathetic care by local officials "elected by ratepayers who know the real character and positions of the claimants for aid."[43]

## Smallpox and Urban Spatial Crisis

The Asylums Board had not finished building its asylums when a ferocious epidemic of smallpox struck in December 1870. This would go down as the most devastating outbreak of the disease in the nineteenth century and prompted a desperate scramble by various London bodies to provide sufficient hospital accommodation. The MAB's first hospital at Hampstead initially only consisted of a few brick buildings and a series of wooden huts. These were quickly overwhelmed and had to be expanded fivefold over the next year. The hospitals at Stockwell and Homerton were meanwhile rushed to completion, but these too filled as soon as they opened in January. One hospital superintendent recalled that "every hospital was crammed."[44] Eventually more than 16,000 smallpox patients passed through the MAB hospitals over eighteen months, but this was a paltry portion of the total sickness, and other institutions consistently failed to pick up the slack. The government again recommended that parishes supply structures of very simple construction such as iron-framed huts and tents that could be quickly erected and then dismantled and stored for future use. But in the end hospitalization played a rather

small role in this epidemic; of the 9643 metropolitan deaths from smallpox, only 3020 occurred in hospitals.[45]

The smallpox of 1871 unleashed a practically chaotic and contradictory proliferation of small temporary hospitals by local authorities. Most of these were hastily arranged, often ramshackle and ad hoc affairs placed in locations already under parochial control but inconvenient in almost every other way. St. Luke's parish, for example, erected a temporary iron-framed hospital in an ancient parish burial ground "situated in the very midst of the very dense population of Golden-lane."[46] New burials had been barred in London since the 1850s and, although metropolitan churchyards were starting to be repurposed for green spaces and public gardens, the majority were still depressing and insalubrious blights. The Shoreditch Vestry placed a structure for thirty-five patients in the old parish burial ground north of Hackney Road, which contained a decrepit watch-house itself previously used as an improvised cholera hospital. (Even though the alarmed Shoreditch MOH stated that up to 300 parishioners were falling ill each week, Vestry members grumbled about the hospital's cost and some even questioned the infectiousness of smallpox.)[47] Exhibiting somewhat more resolve, the St. Marylebone Vestry cleared the parochial stonebreaking yard and erected the temporary iron building it had employed in a previous smallpox outbreak. Once this hospital filled, the Vestry authorized the erection of a second structure, which was fitted up in just five days and received 215 smallpox patients over the course of six months.[48]

Temporary smallpox hospitals tended to be erected in a parish's outcast and liminal regions—sites that perhaps left much to be desired sanitarily, but were near to the presumed disease haunts and far from influential public opinion. The St. George's Union chose to place a temporary smallpox hospital in "a most wretched, filthy court" at St. Ermin's Hill: a small remnant of a previously large area of ramshackle houses and small alleys that had been cleared as part of the construction of Victoria Street and whose vicinity was reputed to contain lodging houses catering to prostitutes. The austere hut measured 130 feet by 20 feet and contained accommodation for twenty patients of both sexes at either end, separated by a small nurse's station.[49] Many other local authorities found it difficult to secure open land and instead sought to lease already existing houses and warehouses, although this could rarely be accomplished with any great rapidity. The Westminster Board of Works, warned of a "frightful epidemic," approved the establishment

of a temporary hospital "at once and without delay."[50] It solicited suggestions for a site from the Metropolitan District Railway Company, the Westminster Improvement Commissioners and the Westminster Hospital—all to no avail. Space was also unsuccessfully sought at the Millbank Prison grounds and at a portion of the Victoria Tower Gardens. A piece of vacant land beside Cannon Row was also considered, but this prompted great public alarm and rebuke. The board eventually agreed to take two decrepit houses on Millbank Street backing onto the riverbank and overlooking a dust-heap. However, because of objections and threats by owners of surrounding property this hospital was not opened for another two months and accommodated a total of just forty-six patients during the epidemic.[51]

The difficulties of establishing a temporary hospital exemplify some of the challenges of the local state within its own borders, especially its often tenuous ability to shape dense and complicated urban space in a hurry. A smallpox hospital was almost inevitably the source of furious opposition by neighbors. The City of London Union opened a temporary hospital in a building adjacent to the City Police Hospital but the Commissioner of City Police soon complained of smallpox attacking and killing two constables and convinced the Union to disband the hospital.[52] The Bethnal Green Guardians applied for the lease of a recently disused private insane asylum in Mare Street, Hackney (Pembroke House), but the freeholder refused to allow it to be used for a smallpox hospital.[53] At Newington, the Vestry resolved to place a temporary hospital on a piece of ground recently purchased for a dust and slop-shoot (also designated for a mortuary, stoneyard, and disinfecting apparatus), but quickly folded against local outrage.[54]

Upheavals surrounding small temporary hospitals not only demonstrate the contentious geography of parochial sentiment, but also bluntly underscore the lack of political maneuverability in tight quarters. Obtaining suitable hospital sites appeared "simply out of the question" in many central districts.[55] The Holborn Union and the Strand District Board of Works saw no need to even try to establish hospitals of their own.[56] By contrast, the Lewisham Board of Works experienced relatively little difficulty erecting a small "cottage hospital" for infectious diseases in that suburban district.[57]

At Hackney the Board of Works entered into an agreement with a charity to send local cases of smallpox to a house on Brooke Road in Upper Clapton, but then faced a hailstorm of outrage by nearby

inhabitants claiming they had been "sold [out] by their own medical officers and representatives." The Board spent the next several months trying to back out of the arrangement.[58] In the meantime, a group of Clapton residents complained to a magistrate that a young lady been "seized with the disease after seeing the patients, who had just risen from bed, walking about the grounds."[59] Believing that smallpox patients were being imported to Hackney from elsewhere, one vestryman fumed that the scheme afforded "another instance amongst many, of the utter arrogance with which the West-End habitually regards anything connected with the feelings and interest of the East." The hospital was nothing less than an "adroit device for providing for the removal of genteel infection from genteel localities and homes, utterly regardless of the danger and injury inflicted elsewhere."[60]

Local authorities also found themselves beleaguered by transporting smallpox victims. The MAB did not have authority to operate its own vehicles until 1879, and in the meantime, London's thirty-nine Vestries and forty parishes and Unions fielded a tremendous variety of "ambulances." The Westminster District Board hired a dispatcher to provide cabs for this purpose and stipulated that they be disinfected after each use.[61] This level of precaution was exceptional. Many other boards already maintained some sort of "fever cart," but usually any cheap and nearly unroadworthy vehicle would do, including broken-down private carriages and large general-purpose vans, or any variety of second-hand hackneys, wagons, flies, traps, and gigs. Patients in many cases were not even able to lie down in their ambulance. Parishes did not typically provide a nurse with the vehicle; patients either went completely unattended or sometimes brought friends and family along for the ride. There was a miscellany of local practices. One Union used paupers instead of horses to heave smallpox carts up the steep hill to Hampstead. Another parish allegedly brought patients in the same vehicle used to distribute bread and food to the poor. It was not uncommon for parish authorities to contract with an undertaker to provide a gloomy hearse-like vehicle for the purpose.[62] Residents in Hackney observed that the ambulance drivers were completely unsupervised and in the habit of stopping at the Lamb and Flag pub on the High Street, leaving their vehicles open, and allowing bystanders to converse with the patients and encourage them with pints.[63] Finally, practically all of these smallpox ambulances were completely unmarked, giving the terrifying impression to bystanders

that ordinary cabs-for-hire were being used to bring smallpox to the hospitals.[64]

Many observers took the troubles of the parochial hospitals in 1871 as simply more evidence of the miserable state of metropolitan government. Once the epidemic declined, the Hackney Vestry decided to break up and sell its temporary hospital. *The Lancet* vainly warned it was "imprudent, if not positively dangerous" to disperse "boards and windowpanes salivated with the infection of small-pox."[65] Hackney was not alone in this policy. Members of the Shoreditch Vestry were simply unable to pass up £25 offered for the now-defunct hut hospital. Satisfied that the structure had been drenched in carbolic acid pumped from a fire engine, they considered an offer by one of their own vestrymen to rent it for £1 per week as a "penny gaff."[66] According to a scathing editorial in *The Medical Times and Gazette*, few other actions better epitomized how "a truly vestrified spirit" had guided local officials during the smallpox emergency.[67]

Members of the St. Pancras Vestry, one of the most reliably rowdy strongholds of parochial rights, were at first satisfied to simply condemn the MAB for failing to provide for adequate numbers of sick paupers. As the magnitude of the smallpox crisis became clear, vestrymen reluctantly agreed to authorize a temporary smallpox hospital and appoint a committee to obtain a suitable site. Failing after a month to find a spot, a new committee was constituted but it too was repeatedly stymied. The Poor Law Board did not allow conversion of the workhouse casual wards. Feeling in the parish was that a piece of ground in the Old St. Pancras Churchyard adjoining the parish mortuary was an improper place for a hospital. Vestrymen themselves vetoed the purchase of land in Highgate as too expensive. Finally, five months after having first resolved to provide a temporary smallpox hospital, St. Pancras authorities opened a structure for thirty patients at the rear of the Vestry Hall and adjacent to the workhouse. After all this difficulty, only sixty-seven patients were accommodated (2.4 percent of known cases in the district).[68] In a related matter, the smallpox epidemic blocked a long-standing stalemate on St. Pancras Vestry over whether to purchase a disinfecting apparatus, but then the sanitary committee struggled to find a location for it. Church trustees eventually consented to house the disinfecting station in a corner of the churchyard near the mortuary.[69] One prominent St. Pancras vestryman objected to the entire matter, declaring it to be "like hoisting a black flag, to frighten people" and entrench the power of doctors.

Another wondered why their time was being wasted over "all humbug and nonsense about disinfecting and putting your clothes in a truck."[70] *The Lancet* meanwhile declared the St. Pancras fiasco a "monstrous burlesque" of important sanitary duties, which nonetheless epitomized the hopelessness of expecting satisfactory action from the Vestries.[71]

London parishes saw the problem of smallpox almost entirely through the prism of boundary maintenance and community membership. In this sense, the local hospital was not terribly different from the improvised pest-house of earlier times. Not a site for the production of knowledge, it was simply a space *within the parish* for temporary excision and assistance of the afflicted parishioner—who appeared as an object of misfortune but not of surveillance. Another incident at St. Pancras stands out in this regard. In July the Vestry Sanitary Committee was displeased to learn that its hospital had admitted a sick person from his residence on the Caledonian Road, which was actually located in the neighboring parish of Islington. The misplacement was a result of officers at the hospital and the consulting doctor not having a clear understanding of the district's boundaries. The committee went on to stress that "the hospital was for parishioners only" and resolved that a list of parish streets would be made out for officials and practitioners.[72] The parochial border, while utterly irrelevant in an epidemiological sense, was pivotal to questions of local self-government: to which community did the sick person belong; what body of ratepayers were responsible for its keep?

## Afield and Afloat: Sites of Exception

In a series of letters to *The Times* in early 1871, Surgeon-Major Thomas Atchison, a retired medical officer of the East India Company, declared London in a "state of panic" with regard to smallpox and complained that civil authorities were hardly able to organize a competent defense against the "merciless enemy."[73] Epitomizing the snappish, no-nonsense attitude of a military doctor, Atchison touted his success in dealing with cholera and smallpox in India and urged the creation of numerous small, temporary encampments around the periphery of the metropolis. Position camps alongside the Thames and its "current of pure air," or place patients actually on the river in thatched barges or unused steamers. Tailor structures to the station of patients: poor, middle-class, or opulent. In any case, burn the accommodations completely once the epidemic was over. At least a few commentators in the medical press

considered Atchison's proposal "preposterous."[74] Yet a pamphlet collecting his letters reached at least three editions. Atchison was just one of many military men expressing a certain wistfulness for summary powers of control, which would allow smallpox to be separated from the unruly city's obstreperous civil authorities and its disobliging public. Another retired army surgeon recalled that in India they had "more or less space at command" to place infected persons "under canvas," and he could not understand why London authorities did not do the same.[75] A retired naval inspector-general also touted the usefulness of hospital tents and disused men-of-war in epidemic emergencies. Smallpox in imperial London "must be treated as an enemy," he concluded, "and a quasi-martial law established against it."[76]

The political and spatial logic of the sanitary encampment diagrammed a domain of exceptional governance, intensive surveillance, and elaborate enforcement of boundaries. It aligned with police mechanisms of cordon sanitaire and quarantine. The military camp has a key place in Foucault's history of disciplinary mechanisms, where it appears as an important precursor institution in his tableaux of the Panopticon. Both camp and prison represent devices founded on the precise ordering of space and enclosure of the body. The encampment, however, offered certain advantages over fixed architecture. It was "the short-lived, artificial city, built and reshaped almost at will." Ground layout itself facilitated precise hierarchical supervision; not relying upon thick walls or heavy gates, it facilitated the dispersal of miasmas.[77] The Crimean War both sparked a new wave of interest in hygienic tent designs and formations as well as influenced the critique of brick-and-mortar military hospitals by Nightingale and her collaborators.[78] The rising reputation of military smartness extended to a writer in *The Lancet* who asserted that the army was capable of providing accommodation for 1000 smallpox patients "on the notice of a day." He went on to lament the sad spectacle of officials "crying out for sites" and contended that, if "for once red tape would not be allowed," the metropolis "should long ago have had a series of military field hospitals set up in the parks."[79] Nevertheless, crack encampments of civilian smallpox sufferers were not attempted on any scale in 1871—no doubt in large part because of their association with the illiberal command of space. Indeed, the MAB was forced to bow to vigorous objections from churchwardens and merchants in Lambeth after simply investigating the possibility of utilizing a corner of Battersea Park for an emergency hospital.[80]

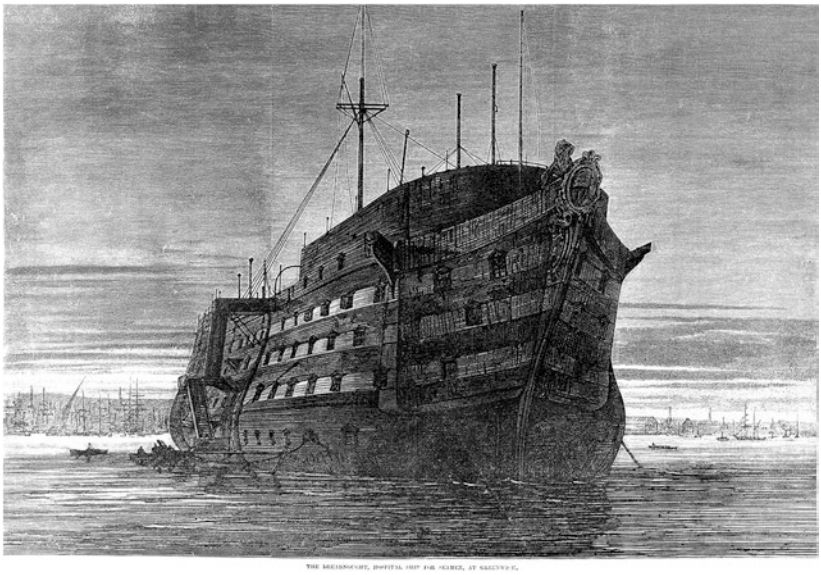


**Fig. 5.2** *Dreadnought*: aquatic liminality. *Illustrated London News*, 28 May 1870, 558. Courtesy of Wellcome Trust Library, London

The floating hospital was in some ways the more acceptable aquatic equivalent of the sanitary encampment. Desperate to secure additional beds, MAB managers accepted an offer from the Admiralty in February 1871 for the *Dreadnought*, a wooden former line-of-battle ship recently vacated by the Seaman's Hospital Society (Fig. 5.2).[81] This charity had operated the largest floating hospital in the world and treated sailors of all nations for over half a century. Its location off the Deptford creek opposite the Isle of Dogs was a well-known landmark on that portion of the river. The ship's fate was followed closely by the London press, which found the smallpox work an honorable but unpleasant final duty for "another of the fast vanishing lions of Old Father Thames."[82] Rapidly fitting up the ship's three hospital decks (the largest having sixty-three beds), the MAB was able to place aboard up to 300 convalescent smallpox patients at once.

John Burns declared the Thames "liquid history." It embodied London's incessant bustle, renewal, and industry. For his contemporary, Henry Jephson, the river was also an ignoble dumping ground, "a

great temptation to persons to get rid of things they want to get rid of, particularly when the things are nasty and otherwise not easily disposed of."[83] Governmentally, the Thames formed a ribbon of alternating and overlapping authority involving the Thames Conservators, the City of London port authority, the Metropolitan Board of Works, the Home Secretary, the Metropolitan Police, and the Royal Navy. Local Vestries ostensibly also oversaw the riverbanks, but the river itself was a thoroughfare of parochial, metropolitan, and imperial significance, as well as an emblem of London in the register of public opinion. This aqueous region of liminal political control was the site of several protracted quarrels over pollution and usage by water companies.[84] No doubt one appeal of requisitioning the *Dreadnought* for smallpox was that it bobbed upon imprecise political and legal territory—in the metropolis, but not of it governmentally. Hulks like the *Dreadnought*, on the other hand, represented unequivocal focal points of intense, enclosed institutional control. They had a historical association with maritime quarantine as well as with another carceral institution: convict barges. Disused ships had been utilized during cholera epidemics to treat ill seamen, underscoring the belief that diseased persons became most dangerous if "landed." Placing London's smallpox on the *Dreadnought*, according to one writer, was therefore "analogous to a condition of quarantine at sea" and resonated with the security of national borders.[85]

Proposals for a permanent fleet of hospital ships were periodically floated, so to say. The renowned architect and designer of the British Museum Reading Room, Sidney Smirke, wondered why a number of hulks might not be placed along the whole course of the metropolitan Thames so that practically all of London's infectious sick might be isolated on the water. He suggested purpose-built structures made of light wood, perhaps three stories high, that could sit on barges and be periodically destroyed by fire. The tide would act as a natural air pump, and the structures themselves would be cheap, with no roadways to be built, no foundations to be laid, and no ground rent.[86] This type of plan consistently ran up against the traditional liberal critique of quarantine and its objections to dark, politically unamenable spaces of confinement. Similar concerns about the confined atmospheres of ships had brought about the *Dreadnought*'s demise in the first place. Hospital reformers had for years condemned the ship's "large, low, ill-ventilated decks" and found its decommissioning "desirable on hygienic grounds alone."[87] Moreover, in the half century since the *Dreadnought* was initially established, the

Thames had become a catastrophic sanitary environment (the "silent highway" of Doctor Boswell now famously caricatured as a "silent highwayman" threatening travelers with death). The Port of London MOH, Harry Leach, argued that floating hospitals were more costly and difficult to administer, not to mention unattractive and uncomfortable for landlubbers. They suffered from limited cubic space, inequitable temperature, improper ventilation, insecure water supply, absence of quietude, and unreliable communication with the shore. Being "spongy," ships were also liable to retain disease. If the old *Dreadnought* could be squeezed dry "numberless products, and possibly so-called germs" of disease would be produced.[88] Thus, while some Vestries may have eyed the river as a solution to their smallpox difficulties, many other critics considered the recourse to hospital ships a discreditable indication of the overall state of metropolitan governance.[89]

## "Vast Aggregations of Misery"

By the end of the 1860s, disputes over whether infectious patients should be scattered amongst the wards of general hospitals or collected together at special hospitals had concluded in favor of the latter. Nevertheless, a great deal of suspicion lingered about the relatively high mortality rates of large urban hospitals compared to provincial institutions. Florence Nightingale remained adamant that hospitals of all sorts should be located away from city centers and also kept relatively small. Sir Douglas Galton, another leading light of hospital hygiene, declared the new principle of treating the sick and wounded was segregation, not aggregation.[90] The pavilion model championed by Nightingale and Galton aimed to construct hospitals as separate blocks containing their own separate atmospheres—in a sense creating a number of perfectly distinct hospitals instead of one continuous building. Large structures, so it was thought, inevitably became manufactories of miasmas and fevers. Sir James Young Simpson's radical axiom was "No more permanent hospitals." He recommended building nothing but cheap hut wards that could be destroyed and rebuilt every ten or fifteen years.[91] Apprehensions about large institutions applied especially to infectious disease and formed a common early criticism of the MAB. Its managers, according to one detractor, seemed to be "floundering in brick and mortar" and were evidently "far too anxious to immortalize themselves as the builders of huge hospitals," which would each constitute "huge focus

of disease." It would be preferable to provide small, movable structures when needed and thus "bring the hospital to the patient instead of the patient to the hospital."[92]

The increasingly irate conflicts over London's infectious disease hospitals occurred in a generally liberal political culture cautious toward centering and aggregating authority. Rhetorically, a number of possible analogies could be drawn to long-standing hygienic principles that condemned the spatial centering and aggregating of bodies. Hygienic and civic architecture were seen as commensurate and informing one another, especially in regard to the size and scale of residential institutions. Antipathy to institutional aggregation had long been an important mainstay in the spatial logic of local self-government and its antipathy to complicated and expensive governmental machinery. This had been a notable complaint against the New Poor Law's workhouse "bastilles" since the 1830s and was now applied to the new pauper hospitals. The Liberal MP for Finsbury, William McCullagh Torrens, wrote in 1875 that formerly "each locality had, time out of mind, remained charged with the care and cure of its own sick." But now the government had unwisely "decreed that three or four thousand people, having little in common except that of living within a space arbitrarily mapped out by the officials of Gwydyr House," should be swept into "three huge heaps at Stockwell, Homerton and Hampstead."[93] The MAB's "vast aggregations of misery" served to "maim, if not destroy, the ties of local sympathy and family obligation."[94] Placing "quick, near and cheap" refuges for the sick in each metropolitan district would be better than forcing patients into a "gaunt chamber of aggregate pollutions" where they must anxiously gulp the "fetid breath" of strangers. Torrens effortlessly drew a connection between the bodily dangers of concentration at these "sanitary Bastilles" and the social ills of political centralization. The MAB could understand nothing more than the "multiplication of monster edifices," he wrote, and would create nothing less than a "mania for more building, more crowding, more centralization of control, more patronage, and more compulsory expenditure out of rates."[95]

Parochial responsibilities toward the sick were also at the center of Dr. Benjamin Ward Richardson's thoughts on infectious disease hospitals. The celebrated author of *Hygeia* sat on the St. Marylebone Vestry and frequently proffered his advice to its MOH. His address on smallpox hospitals to the Royal Sanitary Institute in 1881 was reported upon widely in the London press and provoked enough public interest that

two additional meetings were convened to accommodate commentary and debate.[96] Richardson argued that all hospitals invariably grew "self-infected," and the bigger their size the bigger the threat they posed to patients and nearby residents. Given this reality, he concluded, "every parish should bear its own burthens." His specific suggestions were the typical kind of medical and moral engineering for which he was famous: small hospitals containing no more than twenty-four beds should be kept always ready. They should be constructed of iron frames so as to allow the absorbent materials to be purified by fire periodically. They might also be placed on the upper story of a tall building and arranged so as to force ward air through a furnace before being released to the exterior. Most importantly, smallness was the architecture of governmentality, as it allowed patients to be more effectively addressed as moral subjects. Richardson expressed considerable anxiety about persons in large impersonal wards compelled to "see things which it is not good for them to see." Not only was this "to the utmost degree depressing" to the patient, it also contributed to the hospital becoming feared and avoided (and therefore ineffectual in protecting health).[97] Good internal government of the hospital depended upon sympathetically managing the sensibilities of one's fellow parishioners. This in turn served to legitimize district boundaries and what Richardson called "parochial sentiment." Londoners "had no lack of sympathy with sufferers from infectious disease among our near neighbours," he explained, but "we are unsympathetic and seek to repel any communication with similar cases in adjoining districts." Any well-governed parish would naturally object to measures "which might lead to sick persons from another parish being imported into ours."[98] Richard presented the local infectious hospital as a vital instrument for territorializing the parish, policing the boundaries of inward-looking sympathy, and marking the several contiguous and guarded communities of self-government.

Richardson was unusually enthusiastic about local boards taking up the latest material tools of urban governance. Other parochialist critics were less certain; some denied that special hospital architecture was needed at all and suggested the infectious sick should not be moved from their homes. This was the opinion of one member of the Paddington Vestry, who stated that the new practice of jolting fever and smallpox victims around in a "cold *parish caravan*" was the "barbarism of the olden times revived." It removed the patient "from his own private rooms, family, fireside, and social comforts, let them be ever

so humble" and was thus both inhumane and impolitic. (He did, however, strongly endorse parochial baths and washhouses.)[99] Critics rarely went so far as to denounce all hospitals, but many still worried that the amalgamation of a single metropolitan hospital district meant a necessarily gigantic and intimidating architecture. Local residents feared that the MAB wanted to impose "monster asylums,"[100] and regularly attacked them as virtual "lazar-houses,"[101] "huge human slaughter-houses,"[102] or "monster pest-houses."[103] Torrens insinuated that one of these could convert an entire parish into one huge "pesthouse."[104]

The rhetorical connection in each case was that an overly large geographical consolidation of governance went hand in hand with a dangerous architectural accumulation. One letter to a Hampstead newspaper stated that a fever hospital drawing patients from a large area was "simply a large pest-house, reeking with infection in every part of it." It immediately went on to surmise that "the whole metropolis may, before long, be placed under one centralized administration."[105] In its long-standing antagonism to the MAB, the Hampstead Vestry repeatedly announced its willingness to bear the burden of the parish's own smallpox, as long as it was not forced by an outside board to stockpile anyone else's sick.[106] The issue became a key bellwether of local self-government in districts forced to host an MAB hospital. Critics charged that Parliament had never contemplated treating all of London as an agglomerated hospital area. "How could anything be more absurd than that?" demanded a public speaker at Fulham.[107] The metropolis was actually "ten cities wrapped in one," reasoned another. "It would be more reasonable for the whole of the small-pox cases in Scotland to be taken to Glasgow or Edinburgh, than the whole of [London's] small-pox patients should be taken to one district."[108] Wealthier London districts were especially nervous of a central administration affecting the geographical admixture of the London population. Edmund Tattersall, the famous West End horse dealer, complained that Fulham Hospital had been filled with "patients from a distance."[109] Others, such as the chairman of the Fulham Sanitary Committee, specifically objected to patients from the East End.[110] A member of the Kensington Vestry proclaimed that local boards should be responsible for their own sick and that he and his neighbors "did not want strangers imposed upon them."[111] In reality, the sentiment was not limited to leafy suburbs. At an almost riotous public meeting in Limehouse opposing the MAB, a local worthy denounced "middle-class bodies" that sought "the power to thrust [an unwanted hospital]

down the throats of people in the East End."[112] For the *East London Observer*, the prospect of a smallpox hospital in Limehouse was "another opportunity for the West to look down upon and revile the denizens of the East,"[113] while another angry demonstrator announced that "No emperor, no czar that ever lived, could have treated his subjects worse. … Never had anybody in this world been more tyrannous and despotic."[114]

Although general medical opinion was still divided on the dangers of gathering together infectious diseases, the Medical Department of the LGB was less equivocating. It strongly recommended that all populous districts maintain a sizeable amount of hospital provision in constant preparation, preferably in sturdy, substantial buildings. A number of health officials now also warned against "pitching the standard of building too low," as the public would be repelled by shabby-looking hospitals.[115] Indeed, hospital officials complained that the wood-walled and iron-roofed sheds at Hampstead were found to be "decaying" within five years of their construction.[116] The emerging view was that only a central hospital authority would be able to operate the necessary machinery for effectively squashing fever and smallpox outbreaks before they progressed into citywide emergencies. Moreover, it would be unwise and unsafe to leave this duty to each parish; in London that would mean at least 120 little hospitals with their own attendants, doctors, and expenses—an idea "too monstrous to be entertained for a moment," admitted the clerk of the Kensington Board of Guardians, not to mention completely impracticable given the inevitable public opposition to each hospital.[117] Large towns quite simply required large, substantial institutions to be located in places convenient for the entire population. It was with this in mind that the government decided to emphasize enlarging the capacity of the MAB and tacitly to approve its treatment of non-paupers. In 1875 the LGB instructed the managers to acquire two additional sites in Deptford and Fulham, allowing five large hospitals now to be "arranged with tolerable symmetry round the centre of London."[118]

## The "Hospital Bog"

Smallpox was again the source of administrative disarray when it returned in epidemic form in 1877 and 1881. The recrudescence of this feared disease in late 1876 found both the Vestries and the MAB

woefully underprepared. Construction of the new hospitals at Deptford and Fulham was sped up, but their 650 additional beds filled as soon as they opened. At the height of the pressure, the MAB was forced to turn away twenty-eight smallpox cases a day.[119] Desperate for any additional space, the managers agreed to receive a disused warehouse in Limehouse as a temporary convalescent hospital—an action that elicited panic and massive demonstrations in the vicinity.[120] The MAB's travails were magnified by the inaction of most Vestries. There were a few successes: the Whitechapel Board of Works placed a temporary hospital in the parochial stone-breaking yard.[121] The St. Pancras Vestry reused its small iron-framed building.[122] A much more ambitious plan came from Poplar, where the Boards of Works approved construction of a permanent seventy-two-bed infectious hospital for the district's non-paupers. Unfortunately, the hospital site in neighboring West Ham provoked strenuous public protests, which delayed its completion until after the epidemic had passed.[123] Similar troubles plagued other districts. The St. Marylebone Vestry ("probably the best-managed Vestry in the Metropolis," according to J. F. B. Firth) was blocked from using its stoneyard for local patients.[124] The Hampstead Vestry, having haughtily announced its intention to set a good example for other districts to provide for their own sick, was ultimately unable to secure a suitable site.[125] Only five London boards managed to provide some sort of emergency accommodation, prompting *The Lancet* to declare that a shoddier picture of "general administrative imbecility" could not be conceived.[126]

Parish officials themselves were increasingly split on the matter of taking up this arduous duty. The Lambeth and St. Marylebone Vestries took the unusual step of petitioning the government to allow the MAB to relieve them of responsibility for accommodating the non-pauper sick.[127] Ferociously set upon by defenders of local self-government, the Marylebone board eventually voted to withdraw the request. "If they got to shift their responsibilities in such a manner," one vestryman complained, "the time would come when it would be asked what good vestries were at all."[128] A member of the Chelsea Parochial Protection Society predicted that in defaulting hospital authority to a single London board "the door would be opened to the centralization system. Did they want England to become what France had been under the Empire—one huge system of bureaucracy?"[129] The Paddington MOH attempted to goad his board into taking more firm action by employing the same language of parish autonomy. He warned that failure to provide an

emergency hospital meant "abandoning their rights, forfeiting their own powers, centralizing them in the hands of others, and causing the question to be repeatedly asked, what is the use of Vestries?" Would "the town-moots of our Saxon forefathers, the oldest representatives of local self-government the *decus et tutamen* of every parish" facilitate their own extinction—"and that, too, by an act of *felo de se*?"[130]

Such arguments were nonetheless increasingly judged impractical, and the smallpox crisis imparted a new willingness to consider consolidating all infectious hospitals under one London board. The Kensington MOH, T. Orme Dudfield, persuaded his Vestry to firmly decline providing a smallpox hospital on the principle that the Asylum Board institutions should be available to all Londoners.[131] Most parish officials were reluctant to go this far, but they generally agreed with a resolution circulated by the Limehouse Vestry complaining of the "many almost insurmountable obstacles" to local hospitals.[132] Leading MAB managers such as Dr. William Cortis, however, were willing to go much further, arguing that London deserved a "real central sanitary authority" to oversee the provision of hospitals as well as other aspects of health governance such as cleansing and scavenging the streets, inspecting factories, disinfecting homes, and enforcing vaccination (duties at the time spread across literally dozens of parish, district, and metropolitan bodies).[133] Cortis recommended making the MAB "thoroughly representative of all classes of ratepayers in the metropolis," thus freeing it to "prepare in times of health against epidemics"—something it was prevented from doing whilst legally limited to providing for paupers only.[134] A number of Vestries endorsed the principle of this proposal, but the immediate legislative outcome was quite limited. The question of epidemic hospitals were by that time "closely associated with the broader question of municipal government of the metropolis" looming before Parliament, meaning that major change would be put off as long as possible.[135]

When smallpox erupted again in early 1881, public opposition to smallpox hospitals had become white-hot. A court injunction against receiving smallpox patients at the Hampstead Hospital went into effect in February 1880 and was confirmed by the House of Lords in March 1881. Emboldened by this victory, landowners in west London sought a similar injunction and that summer succeeded in restricting admissions at the Fulham Hospital to patients residing within one mile. Meanwhile, elected officials in Hackney called for comparable restrictions on the Homerton Hospital, and the Camberwell Vestry petitioned

for the Deptford Hospital to be confined to persons living south of the Thames.[136] The MAB chairman felt his board was practically "paralyzed" at law and stated that the managers felt increasing "anxiety to arrest the coming calamity."[137] His deputy complained futilely of "the foolish, he might say criminal, hostility of the public."[138] Meanwhile, three quarters of Vestries took no action whatsoever in regard to smallpox hospitals.[139] "Go where they might; opposition would arise," pleaded a Hackney vestryman.[140] *The Lancet* described the situation as a "hospital bog" in which both the Vestries and the MAB had become almost intractably mired.[141] A number of other commentators feared that not a single smallpox hospital would remain open in London before the end of the epidemic and contemplated "the horrors which would result."[142]

Expediencies were in order, even though they reeked of desperation and further trouble. The MAB managers accepted an offer from the Admiralty for the use of two hulks: the *Atlas*, a former 100-gun line-of-battle ship, and the *Endymion*, a 40-gun screw frigate. By July these were moored ninety yards offshore at Greenwich (close to where the *Dreadnought* had been situated). The floating hospitals provided 180 beds but also produced significant opposition from nearby pier operators and the Port Sanitary Authority, causing the managers difficulty establishing a separate wharf on the northern bank from which to launch patients.[143] Pressing grungy old ships into service as smallpox vessels was also widely criticized in the press as another "happy-go-lucky measure" typical of the disgraceful condition of London public health.[144] MAB managers came to realize that no site in London was assured, even in the center of the river, and as a result sought to escape the metropolis altogether. The Board chose to establish an emergency smallpox encampment in the grounds of its large imbecile asylum in the Kentish countryside near Darenth, 18 miles from the center of London. The government approved the scheme in April and within a month the camp contained 640 patients. That summer it received nearly daily convoys of specially modified omnibuses locked from the outside and guarded by special commissionaires. By the end of the epidemic that autumn, over 2400 patients had been treated in fields adjoining the emptied Darenth Asylum.[145]

A few Vestries followed the MAB in looking beyond London. The Burial Board of St. Pancras allowed for the temporary use of land near Finchley, eight miles north of central London.[146] In early May 1881 patients started arriving at a smallpox encampment consisting of tents for

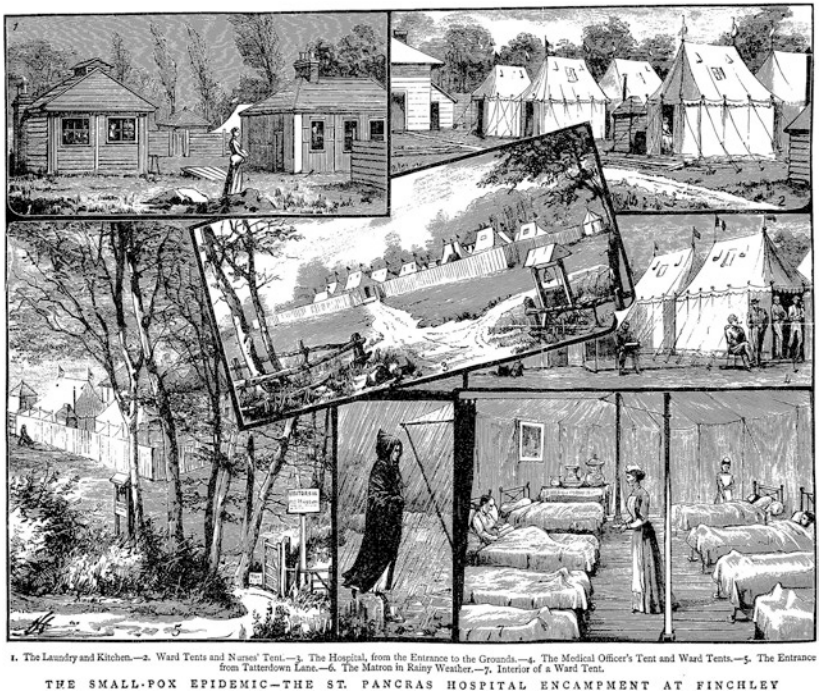



**Fig. 5.3** Outpost of the parish: St. Pancras Vestry smallpox encampment at Finchley, 1881. This etching is based upon a series of watercolors by Frank Collins (perhaps related to W. G. Collins, the camp's medical superintendent) housed at the Wellcome Library. *The Graphic*, 9 July 1881. Courtesy of Wellcome Trust Library, London

50 persons. At least 134 were treated here over the next four months (Fig. 5.3). The St. Pancras MOH, Shirley F. Murphy, considered it highly commendable that his Vestry did not rely upon the Asylums Board but had instead indicated its resolve to "protect its parishioners by every means in its power against an epidemic of a loathsome disease." Murphy was, however, also quick to stress the very difficult position of Vestries in these matters and looked forward to the day that all hospital responsibilities could be transferred to the MAB.[147]

The Islington Vestry's nearby smallpox camp was more brazenly parochialist in its intentions. Officials here were particularly outraged

when the government ordered a local workhouse to be surrendered to the MAB as an emergency smallpox hospital.[148] The Vestry instantly voted to fit-up hospital tents on 24 acres of spare ground adjoining the Islington district cemetery (over the hill from the St. Pancras smallpox camp). The chairman of the district sanitary committee believed the temporary camp exemplified parochial ingenuity; just as importantly, it served as a rebuke to the MAB's attempt to control all of London. He claimed that the hospital "had to some extent an aspect of picnicing about it," which encouraged patients to leave London. Furthermore, almost all Islingtoners knew a vestryman from whom they could receive assurances that they would be well cared-for, and so they went readily to the camp.[149] Operating from mid-June to the end of August, Islington's smallpox encampment was a large one, containing 17 tents with 123 beds. However, it only received a total of 62 patients. It also cost much more than anticipated (nearly £5000—over £80 per patient, compared to £3–4 at MAB hospitals) and fueled belief that parochial hospitals would always incur "inordinate expense."[150] The encampment was also impossible to sustain as a model of efficient preparation beyond the immediate epidemic crisis. The Islington MOH had hoped the camp's materials would be kept for a later time, but the parish possessed no place to store the tents and equipment.[151]

"Matters are looking bad when the Metropolis has to camp out its smallpox patients," quipped a writer in a provincial newspaper.[152] In reality, the London smallpox of 1881 was a "not very extraordinary epidemic" in absolute numbers.[153] It resulted in 2373 deaths (relatively low by smallpox standards), 1431 of these occurring in hospitals (the highest proportion yet). Nonetheless, it was evident that the tenuous and fragmented system of isolation had come close to completely breaking down and that disaster was averted only through desperate and improvised exertions. Smallpox had enacted a "cruel satire" on metropolitan government, in the words of the *British Medical Journal*, and the question of urban hospitals had become a matter of imperial importance.[154]

## A New Metropolitan Machinery

All parties applauded the seating in November 1881 of a Royal Commission on metropolitan fever and smallpox hospitals, even though practically nobody was entirely pleased by the recommendations it issued the following year. Chaired by Lord Blachford, the Commissioners

deliberately shifted discussion away from public and legal opinion and toward the testimony of medical and public health experts. Their most explosive and controversial conclusion was that MAB hospitals had indeed likely contributed to the spread of smallpox in their vicinities. Regardless, they also strongly emphasized that hospitals provided the only means of dealing with epidemics of contagious disease and affirmed that in any outbreak the "first imperative necessity" was to segregate every case as it arose.[155] The report contained an extensive list of recommendations aimed at resolving the untidy administration of hospitals and outlined an ambitious, metropolitan-wide apparatus for managing infectious disease. It envisioned a large, permanent infrastructure overseen by a system of governance having its own built-in forms of analysis and self-adjustment.

As far as administrative machinery was concerned, the Royal Commission decided that centralization was required. Responsibilities for hospitals, ambulances, and other duties relating to infectious disease should be delegated to a single public board, and the MAB was the logical choice to assume these duties. The Royal Commission gave minute attention to the structural needs and techniques of public governance and was at pains to show how they could be made broadly acceptable to liberal principles of economy, efficiency, and accountability. For example, it concluded that one authority acting over a large area would perform "under a stronger light" and prove more responsible to "intelligent public opinion," thus enabling it to be entrusted with greater powers. Furthermore, practical and restrained governance required detailed knowledge of the thing governed. Commissioners reasoned that a unified hospital authority would "bring a focus" to all the experiences previously scattered among a number of local boards "not always actuated by broad or accurate views." The parts of a large system would "work into each other" and help orchestrate "the careful observation, collection, and publication of facts systematically observed" over its large field of operations. Finally, this systematic knowledge of the city was linked to the knowledgeableness of the governing body's officials. A central board would connote greater dignity and attract a "higher class of administrators"—"the picked men of the metropolis, instead of the picked men of the parish."[156]

The Royal Commission report sketched out a large material infrastructure that could be brought to bear upon future epidemics. It recommended that the bulk of hospital accommodation for smallpox

be removed from the metropolis. At least three quarters of smallpox patients could be safely transported into the countryside, and a moderately severe outbreak dealt with by reserving 30–40 beds for acute cases at each of the MAB's town hospitals. Commissioners advised sectioning the metropolis into smallpox hospital districts and ensuring no hospital received patients from a portion of the metropolis not assigned to it. Reviewing the history of smallpox in London, the Commissioners determined that it would be necessary to always maintain at least 2100 smallpox beds and to be able to expand these to 2700 by special exertion.[157] As for the infectious fevers, the Royal Commission report found no evidence that they posed any danger to surrounding populations; it therefore advised significantly enlarging the urban hospitals as well as establishing convalescent hospitals outside London. The metropolis's average mortality from fevers exceeded smallpox by 12 to 5. Violent but occasional outbreaks of smallpox caused pressure upon hospitals to be "fitful," but the prevalence of fevers occurred with "comparative regularity" and greater predictability. Commissioners envisaged providing for at least 3000 fever cases at once (far more than the MAB had accommodated in any previous year); initial treatment would occur at the town hospitals and then patients would be transferred to the country for convalescence.[158] Regarding ambulances, the Royal Commission condemned the often "slovenly and ignorant modes of conveyance" that had been fielded by local authorities. Praising the high efficiency and safety of the ambulances used by the MAB in the previous year, the report went on to strongly recommend consolidating responsibility for sick transport with the same board controlling the hospitals.[159]

The Royal Commission made the case for a great deal of new construction and expenditure: more hospitals and beds, as well as bigger, more permanent structures and auxiliary services. Crucially, it also imagined a system of technical management that in some important respects could be self-regulating because of its largeness. This encompassed four general operational principles. The first principle was constancy of buildings and staff. The temporary nature of parish hospitals had not only produced confusion and delay once an outbreak began, but it also meant staff would be dismissed at the end of the epidemic (just as they had learned their work) and cause a "less perfect machinery" to be rebuilt for the next emergency. Large, continuously operated hospitals, on the other hand, would give rise to a "cadre" of experienced and competent officers.[160] A second, related principle was maintaining an anticipatory stance.

Being always ready for the sudden onset of an infectious outburst would assist in arresting the epidemic in its infancy, before it ballooned into a less manageable crisis. A satisfactory minimum standing capacity of beds involved a third principle—that of elasticity. The Commissioners advocated keeping a core amount of sturdy brick-built hospital accommodation but also ensuring that overall capacity could expand or contract rapidly through the use of wooden huts or tents.[161] There was commonly a great natural variation in year-to-year mortality from infectious diseases (e.g. 2422 smallpox deaths per million in London in 1871 compared to 13 in 1875). Moreover, administrators could expect that the rising portion of sickness isolated in hospitals would eventually reduce the average maximum of infections and the average yearly demand for hospitals.[162] A fourth principle applied to secure movement and graduated circulation. Under this scheme the hospitals would be more than simply sites of immobilization—they would serve as points in a series of multiple destinations to which disease was constantly and safely resituated. A central goal was preventing the concentration of infectious persons in one place for too long. All of these principles were undergirded by a capacity for calculation of needs and apportionment of resources—both of which were made identifiable from a central vantage point. The Royal Commission in effect stipulated that all the most important aspects of metropolitan governmentality in relation to epidemics were, on the one hand, the ability to ascertain the natural proportions and probabilities of the entire population and, on the other hand, the facility to predict the effects of specific interventions and the alacrity to modify them accordingly.

The Royal Commission report was essentially shelved by Parliament, but the MAB took it up as a blueprint for preparing for the inevitable return of smallpox. The managers purchased an additional 135 acres alongside the earlier smallpox encampment and drew up plans for a huge, 1000-bed brick-and-mortar smallpox hospital. The Royal Commission had remarked upon the Thames's "remarkable facilities for draining the city of disease."[163] In 1882 the hospital ships *Atlas* and *Endymion* were relocated 18 miles below London at a wide and lonely bend in the river called Long Reach (about three miles from the Darenth Asylum).[164] Two years later they were joined by the *Castalia*, a former Channel ferry on which were placed five two-story huts topped by huge exhaust cowl ventilators.[165] Positioned 150 yards into the river, this "family of Noah's Arks" could accommodate up to 400 smallpox

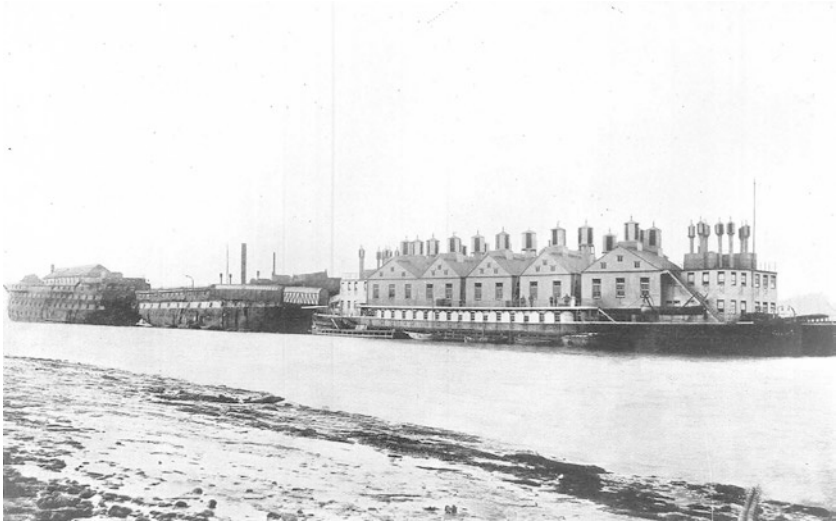


**Fig. 5.4** Signpost of London: floating smallpox hospital on the Lower Thames. Sir Allen Powell, *The Metropolitan Asylums Board and Its Work, 1867–1930* (London: The M.A.B., 1930). Courtesy of Wellcome Trust Library, London

patients. It was also described by health official as "simply hideous to look at" (Fig. 5.4).[166] Shuttled to the smallpox ships far from London, miserably ill patients could enjoy a "noiseless and imperceptible journey" on the MAB's specially constructed ambulance steamers: the *Red Cross*, *Maltese Cross*, and *Albert Victor*, which picked up patients from three permanent wharves located within London.[167] This flotilla of river ambulances had its counterpart in a greatly enlarged fleet of land ambulances stationed at the town hospitals. Use of the MAB's carriages rose sixfold between 1881 and 1883.[168]

The MAB also conformed to most of the Royal Commission's recommendations for revising and expanding fever accommodation. In 1883 it voted to erect another fever hospital in East London, but within six months rescinded that plan in favor of providing only new convalescent hospitals outside the metropolis.[169] The site chosen was at Winchmore Hill—nine miles north of central London, well outside the metropolitan district, with relatively few neighboring residents, and far cheaper per acre than any location in East London. Some managers complained that

the needs of the East End were being ignored, but others argued that the MAB should act as a true metropolitan body and not assign specific hospitals to London precincts. The inclination to consider all hospitals in the service of all London was represented in another important decision in 1883: renaming the urban hospitals according to the designations of the London postal code.[170] (The Hampstead Hospital became the North-Western Hospital, and so on: see Fig. 1.1.) This served to downplay a hospital's sometimes-unsavory association with a locality and more explicitly identified all hospitals as components in a metropolitan network.

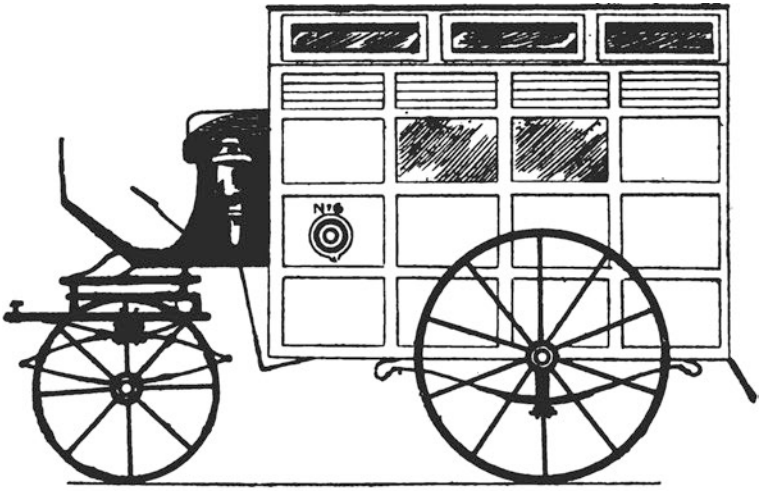
The MAB, in a spate of good luck, was able to settle many of its legal battles with local residents, but its ambiguous position as a public health authority continued to go unresolved mainly because of uncertainty in municipal reform.[171] The Disease Prevention (Metropolis) Act of 1883 failed to clear up entirely the murky legal waters in which the MAB itself operated. In the meantime, the government hesitated to lend assistance on a host of pressing questions, including whether the managers were entitled to treat non-paupers and if it should pursue compulsory powers of purchase. Gladstone's Liberal government preferred to put off the very substantial recommendations of the Royal Commission until after the broader contest over London government had been fully decided.[172] As a practical matter, this meant that resolving the MAB's legal standing was delayed indefinitely. The 1884 London Government Bill failed to move forward and municipal reform had to wait until 1888 for another hearing. In the meantime, the Asylums Board simply carried on building the infrastructure outlined by the Royal Commission. (The fact that the MAB was kept separate from the London County Council is testament to its established reputation for independence and competence.) Medical officers found it sufficient to assume that "for all practical intents and purposes" the MAB was now "a sanitary or quasi-sanitary authority, acting for the whole of the Metropolis."[173] Unquestionably though, the emerging London-wide apparatus for governing infections continued to be grounded in an exceedingly anomalous legal position.

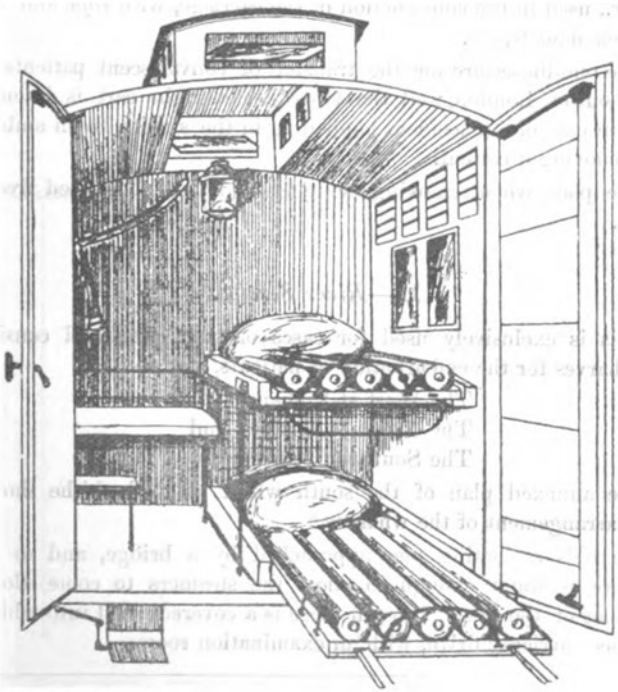
## "A Powerful and Highly Efficient Organisation"

The rise of the next smallpox epidemic in 1884 found London governing bodies (really, for the first time) ready to spring into action. The Vestries now made no attempts to establish new hospitals and left all

arrangements to the MAB.[174] The plan relied upon systematically evacuating smallpox cases from London. Patients were whisked from their homes by ambulances directly to the wharves, transported aboard special steamers to the downriver hospital ships, and later transferred to the nearby 1000-bed convalescence encampment. During the epidemic's height the river ambulances were carrying nearly 400 patients a week; by its end they had conveyed over 11,000 sick Londoners to the extra-metropolitan hospitals and back.[175] Although they continued to express much disappointment about the ineffectual system of vaccination, district medical officers greatly commended the much-improved system of hospitals. They were especially pleased with how the MAB managers had "quietly and systematically" made provision for all contingencies and thereby avoided the panic, confusion, and clamor that so often accompanied earlier emergencies.[176] Edward Seaton, Asylums Board nominee member and former Chelsea MOH, considered it close to an "ideally perfect system" for the effectual control of epidemic disease.[177] "It cannot fail to produce a feeling of satisfaction and confidence," another MAB manager told an audience at the International Health Exhibition held in London in 1884, "to know that we have at our call in time of epidemics a powerful and highly efficient organisation for rapidly removing patients to the hospitals."[178]

Within just a few years the MAB had organized and deployed the largest ambulance system in the world, the goal being to obtain "control of the patient from his door to the hospital."[179] It was a task for which the MAB won almost universal acclaim (although this could perhaps partly be due to recollections of the "gloomy-looking death-traps" operated by the parishes[180]). By all measures this presented a massive logistical undertaking. In 1884 and 1885 the land ambulances completed 32,195 separate transports over an area of 121 square miles containing more than half a million dwellings and a population of over 4 million persons.[181] Soon the vehicles were regularly logging over a quarter of a million miles per year, the details of each "run" dutifully recorded in huge logbooks down to the minute. The effort to document and monitor every stage of ambulances' movements no doubt imparted a sense of order and regulation to the metropolis's contagious circulation. Of key importance was the system's constant alertness and speed of action. Managers boasted that removing and isolating an infectious patient could now be counted in minutes instead of hours or days. It was one of the first public services in London to be facilitated by the telephone, which according to





◀ **Fig. 5.5** Vehicles of governance: The MAB's first fever and smallpox ambulances. *Transactions of the Seventh International Congress of Hygiene and Demography, v. 1* (London, 1892), 274. Courtesy of Wellcome Trust Library, London

one journalist gave the ambulance service "an alacrity which would do credit to the Fire Brigade."[182] Managers expected that an ambulance would able to start off from the station within three minutes of receiving an order. It was reportedly not uncommon for a patient to be "snugly in bed in the hospital within a few hours of application for removal." *The Morning Post* observed that London's infectious ambulance system of the past had been "brought to the pitch of perfection nowhere else attained."[183] In 1889 the MAB was authorized to transport infectious patients to destinations other than its hospitals, leading many to suggest the Board be given general responsibility to organize ambulances for accidents and all illnesses.[184]

These innovative pieces of urban political technology were quickly standardized. The MAB's land fleet featured "infectious carriages" of two general types: a large one capable of containing four convalescent patients and a small ambulance for taking one or two acute cases (Fig. 5.5). One of the latter—a patent "safety fever ambulance van"—was displayed at the International Health Exhibition in 1884. Its windows were fixed shut and air from the patient's compartment exited the vehicle through a double layer of material drenched in disinfectant.[185] Some ambulances sported special opaque glass that would allow patients to look out but prevent bystanders from seeing inside.[186] Indeed, officials experimented with a number of measures to police the minute elements of visibility. Ambulances disguised as ordinary carriages were preferred "as a rule, as it attract[ed] less attention" and allowed them to slip through streets unnoticed.[187] Throughout this early period one key goal was for these vehicles to maintain a low profile. Fever and smallpox ambulances had been frequent objects of fear and alarm, and the MAB took pains for them to avoid detection.[188] By most accounts, this was successful. Journalists occasionally took the opportunity to draw attention to this municipal service that few knew about, "its methods being of necessity as stealthy as those of the Fire Brigade are sensationally dramatic."[189] The ambulances likewise became associated with a high state of regimented operation and staff discipline. The MAB screened and trained its own drivers, employed experienced nurses to administer

treatment and maintain order, and restricted all but official personnel from riding along. Drivers were equipped with refreshments as well as tools for fixing minor breakdowns (and thus lessen the need to call upon help); they were also uniformed for identification by police and strictly prohibited from loitering in any place. Hospital nurses were specially trained for "runs" in the ambulance and seem to have commanded considerable authority once they arrived at homes and presented the certificate for removal.[190]

The new arrangement of London isolation hospitals coming into view in the 1880s represented a deliberate geographic strategy of removal and containment. It sought to organize new depots for epidemic disease, and, especially for smallpox, this meant an emphasis on the wholesale resituating of infections into extra-metropolitan spaces of confinement. The floating smallpox hospitals at Long Reach seemed far remote from London itself, but were still within its orbit of influence. In fact, the conjoined ships became a well-known site on the lower Thames. Ford Maddox Ford wrote of this "black smallpox hospital" and imagined it serving as an ominous harbinger of the metropolis to persons steaming toward London.[191] Clearly, the hospital ships provided a way to avoid the opposition and entanglements previously encountered within the metropolitan Thames, but in other ways they also signified an outpost of London's administrative domain.

The smallpox encampment at Darenth (three miles from the smallpox ships) was again brought into service in 1884 and was touted by officials as an efficient way to rejuvenate and remoralize the urban poor away from crowded, smoky London. The Medical Superintendent of the camp, Dr. William Gayton, described the "picturesque and beautifully wooded" surroundings as "well calculated to stimulate the recovering health" of patients. This system of treatment was therefore "not only desirable from a sanitary point of view, but economical as regards the public finances."[192] The vice-chairman of the MAB, Sir Edmund Hay Currie, agreed, declaring that "at Darenth [patients] got life." It was no effort at all to simply confine a man while he was dangerous to others, he explained, "it is another thing to take a man down to a healthy part of Kent and fill him with fresh air and then send him back to his work."[193] This impression was easier to hold in light of fears that smallpox convalescents, because of their restlessness and continued infectivity, posed special dangers and required additional measures of supervision and control. Officials also discerned the need to make this regulation as

light and unnoticeable as possible. Patients "taken promiscuously from, as a rule, the lower class of society, could not be placed under discipline without an occasional outburst of insubordination," Gayton admitted. Nonetheless he placed the importance of "gentle persuasion" alongside "firmness, determination, and action." Under Gayton's management no attempts were made to leave the grounds—a fact he attributed only partly to the vigilance of two-dozen retired military personnel employed night and day on picket duty. Its boundary thoroughly policed, Gayton chose to credit the security of the camp to the patients' genuine thankfulness and lack of desire to escape.[194] The question of internal order and control, in other words, was believed to be mainly a matter of managing patient contentedness.

Isla Stewart, a nurse employed at the Darenth camp in 1884, recollected the "delicious scents" of clover fields, the sound of songbirds, and "soft green country" concluded by "clear twilight." In fair weather, "life in camp was almost perfect. We forgot that small-pox had brought us together, and we *lived*."[195] Staff experiences, however, were likely quite different from those of patients. Indeed, a number of complaints by former patients appeared in the London press at the end of 1884.[196] Sir Edmund Currie responded by immediately ordering in a huge roaster so that patients could have roast as well as boiled beef and purchasing eight additional cows to provide more milk. He claimed the MAB received "literally bushels of letters" from ex-patients appreciative of their treatment.[197] Apart from maximizing fresh air, the experiment with camp isolation was supposed to dampen the feeling of detention and denial while also heighten a sense of impermanence.

MAB officials experimented with new architectural styles of containment that sought to combine the benefits of the encampment with the solidity of the large institution. The Northern Convalescent Fever Hospital, completed in 1886, prompted one commentator to observe that "nothing more unlike the ordinary idea of a hospital could well be conceived." It consisted of a series of separate "villas, picturesquely grouped at irregular intervals" along a carriage driveway sweeping the top of a plateau. Each of the "houses" was complete in itself and contained two large dormitories for about 16 patients, usually children. The same writer imagined the pleasure with which little sufferers would "escape from the grimy courts and streets of their homes" to the grass, trees, and flowers of Winchmore Hill. Here, their convalescence would "be at least as pleasant to them as it assuredly will be advantageous for

Londoners in general."[198] Ward windows were placed low enough to allow child patients to take in the "splendidly wooded and undulating" vista.[199] In its description, *The Standard* accidentally referred to the hospital as an "encampment," and suggested it might be "easier to envy than to pity" the patients during their happy period of recovery.[200] The Northern Hospital was designed to accommodate over 700 patients (by far the largest MAB hospital yet) but nonetheless it resembled the arrangement of multiple "cottage hospitals." It was intended to provide only gentle reminders of its object of confinement. Each "villa" stood in its own grounds. A light iron railing ensured that inhabitants of one house could not mix with another, and an inner fence created a "neutral ground" that buffered the substantial walls and oak palings surrounding the property.[201] The hospital therefore deployed multiple internal boundaries and points of regulation, but the mechanics of discipline were visibly offset by a grounds layout dispelling the appearance of a large institution.

Altogether this new permanent hospital machinery was enormously expensive, with many parish boards deeming it "unnecessary, extravagant, and profligate."[202] This criticism tended to arise mostly during periods between epidemics, but became more common under the recognition that the MAB's yearly expenditure had more than doubled within a decade.[203] (Dealing with the 1884–1885 smallpox outbreak cost at least a quarter of a million pounds.) Opposition was also rooted from within. A particularly vocal group of MAB managers representing the most parsimonious parishes questioned the need for expansion. One predicted an imminent "sanitary millennium" that would sweep away all fevers and smallpox and render the infectious hospitals expensive relics.[204] The delegate from Islington, George Samuel Elliott, made it his special interest to harass the Board for wasteful expenditure and to circulate resolutions demanding the MAB open no new hospitals.[205]

In 1885 Elliot's crusade drew attention to financial irregularities at the Eastern Fever Hospital that in his description amounted to "robbery of the most gross description."[206] An inquiry by the LGB confirmed the substance of these allegations and uncovered the embezzlement of thousands of pounds by members of the MAB hospital committee. Apart from the blatant fraud, it also came to light that the hospital's Medical Superintendent, Dr. Alexander Collie, exercised very lax oversight (he ordered cigars, oysters, and lobsters for sick staff and enormous amounts of poultry and fine wine for patients). The inquiry found Dr. Collie guilty of "a great indifference to economical considerations" and ordered

his suspension.[207] The scandal grabbed a great deal of press attention, although wildly conflicting conclusions were drawn. Some believed that large, rate-supported hospitals could never be well governed because their size, complexity, and bureaucracy shielded them from public scrutiny; "jobbery and extravagance" were always the result.[208] Others, however, thought the scandal best epitomized the "crude character of the Guardian and Vestryman of London," and showed why the MAB's "wretched compromise" between central and local powers must give way to a unified and single London government.[209]

Complaints about the MAB's expense grew louder when it announced plans in 1886 to rebuild the Darenth tent camp in permanent brick ward blocks and bring its total smallpox accommodation to nearly 1000. The project's cost of £116,000 was a difficult pill to swallow, especially given that there were only *three* smallpox patients under treatment at the time. The government withheld approval and suggested halving the number of beds and using temporary wooden huts.[210] The MAB's principal nominee managers pushed back with a strongly worded committee report contending that solidly built structures were cheaper and more effective in the long run.[211] *The Lancet* agreed that London needed "substantially constructed and fairly attractive buildings, which the sick have no fear of entering promptly and at all seasons."[212] Top authorities were also coming around to this view. Under a new government in 1887, the LGB declared that temporary hospitals "killed rather than cured" and ultimately proved more expensive.[213] It no longer permitted local authorities to borrow funds for the erection of temporary isolation structures. It allowed the MAB to move forward on what came to be called the Gore Farm Smallpox Hospital, which opened in 1890 and consisted of 12 two-story brick pavilions. With 800 beds at Gore Farm and 350 aboard the ships, the MAB now had permanent provision for 1150 smallpox cases—a considerable increase, but still rather short of the 2100 recommended by the Royal Commission.

Debates over whether to permanently maintain hospitals for large numbers of infectious patients flared again over the Northern Hospital. Completed in 1886 at a cost of £112,000, it sat empty and unfurnished for a year. For the previous four years, fever hospitalizations had never exceeded 800 at once, leading many to argue that the Royal Commission's target of 3000 fever beds was not justified. "Sticklers for economy" on the MAB proposed that the Northern Hospital instead be used as an imbecile asylum.[214] They even gathered enough votes to begin

shuttering the other fever hospitals, although this was shortly followed by a dramatic rise in admissions. Bickering amongst Asylum Board members was not "a pleasant topic for the friends of local self-government," noted *The Times*.[215] Mr. Elliott of Islington nearly threw a Board meeting into pandemonium when he doubted the existence of a scarlet fever epidemic and called another manager's proposal to finally open the Northern Hospital a "dirty and scandalous trick."[216] Amelia Charles, a Paddington Guardian and the first female elected delegate to the MAB, declared the epidemic "simply a scare," a "white elephant of the clique" looking for an excuse to saddle local governments with expensive permanent hospitals.[217] Finally, in mid-September, the MAB voted in a special meeting to open the Northern Hospital, although this occasion was marred as well by a "disorderly scene" caused by some managers condemning the previous obstruction as "ridiculous" and scoffing at "cheap economy."[218]

## Normalizing the Fevers

A pivotal turning point for hospital isolation in London can be dated quite specifically: October 1887. The MAB received an exceptional number of scarlet fever cases (1300) that month alone, with never fewer than 2000 patients under treatment, most of these children. The next month the number of fever patients reached a high of 2789—quadruple any earlier period. Scarlet fever now exceeded the accommodation formerly only made for smallpox, the disease which many assumed had been "the virtual cause and reason" of the MAB's existence.[219] Thus, a new era was inaugurated in the large-scale management of infectious fevers.

There was in reality no special scarlet fever epidemic in the fall of 1887—a fact quietly acknowledged by leading MAB managers. The sharp rise in admissions partly reflected the normal seasonal prevalence of scarlet fever in late summer. Yet the greater part of this increase, explained by the MAB Chairman, Sir Edwin Galsworthy, quite simply came from a greater inclination of sick persons to be sent in to hospitals. The Registrar General estimated *fewer* London scarlet fever cases in 1887 than in five of the previous 8 years. In his view, the publicity surrounding the flood of patients to the MAB fever hospitals probably had the effect of further reducing antipathy toward entering them.[220] As anticipated by the Royal Commission, the old terror of hospital separation had to a significant degree disappeared. And it did so, observed *The Times*, "to an extent which terrifie[d] some of the Asylums Board managers

themselves." The result was an opportunity for the "residuum of incompetent members" to be overtaken by "the more provident majority" who were not hesitant in employing hospitals on a very large scale to reshape the public health.[221] Voices of austerity at the MAB were not entirely silenced, but they were effectively marginalized.

Many officials immediately recognized a connection between this new "popularity" of fever hospitals and their goal of making metropolitan disease more knowable and governable. A key factor was the scale of provision—particularly for endemic infections like scarlet fever, which was far more prevalent than smallpox, more widely diffused, and hence still otherwise rather indistinct in its urban geography. According to the prominent public health commentator, Dr. William Squire, allowing fever patients to pour into the hospitals in large numbers had the effect of "proclaim[ing] where infection is most rife." (This was before compulsory notification of infectious disease was introduced in 1889.) Without the expansion of hospitals, he wrote, "we should have been in ignorance of this amount of scarlet fever surrounding us," but now the MAB could step forward as "a valuable storehouse of facts bearing on the history of our London epidemics."[222] It was at this time that the Asylums Board established a Statistical Committee to constantly gauge hospital needs and predict future demand. Many of its officials were convinced that throwing wide the isolation hospital doors would initially place greater strain upon capacity, but that this would then decline as isolation acted to preclude further infections. That plan, however, depended upon the hospitals capturing the statistical preponderance of London fevers, which in turn rested upon successfully encouraging the public's acceptance. Utilization rates did indeed soar. Between 1886 and 1890 the share of London scarlet fever deaths occurring in hospitals more than doubled, and over the next decade the percentage of scarlet fever patients entering hospitals climbed to three quarters of all notified cases (Table 5.1).

The general belief was that the public would no longer "grumble at the largest honest expenditure which secures them immunity from the spread of infection in widening circles."[223] This assumption largely bore out, but the question of sites continued to interrupt its implementation. Wanting another fever hospital for East London, the MAB moved to acquire a site in Tottenham, a district just outside the metropolitan area. Strenuous local opposition caused the government to withhold approval, and the MAB instead brought the brick-pavilion smallpox hospital at Gore Farm into use for convalescent fever patients. Owing to lack of vacancies,

**Table 5.1** Governing by numbers: scarlet fever in MAB hospitals

| | *MAB scarlet fever admissions* | *Proportion of London scarlet fever deaths occurring in hospitals* | *Scarlet fever notifications in London* | *Proportion of notified London scarlet fever cases treated in MAB hospitals* |
|---|---|---|---|---|
| 1882 | 1,850 | 9.4% | | |
| 1883 | 1,920 | 11.6% | | |
| 1884 | 1,845 | 16.3% | | |
| 1885 | 1,353 | 18.0% | | |
| 1886 | 1,780 | 21.8% | | |
| 1887 | 5,900 | 33.8% | | |
| 1888 | 4,408 | 41.2% | | |
| 1889 | 4,518 | 46.6% | | |
| 1890 | 6,537 | 58.2% | 15,330 | 42.8% |
| 1891 | 5,262 | | 11,398 | 46.8% |
| 1892 | 13,093 | | 27,095 | 48.8% |
| 1893 | 14,548 | | 36,901 | 39.7% |
| 1894 | 11,598 | | 18,440 | 63.9% |
| 1895 | 11,271 | | 19,757 | 58.2% |
| 1896 | 15,982 | | 25,647 | 62.7% |
| 1897 | 15,113 | | 22,848 | 67.0% |
| 1898 | 12,125 | | 16,894 | 73.2% |
| 1899 | 13,290 | | 18,089 | 74.3% |
| 1900 | 10,343 | | 13,800 | 75.2% |

*Transactions of the Seventh International Congress of Hygiene and Demography, v. I*, (1892), 308; MAB, *Report of the Statistical Committee for 1900*, 16; Ayers, *England's First State Hospitals*, 119.

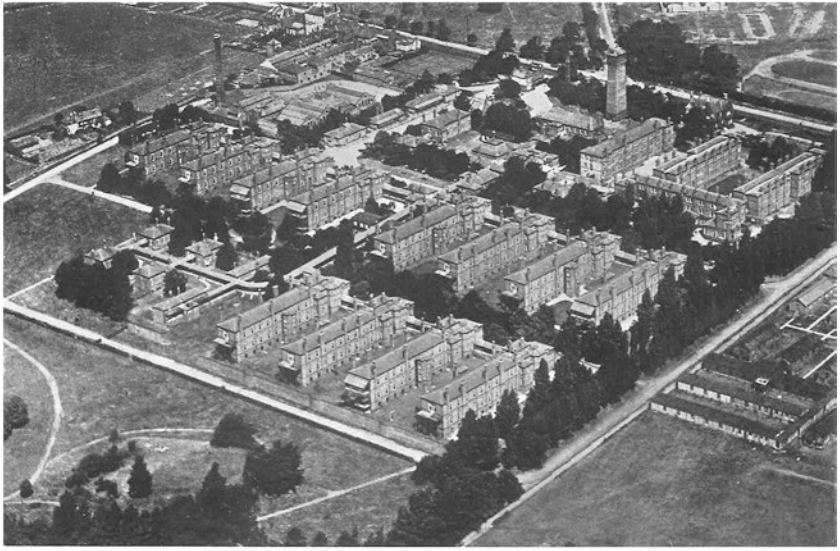
the MAB was compelled to turn away fever cases for the first time in the summer of 1892. The resulting public uproar compelled the government to permit the construction of a temporary hospital at the Tottenham site, subsequently named the North-Eastern Fever Hospital. Its 24 wooden pavilions for 548 patients were constructed in only seven weeks. However, the MAB suffered another severe shortfall in accommodations the following year. Had the beds been available, as many as 6000 scarlet fever cases could have been under treatment at once (nearly double the accommodation actually provided).[224] The MAB pressed for and received permission to permanently retain the North-Eastern Hospital. It also acquired land in the southwest of London at Tooting Graveney and gave an architect carte blanche to build a 400-bed hospital with utmost expedition. Work started one day after gaining possession of the land and patients began arriving at the new Fountain Hospital's iron and wood pavilions a mere ten weeks

later.[225] MAB managers expressed regret at the costliness of compressing the erection of temporary structures into a matter of weeks, roughly equivalent to the expense of a permanent hospital. They also regarded these unsightly and ramshackle hospitals as a humiliating object lesson in the failure to make suitable permanent accommodation in advance.[226]

The Asylums Board essentially vowed that it would never again permit patients to be turned away for lack of vacancies. With LGB backing, it now charged ahead with an ambitious scheme to bring fever accommodations to over twice what the Royal Commission had anticipated. Between 1892 and 1893 the MAB expended £757,000 on materials for temporary fever hospitals and land for permanent ones. In 1893 the managers acquired three new sites in distant parts of the metropolis for large permanent hospitals: at Shooter's Hill, opened as the Brook Hospital in August 1896; at Hither Green, opened as the Park Hospital in November 1897; and at Tooting, opened as the Grove Hospital (adjacent to the Fountain Hospital) in August 1899. In 1898 the North-Eastern Hospital was reconstructed as a permanent hospital. With an average cost of over £400 per bed, these substantial, self-contained, two-story red-brick estates garnered a reputation for being the most thoroughly planned and constructed hospitals of their type. The Park Hospital's sprawling complex of 42 buildings contained ten million bricks, six miles of drains, twenty-nine miles of water and steam pipes, three miles of roof gutters, 42 miles of electric wires, and 35,000 slates.[227] The MAB also acquired a 136-acre site in Carshalton with plans to construct an enormous 850-bed convalescent fever hospital on a meandering cottage-block layout (although it was not used for this purpose when finally opened in 1909).[228]

Vast, solidly built receptacles for fever patients now loomed almost equidistantly across metropolitan London, but mainly on its outer ring. They were best depicted from an aerial perspective (Fig. 5.6). Gone was the preference for small, temporary structures that could be managed by local officials. The architect of the Park Hospital maintained that the notion that hospitals became "infected" and must be periodically torn down had been "absolutely exploded" by recent experience.[229]

Suspicion of large, aggregating institutions had fallen away in comparison to twenty years earlier—a development that clearly parallels the decline of organized opposition to more centralized forms of London government. And so the spatial arrangement of this hospital network reflects some of the most important changes not only in the political geography of the metropolis but also in the practices of urban



The Brook (Fever) Hospital at Shooters Hill.

**Fig. 5.6** Best encompassed by a bird's-eye view: the Brook Fever Hospital. Sir Allen Powell, *The Metropolitan Asylums Board and Its Work, 1867–1930* (London: The M.A.B., 1930). Courtesy of Wellcome Trust Library, London

government. To be sure, hospital isolation had completely disappeared as a matter of local initiative and parochial independence. But in addition, the MAB's fever hospitals marked an infrastructure of common, technical governance that claimed the entire metropolitan population as its object and domain. The fever hospitals were to stand guard, constantly prepared for normal occurrences as well as any extraordinary influx of patients. The new strategy was to encourage by all practicable means nearly every case of fever and diphtheria to be removed from their homes at the first sign of infection. This effort to normalize hospital treatment in large, permanent facilities had the effect of creating the ability to ascertain the natural norms of disease prevalence and of allowing this very normality to be incorporated as an essential element of the strategy's own rationality.

Perhaps not surprisingly, this approach was only *confirmed* as health officials came to realize they had over-predicted the effects of fever isolation. It was still widely assumed at the beginning of the 1890s that securing accommodation for "all ordinary requirements" of the metropolis "should—unless the value of isolation be greatly exaggerated—be followed by a very appreciable reduction in the number of cases."[230] As it turned out, the prevalence of scarlet fever and diphtheria seemed to be little affected by any rates of hospitalization. Essentially, every bed provided for fevers had the effect of increasing the number of applicants by at least the same amount. By the end of the decade there seemed to be no end in sight to the amount of hospital accommodation that conceivably could be constructed. As a result, the metropolis's "ordinary requirements" of hospital accommodation were seen in a substantially different light.

The hope that scarlet fever might be "stamped out" in London receded and was replaced by a more modest goal, but one more in line with the limits that the liberal style of biopolitics set itself. In effect, hospitals initially developed to govern epidemics now came forward as a technology for governing *endemic* infectious disease. Especially in the case of scarlet fever it came to be seen that, by properly managing infection at the level of its endemicity, one could avoid the greater problems associated with its epidemicity. The strategy contained all the important elements of a classic security mechanism. Health governance is directed above all toward avoiding the counterproductive mood of crisis and emergency that accompanies epidemics. It is also satisfied to keep morbidity and mortality within certain averages and limits. Within this task, realizing population norms becomes a way of maintaining those norms, of keeping incidence within a certain range of tolerability at the level of the population. It was in this

light that *The Morning Post* declared the MAB "one of the most important of our public institutions." Although its hospitals and ambulances had not achieved complete mastery over every disease, they nonetheless rendered impossible "the reoccurrence of the Plague, the Black Death, and similar epidemics."[231] Such was enough to justify the hospitals' very large expense. The chairman of the MAB warned that the only true disaster would be for London, either from indifference or unwillingness to incur the expense of isolation hospitals, "to become a fever-stricken city."[232] The goal was not to conquer and eliminate fever so much as to simply prevent the population from being overly disturbed by it.

## The (Bio)Political Economy of Smallpox

A clever journalist labeled the flotilla of ambulance steamers stationed at the MAB's main Thames wharf at Rotherhithe the "Micawber Navy." Distinguished by their black and yellow funnels, at least one these boats had a crew aboard at all times and was constantly kept banked with fires, enabling it to steam out within half an hour if called upon to whisk a smallpox patient away from London. For most of each year the wharf was "dreadfully lonely" for lack of patients, but everything about it had "an air of expectancy." Like Dickens's Mr. Micawber, the ships were ever hopeful of something turning up.[233] Another account, this one of the smallpox hospital downstream, could not help but comment on the cavernously unpopulated space. "The situation of 900 empty beds with one patient," it reads, "is a thing to be experienced before it can quite be realised."[234] Unlike with scarlet fever, the MAB's vast preparation against smallpox was seldom brought into use. Row upon row of vacant beds in a constant state of preparation was in this case supposed to be a sign of the policy's success. In 1894 the MAB purchased a large amount of land opposite the permanently moored floating hospitals. An uptick of smallpox in 1901 prompted the managers to build two new establishments at this location, the Long Reach and Orchard Hospitals, providing 330 and 800 temporary beds, respectively. A massive permanent smallpox hospital of 940 beds called the Joyce Green Hospital was erected along the riverbank in 1903 and allowed the MAB to dispose of the old and decrepit smallpox ships that managers felt had outlived their usefulness. With smallpox gone for extended periods, it was decided that this huge hospital capacity outside London could be used productively for fever convalescents (with the understanding that these could be evacuated

upon short notice if smallpox showed up). Under the provisions of the Insurance Acts of 1911 and 1913, the MAB was contracted to provide accommodation for tuberculosis sufferers in the gigantic and usually empty smallpox hospitals.

It had long been assumed that the metropolis would never be rid of smallpox, but the more rigorous system of isolation in country hospitals after 1884 brought about something resembling its "stamping out." London registered at least 18,336 deaths from smallpox between 1871 and 1882, but only 469 from 1886 to 1897. There was a similar drop in morbidity. Over 12,000 smallpox patients were treated during the first year of the urban evacuation policy in 1884–1885, but this was followed by only 99 cases in 1886, 56 in 1887, 62 in 1888, and five in 1889. By this time, practically all smallpox cases were immediately sent to MAB hospitals. London experienced a rebound of smallpox a few years later, with 2376 cases put in isolation in 1893 and another 1117 in 1894. It then again practically disappeared; in 1898 there was only one smallpox death among a London population of 4.5 million.[235] The scheme of taking smallpox patients down river was hailed as "one of the greatest achievements ever undertaken" by public health work in London.[236] The venerable Kensington MOH, T. Orme Dudfield, remarked that at least from a statistical viewpoint, smallpox "ceased to be a terror" to London. It had "shown itself the most controllable of infectious diseases, and the least fatal."[237]

This changing statistical understanding and mapping of smallpox led health officials to reconsider the material requirement and limits of a hospital-based policy of "stamping out." The Asylums Board itself cautioned that the disease was "ever waiting a favorable opportunity to invade and re-establish itself in the metropolis."[238] The lesson of the smallpox uptick in 1893, according to one health commentator, was that "we are absolutely bound hand and foot and dare not remain unprepared for a small-pox epidemic, which is certain to occur sooner or later."[239] Indeed, smallpox surged back in a frightening manner in 1901–1902, causing nearly 10,000 hospitalizations. This outbreak claimed the lives of 1628 Londoners and cost £600,000 in the hurried erection of additional accommodation.[240]

The smallpox of 1901–1902 nonetheless brought renewed attention to how the disease's epidemiological profile had been essentially modified. It was deemed to have retained its periodic epidemicity, but within more regular and manageable parameters. Medical statisticians like Arthur Newsholme saw that the combined effects of vaccination

and isolation had succeeded in "wiping out to a very large extent the epidemic peaks of smallpox."[241] The upshot of these observations was to underscore how hospital preparations modified the experience of epidemics—making them more predictable as well as less deadly. But this vied with the recognition that epidemics were still also probably unavoidable, at least as long as vaccination failed to be truly universal. J. F. J. Sykes, the MOH for St. Pancras, explained the 1901 epidemic as the consequence of the proportion of susceptibles in London having finally outweighed the advantages obtained from the policy of removing sufferers from the metropolis.[242] According to his colleague F. J. Waldo, smallpox epidemics occurred as a result of the "gradual accumulation of persons unprotected by vaccination that is always going on in this and in all other communities. From time to time the introduction of a fresh case of small-pox lights up the conflagration, which continues as long as there is any fuel available in the shape of unprotected individuals." Thus the massive expense of maintaining hospitals had to be borne; smallpox was "always waiting at our gates ready to rush in at the first opportunity and fasten on that part of the community which is unprotected by vaccination."[243]

These considerable brick-and-mortar preparations for smallpox were nevertheless constantly attacked from some quarters as uneconomical. A hospital for 500 smallpox patients required a permanent staff of at least 325 persons: ambulance drivers, porters, wharf attendants, clerks, servants, nurses, and doctors, amounting to nearly £10,000 per annum, even when completely vacant of patients for long periods.[244] Some critics, fearing a broader "municipalization of the hospitals," complained that this amounted to "unnecessary taxation" and suggested that any sudden emergency might be dealt with on the old system of temporary camps.[245] Health officials and supporters of vaccination responded by agreeing that amounts spent isolating smallpox were far too high but that the true solution would be a strict and unavoidable system of compulsory vaccination and revaccination. All smallpox hospitals were "extravagances," declared *The Lancet*, but would remain absolutely *necessary extravagances* because of the neglect of vaccination.[246] As honorary secretary for the Imperial Vaccination League, the indefatigable Elizabeth Garrett Anderson time and again argued that great towns need neither suffer large and periodic epidemics of smallpox nor support large and permanent smallpox hospitals. She spoke of a choice between the costly *management* of smallpox and its relatively cheap *banishment*. But

the MAB's "needless expenditure" had to be maintained at any price as long as vaccination was optional.[247] Garrett Anderson took especial effort to criticize the 1898 Vaccination Act and its "conscientious objection" clause that opponents decried for manufacturing a susceptible population. The expense of the MAB was frequently raised as part of the campaign to repeal the 1898 Act and to introduce compulsory revaccination at school age, as in Germany (an idea that in reality had no chance of political success in Britain). A strongly worded editorial in the *Medical Press and Circular* struggled to find any logic in the contrast between the laxity of vaccination and the exactitude of isolation: "The existence side by side of the Asylums Board small-pox organisation and of the 'conscientious objector' is an anachronism, a ludicrous contradiction and a reproach."[248]

In all truthfulness, although many health officials may not have enjoyed the juxtaposition, the debate underscores that a connection between hospitals and vaccination had already become firmly established as key measures of health security. First, it is not a stretch to conclude that the large hospital machinery *made possible* a more lenient approach to vaccination enforcement. This was more than health officials and epidemiologists would prefer to admit, but there is little doubt that they embraced the corollary: that the preservation of "conscientious objection" necessitated the hospitals. Second, and perhaps more important than this policy trade-off, it meant that the whole concept of "stamping out" as a governmental strategy now had to be situated within epidemiological reality and founded upon the production of knowledge and the calculation of risks. Third, it followed that measures taken against smallpox had to be judged within an economical understanding of state interventions. Was this practice more or less effective, more or less intrusive than the other? The key questions were increasingly about how to combine positive health effects with positive effects for individual liberty. In the case of smallpox, would these interests be best served by putting people in hospitals, putting lancets into their arms, or carefully pitting these mechanisms against one another? In another sense, were hospitals primarily useful as a backstop to the incompleteness of vaccination, or were they a co-equal partner in a governmental strategy against smallpox? No matter the outcome, the debate itself advanced the view that the goal would not be the eradication or banishment of epidemic disease, but rather the constant management of its ever-diminishing but nonetheless continual inevitability.

## Conclusion

By the turn of the century the MAB system of hospitals and ambulances had become a prominent marker of London's changing medical and political geography. The development of this system exemplifies many of the era's most important debates over the sites, instruments, scales, objects, and rationales of metropolitan governance. Moreover, the provision of isolation hospitals linked rows over the *form* of London government to questions about the *machinery* used for governing the essentially biological dimensions of urban existence. The remarkable expansion of the Asylums Board no doubt serves as another example of how urban problems were rationalized and submitted to groups of experts and centralized bureaucracies. Yet we should be careful not to overlook the key clashes over the spaces, architectures, and geographies of the sick and to understand that these were the antagonisms through which an emerging system of security itself was legitimated and assembled.

The impressive hospital archipelago stretching across London combined urban places and peoples in unprecedented ways. It is important to note, though, that it sprung from and thrived upon the gap between metropolitan ungovernability and governability. This is in a sense the central paradox of nineteenth-century politics and describes an important aspect of liberal machineries of bio-security—that they acquiesce to being guided by (and indeed limited by) properties of natural regularity and residual indeterminacy. Isolation hospitals, as most saw them at the end of this period, were not geared *against* natural processes as much as they were arrayed to work *with* and *through* them. The operation of the hospitals was itself to help ascertain the natural propensities of the population and integrate this knowledge as a *gripping place* for administration.

## Notes

1. *The Standard*, 4 September 1885.
2. David Roberts, *Victorian Origins of the British Welfare State* (New Haven, CT: Yale University Press, 1960); Henry Parris, *Constitutional Bureaucracy* (London: George Allen and Unwin, 1969).
3. Lauren Goodlad, *Victorian Literature and the Victorian State: Character and Governance in a Liberal Society* (Baltimore: Johns Hopkins University Press, 2003).
4. Oliver MacDonough, "The Nineteenth-Century Revolution in Government: A Reappraisal," *Historical Journal* 1 (1958), 52–67;

Derek Fraser, *The Evolution of the British Welfare State, 2nd Ed.* (New York: Macmillan, 1984).

5. For a general theoretical introduction, see Thomas Lemke, "Beyond Foucault: From Biopolitics to the Government of Life," in *Governmentality: Current Issues and Future Challenges* (New York: Routledge, 2010), 165–84.
6. Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City*, (New York: Verso, 2003).
7. Thomas Osborne and Nikolas Rose, "Governing Cities: Notes on the Spatialisation of Virtue," *Environment and Planning D* 17 (1999), 740.
8. W. M. Torrens, "The Government of London," *Nineteenth Century* (November 1880), 766.
9. John Davis, "London Government 1850–1920: the Metropolitan Board of Works and the London County Council," *London Journal* 26/1 (2001), 47.
10. J. T. Dexter, *The Government of London* (London: Edward Stanford, 1875), 21
11. John Davis, *Reforming London* (Oxford: Clarendon Press, 1988), 5.
12. William A. Robson, *The Government and Misgovernment of London* (London: George Allen & Unwin, 1948), 55.
13. *The Echo*, 24 September 1874, quoted in Alex Windsheffel, *Popular Conservatism in Imperial London*, 1868–1906 (London: Royal Historical Society, 2007), 130.
14. *Journal of Social Science* 1 (November 1865–October 1866), 182.
15. Philip Harling, "The Centrality of Locality: The Local State, Local Democracy, and Local Consciousness in Late-Victorian and Edwardian Britain," *Journal of Victorian Culture* 9/2 (2004), 216–34. See also Christine Bellamy, *Administering Central-Local Relations, 1871–1919: The Local Government Board in Its Fiscal and Cultural Context* (Manchester: Manchester University Press, 1988); John Prest, *Liberty and Locality: Parliament, Permission Legislation, and Ratepayers' Democracies in the Nineteenth-Century* (New York: Oxford University Press, 1990).
16. Joshua Toulmin Smith, *The Parish: Its Obligations and Powers, Its Officers and their Duties* (London: S. Sweet, 1854), 150.
17. Joshua Toulmin Smith, *Local Self-Government Un-Mystified* (London: Edward Stanford, 1857), 70. On Smith, see Ben Weinstein, "'Local Self-Government Is True Socialism': Joshua Toumlin Smith, the State and Character Formation," *English Historical Review* 123, n. 504 (October 2008), 1193–1228.
18. John Davis, "London's Evolution: From Parochialism to Global Metropolis," in *London Government: 50 Years of Debate*, edited by Ben Kochan (London: L.S.E. 2008), 10.

19. Joshua Toulmin-Smith, *The Metropolis and Municipal Administration* (London: Saunders, 1852), 24. See also Francis Sheppard, *London 1808–1870; The Infernal Wen* (Berkeley: University of California Press, 1971), 264–67.
20. J. Toulmin Smith, *The Laws of England Relating to Public Health* (London, 1848); Christopher Hamlin, "Public Sphere to Public Health: The Transformation of 'Nuisance,'" in *Medicine, Health and the Public Sphere in Britain, 1600–2000*, edited by Steve Sturdy (New York: Routledge, 2002), 189–204.
21. Camden Local Studies and Archives Centre, *St Pancras Vestry: Directors of the Poor Minutes*, 10 January 1860; 17 January 1860; 24 January 1860; *Lancet*, 28 January 1860, 99.
22. *The Times*, 7 May 1863, 14; *The Lancet*, 16 May 1863, 561.
23. "Invasion of 1863: A Call for Volunteer Defence," *Once a Week* v. 8 (16 May 1863), 571.
24. David Owen, *The Government of Victorian London, 1855–1889: The Metropolitan Board of Works, the Vestries, and the City Corporation* (Cambridge, MA: Harvard University Press, 1982). A more positive view is found in Alan Clinton and Peter Murray, "Reassessing the Vestries: London Local Government, 1855–1900," in *Government and Institutions in the Post-1832 United Kingdom*, edited by Allan O'Day (New York: Edwin Mellen Press, 1995), 51–84.
25. Joseph F. B. Firth, *Municipal London; or London Government as it Is, and London under a Municipal Council* (London: Longmans, 1876), 610–11.
26. Firth, *Municipal London, 760–63.*
27. Firth, *Municipal London*, 600.
28. Firth, *Hansard's HC Debates* (3 July 1884), c.1985–86.
29. Hobhouse, *Some Reasons for a Single Government of London* (London: Municipal Reform League, 1884), 20, 2.
30. See also J. F. B. Firth, *A Practical Scheme of London Municipal Reform* (London: London Municipal Reform League, 1881).
31. *Hansard's HC Debates* (8 July 1884), c.552–57.
32. Ernest Hart, "The Condition of Our State Hospitals," *Fortnightly Review* 3 (1865), 221. See also Owen, *The Government of Victorian London*, 38, 311.
33. Rev. Brooke Lambert, *Pauperism: Seven Sermons* (London: Henry Sotheran & Co, 1871), 108. See also Gareth Stedman Jones, *Outcast London*, (New York: Verso, 1971) 248–249.
34. *Charities' Record*, 30 November 1867, 50.
35. *The Lancet*, 17 March 1866, 292.
36. *Hansard's HC Debates* (14 March 1867), c.1861.

37. *The Lancet*, 16 March 1867, 338.
38. *The Spectator*, 5 June 1886, 9.
39. Letter from Ernest Hart, *BMJ*, 16 February 1867, 176.
40. Gwendolyn Ayers, *England's First State Hospitals and the Metropolitan Asylums Board 1867–1930* (London: Wellcome Institute for the History of Medicine, 1971).
41. Firth, *Municipal London*, 497–500.
42. *BMJ*, 2 June 1866, 592.
43. Reprinted in *The Examiner*, 30 January 1869, 68–69.
44. Alexander Collie, *RCSFH*, 139.
45. Probably at least 50,000 non-fatal cases occurred in London but went mostly unknown to officials. *RCSFH*, xiv.
46. *The Lancet*, 30 September 1871, 484.
47. *The Times*, 9 January 1871, 5; *Hackney Guardian*, 11 February 1871, 3.
48. *BMM*, 30 September 1871, 2; *MTG*, 29 July 1871, 136.
49. *BMM*, 28 January 1871; *BMM*, 18 February 1871.
50. Letter from Barnard Holt, *The Times*, 16 January 1871, 10.
51. Westminster City Archives/E2768: District Letter Book, letters dated 3 February 1871 & 6 February 1871; Westminster City Archives/E2503: Westminster Board of Works, Street Cleansing and Sanitary Committee Minutes, 2 February 1871 & 14 February 1871; *The Standard*, 26 January 1871 & 16 February 1871.
52. *PMG*, 4 February 1871, 11.
53. *Hackney Guardian*, 28 January 1871.
54. *South London Press*, 18 February 1871, 5.
55. *The Standard*, 21 March 1871.
56. *The Times*, 23 January 1871, 12; *The Times* 6 March 1871, 6.
57. *Lewisham MOH for 1872–73*, 12.
58. The charity was headed by the prime minister's wife, Catherine Gladstone. *North Londoner*, 18 March 1871, 4; *Hackney Guardian*, 22 April 1871, 4; ibid., 6 May 1871, 4; ibid., 17 May 1871, 1.
59. *The Times*, 25 April 1871, 11; *North Londoner*, 29 April 1871, 4; *Hackney Guardian*, 10 May 1871, 1.
60. Letters from W. D. Prior, *Hackney Guardian*, 25 March 1871 & 4 March 1871.
61. Westminster City Archives/E2768: District Letter Book, letter dated 14 March 1871.
62. *Daily Telegraph*, 13 February 1871, 5; *BMJ*, 30 July 1881, 187.
63. *North Londoner*, 12 August 1871, 7.
64. Matthew L. Newsom Kerr, "'Perambulating fever nests of our London streets': Cabs, Omnibuses, Ambulances, and Other 'Pest-Vehicles' of the Victorian Metropolis," *Journal of British Studies* 49, no. 2 (April 2010), 283–310.

65. *The Lancet*, 21 October 1871, 588.
66. *The Times*, 7 November 1871, 8; *The Times*, 10 November 1871, 4.
67. *MTG*, 28 January 1871, 105
68. *CKTG*, 21 January 1871 & 4 February 1871; *North Londoner*, 3 March 1871, 18 March 1871 & 17 June 1871; *St. Pancras MOH for 1871*, 4.
69. *North Londoner*, 3 March 1871, 9–10; ibid., 18 March 1871, 8; ibid., 15 April 1871, 7; ibid., 29 April 1871, 9.
70. *CKTG*, 2 February 1871, 3; *Clerkenwell News*, 17 February 1871.
71. *The Lancet*, 4 November 1871, 645
72. *North Londoner*, 15 July 1871, 9.
73. T. Atchison, *Letters to the Times on Small-Pox Encampments, on Cholera, and on the Contagious Diseases Acts, third edition* (London: T. Richards, 1871), 10; *The Times*, 9 March 1871, 4.
74. *Edinburgh Medical Journal*, v. 17 (August 1871), 161.
75. Letter from C. B. Francis, *The Standard*, 5 May 1881, 5.
76. Letter from Henry Jones Domville, *The Standard*, 3 May 1881, 5.
77. Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage, 1995), 171–72. See also Stuart Elden, *Mapping the Present; Heidegger, Foucault and the Project of a Spatial History* (New York: Continuum, 2001), 139–41, 145–50.
78. See, for example, Captain E. T. St. L. McGwire, *The Advantages to be Derived from a New System of Camping* (London: Dalton and Lucy, 1866).
79. *The Lancet*, 25 February 1871, 284.
80. *South London Press*, 11 March 1871, 5.
81. *The Graphic*, 28 May 1870. *Dreadnought* was the name of a ship (chartered from the Admiralty) that since 1821 had served the Merchant Seamen's Hospital, a charitable collaboration with the government. In 1857 the decommissioned 120-gun *Caledonia* (a Napoleonic-era relic) replaced this ship and was renamed *Dreadnought*. The Seaman's Hospital found a permanent on-shore home when it moved into the former infirmary building of Greenwich Hospital in the spring of 1870. *Dreadnought* then reverted back to government property. In 1890 The Seamen's Hospital Society opened a branch called the Albert Docks Seamen's Hospital, at which was founded the London School of Tropical Medicine in 1899.
82. *The Shipwrecked Mariner* (January 1873), 36–37; *Illustrated London News*, 28 May 1870, 557; ibid., 30 November 1872, 505; ibid., 23 January 1875, 71.
83. Henry Jephson, *The Sanitary Evolution of London* (Brooklyn, NY: A. Wessels, 1907), 15.

84. Michelle Allen, *Cleansing the City: Sanitary Geographies in Victorian London* (Athens Ohio: Ohio University Press, 2008); Christopher Hamlin, *A Science of Impurity: Water Analysis in Nineteenth-Century Britain* (Berkeley: University of California Press, 1990).
85. Letter from "C. E.," *The Times*, 28 March 1881, 11.
86. Letter from Sydney Smirke, *The Times*, 26 December 1874, 6.
87. *MTG*, 12 February 1870, 181.
88. *The Times*, 28 December 1874, 8.
89. *The Lancet*, 25 February 1871, 278.
90. Douglas Galton, *An Address on the Construction of Hospitals* (London: MacMillan, 1869).
91. Frederic J. Mouat and H. Saxon Snell, *Hospital Construction and Management* (London: J. & A. Churchill, 1883), 72. See also Guenter Risse, *Mending Bodies, Saving Souls* (New York: Oxford University Press, 1999) 366–68.
92. *The Lancet*, 28 January 1871, 122.
93. W. Torrens McCullagh Torrens, "Rich Hospitals & Poor Homes," *Gentleman's Magazine* (September 1875), 296–301.
94. William Torrens McCullagh Torrens, *Twenty Years in Parliament* (London: Richard Bentley & Sons, 1893), 59.
95. Torrens, "Rich Hospitals & Poor Homes."
96. B. W. Richardson, "Suggestions for the Management of Small-Pox and Other Infectious Diseases in the Metropolis and Large Towns," *JRSI* 3 (1881–82), 49–65. See also *The Times*, 15 April 1881, 4; ibid., 23 May 1881, 13; *The Builder*, 16 April 1881, 493; *Westminster and Chelsea News* (*WCN*), 16 April 1881, 5.
97. *Morning Post*, 25 April 1881, 4.
98. *The Practitioner* 26 (1881), 392–95.
99. Richard Metcalfe, *Sanitas Sanitatum et Omnia Sanitas, v. I* (London: Co-operative Printing Co., 1877), 225.
100. Letter from Jabez Hogg, *Morning Post*, 24 March 1881, 6.
101. *HHE*, 12 December 1874, 6.
102. *HKG*, 6 May 1881, 3; *BMM*, 23 December 1876, 3.
103. *HHE*, 19 June 1875, 2.
104. Torrens quoted in *The Times*, 16 June 1875, 9.
105. Letter from "W.G.," *HHE*, 28 November 1874.
106. Newsom Kerr, "Sites of Complaint and Complaining."
107. *WCN*, 19 February 1881, 8.
108. Comments of Mr. Simpson, *West London Observer* (*WLO*), 5 March 1881, 4.
109. *The Country Gentleman*, 5 March 1881, 250.
110. *WLO*, 12 March 1881, 3.

111. J. P. Bridgewater, *WCN*, 19 February 1881, 8; *WLO*, 19 February 1881, 4.
112. *East London Observer* (*ELO*), 27 January 1877, 6; *Eastern Post*, 27 January 1877, 2.
113. *ELO*, 24 February 1877, 5.
114. *ELO*, 3 February 1877, 3.
115. Edward T. Wilson, "Isolation as a Means of Arresting Epidemic Disease," *Practitioner* (February 1879), 144.
116. *SCHFSH*, 10–11.
117. J. H. Rutherglen, "The Difficulties Legal and Other, at Present Existing to the Isolation of Cases of Small-pox and Fever," *Reports of the Poor Law Conferences, 1881* (London, 1882), 452.
118. *House of Commons, Report of Dr Bridges on Small Pox in the Hospitals of the Metropolitan Asylums Board, from 1876 to 1878* (24 February 1880), 4–5.
119. *The Lancet*, 13 January 1877, 55.
120. See Matthew L. Newsom Kerr, "Sites of Complaint and Complaining: Fever and Smallpox Hospitals in Late-Victorian London," in *Complaints, Controversies and Grievances in Medicine: Historical and Social Science Perspectives*, ed. by Jonathan Reinarz and Rebecca Wynter (New York: Routledge, 2014), 205–22.
121. *Eastern Post*, 27 January 1877.
122. *St. Pancras Guardian and Camden and Kentish Town Reporter* (*SPGCKTR*), 10 February 1877, 2.
123. *ELO*, 18 August 1877, 5; W. H. Farnfield, *RCFSH*, 156–58.
124. *BMM*, 3 February 1877, 2; Firth, *Municipal London*, 323–24.
125. *HHE*, 20 January 1877, 3.
126. *MAB Minutes, v. 10* (24 February 1877), 824–25; *The Lancet*, 13 January 1877, 68, 55.
127. *Sanitary Record*, 20 January 1877, 42.
128. *BMM*, 20 January 1877, 3.
129. *CNWLP*, 10 February 1877, 3.
130. *The Times*, 19 January 1877, 5; *BMM*, 27 January 1877, 3.
131. *Kensington MOH for 1876*, 12–17; *CNWLP*, 10 February 1877, 2.
132. *MAB Minutes, v. 11* (9 March 1878), 840–41.
133. Letter from William S. Cortis, *The Lancet*, 6 January 1877, 31–32.
134. *The Lancet*, 13 January 1877, 70.
135. *The Lancet*, 27 January 1877, 135.
136. *Hackney and Kingsland Gazette* (*HKG*), 30 September 1881, 4; *BMJ*, 5 February 1881, 204.
137. Letter from William Brewer, *The Times*, 5 January 1881, 11.
138. Sir E. H. Currie, *The Times*, 13 June 1881, 7.
139. *Return Showing the Number of Hospitals, whether Temporary or Permanent, Provided for Small-Pox Patients, Under Sect. 37 of the*

*Sanitary Act, 1866 by the Vestries and District Boards of the Metropolis* (House of Commons, 19 July 1881).

140. *HKG*, 29 April 1881, 3.
141. *The Lancet*, 19 March 1881, 467.
142. Rutherglen, "The Difficulties Legal and Other," 440.
143. *Morning Post*, 13 June 1881, 7; Admiral Sir F. Nicholson, *RCFSH*, 136.
144. *The Lancet*, 4 June 1881, 919–20. See also *Truth*, 20 October 1881, 508.
145. *MAB Minutes v. 15* (October 29, 1881), 623–31.
146. *CKTHHSPG*, 5 March 1881 & 30 April 1881. This was a portion of London's first municipal cemetery, dating from 1852.
147. *St. Pancras MOH for 1881*, 14–18; *St. Pancras MOH for 1882*, 14. See also G. W. Collins, "The Use of Tents in the Treatment of Small-Pox," *TESL* n.s. vol. 2 (1882–83), 159–64.
148. The Holloway Road workhouse belonged to the City of London Union, which ultimately refused to relinquish it. *MAB Minutes v. 15* (28 May 1881), 228–32; (11 June 1881), 304–06; (25 June 1881), 344; *CKTHHSPG*, 11 June 1881, 3.
149. John Lamb, *RCFSH*, 177. See also *The Times*, 18 June 1881, 9 & 23 June 1881, 4.
150. *Kensington MOH for 1881*, 30.
151. Charles Tidy, *Islington MOH for 1881*, 11.
152. *Northern Echo*, 20 May 1881.
153. *Kensington MOH for 1883*, 32.
154. *BMJ*, 28 May 1881, 855; *BMJ*, 26 March 1881, 475.
155. *RCSFH*, vi, ix.
156. *RCSFH*, xii–xiii.
157. *RCSFH*, xv, xxxii.
158. *RCSFH*, xxix–xxx.
159. *RCSFH*, xx–xxi.
160. *RCSFH*, xxxii–xxxiii.
161. *RCSFH*, xiv–xv, xxxii.
162. *RCSFH*, xiii–xiv
163. *RCFSH*, xxvii.
164. *MAB Minutes v. 16* (September 30, 1882), 529–30; V. B. Barrington-Kennett, "System of Detatched Floating Barracks for the Formation of a Small-Pox Hospital," *TESL* 4 (1875–76 to 1880–81), 654–60; Admiral Sir F. Nicholson, *RCSFH*, 136.
165. A 285 by 60 foot iron twin-ship specially designed for conveying passengers between Dover and Calais, the *Castalia* failed to reduce seasickness as planned. The MAB created a large platform on its deck and erected five two-story wards, bringing this ship's total beds to 154.

166. Henry Armstrong, *Transactions of the Seventh International Congress of Hygiene and Demography, v. I* (London, 1892), 316.
167. *The Standard*, 27 September 1887, 5. Wharves were placed at Blackwall, Rotherhithe, and Fulham.
168. Fever cases transported by MAB ambulances were 356 in 1881, 1472 in 1882, and 2196 in 1883. LMA/MAB/164, *Annual Report of the Ambulance Committee for the Year 1890*, 7.
169. *MAB Minutes, v. 17* (21 July 1883), 461–73; ibid., (19 January 1884), 983–88.
170. *MAB Minutes v. 16* (6 January 1883), 798.
171. The Fulham plaintiffs were satisfied with smallpox patients limited to no more than 40 and £6,000 paid by the MAB. LMA/MAB/704, General Purposes Committee Minutes, 19 February 1884.
172. *Hansard's HC Debates* (1 July 1884), c.1816–17.
173. *Kensington MOH for 1883*, 37. In 1884 all but four Vestries agreed that MAB should be made the sole London authority for infectious disease. *BMJ*, 8 November 1884, 920–21.
174. The MAB temporarily took over Poplar's hospital in Plaistow. *MAB Minutes v. 18* (30 May 1884), 329–30.
175. Deputy Surgeon-General Bostock and Sir Vincent K. Barrington, "The Hospital and Ambulance Organisation of the Metropolitan Asylums Board for the Removal and Isolation of cases of Infectious Disease," in *Transactions of the Seventh International Congress of Hygiene and Demography, v. I* (London: Eyre and Spottiswoode, 1892), 294–96.
176. *Kensington MOH for 1883*, 36.
177. Edward Seaton, "Metropolitan Defences Against Infectious Diseases," *The Sanitarian* (September 1887), 209–11.
178. V. B. Barrington-Kennett, "The Ambulance Organisation of the Metropolis During Epidemics," in *The Health Exhibition Literature, v. VIII* (London, 1884), 333–44.
179. Sir Edmund Hay Currie, *RCFSH*, 26.
180. *The Hospital*, 18 January 1902, 276.
181. LMA/MAB/1637, *First Annual Report of the Ambulance Committee, 1884–85*, 6.
182. *The Standard*, 27 September 1887, 5.
183. *Morning Post*, 23 October 1897, 6.
184. London County Council, *Conference on the Administration of the Public Health (London) Act, 1891* (London, 1904), 60.
185. *The Lancet*, 23 August 1884, 330.
186. Parsons, *Isolation Hospitals*, 153.
187. *The Metropolitan Asylums Board and Its Work* (London: Office of the Board, 1900), 18.

188. Newsom Kerr, "Perambulating Fever Nests."
189. *London Argus* 13 September 1901, 1.
190. *The Hospital*, 3 September 1904, 314.
191. Ford Maddox Ford, *The Soul of London: A Survey of a Modern City* (London: J. M. Dent, 1995 [1905]), 46.
192. *MAB Minutes v. 15* (29 October 1881), 624; *RCFSH*, 325–28.
193. Currie, *RCFSH*, 23, 306.
194. *MAB Minutes v. 15* (29 October 1881), 630–31.
195. Ilsa Stewart, "Reminiscences of a Small-Pox Epidemic," *Nursing Record*, 19 April 1888, 30–31.
196. *PMG*, 18 December 1884; *SPGCKTR*, 20 December 1884, 6; *Lloyd's Weekly Newspaper*, 1 February 1885.
197. *Daily News*, 19 January 1885; *The Standard*, 10 January 1885, 5.
198. W. M. Acworth, "Scarlet Fever in the Metropolis," *Murray's Magazine* (October 1887), 435–36.
199. *The Times*, 22 September 1887, 7.
200. *The Standard*, 27 September 1887, 5.
201. *The Times*, 22 September 1887, 7.
202. *MTG*, 19 November 1881, 604.
203. *Daily News*, 16 October 1883.
204. *The Lancet*, 12 January 1884, 72
205. *The Standard*, 23 January 1883, 3; *Morning Post*, 21 January 1884, 3.
206. *BMJ*, 24 January 1885, 191.
207. *MAB Minutes, v. 19* (7 December 1885), 943–45.
208. Burdett, *SRSCHLMH*, 715–17.
209. *The Spectator*, 31 October 1885, 8 & 1 August 1885, 8.
210. *The Times*, 23 November 1886, 10.
211. *MAB Minutes, v. 20* (20 November 1886), 843–46.
212. *The Lancet*, 24 March 1888, 597.
213. *The Standard*, 27 September 1887, 2.
214. *MP*, 2 February 1887, 99–100.
215. *The Times*, 4 September 1888, 7.
216. *The Standard*, 29 August 1887, 3 & 1 September 1887, 3.
217. *The Standard*, 29 September 1887, 3; *Daily News*, 27 September 1887.
218. *The Standard*, 19 September 1887, 2.
219. *The Times*, 4 September 1888, 7.
220. Bostock and Barrington, "Hospital and Ambulance Organisation," 307.
221. *The Times*, 11 October 1887, 9. See also *The Times*, 6 December 1887, 9.
222. William Squire, "On the Preventive Influence of our Increased Means of Isolation in Infective Fevers," in *Collected Essays in Preventive Medicine* (London: Churchill, 1887), 22.

223. *The Times*, 4 September 1888, 7.
224. *Kensington MOH for 1893*, 90.
225. *Morning Post*, 23 October 1893, 3.
226. *Kensington MOH for 1893*, 128–29.
227. *Nursing Times*, 25 April 1908, 321.
228. It became a general children's hospital, named the Queen Mary Hospital.
229. Edwin T. Hall, "Fever Hospital Construction," *JRSI* 18 (1897–98), 512.
230. *MAB Report for 1893*, quoted in *Kensington MOH for 1893*, 94, 108.
231. *Morning Post*, 23 October 1897, 6.
232. Quoted in *Architecture and Building*, 28 March 1896, 155.
233. "London's Micawber Navy," *Evening News*, 10 August 1926.
234. A. E. Windsor, "Notes on London Fever Hospitals," *Nursing Times*, 9 May 1908, 359.
235. Ayers, *England's First State Hospitals*, 284.
236. Richard Thorne Thorne, *JSI* 17 (1896–97), 53.
237. Dudfield, "Address," *JRSI* 20 (1899), 422.
238. *MAB Minutes, v. 25* (5 March 1892), 877.
239. Brigade-Surgeon Lieut.-Col. R. Pringle, *Journal of the Sanitary Institute* (*JSI*) 17 (1896–97), 51.
240. Sir Allan Powell, *The Metropolitan Asylums Board and Its Work, 1867–1930* (London: Metropolitan Asylums Board, 1930), 35.
241. Arthur Newsholme, "The Epidemiology of Small-Pox in the Nineteenth Century," *BMJ*, 5 July 1902, 18.
242. *The Lancet*, 31 January 1903, 317.
243. F. J. Waldo, "Some Notes on the Small-Pox Epidemic of 1901–1902, in London," *Medical Brief* (September 1903), 1313–18.
244. *MP*, 20 November 1901, 550.
245. Letter from John Craggs, *The Times*, 9 January 1904, 7.
246. *The Lancet*, 16 September 1905, 838–39.
247. Letters from E. Garrett Anderson, *The Times*, 15 September 1903, 13; *The Times*, 26 January 1904, 8. See also *BMJ*, 26 July 1902, 297.
248. *MP*, 20 November 1901, 550.

CHAPTER 6

# Drawing Circles Around Smallpox Hospitals: Cartography, Calculation, and Surveillance

An extraordinary map plots known occurrences of smallpox near the vicinity of the MAB's Fulham Hospital in early 1881 (Map 6.1). It was created by William Henry Power, who had been tasked by the Local Government Board to wade into a bitter public debate over the danger of such hospitals to neighboring communities. This map places the smallpox hospital at the center of multiple "concentric circles of diseasedness" and advances Power's disturbing conclusion that local incidence of smallpox had been regulated by proximity to the smallpox hospital. Even more startling was his suggestion that the disease somehow had been emitted from the hospital and conveyed aerially to the local population.[1] His study of "hospital influences" in smallpox epidemics made Power's career in public health, led to an appointment as the nation's chief medical officer, and contributed to him being hailed the "prince of epidemiologists."[2] Although little remembered today, Power's dot-and-circle maps (considered indispensable parts of his "classic" epidemiologic study) were highly controversial. A number of investigators nonetheless emulated this sort of spatial analysis and carried the debate over the danger of smallpox hospitals into the next century.[3] Meanwhile, the chief practical outcome was the removal of smallpox hospitals from the vicinity of London and other large towns. The entire problem of urban smallpox was eventually reconstituted within the question of "hospital influences."

The London isolation hospitals quite literally were found at the center of the most iconic examples of medical cartography in the late nineteenth century. This chapter examines how drawing circles around



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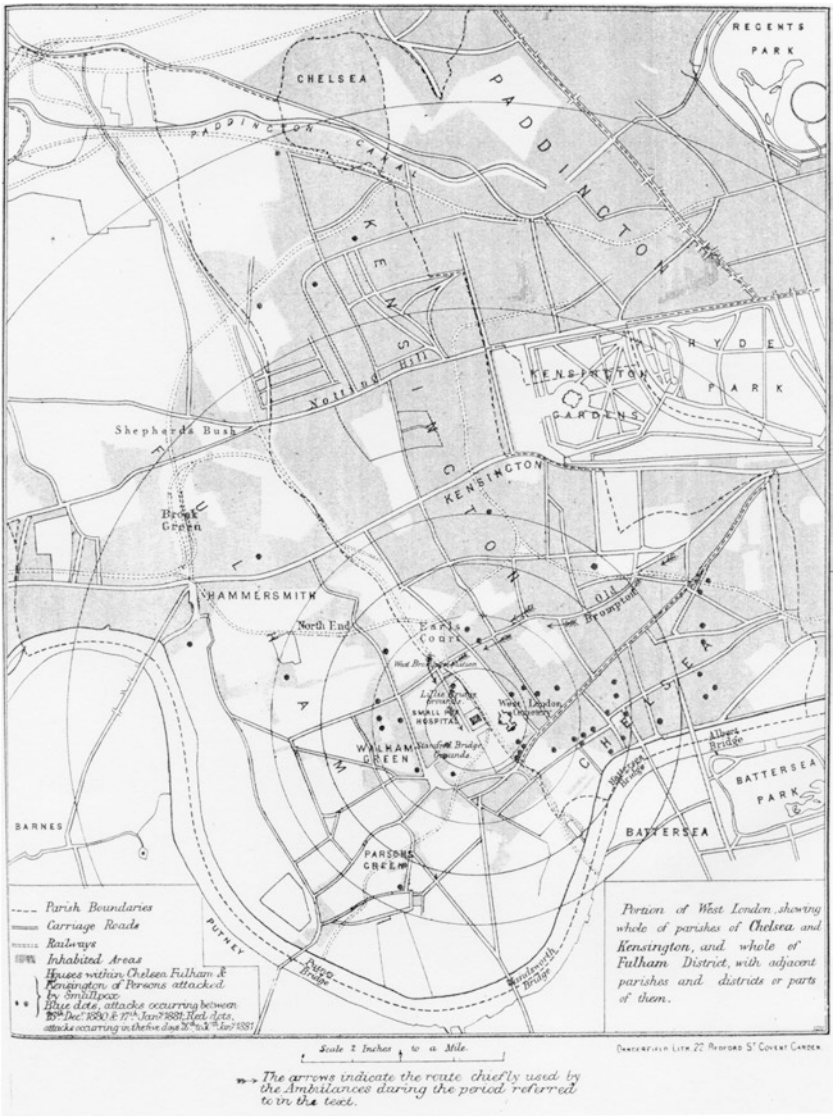



**Map 6.1** Spotted terrain: West London smallpox, 26–30 January 1881. *Tenth annual report of the Local Government Board 1880–1881, Supplement containing report and papers submitted by the Board's medical officer on the use and influence of hospitals for infectious diseases* (London, 1882), facing page 316. Courtesy of Wellcome Trust Library, London

smallpox hospitals introduced new ways for rendering metropolitan spaces and populations calculable and viewable. It seeks to reconsider the large literature concerning medical cartography alongside the relatively under-examined history of nineteenth-century disease surveillance.[4] Although more attention has been paid to cholera (the other "shock disease" of the period), smallpox was crucial in this regard. To this day, smallpox is seen as practically emblematic of how powers of disease surveillance shape strategies of biosecurity.[5] Then, as now, the prospect of smallpox outbreaks in large towns have typified the most terrifying and difficult problems of contagion's knowabilty, legibility, locatability, and manageability.

Debates over the local effects of smallpox hospitals were pivotal to the visual culture of epidemiology. Forcefully signaling the era's broader struggles to understand urban space and diagram its management, these maps underscore how sanitary science was believed to contribute to the governance of society. A great deal has been written on the importance of mapping to medicine, and even more about the centrality of cartography to state authority.[6] In J. B. Harley's classic account, maps form "part of the intellectual apparatus of power" in the modern world.[7] Lynda Nead has shown how mappings of London materially facilitated the mid-century "sanitationist" ethos of urban circulation, and yet these also serve to underscore planners' desires to create conditions by which society could govern itself free of direct intervention by the state.[8] Indeed, specialist medical cartography in the Victorian period, according to geographer Tom Koch, pioneered new styles and iconographies that allowed the sanitary agenda to be pictured for consumption and debate in the public sphere.[9] Medical and disease maps possessed a definite civic usefulness, a *Lancet* editorial explained in 1874, as they "at once convey to the eye the facts which it requires much small type to give in detail" and provide "the most important agency which a sanitary authority possesses for forming a sound feeling as to health matters among the persons its governs."[10]

There is now a growing interest in how cartography has rested upon practices of calculation and analysis that, in aiming to create new "territories of intelligibility," epitomize a certain political rationality associated with liberal government.[11] Maps, in this view, serve a vital public function in representing knowledge about society. Patrick Joyce, for instance, observes how Victorian maps "shared in the epistemic characteristics of statistics" that proved central to a vision of the city amenable to

modern governance.[12] Pamela Gilbert makes similar points in her study of Victorian-era disease and sanitation maps. As seen with John Snow's cholera studies, medical mapping had the effect of allowing doctors to speak about populations, to describe epidemics as something more than simply a large number of individual cases, and to stake out public health as an essentially medical matter dependent upon expert knowledge. However, maps of this sort also established a place in a rapidly expanding literary and visual culture and in an important sense epitomize the struggles of some medical professionals to give form to their place in new urban environments.[13] In other words, while cartography is no doubt historically bound up with the authority of the state and of experts, it is also important to recognize how maps, statistics, methods of calculation and surveillance all contributed to how a wide range of urban residents might see themselves amenable to (self)-surveillance and (self)-regulation. In the late Victorian period, the "biopolitics" of disease control increasingly involved the public gaining an interest in intelligibly viewing itself as a natural population.

## Losing Sight of Smallpox

The natural, bodily occurrence of smallpox was more spectacularly visual than practically any other disease. The tell-tale skin eruption was so well-known, for example, that one medical textbook considered the diagnosis of smallpox in the pustular stage "a facile matter" even for the layperson.[14] Sir Thomas Watson did not engage in any peculiar hyperbole when he described smallpox as "the most hideous, loathsome, disfiguring" ailment to which humans were liable.[15] It was also the most fatal, although the death rate from smallpox only goes part way toward explaining the terror felt by many persons in its presence. The Medical Officer for Islington wrote that it was the single remaining disease "likely to loosen the families tie, and break the social bond; one which makes even husband willing to part with the wife, the wife with the husband, parent with the children, and friend with friend."[16] This understanding served to underscore both the utility of smallpox hospitals and also the critical necessity of maintaining vacancies. A Poor Law medical officer wrote to *The Standard* in 1881 detailing the case of a man suffering from smallpox who was forced to remain at home because of a lack of hospital space. Evading two nurses, he broke out of his home in a fit of delirium, proceeded to air himself in Bond Street, and at the time

of writing was still on the loose, "spreading terror and infection in the neighborhood."[17] The district MOH drew attention to this episode in his monthly report and lamented that for too long "the public has been scandalised by the spectacle of peripatetic infection."[18]

As this suggests, the urban environment tended to make smallpox explosively visible when it did occur, giving it an even more startling and intrusive detectability. A number of urban legends involved deranged smallpox patients running naked from smallpox hospitals and striking fear in the whole neighborhood. Popular belief held that smallpox was capable of being conveyed simply by sight alone. Being visually surprised by an unmistakably marked sick person posed the greatest danger. Rail passengers could complain of the particular danger of sudden, unexpected encounters. "I cannot describe to you the uneasiness felt, not only myself, but others by being thus closely brought in contact with this loathsome disease," wrote one distressed traveler in 1871.[19] Such incidents were undoubtedly rare, but they seemed to draw attention in inverse proportion to smallpox's actual prevalence. Indeed, the steady decline of smallpox over the century probably made occasional glimpses of that disease more shocking, because it had become far less familiar.[20]

And thus another aspect of urban smallpox was its particularly problematic and paradoxical visuality. While dramatically spectacular in certain ways, it proved stubbornly furtive and obscure in others. Observers generally admitted that a great mass of smallpox thrived below the level of official record-keeping. Like the "submerged tenth" portion of the population consisting of paupers and criminals, one of the most troubling features of smallpox from a public health standpoint was that it could follow its natural course largely unseen and unknown to the authorities. Families who did not flee its presence would likely choose for smallpox to be "kept close"—either from fear of it being removed to a hospital or the general stigma and ostracism it might bring.[21] Some MOHs believed a bigger problem was middle-class households, which generally received less scrutiny than poor ones and had a greater facility to conceal patients. Here, smallpox often went completely undetected "except from alarmed neighbours, or when a fatality has made further secrecy impossible."[22] In either case, over 6000 Londoners died of smallpox in their own homes during the great 1871 epidemic; the sanitary authorities knew of the majority of these only after their deaths had been certified. The rapidly increasing completeness of hospital sequestration over the following decade eased many of these fears. They were further put to rest with the

introduction of compulsory disease notification in 1889, which resulted in practically all London smallpox being treated in smallpox hospitals. On the other hand, the success of notification and isolation produced new areas of imperceptibility, and eventually removed smallpox from view by the medical profession as a whole. Smallpox became a relatively rare sight among general practitioners, who in their own practice were "hardly likely to see a case, unless their patients are of the lowest classes," wrote one health official. "Even then they lose sight of the case the very moment they recognize its nature" because the patient would be immediately whisked off to hospital.[23]

Both because of the nature of smallpox and owing to the facts of urban life, this "most loathsome disease" possessed increasingly indecipherable itineraries. The smallpox virus has a 10–12 day incubation period. This usually left patients scarcely able to offer a guess as to how they had come across their infection nearly a fortnight prior to feeling ill. Smallpox's movement became profoundly murky in urban environments and its exact etiology, apart from general precepts about contagiousness, remained a matter of guesswork. This fulsome contagion itself presented special problems. The Islington MOH asserted that he had learned from large experience "the treacherous character of this disease, its insidious working in some secret focus, and the swiftness with which it subsequently appears and spreads amongst us."[24] Another report complained that smallpox had "an almost unique power of propagating itself by unexpected and untraceable methods—availing itself with a kind of penetrating subtlety of all the varied means of communication in use among mankind." Its contagion accompanied so many of the ordinary interactions between people, "so various, so many forgotten, so many concealed, so many unknown or unthought of," that its precise track was quickly lost amongst "innumerable cross currents of latent accident."[25] Contact infection was always "silently at work" in the metropolis, "the origin of which cannot by any ingenuity of questioning or reasoning be explained," remarked one physician. The spread of smallpox in dense neighborhoods was "so rapid, so eccentric in its course, as to foil the closest scrutiny. Unrecorded cases, concealed cases, mistaken cases, and cases of exposure abound." Only the most unwavering urban health officer, "having found the clue and followed it with the assiduity of a sleuth-hound," could hope to unravel the mystery of an outbreak.[26]

Smallpox after mid-century was primarily a disease of large towns, where major epidemics of the disease swept through every 5–10 years.

This was especially true of London, which saw epidemics in 1863, 1871, 1877, 1881, and 1884 and exhibited a smallpox death rate twice that of the rest of England and Wales. Provincial health officers often complained of the metropolis as a "pest centre" and the source of all smallpox in the country.[27] Meanwhile, their colleagues in London periodically lamented how the social facts of this massive urban conurbation itself obstructed adequate and timely knowledge. Village officials might promptly track an outbreak to its source, but in London they "had to deal with masses of people, personally, for the most part, unknown to each other."[28] Moreover, prior to 1889 there was no requirement for London residents to notify health authorities of smallpox or other diseases. During this time careful monitoring of death certificates would eventually bring to light fatal instances of smallpox, but weeks could elapse before an outbreak was known to exist—a disastrously long wait for officials who placed emphasis on dealing with the first sufferers. In the absence of a more complete system by which they might be "ferreted out," according to the Lambeth medical officer, a large portion of acute and surviving sick would undoubtedly remain completely out of sight. It was a circumstance that he and others blamed for smallpox's public unmanageability; in one instance at least 23 infections extended from one concealed patient.[29]

This inscrutability of urban smallpox made it difficult to form a precise geographical concept of its epidemiology, although there was no shortage of efforts to draw broad conclusions about its casual appearances. Smallpox had long had special relevance in imagining the dangers posed by the urban poor and the slums. Edwin Chadwick wrote that while on a sanitary ramble through a "low district" in the 1840s he presumed that it "must be a fever nest, when out came some children with the marks of recent small-pox upon them."[30] Chadwick is a figure well known today for embodying the Victorian obsession with smell, but clearly the sight of smallpox also assisted him and others in locating (in a very general sense) the regions of filth and immorality giving rise to all disease. His chance encounter with the traces of smallpox actually hints at powerful conventions of social investigation that both drew from and nourished a sense of the "sheer unknowability" of certain parts of the metropolis—particularly regions of the poor and their "inaccessible, seemingly primordial courts, rookeries and alleys."[31] For writers such as Henry Mayhew and Charles Dickens, London existed as a text to be read. They approached urban exploration as a narration of the city's underlying script, which consisted

mostly of pieced-together fragments and partial glimpses. Stubbornly immeasurable and only intermittently visible, smallpox was just one of many submerged features of the metropolis speaking to the relative anonymity and ephemerality of its people and places.

## Narration and Number: Detection and Surveillance

The emergence of epidemiology and professional public health was undoubtedly framed by these cultural and scientific themes of visibility and legibility. Victorian sanitary investigation, in particular, reflected a "powerful streak of voyeurism" and characterized the entire era's manner of "urban spectatorship."[32] Above all, it exuded considerable optimism that vital truths of the city might be rendered less fleeting and anecdotal, more systematic and complete, although in the end epidemiology was another field forced to grapple with questions about the vantage point and subjectivity of the observer. Such problems were put forward by early explorers of back-slums and fever precincts. "These neglected places are out of view, and are not thought of," Thomas Southwood Smith wrote in his report to the Poor Law Commissioners on fever in the metropolis; "their condition is known only to the parish officer and [intrepid] medical men."[33] Speaking in 1847, he recounted recently being led through a maze of gloomy, stagnant apartments in Whitechapel, having an instant feeling of sickness, and then suffering through a further few days of anxiety at whether he had contracted the fever ("for the danger seemed to me to be imminent," he admitted). Despite the gripping drama of his account, Southwood Smith expressed frustration that he was ultimately just a collector of fragmented epidemic anecdotes. The heroic investigators who daily witnessed such things, "even the individuals who see most of them, after all see but little; see only isolated spots." However, there was one man in Britain who possessed "a comprehensive view of them, and a cold, perhaps, and yet a vivid perception of their results."[34]

Southwood Smith's reference was to the Registrar General, William Farr, who in many ways represents the birth of epidemiology as a statistical science and arm of government intelligence. It was a discipline both produced and enabled by a regular and seemingly endless issuance of charts, lists, graphs, and indexes proposing to lay bare man as an urban animal, a mass affected by natural laws characteristic of birth, reproduction, death, illness, and so on. The new era of vital statistics was signaled in 1851 by the founding of the Epidemiological Society of London,

where a "dazzling mass of figures" assisted in transforming public health into an increasingly specialist and professional field and helped make it more associated with the work of doctors than engineers and architects.[35] The most important data in this nascent apparatus of sanitary surveillance was initially mortality and life expectancy, which allowed the epidemiologist to establish patterns of ill-health, to trace the conditions of life, and to map problematic spaces. Farr explained how aggregate mortality figures organized the perception of phenomena that become pertinent at the mass level and that occur over a period of time:

> Armed with this golden bough we may enter the gloomy kingdom of the dead, whither have gone in twenty years nine thousand thousand English children, fathers, mothers, sisters, daughters, sons … Here, fortunately for this inquiry, they appear divested of all colour, form, character, passion, and the infinite individualities of life; by abstraction they are reduced to mere units undergoing changes as purely physical as the setting stars of astronomy or the decomposing atoms of chemistry.[36]

Epidemiology as an art of tracking disease emerged from this same professional context, but upon a somewhat different epistemological model. Indeed, it corresponds to the sudden cultural importance of the detective as an operative of investigation and of detection as a technique of observing individual particularities. In 1853 Charles Dickens introduced his Inspector Bucket, often considered the first English literary detective. In 1854 John Snow published his groundbreaking investigation of London cholera. In 1855 the position of metropolitan district medical officers of health (MOHs) was established by Parliament. These developments signal a new type of social inspector who wielded a piercing and active eye and who traversed a terrain thick with clues and suspects. Snow is the best-remembered (and most mythologized) example of this new era of contact tracing and "show-leather epidemiology." His sleuthing story begins and ends with footsteps; it places the investigator amidst the raging epidemic and promotes a perspective reliant upon imbeddedness and embodiment. In its most romantic version, the detective work undertaken by mid-Victorian health investigators established the sanitary survey as a principle genre of urban exploration and exposé. The MOH was meant to exemplify these traits and was gradually recognized as one of the most important official agents for knowing and narrating the city.[37] This medical representative of law paralleled the police detective

who, Ronald Thomas argues, "reflects the emerging social bureaucracy for producing truth and defining modern citizens."[38] The detective's mode of knowledge corresponded to a political mode in which the main concerns were to identify problematic individuals and intervene directly in their lives in an attempt to "normalize" their status.

Victorian epidemiology therefore consisted of two, mostly complementary, investigatory gestures: detection and surveillance, practiced by the sanitary sleuth and sanitary statistician, respectively. The former was expressed primarily in narration, the latter with numbers. Inspection located and applied power to specific dangers; enumeration calculated common risk and directed powers toward processes and environments. These further correspond to two general scopic models: the glance and the gaze. As Christopher Pritchard argues, the glance was central to detective fiction and may be contrasted to how the gaze operates in Michel Foucault's account of surveillance and probabilistic thought.[39] The gaze is a metaphor for the organization of knowledge that structured the emergence of human and social sciences. To gaze is to scan an open field and to assort and place individualities; its action is "a successive order of reading; it records and totalizes; it gradually reconstitutes imminent organizations." In *The Birth of the Clinic*, Foucault also discusses what he means by the glance, which "strikes at one point, which is central or decisive." Medicine's clinical eye was essentially a gaze, though in individual practice it had a kinship to viewing particularities at a glance, expressed by the doctor's "index finger palpating the depths."[40]

In the same vein, we may speak of the "art of sleuthing" and the "science of populations" adhering to different—at times overlapping, others times conflicting—modes of power. The detective was thought to discern particularities at a glance and was essentially mobile. Ideally, by contrast, the central inspectorate exerted an abstracting gaze and was characteristically stationary. The detective mode of investigation mostly aligned with what Foucault called measures of discipline, which resonate with architecture, police, and divisions and which dissolve the mass into individuals and take control of the body. It is noteworthy that Dickens dwells repeatedly on Inspector Bucket's "admonitory finger" which punctuates the revelation of truths and invests disparate facts with devastating meaning. Whereas the detective's glancing eye was associated with narration, embodiment, even sensation, the eye of surveillance, by contrast, supported measures of security that sought to guide conduct of the mass

by means of placing the full range of possibilities under a silent, patient, distant, and steady watchfulness.

There were times when these two modes came into tension. As early as 1838 a member of the Statistical Society of London proclaimed that "The spirit of the age has an evident tendency to confront the figures of speech with the figures of arithmetic."[41] Around the middle of the century the rate of increase in printed numbers seems to have been exponential while at the same time printed words increased in a merely linear fashion.[42] But in fact the tasks of narration and enumeration were routinely practiced together, and together formed the expected qualities of the ideal MOH. The medical officer for Chelsea sketched the typical duties: receiving information from all sources in his district and recording it in his ledgers, keeping abreast of the latest scientific discoveries and taking guidance from them, managing the public hospital and receiving timely intelligence from its admission register, and having his ear to local gossip and remaining acquainted with relevant topics. "He was, in short, in the position of a scientific watchman, who, from the vantage ground of his office, was enabled to study the behaviour of an infectious disease like small-pox as no one else could study it."[43] Epidemiology required persons of authority who could dredge up knowledge both at close range and from a distance. One does not do away with the other, but detection and surveillance nonetheless exist at different levels, are concerned with different scales, have different bearing areas, and make use of different instruments.

Epidemiology in all instances rested upon the political construction of disease visibility. Writing in 1881, the Manchester physician and well-known promoter of medical statistics, Arthur Ransome, argued that any "systematic and organized study of epidemics" required not only deploying "an army of well-trained observers" to obtain accurate local intelligence on mortality and sickness, but also charging a central authority to collect and analyze the mass of data. Ransome considered the army to already exist in the nation's MOHs. Although devoted to "immediately practical objects," these men no doubt recognized that "their full responsibilities as the physicians of the state" required them to also contribute to science. "They have taken the Queen's shilling, so to speak, not as intending merely to defend their districts against the inroads of disease, but holding themselves ready, also, to carry the war into the enemy's country, and to seize fresh ground of vantage from which to act

in the future." Epidemiology was in essence a visual and spatial maneuver that must be facilitated by the state. In Ransome's mind, "the establishment of a number of medical observatories" would be realized once there was a law requiring the immediate and compulsory registration of diseases as they arise.

> Many among us must assuredly have envied astronomy and meteorology their numerous earnest and careful observers, and the long series of records upon which the principles of these sciences are founded. We should be well satisfied if we could predict the coming of an epidemic, and trace its possible course, as accurately as the astronomer can map out the orbit of an invisible planet, or even as definitely as our American cousins send us tidings of a coming storm.[44]

This dream of an early warning system for epidemics would have made epidemiology into a prognostic science. It would also depend on the study and representation of disease becoming more diagrammatic. For Ransome, the problem was how to visualize the spatiality, temporality, and intensity of epidemics in the fashion of an astronomer or meteorologist. He proposed creating geographic charts for each locality with dots showing individual cases of infection and circles of different colors and sizes indicating larger numbers in an area. His main concern was to track an epidemic from its outset, to register its course over time as well as space. This might require a complicated overlay of maps or even a three-dimensional diagram. In order to capture rates of infection, the amount of population would somehow have to be depicted alongside figures of incidence. The imperative to visualize epidemiological information, in other words, ran up against difficulties inherent to its inscription. Ransome was quick to admit that making epidemics usefully visible would require "some less crude method of representation" than available at that time.[45]

## Charting Smallpox

By the 1870s it was clear that smallpox in London continued to elude both the impatient glance of sanitary detectives and the serene gaze of vital statistics. Its nature seemed to resist attempts at spatialization. Medical science regarded smallpox as the quintessential contagious disease—one whose etiology related almost entirely to individual bodies and

less with the qualities of places themselves. Patterns of smallpox distribution (were they to be mapped) would likely represent little more than a chaotic series of ever recomposing personal interactions, not features of the landscape. The slums, of course, were a special concern, but typically because of the belief that poor and unclean areas congregated incautious persons who neglected vaccination. Representations of smallpox's urban geography were practically limited to a few investigations correlating parish vaccination rates with infection rates or those finding it notable that concentrations of smallpox corresponded to well-known "fever dens."[46] Largely irreducible to space, smallpox was not mapped until the advent of the MAB hospitals in London.

Smallpox maps first emerged out of the organized public agitations against the smallpox hospitals. One was created by a committee of residents opposing the Hampstead Hospital and laid before a jury who ruled the hospital constituted a source of danger. That decision allowed for an injunction closing the hospital in 1879. Another set of maps was produced in 1880 by the Poor Law medical officer for the Brompton subdistrict, Dr. Francis Godrich. That smallpox prevailed in the vicinity of the Fulham Hospital "requires no explanation," Godrich asserted, "as all that is requisite is mentioned on the map itself." The editor of a local newspaper agreed that Godrich's "elaborate indictment" showed the hospital to be a "great infecting centre" in the locality.[47] Professional opinion was profoundly skeptical of such claims. Slightly more regard was given to a paper by Sir John Rose Cormack relaying the belief in France that smallpox spread to the surrounding community from an annex of the Hôtel-Dieu in Paris.[48] The epidemiology was almost embarrassingly rudimentary, which allowed *The Lancet* to brush away these conclusions with a few cutting comments about French doctors. *The British Medical Journal*, on the other, hand allowed that Cormack's spot map was "very striking" and at least one other commentator admitted that the map lent a great "lucidity" to his argument.[49]

Concern about the local impact of smallpox hospitals had been occasionally voiced by the well-regarded Hackney MOH, Dr. John Tripe. For a decade his annual reports had addressed whether the MAB's Homerton Hospital had contributed to higher rates of smallpox in his district. It was a line of speculation "exceedingly unpopular at the Local Government Board."[50] Tripe gradually grew bolder. Taking a map of Hackney, in 1880 he drew a circle representing a quarter-mile radius with the hospital at its center and counted the number of smallpox

deaths within this area over the previous decade. He found that the rate of smallpox mortality within the circle had been "something enormous" compared with the rest of Hackney (2.45 per 10,000 residents in this area against 0.21 in the district as a whole).[51] These figures fueled local alarm and prompted the *BMJ* to declare the implications "sufficiently startling."[52] They also reflected the judgment increasingly voiced by medical officers of other metropolitan districts containing MAB hospitals, such as Hampstead and Lambeth.

The notion that there might be some significance to spatial patterns of smallpox—and that the relevant factor was proximity to a smallpox hospital—really entered the medical mainstream as a result of the London epidemic of 1881, during which the great strain placed upon MAB hospitals almost collapsed the unstable system entirely. The government was as a consequence compelled to appoint a Royal Commission to consider the position of the MAB, and one of its obligations was to sift evidence related to smallpox spreading from smallpox hospitals. The testimony the Commissioners heard from prominent medical men and health officers revealed that professional opinion on this question had grown more divided. While a number of witnesses continued to dismiss the notion of "hospital influences" as unproven and prejudicial, just as many expressed their confidence that hospitals had locally contributed to smallpox. The entire inquiry, however, was shaped by the astonishing evidence submitted by William Henry Power.

## Concentric Circles of Diseasedness

Power had served for a decade as a medical inspector for the Local Government Board when in early 1881 he was tapped to determine whether the Fulham Hospital's accommodation of smallpox from all over the metropolis might affect its occurrence in the West London parishes of Chelsea, Fulham, and Kensington. He prepared for the study by securing the promise of medical men in the area to provide confidential notice of smallpox cases coming under their knowledge. He also received information from vaccination officers who made house-to-house inquiries in the three parishes. Another critical preparatory step was to inscribe a field of observation. Taking a large Ordnance Survey map, Power drew a circle around the hospital representing a radius of one mile. The interior of this circle he called his "special area." This was paired with an inscription of epidemic time—dividing instances of the onset of sickness

into sequential fortnights (roughly the incubation period of smallpox). Power explained that these spatial and temporal segmentations enabled him "to cut up the area and see how small-pox behaved, in separate fortnights, on smaller areas which together made up the whole special area."[53]

Power watched and waited. It did not take long for him to notice something unusual: a "great outburst" of smallpox in his special area at the end of January, with 62 new cases in the three parishes, 47 of which resided within the special area. Even more troubling was that 42 persons had fallen sick within five days (26–30 January); 32 of these resided in the one-mile radius and the large majority must have been infected a fortnight earlier, when no more than four infections were known to exist within that area. Two other puzzling facts appeared. First, Power could trace a conventional means of contact infection for only nine of these 32 persons. For the remaining 23 he could find "scarcely a hint" to account for their sickness. All of the surviving patients denied any knowledge of being exposed to smallpox and none remembered the slightest communication with the hospital or its personnel. Second, this West London outbreak flared with "startling suddenness and magnitude" and while the disease was practically absent in the portion of London lying between Fulham and its hotbed in the East End.[54]

Power's report takes great pains to stress his methodical detective work. He recalls being "morning, noon, and night in the hospital or about it, seeing people and their friends," often several times. No question as to their activities and travels was considered too trivial. Cases that exhibited similarities were exhaustively re-examined in an effort to discover some previously overlooked connection that might unravel some obscure point of contact and contagion. Power explained that he "tried, so to speak, to live over again the attacked person's life during the time when I regarded him as having become infected." His compulsiveness seems to have also sparked interest in some former patients. In one instance, a commercial traveler sent home to retrieve all his official books and with Power retraced every hour of particular days. Still, this case and a large majority of those making up the "great outburst" in late January remained impenetrable, and this was in strong contrast to those of preceding fortnights and in areas outside the special area.[55] Power considered and investigated hospital activity itself, including the movements of ambulances, tradesmen, visitors, and staff. He was able to establish that staff exited the hospital 439 times in the six days of the "great outburst,"

**Table 6.1** Smallpox Burden of the Special Area

| *Epidemic Periods since opening of Fulham Hospital* | *Cases of Acute Smallpox admitted to Fulham Hospital* | *Infection rate per 100 Houses in each Area referred to* | | |
|---|---|---|---|---|
| | | *Whole of the three parishes* | *Special Area Within One mile Radius from the Hospital* | *Other parts of the Parishes outside Special Area* |
| March 1877 to end of 1877 | 327 | 0.04 | 1.10 | 0.86 |
| Jan. 1878 to Sept. 1878 | 714 | 1.05 | 1.80 | 0.67 |
| Sept. 1878 to Oct. 1879 | 679 | 0.87 | 1.68 | 0.47 |
| Oct. 1879 to Dec. 1880 | 292 | 0.26 | 0.58 | 0.10 |
| Dec. 1880 to 2nd April 1881 | 515 | 0.62 | 1.21 | 0.32 |

Power, *RCSFH*, 372, 375.

but failed to find smallpox in any of the houses within the special area so visited. Also, the routes of ambulances bringing patients to hospital took them along roads least affected by the outbreak. While ample opportunities for "incidental infection" had been created by the hospital, none of these seemed sufficient to account for the unusual appearance of smallpox in its vicinity.[56]

Frustrated by the inconclusiveness of his investigation, Power expanded his study to include the statistical history of smallpox in this area for previous years. A tabulation of infected households during certain epidemic periods since 1877 revealed a known incidence rate in the one-mile radius almost never less than twice that for other parts of the three parishes (Table 6.1). Another table dividing the special area into quarter-mile concentric rings made it "strikingly apparent" that the Fulham Hospital had acted as a center of epidemic intensity (Table 6.2). The quarter-mile segments "suffered an incidence of small-pox varying with the closeness of their relation to the hospital," so that the center of the special area suffered on average an eightfold intensity over the outer ring. Moreover, the gradation from center to circumference appeared "very exact and very constant."[57] It was a result that could "hardly be explained by chance," Power concludes. Instead, it practically compelled

**Table 6.2** Calculating Radial Risk

| *Epidemic Periods since opening of Fulham Hospital* | *Incidence in every Hundred Houses within the "Special Area" and its Divisions* | | | | |
|---|---|---|---|---|---|
| | *On total Special Area* | *On small Circle, 0 - 1/4 mile* | *On first Ring, 1/4 - 1/2 mile* | *On second Ring, 1/2 - 3/4 mile* | *On third Ring, 3/4 -1 mile* |
| March 1877 to end of 1877 | 1.10 | 3.47 | 1.37 | 1.27 | 0.36 |
| Jan. 1878 to Sept. 1878 | 1.80 | 4.62 | 2.55 | 1.84 | 0.67 |
| Sept. 1878 to Oct. 1879 | 1.68 | 4.40 | 2.63 | 1.49 | 0.64 |
| Oct. 1879 to Dec. 1880 | 0.58 | 1.85 | 1.06 | 0.30 | 0.28 |
| Dec. 1880 to 2nd April 1881 | 1.21 | 3.00 | 1.64 | 1.25 | 0.61 |

Power, *RCSFH*, 372, 375.

belief that "some special factor" was at work, "bearing in its results a resemblance to the operation of some natural law."[58]

This "special factor" could be expressed cartographically. Returning to his Ordnance Survey, Power placed blue dots to indicate houses attacked in the epidemic's early weeks. Red dots denote houses where illness commenced between 26 and 30 January (the troublesome thirty-two cases in the "great outburst"). Shaded areas denote inhabited space, and arrows alongside certain roads specify the routes taken by ambulances (see Map 6.1). Power proceeded to create a series of maps depicting the epidemic periods prior to 1881 (Maps 6.2a–d). The first (a) visualizes a diffused presence of smallpox, clustering in some places but well away from the hospital; the next maps (b, c, d) representing periods after the opening of Fulham Hospital appear to show a decided intensity of smallpox in the one-mile special area.

Translating tabular findings onto a map had very specific visual effects, such as the impression of smallpox hugging close to the hospital. But the cartography also brought out other facts and made spatial relationships perceptible. Power stressed that his disease map "shows more than figures and rates" can reveal—for instance that the areas of spread were


**Map 6.2** Visually patterning smallpox: four epidemic periods. (a) March 1876–March 1877, prior to establishment of Fulham Hospital. (b) March 1877–End of 1877, subsequent to establishment of Fulham Hospital. (c) January 1878–August 1878. (d) September 1878–September 1879. *RCSFH*, following page 380. Courtesy of Wellcome Trust Library, London

independent of routes taken by ambulances.[59] Power complained that the published version of his report contained maps much smaller than the official Ordnance Surveys he had used to plot cases, and therefore they did "not tell the whole story." But they did convey "what was still more obvious on the original maps," namely that houses became affected by smallpox no matter what their direction from the hospital.[60] The map, in other words, did more than simply repeat or illustrate the tabular results. Instead, it appeared to make smallpox more visible, or at least visible in ways that were impossible by investigations at ground level.

It was the "cogency of observed facts," Power writes, which compelled him to conclude that the Fulham Hospital had acted as the source of excess local infection and to consider the notion of smallpox's aerial dissemination. The report offers a trove of meteorological records (temperature, barometric pressure, and prevailing winds) and finds that the days of greatest local infection saw still and foggy conditions perhaps most conducive to "the quiet dissemination of matters contained in the air, and for the deposit, perhaps, of any that were particulate." These days also correspond to an accumulation of acutely sick patients at the hospital, who were perhaps "charging the air of the hospital with abundance of infection in an active state." The aerial dissemination hypothesis, Power at first suggests quite carefully, "helps, in an important measure, to an understanding of the method by which small-pox has spread to the neighbourhood." By the middle of the same paragraph Power is recommending that it provides an effective model for explaining the enigmatic outbreak of January 1881, and he ends by stating that under further consideration this outbreak now "appears hardly intelligible" without some recourse to the idea of airborne infection. Power concludes his report with "*direct atmospheric agency*" the only hypothesis remaining to explain smallpox's behavior around the Fulham Hospital.[61]

It is no overstatement to describe Power's conclusions as a bombshell to medical theory and health officials. Initial results had been available in March 1881 but evidently proved startling enough that his study was extended and the final report left unpublished for over a year. The Royal Commission on London fever and smallpox hospitals ultimately found itself obliged to accept that Power had "clearly established" that smallpox hospitals contributed to higher rates of local smallpox.[62] Still, the hypothesis about smallpox's long-distance aerial dissemination flew in the face (so to say) of conventional thinking about the "throwing distance" of the disease, and was less accepted. It prompted some

to speculate how the professional mind would be placed "in a state of chaos" to accept that a man at York could be hit by a disease "pellet" from the Fulham Hospital.[63] Dr. William Squire, a well-known London practitioner and commentator on public health issues, warned it was "really like going back to some of the medieval ideas of infection" and complained that this aerial hypothesis must be "either a guess or a groundless assertion."[64] In purely practical terms as well, Power's conclusions seemed downright dangerous. If accepted as even partly true, smallpox certainly could not be safely accommodated anywhere in London. Furthermore, they threatened to solidify public antagonism to all infectious hospitals, "with results nothing short of disastrous."[65]

Power's report spurred calls for drastic alterations to smallpox hospitals themselves. These included new stringent controls on the movement of ambulances, staff, and other officials. A number of authorities favored double-walling smallpox hospitals, thereby forming a neutral space or "sanitary zone" to further buffer hospital grounds from the outside. Drs. W. H. Broadbent and J. Burdon Sanderson, both members of the Royal Commission, entered into evidence their own proposals for quarantining an entire smallpox hospital by "mechanical contrivances" and banishing all unnecessary personal communication (telephones were a useful way to produce a more immobilized and highly perimetered space).[66] But Power's aerial hypothesis seemed to warrant even more radical precautions. If correct, then it became doubtful whether hospital effluvia should be allowed to exit the building at all (although this could not be good for the patients). The difficulty of this question is reflected in Burdon Sanderson's startlingly original plan for annular smallpox wards, which would have beds arranged in a circle around a large central ventilation shaft, through which the ward atmosphere would be expelled only after passing through a furnace. Sanderson envisioned layering these wards so that the hospital would resemble something like a huge smokestack. The principle was widely endorsed, although the MAB rejected the scheme as "utterly impracticable" and one was never built in London.[67] Smallpox wards having a means to "cremate" the air passing out of them were built at Barnsley (1889), Nottingham (1890), and Bradford (1891), but found to be unsatisfactory.[68] In the end, neither the ideal of a hermetically sealed smallpox ward nor systems for disinfecting ventilation dispelled the growing belief that smallpox hospitals posed almost insuperable dangers.

## Placing Infection "at a Glance"

When questioned before the Royal Commission, Deputy-Surgeon General John Ashton Bostock declined to conjecture how or why smallpox escaped from Fulham Hospital. Still, he testified, "[Power's] maps will show that the disease did spread."[69] This still-controversial opinion quickly gained an almost stereotypical form of expression: that the proof for the dangerousness of smallpox hospitals came from a momentary look at spot maps. Francis Godrich, speaking of his own maps of the Fulham area, maintained that "No one with ordinary sense and judgment, looking at the map … could come to any other conclusion than that the hospital is the great centre" of local smallpox infection. This much was clear "at a glance."[70]

Few could deny that Power's smallpox maps were especially visually arresting. However, the use of dots to locate instances of illness was by no means a new convention in medical mapping. Nor was the employment of concentric circles completely novel. Ely McClellan's study of the 1873 United States cholera epidemic included maps of cities along the Mississippi River that featured circles within which initial cases were marked by dots.[71] A circle guides attention to its center (in McClelland's case it was a city's docklands, where he surmised cholera had been introduced in the stools of infected riverboat travelers). A dot, meanwhile, promotes the notion that infection may be fixed to a point in space, that sufferers can be immobilized and made cooperative, and that the relation between dots may be rendered analyzable and knowable.

Power's groundbreaking study spatialized smallpox in ways never before attempted. It proposed the radical notion that apportioning London in accordance to mathematically exact spaces could be put to the service of investigating a natural process. The evidence was strikingly geometric. George Buchanan, the chief Medical Officer of the Local Government Board, was fascinated that infection probability could be expressed as a purely abstract problem of calculating odds of finding dots on a two-dimensional plane based upon distances from its center.[72] This suggests how the spot maps acted as an expression of Power's fundamentally mathematical logic and how they visualized vital statistics. If they existed, "hospital influences" existed only at the level of the city itself; for this phenomenon to be seen, it must be from the arrangement of statistical data observed over a wide area, and concerning large populations, and at high altitude—in other words, in the form of a map.

Although smallpox maps supplied a crucial site for the objective and abstract thought of the epidemiological gaze, they were also heavily invested in the gesture of the glance. Power's thesis, in particular, relied upon his maps enabling statistics to speak to the eye in patterns, conveying meaning in an instant. Maps of all sorts of course possess a "different temporality of attention" from that required by prose description or statistical expression.[73] As many theorists of cartography note, map-reading delegates a great deal of agency in determining a map's meaning. The map relies upon the analytical participation of its reader, since a calculative space is reconstituted upon each viewing. The rhetoric of the map is therefore not entirely contained within it, but is generated from the eye of the rational observer.[74] There is certainly a powerful narrative quality to Power's series of maps. Turning through the pages, one is encouraged to discern patterns of dots, observe how they "unfold" over the years, and compare their arrangements and combinations. Power's report claims that these spatializations require very little explanation and that the significance of the representation would become obvious in an instant. Moreover, map-reading and discussion of maps could be intensely corporeal. Witnesses before the Royal Commission are frequently recorded gesturing at the maps on display. One must imagine a great employment of fingers—pointing, flipping, touching, and gesticulating as a means of hitting upon the details, spaces, and relations laid out on the map. At its point of consumption, the map called forth the gestures and visualities appropriate to the art of detection.

Patrick Joyce observes that the ostensibly abstract and objective map of the nineteenth century was studded with an increasingly sophisticated array of texts, icons, and images meant to fix meaning; nevertheless, "its very abstraction and objectivity invited fantasy."[75] Indeed, public uses were sometimes notoriously quite different from mapmaker intentions. Particularly when considered apart from their textual explanations, even the most intentional maps could excite different and contradictory imaginings of urban space. Power's smallpox maps were no exception. For instance, the final report of the Royal Commission observed that his "concentric circles of diseasedness" undeniably lent the impression of a wave of infection issuing from the center. Yet, it concluded, one might just as reasonably view this "graduated intensity of infection" as the effect of the hospital serving as the hub of London smallpox and drawing infection to it.[76] Although this interpretation diminished the appeal of Power's aerial hypothesis, it was ultimately another way of concluding that the Fulham

Hospital had been the cause of smallpox in its vicinity. It also buoyed the notion that maps must be a key means of visualizing this specific effect.

Power's strongest critics also emphasized the interpretability of his maps, but went a step further in discussing cartography as a process of selecting and constructing images. William Squire suggested that Power's maps overdetermined their meaning. "It was curious to see how circles were drawn around the hospitals," he wrote. "[I] could draw circles round other centres quite as instructive."[77] Similarly, the MAB Chairman, Dr. William Brewer, MP, doubted that epidemic disease had any "geometrical ratio in travelling." One "cannot take up any good Ordnance map," he explained, and mark it with dots indicating smallpox over time without recognizing that the disease congregates in the same places—mainly the slums.[78] In other words, multiple other mappings of smallpox were possible and even legitimate, but Power had arbitrarily centered his circles on the hospital alone. John Henry Bridges, a metropolitan Poor Law medical inspector and vocal critic of Power's thesis, maintained that all towns during smallpox epidemics contain "certain *foci* of disease round which the cases cluster more thickly." He conjectured that if one were to choose a position half a mile east of the Fulham Hospital "and a series of concentric circles were arranged round an imaginary point in that position … you would find a centre of infection, and you would find that smallpox increases as you approach the centre."[79] And yet opponents of the hospitals scoffed at such speculations. As Alfred Godrich told the Royal Commission: "Dr. Bridges supposes a circle, whereas I have not supposed a circle, but drawn it upon a map, which makes all the difference in my opinion; Dr. Bridges is all supposing and thinking."[80]

Opponents of Power's thesis did not confine themselves to hypothetical cartography. A much-discussed rebuttal came from Edward Seaton, who mapped the occurrence of smallpox in Nottingham in 1882 and concluded the smallpox hospital had no effect on the distribution of disease. His map also featured quarter-mile circles around the hospital, but Seaton's innovation was to place dark blue dots for smallpox victims kept at home badly isolated, light blue for those kept at home fairly well isolated, and red for those removed to the hospital. "Looking through the series of maps," he reported, a crop of further dots invariably followed blue dots, whereas red ones generally stood alone. In this version, a smallpox epidemic is diagrammed as a network of sick bodies structured by their relative lack of isolation from others. Seaton laid emphasis on the "minute history" of patients he was able to obtain from detailed

personal investigation and in spite of the "great difficulty in tracing cases in town populations."[81] Yet commentators remained chiefly impressed by his map, especially how the concentric rings emphasized the prevalence of smallpox distant from the hospital. In the words of one, this was "rendered so obvious by means of the map" that it "require[s] no detailed observation." *The British Medical Journal* simply stated that Seaton's "map makes it clear" that Power had been completely wrong.[82]

## Denigration of the Detective's Eye

Much of the initial disapproval directed toward Power's study reflected deep misgiving over how his maps and statistics narrowed the field of urban observation. For many critics London was dense with multiplicities and incongruities. It constituted a terrain best traced with footsteps and most effectively appreciated by accumulating personal local knowledge of places and peoples. It did not take a map, in other words, to know that infectious diseases "have a tendency, like the swallows, to return to their old haunts."[83] Power's geometrically precise circles were in fact socially arbitrary—a point pressed with great vigor by the Medical Superintendent of the Fulham Hospital, Montague D. Makuna. He argued that parish boundaries should have been used as dividing lines because they would have come closer to capturing the uneven topography of wealth, sanitation, vaccination rates, and do on. He added that smallpox infection displayed a tendency to "adhere" to poor houses, although Power could not appreciate this since he took houses as "so many units, irrespective of all other conditions, to support [a] dazzling theory."[84] Another critic charged that the rings of Power's special area were "treated as if they differed no more than pieces on a draught board."[85] Having not taken time to know the district, Power had wrongly attributed the same quality of risk to radically dissimilar populations. Makuna and others observed that houses immediately east of the Fulham Hospital were filled with the large and relatively shiftless poor families and that houses of the "superior classes" gradually predominated upon leaving Power's central circle. Not only were wealthier persons less likely to contract smallpox, they also were more likely to evade being "counted" in official surveys. Viewed in this way, the gradation of infection encircling the hospital was actually a class gradient.

Power's tables and maps were clearly too tidy for many observers. Furthermore, the maps were used to support an aerial theory of smallpox

that itself ultimately rested entirely upon negative evidence. Power had failed to learn the precise normal means of contact infection near the Fulham Hospital and therefore he concluded that smallpox had not spread terrestrially. Not only could this proposition not be positively proved, it was also impossible to disprove. Power showed that comings and goings of the hospital for one week amounted to 439 movements—far too many for safety, and enough of a hint that researchers should continue to assume smallpox spread in "commonplace ways" and need not resort to "imaginary and hypothetic causes."[86] "Stop personal communication, and you stop smallpox-pox," was one mantra.[87] In a lengthy, six-part rejoinder to Power's report published in *The Lancet*, Edward T. Wilson insisted that ordinary bodily contact was entirely sufficient to account for all patterns in the distribution of smallpox.[88] Its frustrating inscrutability was a feature of urban life, not a special characteristic of the space around smallpox hospitals. And hence for Power to conclude that smallpox disseminated aerially simply because he could not trace the chain of infected persons made as much sense to describe dynamite as aerially disseminated when no dynamitard had been detected and brought to justice.[89]

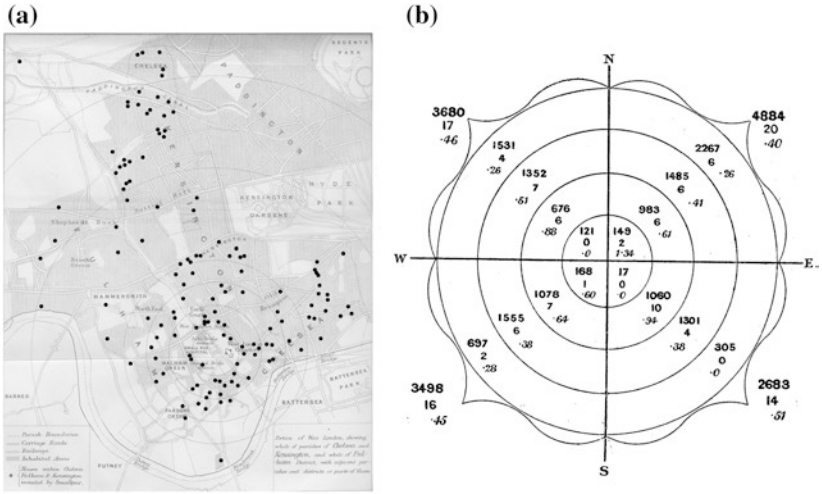
As this colorfully indicates, a number of his critics chided Power as a mediocre detective who had been bested by the "penetrating subtlety" of the infection.[90] The Kensington MOH, T. Orme Dudfield, remained satisfied that Power's untraceable infections simply verified the arduous contest that occurred between smallpox and its pursuer. Yet he remained convinced that hospital doctors and district officers could track the disease "from person to person, and from street to street in a way perfectly satisfactory, but wholly unsuspected by outsiders."[91] Dudfield worked with Makuna to compile a large series of case histories for smallpox victims residing in the Fulham Hospital. These accounts paint the "shoe-leather" epidemiologist as an expert in leveraging his own authority to concentrate mistrust and to parse weakness. Makuna, in particular, spoke wearily of the dread amongst the poor of telling the truth, their superstitions, inconvenient memory, or stupidity.[92] The Medical Superintendent of the Hampstead Hospital, Samuel Bingham, described inmates and their friends often "unwilling to give information, and sometimes purposively giv[ing] wrong answers for fear of getting others into trouble."[93] Yet Dudfield was buoyed by his impression that properly operated hospitals had ways of getting to the bottom of things. "The tongue is unloosed under the influence of kind treatment in the hospital, and in one way or another the truth sooner or later leaks out," he wrote.[94]

Often it was a matter of wheedling out facts that patients themselves did not find relevant. However, Makuna himself was not above occasional bribery to pierce the "disingenuity of the people," and admitted to offering "small enticements" to hospitalized children for information on household sickness.[95] In one case, Dudfield triumphantly revealed that a patient had been induced to reveal that a hospital nurse had slipped out to evening parties (she supposedly made bows for her dancing shoes at the bedsides).[96] The hospital was useful, therefore, as a field for the detective's personal touch, a site for a browbeating kind of investigation.

Contact tracing—the detective's eye—collected anecdotes from multiple locations and partial witnesses, judged their reliability, and narrated their points of convergence. It is not surprising that, given this program, Power himself would be attacked for faulty readability. His report, Makuna complained, was "rendered least attractive by the non-observance of systematic narration, omission of heading of paragraphs, and cumbering it with unnecessary, and by no means accurate, maps, tables, plans, etc." Makuna's objections even extended to a concern for elementary grammar. "I have noted several of his sentences are incomplete, and without sense."[97]

## Calculation and Representation

Despite a number of criticisms and reservations, most epidemiologists and health officials admitted a "strange fascination" for Power's meticulous measurement of distances, proximities, zones, centers, gradations, and divisions.[98] Within just a couple of years, the clear consensus was that Power had established unassailable evidence for special incidence of smallpox around smallpox hospitals. This was "granted on all hands," including by Edward Seaton, who rejected Power's aerial hypothesis but nonetheless considered his Fulham study "a piece of work of great scientific value, and one which must always take rank among the best issued by the Medical Department of the Government."[99] The exact means of transmission remained in dispute, but Power had nonetheless convincingly rendered urban space and its relationship to contagion calculable in the aggregate. Smallpox contagion was newly spatialized—not on account of its individual pedigrees and lines of communication, but rather on the order of its proportions, frequencies, rates, probabilities, and risks. Smallpox did not necessarily appear more intelligible clinically and etiologically; instead, what was coming into view was an epidemic's natural relationship to urban features and populations.




**Map 6.3** Epicentered again: West London smallpox, 1884. (a) Fulham Hospital vicinity, May 24, 1884–September 13, 1884. (b) Same period, diagram indicating number of houses in each quadrant and section of quadrant in special area, number of houses invaded by smallpox, and incidence rate of houses invaded by smallpox *Fourteenth Annual Report of the Local Government Board, 1884–1885. Supplement Containing the Report of the Medical Officer for 1884* (London, 1885), between pages 78 and 79. Courtesy of Wellcome Trust Library, London

The return of smallpox to London in 1884 created a chance for health officials to revisit the methods of disease mapping. Among them was Power himself, who was again instructed by the LGB to monitor the behavior of smallpox near the Fulham hospital.[100] His follow-up study contained a repeat performance of his circle and dot mapping technique. A "somewhat rapid invasion" of smallpox occurred in the area a fortnight after the admission of patients, and Power sought to evaluate the impact of the hospital by localizing these new cases.[101] Excessive incidence in the one-mile radius was "best appreciated" by consulting the dot maps, Power writes, which "shows better than words and figures may do, an indifference in direction of the distribution of the small-pox thus suddenly concentrated in the neighborhood of the hospital."[102] The one-mile radius ultimately suffered rates of smallpox twice that of the rest of the three parishes, which was represented in a diagram arranging rates of infection in directionally segmented quadrants (Map 6.3).[103]

Again, Power finds a pronounced "graduated intensity" extending from the center, but most shocking was that this had occurred when the number of smallpox patients at the hospital had not exceeded nine.

Power's second study of Fulham makes two significant departures from his previous report. First, he cautiously avoids etiological speculation. Atmospheric dissemination is not directly addressed, and in fact this time he supports the view that neither personal communication nor aerial discharge could fully explain smallpox's spatial distribution.[104] second, Power dispenses with practically any attempt to track the course of individual infections using interviews with patients or other on-site inquiries. He instead allows the maps and tables to stand on their own as evidence of "hospital influences." At one point he even compares himself with a "microscopist" who can increase the power of magnification and single out specific variables for special scrutiny.[105] His statistical tables certainly become more map-like and underscore that his study is concerned with calculating and spatializing population risk in relation to a center of infection.

Medical opinion on the whole was "profoundly unsettled" by Power's follow-up report.[106] Fulham Hospital presumably had been "put on its mettle" to gain control over all movements in and out of the hospital. Notwithstanding an "abundance of precautions" and a much-reduced number of inmates, its operations had coincided with the excessive and peculiar local incidence of smallpox.[107] An editorial in *The Lancet* declared that the "calamitous occurrences of the past fifteen years" proved these establishments were "pregnant with death." It supposed that they had cost London "more lives than are often sacrificed during one of our military campaigns."[108] Smallpox hospitals were now utterly irreconcilable with urban space. Starting in 1885 no smallpox would be treated in London; all cases were immediately evacuated to the extra-metropolitan smallpox ships and camps.

This sweeping re-spatialization of London smallpox had been induced by a stream of local mappings during the 1884 epidemic. The MOH for Lambeth, for instance, put concentric circles on a map to illustrate higher infection rates around the MAB's Stockwell Hospital, which in his opinion provided "another link in the chain of evidence" condemning it.[109] A similar map was prepared by the Camberwell MOH regarding the MAB's Deptford Hospital.[110] At Hampstead, the MOH showed that smallpox had remained scarce in his district during the London

epidemic of 1881, but his maps demonstrated a "marked incidence" near the Hampstead Hospital once the legal injunction against it had been lifted and it was in use during the 1884 epidemic.[111] The circle and dot map had clearly emerged as a favored tool for establishing the infectious effects of hospitals. This is perhaps best illustrated in a report by the St. Pancras MOH, Dr. Shirley Foster Murphy, who was concerned with plotting and evaluating the effect of two smallpox hospitals located just outside his district: the MAB's Hampstead Hospital and the London Smallpox and Vaccination Hospital (the latter a relatively small, privately operated charity located in Highgate). His maps use concentric circles to ascertain a consistent gradation of infection while the Hampstead Hospital was in operation in 1884, but not in 1881 when it was closed (Map 6.4). While Murphy was reticent to say that this distribution indicated aerial transmission, he retained no doubt that the maps proved that smallpox hospitals were a source of disease to contiguous populations.[112]

Intriguingly, while Power at this time was backing away from his earlier aerial smallpox hypothesis, many others embraced it unreservedly—a conclusion they believed rested in the visual evidence provided by maps. John Tripe, the MOH for Hackney, charted a local smallpox outburst in March 1884 using differently colored marks that represented the days on which the first cases occurred: black for the first day, green for the second, red for the third and fourth, yellow for the fifth, and blue for the sixth day. His plotting of 69 cases in 65 houses appeared to show a graduated prevalence of the disease centered on the Homerton Hospital. There was no evidence of personal communication between cases represented by the colored spots ("the inquiry on this point was a careful as could be"), and so Tripe took it as convincing proof that local "explosions" of smallpox owed to "some unusual but unknown condition of the atmosphere" and to proximity of the smallpox hospital.[113] Neither conclusion held for scarlet fever, though, which he established to his satisfaction the following year by employing spot maps.[114] (Tripe, incidentally, seems to have been the first to use the term "spot map" in preference to "dot map".) He considered map evidence crucial—the linchpin, really—for establishing the existence of aerial smallpox dissemination. Tripe complained in print that critics of this theory had omitted consideration of his spot maps and insisted that without them readers might gain a very incomplete comprehension of his argument.[115]


**Map 6.4** Dual seats of smallpox: St. Pancras in 1881 and 1884. Shirley Foster Murphy, *St. Pancras MOH for 1884*, facing page 10. Courtesy of Wellcome Trust Library, London

## "Circles of Responsibility"

The proliferation of smallpox maps referenced a particular type of trust in numbers that appealed well beyond the specialist fields of epidemiology and sanitary science and that could significantly shape debates occurring in the public sphere, civic politics, and legal jurisprudence. At the center of all these disputes was the measurement of urban residents and their places—and, crucially, the re-envisioning of these as populations and their spaces. One anxious correspondent to *The Times* noticed Tripe's maps: "a glance at them tells its own tale. The streets all round the [Homerton] hospital are thickly studded with spots, which disappear as the radius is widened. There is an inexorable logic in a fact like this."[116] A member of the Hackney Board of Guardians remarked there was "no running away from the fact" that smallpox predominated in the smallest quarter-mile radius and that mathematical gradation of infection away from the hospital amounted to an irrefutable indictment of it as the source of local smallpox.[117] In the fall of 1884, when the Hampstead Vestry renewed a lawsuit against the MAB, it declared that it had awaited sufficient evidence of danger to local residents and that this was now "illustrated very significantly" by spot maps prepared by the district medical officer.[118]

Circle and dot maps were therefore visually prominent not only in technical but also official and public arenas. This significance was premised on an inspectability and calculability of the urban population that was still somewhat novel for the problem of contagious disease and that was still in the process of being established as a political concern. What more, these maps did not simply illuminate a population that already existed and held political resonance, but rather they helped produce "population" more broadly as a vital category of inquiry, measurement, and regulation. It was a perspective, of course, central to epidemiology as a discipline, but one that also increasingly appealed to the public and the law, especially when it could effectively visualize a statistical understanding of some previously obscure aspect of society. Disease maps tended to convert a collection of residents, a public, a community, into a visible and objective "population" displaying its own natural patterns and inscribed by influences that were measurable and therefore alterable. In certain contexts, this category could be a valuable subject-position. One sermon delivered in 1884 to a Hampstead congregation returned to the familiar theme of the nearby smallpox hospital, but also took the

trouble to describe how the Vestry's new maps clearly delineated "circles of responsibility as well as of red-spotted houses into which smallpox has been borne from the hospital."[119] Appearing amidst emotionally charged debates raising questions of fault, accountability, and redress, the smallpox maps invited hospital opponents to subjectify themselves as a population, count themselves as potential dots, and envision themselves arranged in accordance with the natural lines identified by epidemiological study. Some considered the maps sufficient grounds to abolish the hospitals and treat smallpox in victims' homes.[120] Most, however, anticipated that the hospitals would be relocated to safer spots that would be determined in large part by the same sort of statistical analysis epitomized by the maps. Thus the objectifying nature of the map could both resist power and facilitate it—maps were the most likely means for a local public to remove the hated and feared hospital; they also brought the public into view as a newly transparent and bountiful object of government: a population.

The London smallpox maps provided new ways for statistical evidence in health matters to be judged alongside or even in preference to clinical medicine. They also prioritized the urban as a particular site of concern over non-urban space. In 1884 an adjacent landowner brought a lawsuit against the MAB over the smallpox encampment near Darenth, claiming that it created an infectious danger. The presiding judge, however, stated at the opening of the trial that recent rulings in nuisance law placed the burden upon this plaintiff to substantiate that the communication of disease was not simply made *possible* but demonstrably *probable* by the encampment. He was obliged to demand objective and measurable effects. Several London medical officers were called as witnesses, with the plaintiff's attorney directing particular attention to Dr. Tripe's spot maps of Hackney and his argument for atmospheric contagion. Clusters of red spots hugging the Homerton Hospital were "consistent with that theory and not consistent with any other," he pleaded, adding: the maps "seem to me, I confess, to convey that inference irresistibly. If they do not convey it to your Lordship, I am afraid no argument of mine will carry it further than a glance at the maps themselves will."[121] The maps were one stable set of evidence among the rather contradictory testimony provided by doctors, which amounted to little more than theory, analogy, and anecdote about the spread of smallpox and which had little bearing upon the question of probability. In the end the judge ruled that, while the danger of London smallpox hospitals had been

established to his satisfaction, this "had no parallel at all" with the camp under dispute. The "actually real danger" of London hospitals could not be applied to rural ones; he therefore denied the plaintiff's request for an injunction. The decision effectively damned any further prospects for smallpox hospitals in London but also validated the MAB's activities in the countryside.[122]

The same measures of calculating population risk were at the center of numerous official studies of the effects of smallpox hospitals. Circle and dot maps featured prominently in studies of epidemics in Sheffield (1889), Oldham (1893), Leicester (1893), Warrington (1893), Bradford (1894), Hastings (1895), Gloucester (1896), Manchester (1902 and 1903), Nottingham (1904), Orsett (1904), Liverpool (1905), Gateshead and Felling (1905), Glasgow (1905), and doubtless elsewhere. Practically all of these investigations were eventually intertwined with lawsuits brought against local health authorities, showing how cartography was increasingly called upon to locate natural risk and thus also inscribe the spaces of legal responsibility. Moreover, plaintiffs increasingly opted to avoid difficult and contentious etiological questions, sidestepping debates about aerial dissemination and instead presenting purely statistical evidence of smallpox's spatial distribution in populations within various radii of hospitals in several towns.[123] Partly in an attempt to limit the legal liability of sanitary authorities, the Local Government Board in 1895 mandated the spatial marginalization of smallpox hospitals. No longer could they be situated within a quarter of a mile of any workhouse, hospital, or other building or population containing more than 150 persons, nor might such a hospital have more than 500 persons dwelling in institutions or houses within half a mile.

Meanwhile, the specialist epidemiological debate over the source of smallpox hospital influences remained essentially unresolved. Practically no additional evidence seemed capable of breaking the deadlock between supporters and critics of the atmospheric dissemination hypothesis. "Aerialists" believed it was a simple matter of statistics applied to cartography and always cited the characteristic "graduated intensity" of infection appearing around hospitals.[124] Perhaps a majority of MOHs, however, counted themselves as skeptics of the aerial thesis and regularly complained of being "obliged now to regard as a canon of our faith" a proposition not much recognized outside Britain.[125] In 1901 (his first year in office as the Medical Officer to the LGB) Power took the extraordinary step of officially issuing a new edition of his famous report

on smallpox in Fulham.[126] This occurred amidst a large but relatively low-mortality outbreak of smallpox nationwide, and the action sent an unambiguous message to health officials. Still, many MOHs continued to ridicule Power's thesis. As one wrote in *Public Health*: that a "fountain of small-pox micro-organisms" could rise up from a hospital and "descend in a maleficent spray on the surrounding neighborhood over an area of four square miles seems more like a chapter from the 'Arabian Nights' than a theory in sober sanitary science."[127]

The debate was kindled once again by R. J. Reece's 1905 report to the LGB containing no less than twenty-three circle and dot maps purporting to show a heightened incidence in the one-mile vicinities of three Liverpool hospitals.[128] Power praised these findings and spoke of how the "characteristic distribution" of smallpox supported the inference of atmospheric infection.[129] Others, however, vigorously challenged Reece's statistical evidence and ridiculed his maps.[130] A Liverpool MP defended the health authorities of his constituency on the floor of the House of Commons, deriding the study as "based entirely on spot maps."[131] The accuracy of Reece's maps were not a question for the Liverpool MOH, who instead aimed to do him one better by drawing concentric circles around a hospital not receiving smallpox and finding a similar gradation of infection rates in the contiguous population.[132] After the turn of the century the aerial hypothesis undoubtedly fell under much greater open scrutiny. But, indeed, so did the entire doctrine of hospital influences in smallpox. *The Lancet* remarked it was "like Sinbad's Old Man of the Sea—the science and practice of preventive medicine cannot get rid of it."[133]

This long-standing debate was the instigation to employ increasingly elaborate forms of calculating and representing population probabilities—that is, until suddenly there was not enough smallpox to support this form of study. The 1901–1903 smallpox epidemic was the last significant one in Britain, and afterwards the door was effectively closed for fresh investigations into the epidemiology surrounding smallpox hospitals. While few epidemiologists believed it quite as simple a matter as counting dots on maps, all admitted that the danger of hospitals could only be determined by observing a large body of people subject to an epidemic and residing in the vicinity of a hospital. The question of "hospital influence" had always been perceptible exclusively as an urban problem and, just as importantly, entirely as an attribute exhibited by populations. It could only be witnessed, if at all, through viewing rates,

patterns, norms, and averages affecting a spatially segmented and distinct set of bodies. What this goes to show is that a population is more than merely the sum of its parts. It *becomes* an object of knowledge *in itself* through certain arrangements of observation. Concerning smallpox, the pertinent population was something that had to be brought into view through practices and systems of surveillance. The population did not cease to be the object of inspection and measurement once it stopped exhibiting smallpox, although the specific concern of smallpox hospitals did disappear from view both epidemiologically and politically.

## Making the Public Count: Surveillance and Mapping

The prominence of smallpox hospital maps help to illustrate some of the key debates leading up to and involving the introduction of formal systems of disease surveillance based upon compulsory public registration. Power's study of Fulham Hospital in 1881 had hinged upon a local, provisional, and voluntary disease notification scheme. He enlisted the assistance of area practitioners to notify him directly of cases of smallpox, and thus could study the occurrence of infections almost as they happened instead of waiting weeks for the publication of death certificates. The arrangement imparted a degree of nearly real-time visibility extraordinary for the day, at least in London. Notification of this sort was required in some British sanitary jurisdictions and voluntary in a few others. London MOHs had to wait until 1889 for compulsory disease notification to go into effect. In the meantime they received a halfway measure. Starting in 1884, the MAB sent daily reports to medical officers stating the names and addresses of persons from their district admitted to the fever and smallpox hospitals. Dr. Dudfield of Kensington declared himself highly grateful and remarked that information provided by the hospitals was "often the first, and sometimes the only, intimation we had of the occurrence of infectious diseases in particular houses."[134] His office had previously relied upon haphazard tidbits of intelligence supplied through anonymous letters, confidential verbal communications, and the informal arrangements made with school officials. Dudfield clearly felt uncomfortable with acting as the storehouse for local gossip, and he bemoaned the incompleteness and irregularity of its collection. To his mind, the hospitals were the way to achieve a more prescribed and proper accounting of disease. In 1887 the Kensington Vestry started offering 2*s.* 6*d.* to private practitioners in the district for each notice of an infectious case.

They awarded doctors a further 2*s.* 6*d.* for filling out the medical certificate needed for the ambulance nurse as well as the full cost of a telegram to the MAB. The result, Dudfield happily stated, was that the patient was oftentimes snugly in bed at a fever or smallpox hospital before his office received the notification. It was a boon for efficiency and safety, and served as a means of constructing a more complete and timely picture of epidemic disease as it existed.[135]

District medical officers found it useful to visualize this sort of surveillance data. The Lambeth MOH kept regulation-size Ordnance Survey maps in his office where he fixed pins showing cases brought to his attention by the MAB, and which he found valuable for "marking prominently the scene of [a disease's] collective intensity." It also functioned as a visual index for a large register of all houses in his district (500 books having a page for each house to record sanitary improvements and occurrences of infectious disease). The map therefore provided a summative survey to a deep archive of parish information; in this way it guided further specific projects of inspection and additional interventions such as disinfection and revaccination. The disease map could inscribe a parish in impressive new ways, illuminating specific areas where sanitary defects might be presumed to exist and (literally) pinpointing spots where more careful inquiry should be carried out on the ground. Moreover, this "visible registration of preventable disease" was to act as a public record and could be used by potential renters, as the localized prevalence of disease could be "revealed at once to the eye of an intending occupier."[136] One commentator on sanitation issues expressed his impression that such maps were similar in principle to nautical "wreck charts," and that fever dens were thus "indicated in a visible manner as a rock or shoal at sea."[137]

The spot maps produced by the St. Pancras MOH, meanwhile, were used to organize and illustrate knowledge about the general features of epidemics, spaces, and peoples. His 1888 annual report drew notice to clusters of brown dots indicating residences of those hospitalized for typhoid fever—a sure sign of inadequate sewerage in that vicinity. Diphtheria's proclivity for elevation became clear from the location of green dots, and scarlet fever's contagiousness and ability to spread from person to person was "very marked upon the map by the strings of red beads." He interpreted the remarkable absence of smallpox on that year's map as evidence for the wise policy of removing the smallpox hospitals from London. While they no doubt directed his office's attention

to sanitary defects requiring remediation, these maps were also viewed as important in themselves for supporting an assessment of the natural distributions of diseases in the social body. Still, the St. Pancras MOH admitted that his maps' value would have been greater if a system for the compulsory reporting of all infectious disease (not just ones hospitalized) had been in effect.[138]

A completely new era of disease surveillance in London commenced in 1889 with the Infectious Disease (Notification) Act. It established the principle of "dual notification," meaning that responsibility to report a case of infectious disease lay formally with both the householder and the attending physician. In reality, the law expected that physicians (who received a fee of 2*s.* 6*d.* for each certification) would be the ones to submit the notification to the district MOH. It nonetheless affirmed that all individuals held "grave responsibilities" in regard to infectious disease and that infringement of the law might be accompanied by "unpleasant consequences."[139] The notification system operated under the legal conceit that one's responsibility to notify was implicitly delegated to the attending physician. However, the ultimate personal accountability of households was also clearly spelled out and therefore, although it was not exactly a form of self-registration, the law helped to create a sufficient-enough feeling that the public participated in reporting themselves instead of being reported upon. They were thus enlisted in a project in which the people would count themselves part of a knowable, legible, and measurable population. Furthermore, the isolation hospitals became an integral part of this carefully balanced disease registration system. Medical certification of "notifiable disease" went directly to local MOHs, who within 12 hours were to forward name, sex, age, and address to the MAB, which would reimburse the districts for costs of certifications. The hospital authorities, in other words, now acted as the official clearinghouse for what would be made into a complete and timely picture of infectious disease occurring in the metropolis. Compulsory disease notification was meant to render impossible (or at least illegal) the concealment of smallpox or other contagions. It decreed the official knowledge of certain diseases, but at the same time lent assurances that this would remain privileged information and thereby could claim to safeguard a certain distinction of privacy. Names and addresses of the sick were not to be publicly available, for example.[140]

Disease notification generated a minimal amount of public controversy, and much of that was very short-lived. It was more vigorously

opposed by members of the medical profession, who feared such measures would compromise the confidential relationship between doctor and patient. These concerns, however, also melted away remarkably quickly.[141] Perhaps not surprisingly, some of the most aggressive opposition came from political libertarians. The flamboyantly contrarian Charles Bradlaugh, for example, labeled the Notification Act "the Last Move of Medical Despotism" and stated that its provisions "would enable vivisectionists to seize a sick Englishman or Englishwoman[,] put them in a prison reeking with zymotic poison, and there make them the subjects of whatever treatment or experiments it may please their medical gaolers to inflict." This bombastic attempt to connect notification with the rhetoric and images of earlier campaigns against the Contagious Disease Acts, vaccination, and cruelty to animals fell almost completely flat. Bradlaugh himself was surprised on the floor of Parliament when the president of the Local Government Board stated that anti-vaccinators were the strongest supporters of the bill.[142] In the end, it passed both houses of Parliament practically unanimously. It should be remembered that the public in general was already acclimated to submitting data about births, cause of death, and so on. Much more invasive and demanding requirements had long been directed at marginalized populations (such as compulsory registration of disease occurring in common lodging houses and in Poor Law practice). But most importantly, although it did represent a monumental extension of surveillance powers to the general population, the Notification Act garnered relatively little concern about intrusive government.

Sanitary and health inspection by this time occupied a deliberately guarded space within an overall political culture of official accountability. In a provocative outline of what he calls a "mode of liberal surveillance," Tom Crook stresses how practices of sanitary inspection were consistently bracketed by "a broad culture of governance committed to both actively securing a moralized, pluralistic and healthy society and respecting society's capacity to govern itself, free of intervention." This formulation no doubt conflicts with common assumptions about "surveillance society" being intrinsically related to some sort of smooth, incontestable, hierarchical, anonymous bureaucracy. Crook traces how local sanitary officers, far from being allowed to dictate and pacify, had to exercise oversight through a process always requiring delicate personal interactions with householders and dexterous demonstrations of civility (a true

hallmark of liberalism). Sanitary government was increasingly concerned with the lives of respectable citizens, and along with that was a belief that "the public had to be worked with and through, as an active agent rather than passive object of governance."[143] These important observations are consistent with recent research on the place of statistics within the nineteenth-century public sphere, which stressed the obligation to inform society as much as to know society.[144] The mode of governance resting upon society's transparency, legibility, and knowability nonetheless also presumed that there would always be limits to the desirability of gathering information, especially about private matters. In this context, as Patrick Joyce observes about the Victorian managerial state, governing powers required "securing the trust of the public by not attempting to know too much" and not instituting practices that would be seen as overly or overtly "prying."[145] Official knowledge of the private sphere was by no means ruled out categorically, but it still had to be continually justified. Indeed, specific data sets about deadly disease sometimes failed to meet the test of political practicality. A proposal in 1891 to add measles to the list of notifiable diseases did not receive sufficient support from London MOHs. Some admitted it would be interesting to know the amount of measles, but worried about the difficulties of making use of the information. The disease became infectious before its first symptoms and so isolation could do little good; it would also be fantastically costly.[146] The benefits of hospital isolation had significantly undergirded the rationale for mandatory notification of smallpox and other infections. However, measles was not admitted to MAB hospitals until 1910. We might say that the political organization of measles knowledge had not yet been linked to a positive program of governance and therefore its mandatory reporting was difficult to justify.

The MAB quickly established the importance of disease notification and statistical knowledge in the overall metropolitan strategy of epidemic preparedness. This is demonstrated by a minor scandal that broke in 1891 when it was revealed that the Newington Vestry had directed its MOH to send notifications only of cases requiring removal to hospitals and to withhold information from the MAB about privately treated cases. The Vestry clerk explained that the parish was simply anxious to avoid annoying householders who chose not to send patients to hospitals and, anyway, he could not see why the MAB should be privy to the age, sex, and address of all sick persons in London. In a personal aside, he

admitted that his own household had recently experienced scarlet fever and chickenpox. This had led him to believe that "to make known these cases outside the district is an unwarrantable liberty upon a subject" not intended by Parliament.[147] Sir Vincent Kennett Barrington, Chair of the MAB's Statistical Committee, raised the recalcitrance of the Newington Vestry at a meeting of the full board and pointedly accused district officials of disobeying an Act of Parliament and of conspiring to conceal the existence of infectious disease from proper officials. He reiterated that information on specific cases was kept confidential and that these notifications were completely separate from the matter of compulsory removal. Most reprehensibly, in Barrington's opinion, the Newington Vestry had "rendered inaccurate the whole of the compiled statistics of London" and deprived all metropolitan residents of the protection sought by the timely registration of disease.[148] In the end, there was no real question as to the legal obligation of district officials to inform the MAB of all notifiable cases. The Local Government Board immediately rebuked the Vestry and impetuous obstructions to notification became very rare indeed.

This last episode nonetheless underscores that disease notification, while undoubtedly aiding the detective eye and the police powers of the local state, constantly navigated official and public reticence toward being overly intrusive—a reticence that was both the outcome and the intention of it being embedded within a critical public sphere comprised of state officials, constituents, the press and others. This reticence was conciliated when surveillance could be framed as a politically accountable means of constructing distant, statistical knowledge of society and when actively engaging individuals in the process of counting themselves. "Governing by numbers," Joyce maintains, worked best when cultivating the public's wishes to be shaped "as, quite literally, democratically accountable, and hence responsible citizens."[149] The Victorian "surveillance state" ceded a great deal of responsibility for gathering knowledge to a body politic that saw it desirable to be governed in accordance with its own naturalness and that felt a sense of security from viewing itself as a population. The burgeoning capabilities of disease surveillance became acceptable in part because it was done in such a way as to allow that the public could itself occupy the scopic position of observer and hence perceive surveillance accountable to the surveilled.

## Population Visualizing Itself

The disease maps of this period encouraged and enabled the public to observe the metropolis and itself through the eye of surveillance. Spot maps in particular were thrust into recognition because of debates over smallpox hospitals and became powerful representations of the *naturalness* of the urban environment and population. They thus served as another means for the people to become subjects of inspection and not simply its objects, for them to know in addition to being knowable, to participate in inspecting themselves from a distance, and to envision their own place within strategies of regulation. The mapping of disease at the end of the century is emblematic of the biopolitics of government. This consisted of new ways that the public could recognize itself as a natural entity possessive of its own norms and capable of modification as a whole. Official disease maps constructed from notification returns brought this perspective within reach of an increasingly large number of Londoners, not simply health officials. Maps invited residents to look upon themselves and conduct themselves in relation to the management of the population, at the level of the population, as if they were part of the population.[150] Cartography at this time started to allow the public to place itself on the side of inspection—knowing what surveillance knows, and knowing itself as known by surveillance. A crucial technique of liberal government, self-surveillance is self-regulation.[151]

In the early 1880s the MAB started commissioning dot maps based on the home addresses of hospital patients. Produced in response to public agitations and lawsuits, these maps were presented as evidence that diseases like smallpox also tended to cluster in places apart from the hospitals.[152] They remained unpublished until the MAB's *Annual Report* for 1888, which included a large folding map "spotted" to indicate hospitalized cases of smallpox. The MAB's Statistical Committee reported that they doubtlessly would "be of great practical value to the Managers and the public"[153] and began publishing separate maps for each principle infectious disease in 1890 (Map 6.5). In 1892 these annual maps started showing all infected homes registered under the Notification Act, not just those of hospital inmates. The immense number of scarlet fever dots now necessitated printing quarterly maps for that disease; bi-annual ones were produced for diphtheria. The MAB spot maps used standard prints with principle thoroughfares and boundaries of the Poor Law Unions reproduced in very faint colors. On top of this


**Map 6.5** London "spotted" by scarlet fever, 1889. *Reports for the Year 1889 of the Statistical Committee and the Medical Superintendents of the Infectious Hospitals and Imbecile Asylums* (London: The Board, 1890). Courtesy of Wellcome Trust Library, London

are prominent dark dots for the disease in question. The maps are not detailed enough to identify specific houses and, while MAB hospitals are prominently identified, circles are not drawn around them. Employing a technique similar to pointillism, they are entirely impressionistic. One editorial proposed that a composition of notification maps over several years might form the basis of a "Metropolitan zymotic disease chart," but no such detailed analysis was actually attempted.[154] Instead, each map simply paints a survey of London disease distribution.

These spot maps convey a notion of the immense work carried out by the MAB, which must have been another reason for the expense of publishing them. Their scale was sufficiently startling, indexing a massive field of knowledge and a colossal apparatus of observation. Although smallpox spot maps for focal areas were well known by this time, granularly locating a year's worth of disease was still a novel form of representing London. Four decades earlier, Henry Mayhew had noticed that the haunts of fevers and disease were infamous enough that London might be "mapped out pathologically, and divided into its morbid districts and deadly cantons." In his day one might place a finger on the Ordnance map and recount here is the typhoid parish, there the cholera fields.[155] Mayhew had not quite anticipated anything like the MAB's spot maps, which were not composed from the anecdotal reputation of a district but rather from meticulous surveillance, record keeping, and spatial plotting. Epistemologically, these disease maps certainly owe much to the visual technique employed in Power's studies of hospital influence, but they actually have more in common with Charles Booth's "descriptive maps" of London poverty, with which they are exactly contemporary. Booth colored residential spaces according to an elaborate class scheme, thus allowing the ordinary viewer to quickly discern the "plague spots" of immorality and distress (mainly in the East End). As in that eye-catching "survey of surveillance," the MAB maps presume to display a social problem in its urban totality: they locate problem areas in relation to the rest of metropolitan space.[156]

Evidently a number of people took notice of official disease maps, revealing how population surveillance was envisioned within the public culture of representation and scrutiny, accountability and debate. A correspondent to a Tottenham newspaper wrote about looking through the MAB's spot maps for 1891. The immediate purpose was an intense local campaigning against the new fever hospital planned for the area. The writer noticed that the presence of hospitals in no way augmented the

prevalence of typhoid "dots" and that diphtheria seemed evenly distributed across London. As for scarlet fever, the first quarter map displayed a prevalence of dots around the Homerton Hospital, the second quarter map had Homerton below the metropolitan average; the third quarter saw few cases again in Homerton, while the fourth quarter had a rapid rise in dots in the same area. The writer also deduced from the maps that scarlet fever never congregated in well-to-do and elevated neighborhoods in the same way that it did in poor, low-lying places. His conclusion was that fever hospitals do not necessarily spread scarlet fever, but that Tottenham nonetheless would be a bad location because of its working-class composition and poor drainage.[157] An editorial in *The Daily News* came to similar conclusions about those "sanitary maps of our Babylonian village." Each of the MAB's "dismal surveys" were "spotted like a wreck chart," the editorial admits, but in reality they were not cause for alarm because were they "pitted for sound health, the marks would be a hundred or a thousand times thicker." If another cartographer painted the map with black and red for health and happiness, "the page would come out as a cheerful rash." The editorialist goes on to find significance in the fact that the maps were a revelation to the non-professional. He adds that it was important to look upon them with a certain attitude, in which the "vicious little marks" of disease might impart a sense of gratitude and instruction. "The man of science is on the watch for us day and night, as well as the soldier and policeman. The moral of these reports is that we should refuse him no reasonable legislation that may strengthen his hands."[158]

Other public uses of disease maps were found by district medical officers. In 1887 the Lambeth MOH began reproducing grainy photographs of his wall maps in annual reports; within a couple of years he was issuing very clear printed maps using conventions employed in the MAB reports.[159] Similar maps quickly became an almost regular feature of Vestry publications—so much so that their absence also had to be explained. The Mile End and Camberwell MOHs, for example, lamented that reproduction had been deemed too costly but stated that original maps were kept available at their offices for public inspection.[160] Disease maps of this sort undoubtedly conveyed a powerful sense of transparency and legibility, but medical officers generally admitted that they facilitated no specific or immediate calculations. Some considered this a significant shortcoming. The Paddington MOH remarked that localities particularly affected with infectious disease were "best shown by the use

of 'spot' maps," but this was not represented as a proportion of population and thus did not yield rates and ratios of sickness.[161] Of course, the same was true of the MAB spot maps, which is the reason cited for why the managers stopped producing scarlet fever and diphtheria maps after 1904. These diseases occurred in practically the same rates amongst poor and rich, and thus the dots did little more than trace relative residential density.[162] This shows that health officials understood the limited epidemiological usefulness of such maps—but we should be careful not to miss their political value. They visibly showcased the resourcefulness and vigilance of civic officials, who no doubt understood that the task of keeping the district under close observation would be more powerfully conveyed in maps than by charts and tables. Also, they were composed from information supplied by the public and thus illustrated a form of surveillance that was less searching and hounding than it was patient and distant. Publication of a disease map permitted the public both to oversee the officials responsible for observing the district as well as to participate to some extent in that observation.

Spot maps issued by the MAB were routinely praised for affording an opportunity to view the London population as a natural whole and without regard to artificial features like parish boundaries. A leader in *The Standard* in 1895 observed that the prevalence of infectious disease was "a matter of average, admitting of wide diversities among different parts of the metropolis" but nonetheless conforming to significant patterns. This was "vividly brought to view" in the MAB's annual reports. The most important trait that "at once appeals to the eye when attention is directed to these maps" was the "pre-eminent degree in which the attacks of disease befall certain localities." One could see in a part of Marylebone southwest of Regent's Park a thick cluster of black diphtheria dots abutting upon "a western boundary by which they are seemingly arrested by an almost impenetrable barrier." One could "look with certainty" on the typhoid and scarlet fever sheets to find a "decided adhesion" of respective dots to the same corner of Marylebone, while smallpox dots "make the place almost black on the map"—all indicative that "whatever pestilence comes, it visits that part of the parish, and seemingly comes to stay." *The Standard* editorialist considered this visualization far more useful than tables of statistics, since those were invariably divided by the "purely arbitrary" boundaries and "very irregular and capricious" outlines of local jurisdictions. He preferred the MAB's accumulated, metropolitan view in which the parochial boundaries quite

literally fade into the background and a contextual appreciation of disease distribution in the metropolitan population comes forward. The large-scale map visually evokes how infectious disease affects parts of districts and traverses internal borders; it brings into view disease's own boundaries, often modified by some unanticipated or yet unknown physical or social feature.[163]

A number of observers perceived that the MAB spot maps supported civic tasks of public oversight, detection, indictment, and reform. They effectively outlined for any observer the specific spaces "where disease obviously concentrated, and which constitute the plague-spots of the metropolis," in the words of *The Standard*. Other commentators made the same points: that the maps themselves "point with [an] unerring finger to certain localities as the natural homes of these diseases." It could not be by accident, one noted, that particular spaces were consistently "blackened by the close aggregation of the dots."[164] The London disease map seems to finger localities of concern in ways not possible in the district maps. It assigns blame by encouraging the critical judgment of local sanitary authorities. In this sense, the metropolitan-wide map not only outlines problems but also diagrams government. This "great system of municipal watchfulness" extending from the vestries to the MAB was consistently seen as an apparatus that also enabled the public to watch over authorities.[165]

The consumption of disease maps was not limited to technical audiences of epidemiologists and health officials. They were produced primarily for persons generally interested in public affairs who might be encouraged to share the view organized by surveillance and thereby participate in inspecting the metropolis. In the words of one commentator, the annual publication of the MAB disease maps "renders it possible to concentrate attention immediately on the sanitary conditions of any locality where such spots recur with any regularity, and places the whole of London under direct and continuous observation."[166] Three important processes are at work here. First, while it had been the Notification Act and systems of registration that originally instituted this "direct and continuous observation," the individual is now allowed to occupy a similarly systemic position simply through looking upon the map. The public more broadly was invited to switch between roles of observed and the observer, inspection target and inspecting agent. Second, it is through this eye of surveillance that citizens might recognize themselves as part of a biological population of urban dwellers exhibiting natural processes

and inhabiting conditions of life modified by government. In sharing the vision of the map, the public participates in a detached visual mode and takes up the task of securing knowledge of itself. Third, surveillance does not begin with targeted inspection of known "plague-spots"; instead spaces of concern emerge from a process in which they are rendered visible by inspection of the whole. The parts of London "blackened" by Booth's poverty maps likewise gained visual importance by being contrasted with all other spaces. In the same manner, dangerous concentrations of disease became discernible by subjecting all of London to the same measures of surveillance, data collection, and mapping. This spatialization of disease was no longer a matter only of visualizing the "fever dens," "cholera fields," and "smallpox warrens" of old. Rather than special and concentrated attention on marginal people and places (the poor and the slums) the central scopic priority of metropolitan public health had become the metropolitan population in its entirety. This goal corresponds to efforts to visualize London in ways that the public could become the principle of its own subjection.

## Conclusion

The disappearance of smallpox epidemics from Britain shortly into the twentieth century meant that long-seething scientific and public debates concerning smallpox hospitals also dropped from view. These disputes, nonetheless, had already strongly shaped the thought and practice of urban public health. There was a practically unanimous opinion that the "comparative extinction" of smallpox in London after 1885 could be traced to the removal of patients to rural hospitals.[167] The 1901–1902 epidemic only slightly challenged this consensus, and was typically explained as an outcome of the gradual accumulation of susceptible persons to a degree that eventually overcame the advantage of extra-metropolitan isolation.[168] Tellingly, a long *BMJ* obituary on the occasion of Power's death in 1916 credited the relative "freedom of London from smallpox" over the previous three decades to his inquiries into the Fulham Hospital and the subsequent reorganization of the smallpox hospitals.[169] At the same time though, few health professionals believed this meant smallpox had been "stamped out." The emerging view was that only constant watchfulness and preparation had held it in check. Although they saw very few patients, London's downriver smallpox hospitals were maintained into the 1970s.

Smallpox became a well-regulated and infrequent scourge at the turn of the twentieth century—a fact that few failed to link with the governmental devices of surveillance, calculation, and representation. Conflicts over the smallpox hospitals had given rise to a generally probabilistic approach to governing contagion, to knowing it as an attribute of population, and to evaluating its spatial risks. Paradoxically, these debates solidified the central role of isolation. Indeed, by 1900 it was assumed that essentially every case of smallpox occurring in Britain was treated in hospital.[170] Furthermore, these disputes, which had always hinged upon the intelligibility of disease and the city, gave rise to other questions about measuring and mapping health dangers. Chapter 5 touched upon how the number of hospitalized individuals as a proportion of occurring infections became a key gauge of public health progress against a range of diseases. Chapter 7 examines attempts to measure other, more beneficial "hospital influences," specifically, the amount of illness prevented by timely removal of the infected. All of these questions show how contagion was being thought of in new ways as an opportunity for urban government, involving economies of regulation and organizations of knowledge and conduct. In the end, the conflicts over smallpox hospitals steered scientific and popular thought away from controlling contagion as an artifact of the material and social environment of cities and more toward governing disease in accordance with the naturalness of affected populations. As one epidemiologist put it in 1905, "'Hospital influence,' and its explanation, must remain one of the most important chapters in the natural history of smallpox."[171] It certainly also formed one key chapter in the political history of the disease.

## Notes

1. W. H. Power, "Report to the Local Government Board on the Influence of the Fulham Small-Pox Hospital on the Neighborhood Surrounding It," *RCFSH,* Appendix M., 368–80. Also published in *Tenth Annual Report of the Local Government Board, 1880–18: Supplement containing reports on the Use and Inlfuence of Hospitals for Infectious Diseases*, PP c. 3290 (HMSO, 1882), 302–57.
2. R. M. MacLeod, "The Frustration of State Medicine," *Medical History* 11 (January 1967), 40; *The Times*, 31 July 1916, 9; "Sir William Henry Power," *BMJ*, 5 August 1916, 203–07; Anne Hardy, "Power, Sir William Henry (1842–1916)," *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

3. *The Lancet*, 13 January 1906, 104. See also Anne Hardy, *The Epidemic Streets: Infectious Disease and the Rise of Preventive Medicine, 1856–1900* (New York: Oxford, 1993), 137; P. P. Mortimer, "Ridding London of Smallpox: The Aerial Transmission Debate and the Evolution of the Precautionary Approach," *Epidemiology and Infection* 136 (2008), 1297–1305.
4. An important contribution is Amy Fairchild, Ronald Bayer and James Colgrove, *Searching Eyes: Privacy, The State, and Disease Surveillance in America* (University of California Press, 2007). See also S. Declich and A. O. Carter, "Public Health Surveillance: Historical Origins, Methods and Evaluation," *Bulletin of the World Health Organization* 72/2 (1994), 285–304; Alfredo Morabia, "From Disease Surveillance to the Surveillance of Risk Factors," *American Journal of Public Health* 86/5 (May 1996), 625–27; Emma Kerrod, Alastair M. Geddes, Martyn Regan and Steve Leach, "Surveillance and Control Measures during Smallpox Outbreaks," *Emerging Infectious Diseases* 11/2 (February 2005), 291–97. A drawback to most studies is that they are confined almost entirely to the twentieth century. An exception is the work of Graham Mooney. See Mooney, "Public Health versus Private Practice: The Contested Development of Compulsory Infectious Disease Notification in Late-Nineteenth-Century Britain," *Bulletin of the History of Medicine* 73/2 (1999), 238–67; Mooney, *Intrusive Interventions: Public Health, Domestic Space, and Infectious Disease Surveillance in England, 1840–1914* (Rochester, NY: University of Rochester Press, 2015).
5. Tara O'Toole, Mair Michael and Thomas V. Inglesby, "Shining Light on Dark Winter," *Clinical Infectious Diseases* 34/7 (2002), 972–83.
6. Pamela Gilbert, *Mapping the Victorian Social Body* (Albany: State University of New York Press, 2004); Tom Koch, *Cartographies of Disease: Maps, Mapping, and Medicine* (ESRI Press, 2005); Tom Koch, *Disease Maps: Epidemics on the Ground* (Chicago: University of Chicago Press, 2011). Some key works in critical cartography include J. B. Harley, *The New Nature of Maps: Essays in the History of Cartography* (Baltimore: Johns Hopkins University Press, 2001); *Mappings*, edited by Denis Cosgrove (London: Reaktion Books, 1999); Denis Wood, *The Power of Maps* (New York: The Guilford Press, 1992).
7. J. B. Harley, "Maps, Knowledge and Power," in *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments* (New York: Cambridge University Press, 1989), 282.
8. Lynda Nead, *Victorian Babylon: People, Streets, and Images in Victorian London* (New Haven: Yale University Press, 2005), 14–26.
9. Koch, *Cartographies of Disease*.

10. "The Topography of Disease," *The Lancet*, 28 November 1874, 774.
11. Reuben Rose-Redwood, "With Numbers in Place: Security, Territory, and the Production of Calculable Space," *Annals of the Association of American Geographers* 102/2 (2012), 295–319.
12. Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City* (New York: Verso, 2003), 35. See also Thomas Osborne and Nikolas Rose, "Spatial Phenomenotechnics: Making Space with Charles Booth and Patrick Geddes," *Environment and Planning D* 22 (2004), 209–28.
13. Gilbert, *Mapping the Victorian Social Body.*
14. Jay Frank Schamberg, *Diseases of the Skin and Eruptive Fevers* (London: Saunders, 1909), 416.
15. Sir Thomas Watson, "Small-Pox and Compulsory Vaccination," *Nineteenth Century* (June 1878), 1001.
16. In one year, of 797 known cases in his district, 522 had been handed over to the hospital. Charles Meymott Tidy, *Islington MOH for 1881*, 11.
17. Norman Kerr, *The Standard*, 3 May 1881, 5.
18. Alexander Wynter Blyth, *The Sanitary Chronicles of the Parish of St. Marylebone, during April, 1881* (London, 1881), 73.
19. *The Times*, 6 July 1871, 11.
20. Matthew Newsom Kerr, "'An Alteration in the human countenance': Inoculation, Vaccination, and the Face of Smallpox in the Age of Jenner," in *A Medical History of Skin: Scratching the Surface*, edited by Jonathan Reinarz and Kevin Siena (London: Pickering and Chatto, 2013), 129–46.
21. *The Times*, 13 January 1877, 9.
22. *The Lancet*, 8 May 1880, 690.
23. W. M. Acworth, "Scarlet Fever in the Metropolis," *Murray's Magazine* (October 1887), 439–40.
24. Tidy, *Islington MOH for 1882*, 8.
25. *RCFSH*, xxii.
26. E. T. Wilson, "Are Small-Pox Hospitals Necessarily (per se) A Source of Danger to the Surrounding Population?" *TSMOH, Session 1884–85* (London, 1885), 75.
27. *Hansard's HC Debates* (1 July 1884), cc. 1818.
28. Harris Butterfield, *TSMOH, Session 1884–85* (London, 1885), 106.
29. Archer Farr, *RCSFH*, 135.
30. Edwin Chadwick, *On the Prevention of Epidemics: Address of the President, Brighton Health Congress*, (London: Spottiswoode, 1882), 4–5.
31. John Marriott, *The Other Empire: Metropolis, India and Progress in the Colonial Imagination* (Manchester: Manchester University Press, 2009), 101.

32. Judith Walkowitz, *City of Dreadful Delight: Narratives of Sexual Danger in Late-Victorian London* (Chicago: University of Chicago Press, 1992), 16.
33. *Fifth Annual Report of the Poor Law Commissioners*, Appendix C. (1839), quoted in Francis Shepard, *London, 1808–1870: The Infernal Wen* (Berkeley: University of California Press, 1971), 254.
34. *Health of Towns* (London, 1847), 10.
35. John M. Eyler, *Victorian Social Medicine: The Ideas and Methods of William Farr* (Baltimore: Johns Hopkins University Press, 1979); Theodore Porter, *The Rise of Statistical Thinking, 1820–1900* (Princeton, NJ: Princeton University Press, 1988).
36. William Farr, *Supplement to the 35th Annual Report of the Registrar-General* (London, 1875), iii.
37. Steven Johnson, *The Ghost Map* (New York: Riverhead Books, 2007); Anne Hardy, "Public Health and the Expert: The London Medical Officers of Health, 1856–1900," in *Government and Expertise: Specialists, Administrators and Professionals, 1860–1919*, edited by Roy Macleod (New York: Cambridge University Press, 1988), 128–42.
38. Ronald R. Thomas, "Detection in the Victorian Novel," in *The Cambridge Companion to the Victorian Novel*, edited by Deirdre David (New York: Cambridge University Press, 2001), 182.
39. Christopher Pittard, *Purity and Contamination in Late Victorian Detective Fiction* (Burlington, VT: Ashgate, 2011), 149.
40. Michel Foucault, *Birth of the Clinic: An Archeology of Medical Perception* (New York: Vintage, 1994), 121–22.
41. Quoted in Karl H. Metz, "Social Thoughts and Social Statistics in the Early Nineteenth Century," *International Review of Social History* 29 (1984): 266.
42. Ian Hacking, "Biopower and the Avalanche of Printed Numbers," *Humanities in Society* 5 (1982), 282.
43. Edward Seaton, *TSMOH, 1884–85*, 111.
44. Arthur Ransome, "On the Need for a Systematic Study of Epidemic Disease," *BMJ*, 27 August 1881, 353–54.
45. Ransome, "On the Need …" 354
46. *MTG*, 23 March 1872, 346–47.
47. *The Lancet*, 15 May 1880, 787; *WCN*, 22 May 1880, 2.
48. Sir John Rose Cormack, "Location and Administration of Special and General Hospitals in which Contagious Disease are Received," *TNAPSS* (London: John W. Parker, 1881), 592–608; reprinted in *Edinburgh Medical Journal* v. 26 pt. 2 (January 1881), 587–602.
49. *The Lancet*, 29 May 1880, 853; *BMJ*, 5 June 1880, 863; J. Francis Sutherland, "Necessity for and Location of Contagious and Infectious Hospitals," *Glasgow Medical Journal* v.16 n.3 (September 1881), 180.

50. Tripe, *Hackney MOH for 1871*, 10–16; *MTG*, 3 August 1872, 124.
51. *Hackney MOH for 1881*, 19.
52. *HKG*, 15 April 1881, 3; *BMJ*, 3 October 1881, 610.
53. Power, *RCFSH,* 68.
54. Power, "Report," 371.
55. Power, *RCFSH,* 308.
56. Power, "Report," 377–78.
57. Power, "Report," 375, 376.
58. Power, "Report," 372–73. 378.
59. Power, "Report," 373.
60. Power, "Report," 375.
61. Power, "Report," 378–79.
62. *RCFSH*, xvi–xvii.
63. Henry Stevens, *RCFSH*, 197.
64. William Squire, *RCFSH*, 280; *TSMOH, 1884–85*, 105.
65. *The Lancet*, 9 February 1884, 246.
66. Broadbent, *RCFSH*, 315–16; Burdon Sanderson, *RCFSH*, 309, 315.
67. *The Lancet*, 22 November 1884, 929; *The Lancet*, 28 November 1885, 1021–22; *Sanitary Record*, 15 July 1889, 20; LMA/MAB/707: General Purposes Committee Minutes, 14 May 1889.
68. William Henman, The Purification of Air from Hospitals for the Treatment of Infectious Diseases," *JSI* 15 (1894–95), 641–52; *BMJ*, 22 September 1894, 667; *The Hospital*, 23 March 1901, 442–43; *Architecture and Building*, 14 March 1896, 128.
69. Bostock, *RCFSH,* 98.
70. *WCN*, 4 September 1880, 2; *WCN*, 12 February 1881, 5.
71. Koch, *Cartographies of Disease*, 159–75.
72. George Buchanan, "Aids to Epidemiological Knowledge," *MTG*, 26 November 1881, 621–22.
73. Osborne and Rose, "Spatial Phenomenotechnics," 216.
74. Chris Otter, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800–1910* (Chicago: University of Chicago Press, 2008).
75. Joyce, *The Rule of Freedom*, 41–42.
76. *RCFSH*, xxv.
77. *TSMOH, Session 1884–85* (London, 1885), 104.
78. *The Times*, 9 May 1881, 13 & 20 June 1881, 12.
79. Bridges, *RCFSH,* 364, 52, 56.
80. Alfred Godrich, *RCFSH,* 86. This was the son of Francis Godrich.
81. Edward Seaton, "The Influence of Small-Pox Hospitals," *TESL, 1882–83* n.s. 2 (London, 1883), 129–40. See also Seaton, "The Influence of Small-Pox Hospitals, illustrated by the Recent Behaviour of Small-Pox in Nottingham," *BMJ*, 13 January 1883, 58–60; Seaton," Influence of

Small-Pox Hospitals," *MTG*, 23 December 1882, 741. Circle-radii and spot maps were created by the MOH for Newcastle, advancing the same argument. Henry Armstrong, *TSMOH*, *1884–85*, 126–29.

82. *Sanitary Record*, 15 September 1882, 108; *BMJ*, 14 October 1882, 746.
83. *Speech of Robert Fowler, MD, on Tuesday, Nov. 9, 1881, at a meeting of the City of London Union Guardians* (London, 1882), 18.
84. Makuna, "An Examination of the Theory of Aerial Dissemination of Smallpox Infection," *MTG*, 17 May 1884, 659–60. Makuna's lengthy critique appeared in four installments: *MTG*, 17 May 1884, 659–61; 24 May 1884, 690–95; 7 June 1884, 762–66; 14 June 1884, 792–95.
85. E. T. Wilson, "On the Influence of Small-Pox Hospitals," *The Lancet*, 22 March 1884, 514.
86. *BMJ*, 28 October 1882, 870.
87. Dudfield, *TSMOH, 1884–85*, 119.
88. Wilson, "On the Influence of Small-Pox Hospitals," *The Lancet*, 9 February 1884, 246–47; *The Lancet*, 23 February 1884, 336–38; *The Lancet*, 22 March 1884, 514–16; *The Lancet*, 2 April 1884, 653–55; *The Lancet*, 19 April 1884, 700–01; *The Lancet*, 9 August 1884, 228–30.
89. Wilson, *The Lancet*, 9 August 1884, 229.
90. *BMJ*, 28 October 1882, 849.
91. *Kensington MOH for 1878*, 15; *Kensington MOH for 1879*, 32.
92. *MTG*, 27 May 1882, 551; *Kensington MOH for 1878*, 15.
93. *MAB Minutes v. 13* (June 28, 1879), 278.
94. *Kensington MOH for 1879*, 32–33.
95. Makuna, *MTG*, 17 May 1884, 659.
96. *Kensington MOH for 1882*, 50–51.
97. Letter from Montague D. Makuna, *BMJ*, 21 October 1882, 819.
98. Wilson, *The Lancet*, 19 April 1884, 701.
99. Edward Seaton, *TSMOH, 1884–85*, 111.
100. W. H. Power, "Report on Later Observation (1881 to 1884) of the Influence of Fulham Small-Pox Hospital on the Neighborhood surrounding it," Appendix A. No. 11, *Fourteenth Annual Report of the Local Government Board, 1884–85. Supplement Containing the Report of the Medical Officer for 1884* (London, 1885), 55–89.
101. Power, "Report on Later Observation," 59, 66.
102. Power, "Report on Later Observation," 68.
103. Power, "Report on Later Observation," 69.
104. Power, "Report on Later Observation," 78.
105. Power, "Report on Later Observation," 75.
106. *BMJ*, 19 February 1887, 409.

107. John C. McVail, "The Aerial Convection of Small-Pox from Hospitals," *TESL, 1893–94* n.s. 13 (1894), 52.
108. *The Lancet*, 23 January 1886, 163.
109. *Lambeth MOH for 1884*, 23–29.
110. J. S. Bristowe, *TSMOH, 1883–84*, 109.
111. *TSMOH, 1884–85*, 76–81; *HHE*, 27 September 1884, 2.
112. *St. Pancras MOH for 1884*, 8–18.
113. Tripe, *TSMOH, 1884–85*, 85–91; *Hackney MOH for 1884*, 9–13.
114. *Hackney MOH for 1886*, 11–12.
115. *The Lancet*, 6 September 1884, 435–36.
116. Letter from Rev. B. Meredyth Kitson, *The Times*, 30 May 1884, 4.
117. *HKG*, 2 May 1884, 3.
118. *MAB Minutes, v. 18* (22 November 1884), 1014.
119. *HHE*, 4 October 1884, 3.
120. *The Morning Post*, 1 October 1884, 4.
121. LMA/MAB/2372: Statement of Mr. Cozens Hardy, *Fleet and Others v. MAB*, printed transcript of trial before Mr. Justice Pearson, 17 November 1884, pg. 253.
122. *The Lancet* 13 December 1884, 1059.
123. *BMJ*, 27 February 1904, 501–02.
124. G. S. Buchanan, "On the Spread of Small-Pox Occasioned by Small-Pox Hospitals during the Epidemic Period, 1900 to 1904," *TESL* n.s. 24 (1905), 163–64.
125. *PH* 7 (January 1895), 125.
126. *Report and Papers on the Use and Influence of Hospitals for Infectious Disease* (Local Government Board, 1901).
127. Harold Scurfield, "A Discussion of the Theory of the Aerial Convection of Small-Pox," *PH* 14 (September 1902), 688.
128. R. J. Reece, "Report on Smallpox and Smallpox Hospitals at Liverpool, 1902–1903," *24th Annual Report of the LGB, 1904–05, Supplement containing the Report of the MOH for 1904–05* (London, 1905), 155–76.
129. William Henry Power, *LGB MOH for 1904–05* (1905), xxiii.
130. *Sanitary Record*, 18 May 1905, 424–25.
131. Austin Taylor, *Hansard's HC Debate* (30 May 1905), c.222.
132. Edward Hope, *TESL*, n.s. 24 (1905), 194–95.
133. *The Lancet*, 13 January 1906, 104.
134. *Kensington MOH for 1889*, 61. See also Murphy, *St. Pancras MOH for 1884*, 89.
135. Dudfield, "Address to Medical Officers of Health," *JRSI* 20 (1899), 413.
136. *Lambeth MOH for 1887.*

137. Henry Robinson, "Address to Section on Engineering and Architecture," *TSIGB* v. 4 (1882–83), 143.
138. Sykes, *St. Pancras MOH for 1888*, 5–6.
139. Louis C. Parkes, *Infectious Disease: Notification and Prevention* (London: Lewis, 1894), v. 63. The fine for concealing an infectious case could now be up to £10. All these provisions were recodified in the Public Health (London) Act, 1891. Notifiable diseases were smallpox, cholera, diphtheria, membranous croup, erysipelas, scarlet fever, typhus, enteric, relapsing, continued, and puerperal fevers. MOHs were also to submit this information to schools attended by any child in the notified household. The Act was initially compulsory in London and permissive in the rest of England and Wales. Its provisions became compulsory nationwide in 1899.
140. Parkes, ibid., 50.
141. Mooney, "Public Health versus Private Practice."
142. "The Last Move of Medical Despotism," *National Reformer*, 4 August 1889, 68–69; ibid., 11 August 1889.
143. Tom Crook, "Sanitary Inspection and the Public Sphere in Late Victorian and Edwardian Britain: A Case Study in Liberal Governance," *Social History* 32/4 (November 2007), 369–93.
144. Tom Crook and Glen O'Hara, *Statistics and the Public Sphere: Numbers and the People in Modern Britain, c.1800–2000* (New York: Routledge, 2011).
145. Joyce, *The Rule of Freedom*, 21.
146. *Newington MOH for 1891–92*, 81.
147. Copy of letter by L. J. Dunham to the LGB, *Newington MOH for 1891–92*, 78–79.
148. *Morning Post*, 4 May 1891.
149. Joyce, *The Rule of Freedom*, 21, 24. See also Nikolas Rose, "Governing by Numbers: Figuring Out Democracy," *Accounting Organizations and Society* 16, n. 7 (February 1991), 673–92.
150. A phrase adapted from Michel Foucault, *Security, Territory, Population; Lectures at the College de France 1977–78* (New York: Palgrave, 2007), 43. See also Osborne and Rose, "Spatial Phenomenotechnics," 215.
151. Here I am re-phrasing Tony Bennett, *The Birth of the Museum: History, Theory, Politics* (New York: Routledge, 1995), 63.
152. *RCSFH*, xxiii.
153. MAB, *Annual Reports of the Statistical Committee and the Medical Superintendents for the Year 1888* (London, 1889), 5.
154. *PH* 3 (August 1890), 105.
155. Henry Mayhew, "A Visit to the Cholera Districts of Bermondsey," *Morning Chronicle*, 24 September 1849.

156. Osborne and Rose, "Spatial Phenomenotechnics," 215.
157. Letter from W. G. Faulkner, *Tottenham and Edmonton Weekly Herald and North Middlesex Advertiser* (*TEWHNMA*), 14 October 1892, 3.
158. *Daily News*, 22 July 1892.
159. See *Lambeth MOH for 1887–1889*.
160. *Mile End MOH for 1891*, 7; *Camberwell MOH for 1889–90*, 122.
161. *Paddington MOH for 1896*, 50–51. Also *Paddington MOH for 1895*, 47.
162. *BMJ*, 18 August 1906, 375.
163. *The Standard*, 31 May 1895, 7.
164. *The Hospital*, 4 July 1896, 219.
165. *The Hospital*, 18 January 1902, 276.
166. *The Hospital*, 18 January 1902, 276.
167. *The Lancet*, 7 March 1896, 608.
168. *BMJ*, 21 February 1903, 461–62.
169. *BMJ*, 5 August 1916, 203
170. G. S. Buchanan, "On the Spread of Small-Pox Occasioned by Small-Pox Hospitals during the Epidemic Period, 1900 to 1904," *TESL* n.s. 24 (1905), 143.
171. Buchanan, ibid., 163.

CHAPTER 7

# Isolation Within Isolation: The Public and Personal Politics of Hospital Infection

In 1894 the MAB received a heart-rending letter from a Mrs. A. Healey of Brixton complaining of the circumstances of her son's death. Charles had been admitted on January 2 for scarlet fever to the nearby South-Western Hospital at Stockwell where he evidently found kind treatment and began recovering quite satisfactorily, but Mrs. Healey was "very much annoyed" the following month to receive a card stating he had been transferred to the Northern Convalescent Hospital outside London at Winchmore Hill. Her son had written to say that he was obliged to get up at 6 a.m., make his bed and spend all day outside at play. "Do you think," she asked, "it proper treatment for a child or anyone else just convalescent from scarlet fever to be sent out of doors in about the worst month of the year when the gust[y] winds are most trying for anyone in good health more especially a delicate child?" Feeling anxious, Mrs. Healey traveled to the fever hospital on February 26 and was stunned to learn Charles was seriously ill with croup appearing the day before. She got the Medical Superintendent to promise to telegraph her if any change for the worse took place, but upon returning the next day was told that her "dear and only boy" had died early that morning. The doctor, pressed for what had happened, answered that he did not know and then asked her what she had observed the day before. Mrs. Healey replied he "had more than the croup, I thought there was diphtheria." The doctor agreed, saying "Yes I think there was a little diphtheria about it." Mrs. Healey demanded entry to the mortuary, where she witnessed Charles's body in a "disgraceful" state, his face unwashed. She



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unsuccessfully sought out any nurses who might know something of the case, although a few little boys in the ward told her that Charles had complained of earache for a week.

Mrs. Healey's letter offers a thoughtfully detailed and bold indictment of her son's treatment. At one point she admits that an earache might not be considered an illness, per se:

> No perhaps not, but after scarlet fever the slightest complaint should be attended to especially when they know that diphtheria is an ordinary thing to follow which is really a more deadly complaint than the fever itself, instead of which my little boy was taken no notice of until he *asked* to go to bed as he felt so ill which the nurse told me.

The Northern Hospital Committee convened a special meeting to interview several doctors, nurses, porters, and other staff about the circumstances of Charles Healey's death. Expressing great regret and sympathy to Mrs. Healey, they ultimately concluded that no blame could be attached to anyone at the hospital.[1]

Mrs. Healey managed to lodge an extraordinary protest, but her family's personal tragedy was unfortunately not an exceptional one. It is an example of the still heavy toll taken by scarlet fever and other "childhood diseases" despite generally improving mortality rates at the end of the century. It also embodies some of the key tensions and controversies of a new official strategy in London to govern infection through mass isolation. To be sure, her complaint actually underscores the rising general acceptance of fever hospitals and reveals the extent to which hospital treatment had become almost automatic for a broad section of society. She wrote matter-of-factly that Charles had to be taken to the isolation hospital and she offered no objection on this account; she simply disliked one being so far off. Moreover, Mrs. Healey felt justified in passing judgment on medical care and offering an opinion that the normal period of treatment (12 to 14 weeks) was probably excessive. She nonetheless also directly acknowledged that Charles's best chance for recovery lay at the fever hospital and had not been distressed about his prospects until he contracted a secondary infection.

All of this broadly concurs with what Dr. Edward Seaton stated in delivering the prestigious Milroy Lectures for 1896. He noted that scarlet fever itself had ceased to excite "particular terror" among the people and maintained that the aim of bringing about the wholesale

confinement of contagious sufferers would depend upon making the isolation hospitals as attractive as possible.[2] Stressing this point, Seaton observed that health officials neither possessed nor desired in most cases any compulsory powers of removal and detention. Fortuitously a "wonderful change" had come over the Asylums Board hospitals, with their pauper quality being deliberately dispelled and replaced by a reputation rivaling the great voluntary hospitals. Year after year a greater portion of infectious diseases flowed to such institutions with scarcely a second thought by the public. Notwithstanding, Seaton's address went on to warn about what he perceived to be some of the "gravest difficulties" connected with the new system: "the accidental infection of persons with another disease than that for which they were removed." Seaton cautioned that the usefulness of hospital isolation would be jeopardized unless the extent of these "misfortunes" (as they used to be called) were "fully appreciated" and entirely precluded. Given the history of harassment by anti-vaccinationists, health authorities could not "too strongly insist upon the absolute necessity of making hospital isolation, practically speaking, free from any risk."[3]

Within a decade Seaton's plea to eliminate all possibility of secondary infection in fever hospitals would be considered absurdly optimistic. Critics came to consider the older term, *infectious hospitals*, to be literally too true. They were "where a person goes in with one infectious disease and catches all the rest."[4] The joke itself draws attention to a number of related transformations in medical treatment. First, as Seaton recognized, was the significant expansion already underway in the social standing and function of the fever hospital. Not only did it increasingly accommodate a broader selection of diseases, but an ever-wider segment of the population also became subject to treatment there. Furthermore, and crucially, the typical fever hospital had come to be "to all intents and purposes a hospital for children."[5] In 1900, over 87% of scarlet fever and diphtheria patients treated by the MAB were under 15 years of age.[6] The fever hospital thus emerged as an essential site for understanding and managing the "childhood diseases." It effectively redefined the home as an unsuitable location for treating the most common infectious ailments, thereby radically reshaping the individual medical experience of many thousands of children and overall extending the bureaucratic management of family life. Hospital isolation embodied the changing balance of authority between parent, child, and the state at the end of the nineteenth

century.[7] The infectious hospital had to be accommodated in completely new ways to the people's fears of infection.

The second part of this chapter examines how the clinical science of infectivity intersected with the public and personal politics of hospital isolation. London fever hospitals during this time became critical locations for producing new spatial strategies of personal hygiene. To be sure, nosocomial infections (sickness originating as the result of hospital treatment) have always occurred in all hospitals, whether specified for infectious diseases or not. Yet in the 1890s these came into view as an urgent matter and struck at the very rationale of isolation. As a result, the danger of "superadded infection" had to be incorporated as part of the technology of fever hospitalization. Historical attention to infection control within hospitals has tended to concentrate on either the Nightingale and Lister era or the period after the introduction of antibiotics.[8] A considerable historiographical gap exists for the period around 1900, with even less attention paid to how the politics of hospital space framed these new ways of talking about infection risks.[9] Clearly, fever hospital treatment became another of the many medical and sanitary measures "redefined as a germ practice."[10] This chapter seeks to uncover how techniques of "isolation within isolation" came forward as a key organizing principle. It argues that the MAB hospitals served as crucial sites of experimentation and scenes for individualizing and distributing the precise performances of *asepsis*. The common ward was re-envisioned as a complex epidemiological field across which researchers could map the body's natural dispositions to infection. Owing to the infections that isolation itself caused, the hospital could no longer be considered merely a blockade, but a mechanism of prevention in its own right with its own internal territories and boundaries. Hospitals, moreover, were called upon to both elucidate and elicit the capacity of inmates to act rationally and to incorporate the hygienic behaviors formulated by hospital practice. Hospital hygiene, in other words, became personal hygiene, and vice versa.

## The Great Confinement

*The Times* sounded a note of surprise in 1887, observing that the "ignorant aversion" to entering an infectious hospital had largely subsided among the London poor. More impressively, "scarcely a vestige of it survive[d] among their social superiors." Persons of various classes

suddenly flocked to the MAB in unprecedented numbers during that year's seasonal uptick of scarlet fever. The influx included a solicitor living in Paddington who, applying at the Western Fever Hospital for his two sons to be admitted to pay wards and being told that there were no such wards, decided to have them admitted anyway.[11] For those who could remember the workhouse origins of these hospitals, it was "amazing" that they should "now receive thousands of the public who would feel insulted to be considered paupers."[12] Abrupt outbreaks of smallpox had previously resulted in a representative assortment of working-class Londoners being swept into isolation hospitals, but these institutions were now being called upon to deal with the ordinary prevalence of childhood infections, and in ever more astounding numbers. The MAB took in over 5900 cases of scarlet fever in 1887 and more than 13,000 in 1892. The Kensington MOH, T. Orme Dudfield, observed that "this period marked an epoch in the history of the [fever] hospitals. They had become popular."[13]

Changing notions about the importance of institutional treatment were not limited to scarlet fever; they also reflected rising anxiety about diphtheria. This bacterial infection often manifested as a severe sore throat producing a whitish-grey leathery membrane that could impede swallowing and breathing. At this time it killed one out of every five or six of its sufferers, mainly children. Young patients in a state of suffocation were frequently rushed to hospitals to receive emergency tracheotomy and intubation. For decades diphtheria had been loosely associated with general insanitary conditions, overcrowding, and "sewer gas," but was increasingly considered by practitioners to be contagious in its own right and a virulent threat to family members and those attending the sick.[14] One commentator lamented that diphtheria "seldom leaves a household without affecting more than one of its members, often the nurse, especially if she is young and emotional; and occasionally the doctor."[15] In 1882 the majority of London MOHs concluded that diphtheria required special isolation and condemned its treatment amongst non-infectious patients at general hospitals.[16] Not classically deemed an "infectious fever," there was some doubt whether the MAB could legally accept cases of diphtheria. The Medical Superintendent of the South-Eastern Hospital expressed his willingness to receive a seriously ill Lambeth patient, but was barred from doing so by the MAB clerk in 1884.[17] Meanwhile, parish and district medical officers made repeated requests to send diphtheria to the isolation hospitals, and a number of

nurses died from the disease contracted at general hospitals.[18] A coroner's jury considering the death of a three-year-old St. Pancras girl in 1888 included a rider in their verdict strongly urging that the Asylums Board make provision for such cases at once.[19] Under mounting pressure, the Local Government Board finally sanctioned the treatment of diphtheria at the London fever hospitals. Physicians hailed the decision, supposing it would allow for the accumulation of experience on a large scale and expand useful knowledge of this "very insidious disease."[20] (Calls to also admit measles, however, did not gain traction at this time. Although causing great mortality for children under five, this disease was not yet taken seriously by the public and parents would have been unlikely to relinquish their children as in cases of scarlet fever and diphtheria.)

The removal of civil disabilities from MAB patients (formally effected in 1883) did not instantly eliminate the stigma of pauperism from the hospitals, although that was clearly the expectation. Another measure helping to depauperize the atmosphere of treatment was the opening of the London isolation hospitals to medical students in 1889. Clinical instruction in infectious diseases had been intended at the time of the MAB's creation in 1867, but was explicitly disallowed two years later due to a feeling that employing paupers as clinical material degraded both teachers and students.[21] The exclusion of students no doubt primarily stemmed from the dark notoriety of workhouse infirmaries and the popular antipathy toward anything resembling the anatomy trade. This reluctance also owed to the rowdy reputation of medical students, with local elected officials thinking it "undesirable to allow young gentlemen to roam about asylums where a number of respectable young women were employed."[22] Prominent voices from within the medical profession, however, contended that earlier abuses arose from Poor Law establishments having been segregated "as much as possible from the public eye, and from the salutary influence of medical criticism."[23] Others argued that it was difficult to maintain a truly efficient hospital when "you miss the vigilant eye of the student."[24] The exclusion of medical teaching from the infectious hospitals, according to this logic, endangered society as a whole. Thus, the expanding reach of the MAB had started to deprive London's teaching hospitals of the clinical material necessary for demonstrating the principle contagions, meaning that new licentiates may never had seen a case of smallpox before starting practice. This apprehension allowed some observers to draw a link between the subjectification of the

sick body and the liberty of the subject. "We must never forget," warned *The Daily News*, the powers exercised by the newly graduated physician. "If he thinks there is something wrong with the white of our eye, we shall very soon find ourselves in a Bastille. It may be a Bastille of tapioca and port wine, instead of one of skilly and suet pudding; but the essential hardship is much the same."[25] If confinement was to be urged upon the public, it must be supported by diagnostic acumen.

A number of observers credited the introduction of teaching at the fever hospitals for dispelling their pauper quality. Treatment at any of the great London teaching hospitals necessarily meant becoming an object of the clinical gaze. According to Louisa Twining, patients felt "greatly aggrieved and neglected" if passed by and not made an example to the students.[26] While one must be careful of uncritically accepting this assessment, it is nonetheless true that being treated as clinical material undoubtedly made the body productive in a way fundamentally different from at the workhouse (medically speaking, the value of the pauper was as an ultimately inert subject, a corpse). It was a distinction that many at the time may have appreciated. Rendering the living body useful to science was certainly a form of subjectification, but a definite step up from pauperism. In any case, public fever hospitals were now presented as bona fide medical institutions, not the cold, punitive houses of the Poor Law. At the urging of certain Asylums Board managers, the Royal College of Physicians advanced the matter by drafting a series of recommendations for how students might be admitted safely and decorously to isolation hospitals. This was put into action soon after in 1889. It is not clear how "popular" this action was among patients—but there was nothing in the way of complaints or apprehensions about it either. The "medicalization" of the isolation hospital took place alongside its rising public acceptability.

A number of measures sought to make admittance to MAB hospitals as regular and effortless as possible. After 1888 any medical practitioner could sign the certificate required for hospital admission (previously, this had required permission of the parish relieving officer, an intentionally intimidating gatekeeper).[27] Soon after, any patient, friend, relative, or doctor was allowed to apply to the district sanitary officials or parochial relieving officers, at the MAB offices or at any of its ambulances stations, personally or by letter, telegram, or telephone. In fact, the great bulk of MAB patients no longer had any contact with Poor Law officials in any way. The Public Health (London) Act 1891 abolished the designation

of "pauper" completely for MAB patients and practically assured that no patient would be asked to pay a fee of any kind.[28] In any case, legal orders of compulsory removal were rarely necessary because, as *The Morning Post* explained, "the infectious hospital is no longer a terror to the poor."[29]

This ease and tolerability of admission is precisely what worried the stalwarts of economy, who admonished the "demoralizing facility" by which the people were tempted into the hospitals.[30] In their minds, the MAB was in real danger of reaching too far into the private sphere and encouraging accommodation at the public expense of persons who could afford to treat and effectively isolate in their own homes.[31] According to one commentator, very seldom was removal to the fever hospital urged by the patient's relatives in the public interest; to the contrary middle-class households now "shrink from the annoyance of having little Tommy at home in the top bedroom for six weeks."[32] One proposal by a displeased MAB manager would have published the names of such families in order to shame them. Another critic complained that "the lucky man whose house is visited by a mild scarlatina is rewarded by having his family maintained for six weeks at the public expense and his whitewashing done by the parish." He added that the "Asylums Board is probably the most pauperising institution ever conceived, but we are such cowards in the presence of disease that financial and moral considerations have but little weight, provided the unclean are removed."[33]

For many of these same critics, the very idea of a doors-open-wide public fever hospital conjured dark fantasies of cross-class contamination. In 1877 the *BMJ* felt free to assume that the prospect of entering such a place must distress respectable persons wary of "intermixture with the poor and their peculiar habits of thought and expression." No doubt, it continued, "the annoyance felt by educated people at hearing low words uttered in a coarse manner by those around would tend, in some cases, to protraction, to say the least of it, of their illness."[34] Two decades later another editorialist condemned the "hardly concealed intention of the Asylums Board to draw to itself the treatment of the whole of the fever of London" and warned that the "public are being trained to look upon hospital treatment as their right." He went on to imagine that in the typical isolation hospital "an innocent and well brought up girl may be placed in the next bed to a foul-mouthed prostitute who may sputter blasphemies and obscenities through the days and nights of her delirium." One solution to this perceived risk of moral infection

was greater classification of patients, like giving well-to-do fever patients the option to engage private rooms (which could even be justified as a "medical necessity" for a certain class of patients, although the consequence would be that "another great social stratum will be swept into the hospital net").[35] Most understood that hospital isolation of the sick really meant congregation of the sick, and for some this implied the dissolving of social distinctions and separations necessary for other aspects of health. The mere thought was linked to any number of transgressive scenarios and uncomfortable outcomes. A worried correspondent to *The Daily News* signing himself "MIDDLE CLASS," presumed it would be "unbearable" to be taken off to an isolation hospital "to lie in a crowded ward among the tramps and vagrants." Would not "the indiscriminate mixture of all sorts and conditions of men," he asked, "considerably lessen the chance of recovery in the case of anyone used to a relatively comfortable home?"[36]

Taken together, however, these concerns actually had little effect on generally approving attitudes toward hospitalization at the public expense. Indeed, the main complaint against the MAB throughout the 1890s was its inability to accommodate all cases wanting admission. This regularly occurred during the seasonal apex of scarlet fever in September and October each year. The Islington MOH protested that when beds became vacant, the most urgent cases were not always the ones taken away. He declared the inability to get practically any patients into hospital at the height of the 1892 crush a "public scandal" and recalled "many anxious scenes" in his office of parents pleading for children to be removed.[37] The MAB was also faulted for not increasing its diphtheria provision quickly enough. The Medical Officer for St. George-the-Martyr, Southwark, alleged that cases from well-to-do families had sometimes gained admission to the MAB hospitals to the exclusion of ones living in only one or two rooms in large block buildings.[38] This led some supporters of the MAB to voice some misgivings about a policy that "admitted the public—as distinguished from the poor."[39] In 1895 it was not uncommon to wait five or six days for removal, as was revealed during an inquest for the death of a two-year-old in Mile End. The coroner called it an "extraordinary state of affairs" and the jury censured the MAB's want of action.[40] The managers relented and began permitting medical officers to select the most needful and dire cases for removal, but this actually satisfied very few. These pressures led the MAB to commit to build five huge additional fever hospitals for London. "We are as

much bound to effectively isolate every scarlet fever case as we should be to defend our English coast if it were attacked by a foreign enemy," declared a commentator in *The Hospital*. "The thing has got to be done, whatever method we employ."[41]

*The Morning Post* captured the new attitude, that "as long as the [Asylums] Board is supported out of the rates it cannot be denied that ratepayers have an undoubted claim on its ministrations."[42] This claim upon hospital isolation as private necessity and public right was voiced in a series of letters to *The Evening News and Post* in 1893. "A Workman" in Holloway wrote to complain about a "poor woman" with whom he was acquainted. One of her six children caught scarlet fever and she discovered there were no vacancies at the MAB hospitals. To make matters worse, the district sanitary inspector told her that he would apply to have her husband barred from work while fever was in the house. Her only option was to apply to the London Fever Hospital—a private charity whose admission fee was 3 guineas (63*s.*). The father only made 20*s.* a week, but from pawning some furniture and borrowing the rest she was able to scrape together the amount needed. "Is this the return the poor get for the heavy rates and taxes we pay?" wondered the writer. The paper's editorialist, in a column entitled "Dallying with Death," expressed dissatisfaction with hospitals not being built quickly enough and declared it a "public danger as well as a scandal" that the government neglected "the classes who cannot find room for their fever-stricken children in the public hospitals."[43]As this shows, it was important for private claims to be bolstered by reference to public interests. The assertion of this entitlement depended upon a social good secured by reliable citizenly behavior, denoted by rates-paying as well as by willingness to enter the fever hospital.

The vigor of these claims was on display in 1894 during an attempt to raise a public objection to the MAB expanding the grounds of the North-Western Hospital and locating an ambulance station there. A group of Hampstead landowners trotted out the same arguments that had been used to great effect over the previous two decades.[44] The MAB's scheme would be a source of danger, they contended, especially as it would bring "the Ambulances and Death Carts into the midst of a densely populated district, principally children." Most remarkable is how the attempt to reignite simmering local resentment against the hospital fell mostly flat. Indeed, this aim was thoroughly upset at a raucous public meeting also attended by "socialist speakers," who caused an uproar

by suggesting it was all "a scare … got up in the interests of property and not in the interests of the working men" of the area. Men sporting red neckerchiefs and hats denied the danger of passing ambulances and stated they did not care about property values or rents if the "suffering of the children of the poor" could be alleviated by a hospital close-by instead of one at the other end of town.[45] A number of anti-hospital campaigns continued to rise up against the MAB's expansion in the 1890s, but these problems were starting to give way to other concerns. The perceived need for and right to hospital treatment in more and more cases surpassed the long-standing and explosive public fear of residing in the shadow of a fever hospital.[46]

The MAB eventually did garner a positive reputation for meeting these needs, and as a result it became a "willing horse on to whose back all sorts of difficult problems" were cast.[47] In 1897 the Board was given responsibility for London children suffering from ringworm, ophthalmia, and mental or bodily deficiency, as well as juveniles remanded from police courts. Having sprouted from the management of paupers, it was now rapidly growing as a state network for institutional care and helping to shape debates about replacements to the Poor Law system. *The Lancet* maintained that "no student of disease, or even of sociology, can fail to watch the work of the Metropolitan Asylums Board."[48] Every year the public came to further appreciate the convenience of rates-funded treatment, "and thus of hospitals there seems no end," the *BMJ* noted. "As an agency for educating the public in municipal socialism the Metropolitan Asylums Board is certainly *facile princeps*."[49] This, of course, was explicitly the aim of groups such as the Fabian Society, which considered the MAB a suitable model and precedent for the eventual state control of all London hospitals in a manner similar to gas and water.[50]

## "This Vile Treatment": Patients and Nurses

Although it had never been a stranger to scandal and public criticism, the nature of complaints made against the MAB in the 1890s allows us to discern the changing social function of hospital isolation. In October 1890 Charles Simpkin, an agent for the Prudential Insurance Company, penned a letter to the *Hackney Mercury* from his bed at the Eastern Hospital, where he had been recovering from scarlet fever for ten weeks. Taking care to identify himself as a respectable ratepayer,

Simpkin indignantly laid out a number of grievances about the dismal condition of food, dress, and cleanliness. For example, the official dietary scale listed "cod, sole or brill," but the only fish he received was "cheap, inferior haddock" having a disgusting odor.[51] A flood of letters soon followed and sustained lively local debate for months. Some defended the conditions and spoke approvingly of their treatment. A great many others, however, were similar to Robert Judkins, whose three-year-old child died of typhoid shortly after returning home from nine weeks in the Eastern Hospital for scarlet fever. Judkins had become "exceedingly anxious" about "this vile treatment" disclosed by Simpkin and desired to express the pain of any parent led to believe that the "death of their dear one was caused by want of wholesome nourishment, and the little dear being entirely helpless in the matter." He urged a full investigation "in the interests of humanity and in justice to the ratepayers."[52] Another correspondent signing herself "The Mother of a Large Family" complained that her baby returned after two months of treatment at the Eastern Hospital "in a most deplorable state from gross neglect." Whilst visiting her child, this woman was required to don an over-garment that looked like it was infested with vermin and was afterwards instructed to wash her hands and face in a basin of water dirty from a previous person. She ended her account with: "as a ratepayer I feel there must be someone responsible for such grievous mismanagement."[53]

Simpkin kept up a barrage of letters bringing new accusations about the system of treatment and sanitation at the Eastern Hospital. He stated that the nursing was undertaken by inexperienced young women and doubted whether some had reached the requisite age of twenty (at least one appeared to him under 17). He provocatively questioned if it was right to have young girls washing adult male patients, sometimes in a delirious state. The Medical Superintendent, Dr. Alexander Collie, did nothing but breeze through the wards and snap his fingers, leaving the dressing of surgical cases to the discretion of these young girls. Simpkin went on to wonder why Dr. Collie never tested the urine of scarlet fever patients (for albuminuria). Overall, Simpkin painted a picture of shabby discipline and a distressing lack of precautions. No window was cleaned during his entire residence. There was only one toothbrush to share amongst 30 patients; the same for brushes and combs, which were mostly broken and missing teeth. Poultices were mixed in the same mugs used for tea. As many as four children could be seen in the same bath at once, even though suffering from various diseases (such as measles or

chickenpox) and all were wiped with the same towel. It was not uncommon for one assistant nurse to look after 30 patients on her own.[54] Within a month, a special committee of Hackney Guardians and a meeting of ratepayers at Hackney Town Hall had pressed the "great public urgency" of an official investigation.[55]

The LGB inquiry that followed took testimony from 30 witnesses and was covered in all the major London newspapers. Many ex-patients repeated complaints about the "disgraceful" food and other defects. A number of nurses and former employees appeared, some to confirm and others to deny accusations of systematic mistreatment. A Nurse Farnham characterized Simpkin's complaints as unique among patients and accused him of extraordinary insolence. Simpkin's attorney then suddenly threw the proceedings into confusion with evidence that Farnham had given birth to a child out of wedlock, flustering her on the stand and devastating her credibility.[56] The London newspapers evidently approached the inquiry as a font of dramatic revelations. It was alleged that a child had died from drinking a bottle of carbolic acid and that Dr. Collie then directed a post-mortem examination to be performed without notifying the coroner or gaining the permission of relatives (unhappily reminiscent of the "trade in corpses.") Another dramatic turn of events involved the former Matron of the hospital, Miss Emily Aston, speeding to London from the Colonial Hospital at Gibraltar to give evidence against Dr. Collie. She confirmed the "very indifferent" quality of the dietary, but also delivered a number of eye-opening accusations to how Collie undermined the discipline of the establishment. (He supposedly referred to members of the Hospital Committee as "swine" in the presence of nurses). The final straw for Aston appears to have been a Twelfth Night fête in 1889, when nurses were invited by Collie to dance around a Christmas tree in a children's scarlet fever ward against her objections. Furious at this undermining of her authority, Aston resigned immediately.[57] Dancing in a hospital ward was an outrageous detail that many newspapers could not resist, gleefully denouncing it as a "gruesome festival" and "nocturnal orgie."[58]

Some of the most substantive testimony came from a former nurse named Diane Halkin, who portrayed the nursing at Eastern Hospital being "done by tradition." The lack of a real system of training was bad enough for patients, to her mind, but it also encouraged a "system of tyranny" that drove away experienced nurses. Halkin went on to describe a sad state of medical neglect and incompetence. Patients suffering from

diphtheria were known to never have their throats examined by Dr. Collie during their entire stay. Others should have had their urine tested for albuminuria, but were instead prematurely ordered up from bed and suffered distress as a result. Halkin was personally alarmed by the lack of attention to preventing infection. Normally four or five patients would be washed in the same basin of water, regardless of sore eyes or discharging noses and ears. Another nurse admitted to using the same tub of water for several children, but pleaded that they were not washed at the same time (a detail *The Nursing Record* proclaimed a "wretched piece of business"[59]). According to Halkin, beds might be moved from one ward to another for a different disease without first being disinfected. Several cases of scarlet fever allegedly broke out amongst convalescent diphtheria patients as a result, and one of them proved fatal to a child of 6 or 7 years old. Halkin also accused the Matron and other officials of habitually not wearing the wrappers required by regulations and coming to the wards in their outdoor clothing. The ragged and scanty clothing allowed patients, meanwhile, was in her opinion the source of cases of dropsy, bronchitis, and pneumonia. Another nurse, Annie Harrington, testified that Dr. Collie would storm out in a furious temper whenever pressed to do more for the patients medically. Others purportedly despaired of their patients "dying off so" and whispered to one another that it "would be called manslaughter out of doors."[60]

Dr. Collie, the well-known author of major texts on infectious fevers, had served in MAB hospitals for two decades.[61] He was already a controversial figure for his role in the embezzlement scandal six years earlier (see Chap. 5). In addition, Collie made little effort to hide that his attitude toward the carriage of infection was significantly more lackadaisical than the general public as well as much of the medical profession. For example, he unsettled a Parliamentary Committee by telling them he came direct from the hospital wards and had not even changed his clothes; one incredulous MP asked Collie if he carried some charm to prevent infection, to which he replied he used "nothing whatever."[62] The LGB cautioned Dr. Collie in 1871 about the careless manner in which he notified families when a patient was in danger of dying. In 1877 an investigator found him culpable of "grave irregularities" in the registration of deaths, which amounted to deliberate concealment of smallpox spreading through the fever hospital.[63] (At the same time, Collie persisted in strenuously rejecting the notion that smallpox hospitals were the source of any additional disease in their neighborhoods and

published a highly out-of-date monograph on the subject in 1912.[64]) He admitted to the 1891 inquiry that he put no confidence in ordinary disinfectants and preferred only soap and pure water. Collie also sneered at the use of wrappers; he "only wore them to satisfy the public mind, on the same principle that an hysterical female patient was given pills to make her sleep."[65] These opinions on infection placed Collie out of step with the profession and proved unhelpful in his current predicament.

The LGB inquiry concluded that Dr. Collie had been derelict in many particulars. He was specifically faulted for directing a post-mortem examination on his own authority and showing "callousness of feeling" by allowing nurses to dance in the wards. In requesting his resignation, the Board admitted there could be legitimate disagreements about the quality of dietary, but the question of disinfection was another matter and it was "obvious that the purpose for which these hospitals were erected cannot be preserved unless the fullest confidence is felt by the public that such precautions are taken." The pugnacious MAB manager for the City of London, J. H. Brass, made clear the stakes involved: "unless they made [the fever hospitals] popular with the people they would never succeed in stamping out disease in that great metropolis."[66] In the end, the Eastern Hospital remained an isolated scandal for the MAB. Indeed, several former patients of other hospitals wrote to newspapers expressing their surprise, declaring the Eastern Hospital's troubles an odd exception and attributing this to the fact it was located in the East End.[67] Thus, although bearing some resemblance to the Hampstead Smallpox Hospital scandal two decades earlier and echoing broader accusations of Poor Law medical negligence, the uproar in 1891 highlights how disease isolation had been transformed into a public issue of general importance and personal relevance to the great mass of ratepayers. Shabby and substandard treatment was not only definitely out of place in such institutions, it was also now seen as directly threatening overall health objectives. Moreover, the public itself became seen as something of a participant in policing institutional conditions and care. Since almost everyone was a potential patient, the infectious hospital and its operation was increasingly a matter of the self, not simply others.

The ignominy of the Eastern Hospital was also a signal event in establishing the "hospital scandal" and the difficult position of hospital nurses as fixtures in reform-minded journalism. *The Pall Mall Gazette* in its typically crusading style had recently denounced "White Slavery in Hospitals," thereby framing the labor of nurses at the main London

hospitals in the context of women's sweated work. Not only were they placed under the absolute tyranny of doctors and Matrons, but they were also subject daily to abusive behavior, coarse language, and deadly infections. A key element was the crass expendability accorded to nurses: "to work, work, work, until at last the overwrought machines break down, and their short life of usefulness is over."[68] A long-running column in the *Morning Leader* in 1892 titled "Nurses Bitter Cry" publicized an extensive catalog of grievances.[69] Nurses themselves, struggling to gain professional respect, were conflicted about this characterization. One the one hand, the rhetoric of self-denial, discipline, and purity had been crucial to the emergence of nursing associations and their promotion of this branch of women's skilled labor. On the other hand, nurses could assert authority by denouncing mismanaged hospitals as "absolutely hotbeds of contagion."[70] Sensational stories about nurses "martyred" by infections contracted in the ward of the best hospitals became a regular occurrence in the 1890s.

The problem of nursing gradually occupied a larger part of the MAB's attention. It had long been dealt with solely as a question of labor supply—how to attract enough ward attendants without paying exorbitant wages or relying too much on a constant stream of temporary and undependable young women. This included a reluctance to consider the bulk of fever hospital nursing carried out below the level of Matron or charge nurse to be skilled or technical work. Even most trained general nurses believed that employment in a fever hospital was a decidedly low rung in the profession, if a rung at all.[71] Medical and surgical nursing had become carefully taught sciences with their own specialized curricula, and fever nursing had been left far behind. More often than not, the MAB simply promoted ward servants to the nursing staff once they became old enough. The assumption was that a fever hospital could not "expect to attract to its service in any large number women of the stamp … found in the best general hospitals."[72] Indeed, in one year alone, the MAB found it necessary to spend more than £502 advertising for nursing positions at the fever hospitals.[73] Social ostracism and danger of infection were certainly impediments to recruiting and retaining nurses, as was insecurity of tenure. Fever hospitals typically saw large fluctuations in the number of patients over the course of the year, meaning that nurses were constantly dismissed once they were no longer needed and new ones hired on mere months later. This practice was seen by many to demonstrate a harmful "indifference to the welfare of the nursing

profession" and to the nurses themselves; even the not-so-fastidious Dr. Collie condemned it for regularly exposing a large number of "unseasoned" novices to contagion.[74] Still, the general attitude was that, just as any sort of building was good enough for a fever hospital, so "any sort of woman was good enough for a fever nurse … no matter how rough, ignorant, or incapable she might be."[75]

Attitudes of this sort changed rather slowly and encumbered efforts to improve the quality and training of fever nursing at the MAB. Advocates for the nursing profession increasingly felt the need to raise the standing and usefulness of this nursing backwater. They issued calls for the nation's fever hospitals to become nurse training schools, as had many Poor Law infirmaries. In the wake of the Eastern scandal, the MAB did consider a proposal requiring nurses in charge of wards (charge nurses) be at least 24 years of age and assistant nurses at least 20, a birth certificate also being required for employment. This, however, was rejected—probably because of the serious staff shortage that would have immediately resulted. Instead, salaries were increased and fingers were crossed.[76] Matters rested there until 1895, when the MAB stipulated that charge nurses must possess a general training certificate (obtainable by a three-year course at a general training hospital). This, however, became the source of some friction with assistant nurses brought up in the MAB, who believed themselves more familiar with how fever hospitals operated. Some hospital doctors also found these certified nurses "much below the standard of knowledge" in matters of infection."[77] At the same time, the MAB neglected to create a regular system for training its own assistant nurses (although individual hospitals did provide probationary courses with the promise of a testimonial at the end of a period of satisfactory employment). Not until 1909 did the Asylums Board introduce its own nurse training program, mainly in an effort to secure reliable staffing levels.

## "Where a Person Goes in with One Infectious Disease and Catches All the Rest"

Looking back on a nearly decade of service as Medical Superintendent at the Eastern Hospital, Dr. E.W. Goodall (successor to the disgraced Dr. Collie) could remark in 1900 that the fever hospitals had undoubtedly "become more popular" but they also engendered a wider range

of annoyances and complaints.[78] These invariably included grumbling about the length of detention and limitations placed on visits. He was called upon to mollify parents like Lucy Buddin, who crossly asked why all her sick children could not be placed together in the same ward, much less the same hospital.[79] Goodall also found himself having to defend the practice of cutting patients' hair short (in order to control the spread of lice), and he recommended to his colleagues that they shear a child's "luxuriant tresses" upon admission so that it could return to a respectable length by time of discharge. This sort of consideration was necessary, Goodall acknowledged, because the parent of a child for whom "every care has been taken at home to keep it clean" would rightly expect it to be returned in the same state. The changing position of fever hospitals led the public to question certain details of nursing and other technical aspects of management that would not previously have been open for discussion. As Goodall explained, patients were now "largely made up of patients drawn from those classes of the community who are better able and more entitled to criticize administrative defects [than] the pauper class to which the admissions were at one time entirely confined."[80]

Of somewhat more serious concern than hair length was the danger of further infection during and after hospital treatment. This could involve relapses of the discharged patient or the subsequent sickness of another individual in the family caused by a patient discharged from hospital whilst still infectious. Goodall related that he had received a "bitter, sarcastic, and finally threatening letter from a parent whose child, discharged on a Wednesday, had by Sunday developed symptoms of diphtheria, a disease for which he had been in the hospital upwards of six weeks, and from which he had completely recovered when he was sent out." Equally grave were cases of cross-infection or superadded disease obtained within the institution. Goodall recalled how this would often result in "a letter from the vexed parent, who wants to know how it is that his child, who is being isolated (this word being underlined), has caught some other disease, and either says, or pretty plainly hints, that in his opinion the administration of the hospital is grievously defective."[81] Speaking before the Royal Institute of Public Health, Goodall was frank: cross-infection had always been a basic fact of fever hospitals but until recently this had affected "the lowest and most ignorant classes" for whom it was assumed to be an ordinary occurrence.[82] With the decline of typhus after the 1860s, the importance of hospital infections

had slipped away in the professional and public mind. It subsequently increased as a matter of concern specific to surgery, but also became a topic of wide-ranging interest in earnest once the isolation hospitals were directed toward the general public in the 1890s.

The records of the MAB show that contracting diseases within hospital occurred regularly, but that it had gone unacknowledged as a special problem for years. Between 1880 and 1881 the Stockwell Hospital had six cases of scarlet fever arise in smallpox patients, with another ten cases of smallpox and three cases of measles amongst the scarlet fever patients.[83] Six instances of smallpox also occurred at the Deptford Fever Hospital during this time. Dr. Collie casually reported the next year that six patients died of smallpox at the Eastern Hospital following their recovery from scarlet fever.[84] Some explanation may be found in the fact that before 1884 the smallpox hospitals and fever hospitals were housed in the same grounds. However the Deptford Hospital Medical Superintendent, Dr. John MacCombie, chose instead to remark that the occurrence of such cases was "not to be wondered at considering the class of patients treated there."[85] The Fulham Hospital Medical Superintendent adopted a similar tone, noting the death of an 11-year-old smallpox patient from typhoid fever and observing that she was a "half-starved inhabitant of a Holborn alley" in the strange habit of spending time in the ward latrine.[86] A key concern was at this time to convince the public that fever hospitals were safe to locate in towns—an intention that evidently led *The Hospital* magazine in response to an agitation in Salford to declare in 1887 that "such a thing as catching a fever in the hospital is hardly ever known."[87] The experience of the MAB clearly told otherwise, but little attention was paid to re-infections of inmates and thus their occurrence *were not* widely known.

Hospital physicians seemed to grow comparatively more sensitive to their own risk of illness and that of the nursing staff. The danger seemed real and threatening. In 1889 an assistant medical officer and nurse at the South-Eastern Hospital and a gardener at the North-Western Hospital died of diphtheria.[88] In 1894 the Chaplain of the South-Eastern Hospital died of scarlet fever and Dr. MacCombie was laid up with diphtheria for over four months.[89] During 1895, 117 fever hospital employees throughout London fell ill of fever or diphtheria; the next year 176 sickened and three died.[90] Infection was an assumed risk of employment, and generally no special compensation was given to affected staff or their families. The MAB made a few exceptions, such as

paying £30 for the funeral and headstone of the South-Eastern Hospital assistant medical officer.[91] In another case, the Asylums Board managers allowed one year's salary to a nurse who had lost a forefinger from the bite of a child and thus disqualified from further service.[92] A stricter logic applied to patients. In 1889 Phoebe Eliza Constable wrote to the LGB about her 19-year-old son, who had died of scarlet fever while being treated for typhoid fever at the Eastern Hospital. She proposed that the hospital physician might have communicated scarlet fever during his rounds, and she also recalled her son mentioning a nurse in his ward had been laid up with scarlet fever. Mrs. Constable suggested that a poor widow such as herself should be fairly entitled to something for the loss of her son, but the managers simply responded that they had no legal authority to award compensation.[93]

Hospital infections affecting patients eventually garnered greater attention and concern. In 1890 the Southgate MOH drew attention to the number of diphtheria deaths at the Northern Hospital among scarlet fever convalescents and urged the MAB to thoroughly investigate "this very serious matter." His warnings seem to have been little heeded; the Medical Superintendent of the Northern Hospital responded that mortality from superadded infections fluctuated constantly and he found no reason to suspect the drainage or milk supply for causing the diphtheria.[94] Contraction of diphtheria was still seen mainly as an architectural or sanitation issue related to sewer gas and defective warming of wards.[95] At the same time, the Board rejected a proposal to collect statistics on hospital deaths caused by disease different from the one for which the patient had been admitted.[96] MAB physicians were nonetheless intrigued by the natural frequency of concurrent and successive infections coming under their observation, and some did keep personal records of cases. Between 1890 and 1893 the Medical Superintendent of the South-Western Hospital, Dr. F. Foord Caiger, discovered 362 double-infections and a further 17 marked by at least a third disease. His paper to the Epidemiological Society concluded that multiple infections in the same person typically proved more severe and deadly.[97] This was particularly true of *post-scarlatinal diphtheria* (which likely carried off Charles Healey, discussed at the beginning of this chapter)

According to the Medical Superintendent of the Western Fever Hospital, the sudden scientific interest in post-scarlatinal diphtheria was owed at least in part to the "more sentimental view points" of families and friends.[98] At least 71 cases of this serious infection resulted in 14

deaths at the Gore Farms Hospital in the second half of 1892. A report by the Medical Superintendent doubted the importance of contagion and surmised that the close aggregation of children suffering from scarlet fever had itself created conditions in which diphtheria could (practically spontaneously) arise.[99] It was still an open question whether mortality from post-scarlatinal diphtheria was higher in hospitals than outside, but this possibility had already started to stir public apprehension.[100]

Hospital superintendents began to see the accidental importation of infection as a serious problem. Data showed a distressing portion of patients turning out to have been incorrectly identified prior to admission. In 1884 at least 10% of patients in MAB hospitals were determined to be suffering from a disease other than the one certified—a proportion that did not change considerably over the next twenty years.[101] It had long been thought that the dwellings of the poor provided a particularly murky diagnostic realm. "A dark room and a dirty skin are formidable obstacles to the diagnosis of fever," Dr. Collie had maintained.[102] By contrast, the orderly and clean ward environment was where the truth of disease would be revealed. In any case, no amount of clinical skill by the private practitioner could prevent the entry of patients in whom a second disease was incubating and did not yet show symptoms. During two years at the Eastern Hospital, 13 scarlet fever patients were found to be also infected with measles, 13 with chickenpox, and 7 with whooping-cough; patients admitted for diphtheria also harbored measles in 43 cases, chickenpox in 24, and whooping cough in 11. In scarlet fever wards, hidden diseases produced an additional 34 cases of measles, 39 chickenpox, 7 whooping-cough, and 32 diphtheria. In the diphtheria wards, mixed infections caused another 40 measles, 48 chickenpox, 8 whooping-cough, and 102 scarlet fever cases. Outbreaks spreading from misdiagnosed infections and concurrent pre-symptomatic infections often caused entire wards to be placed under quarantine, sometimes for several weeks because of successive crops of new cases. Asylum Board physicians were hesitant to consider this superadded infection entirely a hospital creation. (Diphtheria was increasingly considered a specific contagion, for example, and its occurrence in hospitals simply reflected its fulsome spread on the outside, according to Goodall.[103]) Still, the newly appreciated prevalence of hospital infections now required purposeful action, not only because of the administrative headaches involved but also out of deference to public opinion.

Most reforms hit upon in the 1890s were architectural and administrative, with the goal of both imparting a more precise utilization and surveillance of hospital space as well as ensuring a greater amount of space. Emphasis, for example, was placed on the need to rigorously separate acute from convalescent patients and to stop the intermingling of patients from different wards. Administrators eliminated common recreation rooms for convalescents of different diseases. In some places they also tested the open-air treatment of fevers (common in tuberculosis), which consisted of wheeling beds onto large verandas or out into the center of hospital grounds.[104] Doctors generally resisted the idea that they themselves might communicate disease germs between patients; rather, they directed greater scrutiny to the health of nurses. Goodall, for example, insisted his nurses report even slight sore throats—a matter that he believed required some vigilance "for certainly some nurses are very stupid" and would continue on duty for fear that they would be ridiculed for "making too much fuss about a small ailment."[105] Administrators also believed that hospital infections could be lessened by increasing the distance between beds and paying careful attention to ward furnishings. Indeed, top hospitals of all sorts now featured an abundance of impermeable surfaces like glass countertops, white enameled iron, glazed tiles, and highly polished wood floors. But these were deemed especially essential for any up-to-date isolation hospital, where architects also went to lengths to create walls and ceilings devoid of ledges or corners. The purpose was to eliminate any place where dust could collect, but this overlapped with another key design goal: to render everything in the ward perfectly visible. The MAB's chief architect explained that his motto was "Let nothing be hidden." The arrangement of windows, nurse's stations, and even water and gas pipes needed to provide "everything for observation, nothing for secrecy" (the assumption apparently being that surveillance of conditions and behaviors would assist somehow in impeding infection).[106]

Another key idea was to divide fever patients into smaller units and more manageable wards, mainly to minimize the impact of accidents such as the importation of misdiagnosed patients, and patients in which second diseases were incubating. Goodall advised reserving a substantial portion of accommodation in "isolation pavilions" containing rooms with two or four beds. These, as well as side-rooms off the large wards, would be useful for various infections that always cropped up sooner or later.[107] Furthermore, doctors stressed the importance of

places in which to preliminarily observe cases of doubted or uncertain diagnosis. This was practiced most cautiously with smallpox; after 1892 the MAB allowed no patient to be taken to the smallpox ships until they had passed through an observation ward at the London wharves. Ideally, the same principle would apply to the fever hospitals, although the huge number of patients would make this difficult and expensive. By the end of the century, some sort of quarantine ward was deemed "an essential part of a properly equipped isolation hospital." It constituted an additional portal that could regulate admissions and (in a strange reversal) work to barrier the fever hospital from the outside epidemiological environment. It also had the potential to manage social contaminations. The medical officer of the LGB proposed that when not needed for clinical separation, these small wards could accommodate offensive and delirious cases or persons willing to pay for greater privacy.[108] On two separate occasions the chairman of the MAB unsuccessfully introduced a scheme to set up separate wards for paying patients. He claimed he had been astonished by a visit to the hospital ships, where he learned firsthand that "sometimes a well-bred child had to go into the same ward with children who had been brought up in a slum and who were in the habit of using rather foul expressions."[109] There is some evidence that, despite their intended clinical uses, the separation side-rooms were regularly offered to sick nurses or to well-off patients as a "matter of courtesy."[110]

The Brook Hospital, opened in 1896, epitomized the latest thinking about fever hospital construction (see Fig. 5.6) It provided accommodation for over 500 patients (huge by the standards of day), which no doubt heightened the need to address concerns about treating so many patients at the same spot. The MAB gave doctors "practically a free hand" in determining the size of individual patient accommodation at the Brook Hospital. The resulting "prodigality of space" was an experiment "watched with considerable interest."[111] Diphtheria wards featured an unheard-of 2500 cubic feet per patient. This was accomplished mainly by reducing overall ward capacity—there were beds for just 20 scarlet fever patients and 12 diphtheria patients in their respective wards. The hospital included the latest instruments and novel designs—steam disinfection was carried into each building and interior window-sills were eliminated to bring window frames flush with the wall. Most wards featured verandas onto which some beds could be wheeled during the day. All wards included a two-bedded separation room off the general ward that could be used in any special or problematic case. Another

six self-contained buildings elsewhere on the grounds housed "quarantine wards" consisting of single-bed and four-bedded rooms. The overall layout of the Brook Hospital's dozens of buildings reflected a deliberate geography of separation. One central concern was maintaining distance between diseases; for example pavilions for scarlet fever and diphtheria were placed as far apart as possible. Clear traffic rules and routes were also established to lessen the intercourse between staff responsible for different diseases. Nurses were even placed in differently colored uniforms (red for scarlet fever) in order to more effectively enforce this separation. Altogether, these new arrangements were fabulously expensive. Construction costs of the Brook Hospital came to about £500 per bed. Still, it represented the most up-to-date isolation hospital in Britain and provided the general model for the MAB's hospital planning.

## Diphtheria: "War on the Microbe World"

During the second half of the 1890s, the MAB took a prominent lead in outlining a new approach to hospital infection founded upon discoveries in the microbiology of diphtheria. An article in *The Windsor Magazine* captured some of the enthusiasm for the new approach, hailing the Brook Hospital as the epitome of a "bacteriological institution." Its on-site laboratory was stocked with microscopes and other instruments needed for culturing deadly germs, laying bare "the very innermost character of a microbe," and ultimately forging an "armoury for waging unrelenting war on the microbe world."[112] The isolation hospitals quickly became important centers for testing and deploying new methods of diagnosis and treatment. It was during this time that the MAB hospitals finally "entered the age of bacteriology," in the words of Anne Hardy.[113] Yet, in reality, this was both difficult and controversial and, as measured by its success addressing the problems of hospital infection, the promises of bacteriology ultimately proved uneven and were not entirely fulfilled.

German researchers isolated the bacteria responsible for diphtheria in 1883, explained the role of extra-cellular toxins in 1888, and demonstrated the effectiveness of a therapeutic serum in 1890. Soon large-scale production of diphtheria antitoxin was underway in Paris and Berlin. In Britain the bacteriological explanation of diphtheria was not generally accepted until the results of these trials were published in 1894 and, according to Paul Weindling, the British public and governmental

response to serum therapy remained "distinctly unenthusiastic."[114] Reluctant to pick new battles with anti-vaccinationists and anti-vivisectionists, the Local Government Board decided against taking any active role in promoting serum therapy. MAB hospital physicians nonetheless were keen to test the new treatment. Dr. Goodall managed to obtain scarce antitoxin and used it with promising results at the Eastern Hospital in 1894. In November of that year the managers entered into an agreement with the Royal College of Physicians and Surgeons for a reliable supply of serum (the MAB placed stabling for 15 horses at the disposal of the College's research laboratories for serum production). The laboratory would in turn examine specimens from the isolation hospitals for the purpose of diagnosing patients with diphtheria. After 1897 the Board made antitoxin available to any London MOH or practitioner and it continued to fund the College's serum production through 1904.[115]

The MAB took up this "conspicuous opportunity" to test the diphtheria antitoxin on a large scale and pioneer bacteriological analysis in Britain.[116] It also made itself, for a short time, the target of vigorous opposition. The Islington Board of Guardians, for example, passed a resolution questioning the appropriateness of this "experimental treatment," stating that many parishioners objected both to the principle of inoculation and to the torture of horses.[117] A number of parishes supported a letter to the MAB protesting against "diphtheria patients being required to submit to the antitoxin without their consent, or in the case of some children without the consent of their parents."[118] One indignant writer for *The Contemporary Review* believed that he suffered from glanders (an equine ailment) as a result of the antitoxin he received in an MAB hospital and considered himself a "victim of the criminal and, if calmly considered, really ridiculous fad of antitoxin."[119] To be sure, this sort of alarmism quickly subsided. Furthermore, there is no evidence of patients or parents actually refusing the antitoxin (although this is simply not mentioned or recorded). On the other hand, as with all treatments, hospital doctors prescribed and the patient's presence in the hospital denoted consent. Also, antitoxin serum was not exactly "experimental" by this point. In 1895, 61.8% of the MAB's diphtheria patients received the serum; by 1898 this had risen to 81.4% (at the Eastern Hospital 96.2% of cases received the injection).[120] Comparisons of annual average diphtheria mortality in the hospitals before and after the introduction of antitoxin were encouraging, with mortality falling by about half by

1900. Mortality rates for post-scarlatinal diphtheria fell to 5%, whereas it had previously been "notorious" for rarely dipping below 30%.[121] Goodall had "no hesitation in saying that the antitoxin treatment is *the* treatment."[122]

Meanwhile, many professional and lay observers expected bacteriological diagnosis to resolve problems of hospital infection and prolonged detention. The hospitals sent huge numbers of throat swabs to the Royal College's laboratory, averaging 35.6 specimens daily in 1895.[123] Over the next two years more than one thousand diphtheria ward patients were discovered to be not carrying the Klebs-Löffler bacillus.[124] Medical Superintendents, however, found it unwise to turn back such patients. They cited the unreliability of the laboratory analysis (sometimes a sample would test positive following two or three examinations) and noted that most of these misdiagnosed patients ended up suffering from scarlet fever and should be admitted anyway. Moreover, they feared that practitioners would stop sending cases to the hospitals if they were refused upon the first negative result.[125] With these reservations, the MAB decided in 1897 that routine diagnostic work should be performed at the fever hospitals. But a report on post-scarlatinal diphtheria by Dr. W.T. Gordon Pugh, Senior Assistant Medical Officer at the North-Eastern Hospital, was not encouraging. He allowed that bacteriological diagnoses might provide a way of preventing diphtheria into the scarlet fever wards, but this would require culturing all new cases on admission—a daunting task. Moreover, one could not at that time distinguish between virulent and non-virulent bacilli, although the distinction was believed to exist. "That each child could be separated and kept by itself is obviously impossible," Pugh wrote. The alternative would be to place all those testing positive in wards together, yet this would simply subject those who harbored the non-virulent bacilli to those who had the dangerous germ and perhaps still give rise to post-scarlatinal diphtheria. In one sample, over 12% of children admitted to MAB hospitals presented a bacillus similar enough to "true diphtheria" but indistinguishable from the sort that gave rise to further infections.[126] In the end, the great expectation surrounding fever hospitals as "bacteriological institutions" was for the most part partial and unsatisfied. Most hospital physicians were very excited about the ability of antitoxin to save lives, but remained skeptical that laboratory screenings would have any great value in managing hospital infections.[127]

## Scarlet Fever: Enduring Infection

Frustration with hospital control of diphtheria merged with a growing sense that scarlet fever isolation continued to also fall short of hopes. Despite steadily climbing proportions of the sick carted off to hospitals, most large towns maintained stubbornly high incidence rates. A growing number of critics expressed annoyance that the MAB's very large expenditure had not stamped out scarlet fever.[128] Who could defend an outlay of £500 per bed, asked *The Sanitary Record*, without greater assurances that more could be shown for it?[129] In retrospect, as John Eyler shows, a key stumbling block was the "deep ignorance" of scarlet fever etiology. The cause was correctly presumed to be a microbe, but the exact role played by haemolytic streptococcus remained unknown until the 1920s. As we know today, scarlet fever symptoms as diverse as sore throat and erysipelas are various manifestations of infection; isolation itself could have had little effect in bringing down population incidence rates.[130]

A long-standing debate at the time was scarlet fever's period and mode of infectivity. Sufferers typically develop a bodily rash that during convalescence hardens and then flakes away. It had been customary to believe this peeling, or "desquamation," a primary agent of spread, and patients would not be granted their freedom from the sickroom or the hospital until it was completed. Soaking baths aided the process of peeling, and impatient patients might vigorously employ pumice stones on the stubborn heels of the foot. Some doctors recommended slathering patients with eucalyptus oil mixed with carbolic acid in order to trap and disinfect the infectious epidermis. One recognized authority in scarlet fever explained that he placed no time limit to how long the disease was infectious and trusted exclusively to the completion of desquamation.[131] This appraisal was not always clear-cut, however. In 1885 the North Surrey District School complained to the MAB that a pupil recently treated for scarlet fever was found by a doctor to be peeling quite freely on the sole of the right foot and in his opinion was still communicable. The Medical Superintendent of the South-Western Hospital replied that the child had been in hospital for two months and received a bath every day for three weeks prior to discharge. He could add nothing else than observe that the child should perhaps be sent back to hospital.[132]

This attitude became less satisfactory over the following decade, and fueled discussions about the nuisance of "return cases": instances

of scarlet fever arising in homes to which hospital patients had recently been discharged. The habitually candid Dr. Goodall remarked that return cases had occurred for as long as hospitals for scarlet fever had existed, but "like secondary infections in hospital, they did not attract much attention," mainly because "the patients came from the poorest and most ignorant and careless classes."[133] These assumptions, too, were clearly changing. In 1890 the Lambeth MOH alleged that several cases of scarlet fever had broken out in houses after the return of patients from the hospitals, but the MAB could find no action to take in the matter.[134] In 1893 a practitioner complained bitterly to the coroner and the Local Government Board that a boy discharged from the Gore Farm Hospital had become the source of scarlet fever infection in four of his siblings, two of which died.[135] For many critics it was a matter of "premature discharge," and they complained of patients pushed out too quickly because of the pressure for beds.[136] Others went on to blame "return cases" for the persistently high rates of general infection in the community. The MAB calculated one alleged "return case" for every 285 patients discharged. Its managers, however, also doubted that the hospitals were to blame and implied that the local authorities perhaps had not been observant enough in disinfecting patients' homes (a suggestion which angered district MOHs).[137]

Whereas the problem of cross-infections was seen to reside mainly at the point of admission, the perplexing dilemma of "return cases" tended to be located at the moment of leaving the hospital. Attention to the issue was undoubtedly sharpened in 1896 when the Birmingham Corporation was forced to pay £50 in damages for premature discharge of a scarlet fever patient. The MAB tightened its procedures. No patient was now considered fit for departure prior to an elaborate procedure of "bathing out," preferably in a separate discharge lodge containing at least three rooms. The Brook Hospital boasted two highly segmented and completely separate discharge blocks (one for scarlet fever and one for diphtheria and typhoid), each consisting of an undressing room, a bathing room, a dressing room, and a waiting room for friends of patients. Hospital doctors took to warning parents about the risk of placing a child fresh from an infectious hospital into bed with a susceptible brother or sister.[138]

None of this placated the fever hospitals' harshest critics. One was Edward Dean Marriott, an irascible Nottingham physician who contended that the failure of isolation to rid towns of scarlet fever was not

a matter of premature discharge or insufficient disinfection of the skin. Rather, it could be traced to the lengthy confinement of patients in common fever wards, where they became "saturated" by a "pestilential atmosphere."[139] Crowding patients together produced a "fever-hospital fever" that exhibited a higher mortality rate and that made convalescents "infinitely" more contagious than home-treated patients. As Graham Mooney shows, Marriott's bombastic rhetoric fit well with the local politics of public health in Nottingham.[140] It on the one hand spoke to a liberal critique of the forcible detention seeming to reside at the heart of any policy of "stamping out" disease. Marriott, for example, assailed as "un-English" the system of compulsory notification in place after 1889, which he believed irrevocably resulted in "the limbo of State captivity" at fever hospitals. These heavy-handed devices of public "conglomeration," according to Marriott, had displaced the more sensible domestic arts of draining, damp-proofing, lime-washing, and good old-fashioned cleansing. Other critics argued that rigid isolation simply created a population of susceptibles, pushed age incidence higher, caused inconvenience to adult life, and set the stage for more intense epidemics. They thus questioned the wisdom of trying to escape scarlet fever and measles and maintained that childhood diseases needed to occur in childhood.[141] Such ideas clearly overlapped with some aspects of anti-vaccinationst thought. Still, a number of physicians (even some ardent defenders of vaccination for smallpox) openly maintained that the only proper place for scarlet fever was the home. In their opposition to fever hospitals they went so far as to condone the old folk-practice of deliberately exposing children to infected individuals in hopes of producing a mild case and at a time of one's choosing.[142]

This variety of opposition ultimately had relatively little purchase in the metropolis. With the exception perhaps of a small circle of ardent libertarians, Londoners continued to flow in ever-greater numbers to the Asylums Board. Moreover, complaints about return cases were not often used to attack hospitalization per se, but instead its incompleteness and too brief duration. The public had come to expect at least six weeks of treatment for scarlet fever and hospital authorities felt compelled to accommodate these wishes, although this also created problems. On the one hand, lengthening the stay of children too much risked discouraging some parents who might "hesitate to send them away to play, maybe for months, among the heterogeneous crew" of a public isolation hospital.[143] On the other hand, shortening the stay might open the hospitals

to charges of neglect or even creating a nuisance. True enough, a Putney man brought a lawsuit in 1904 alleging that his son had been let out too soon from the Grove Hospital and produced several additional cases of scarlet fever in the family. A jury decided to dismiss the case for lack of evidence, but the case undoubtedly encouraged the MAB to err on the side of prolonged detention. Its own doctors were increasingly uncertain about the period of infectivity in scarlet fever.[144]

Meanwhile, considerable professional anguish and discord arose at the turn of the century over the effectiveness of isolation. It is somewhat surprising that health officials had not felt compelled to provide evidence that the fever hospitals accomplished what they were meant to do, but the question was now finally put whether isolation actually limited the societal prevalence of scarlet fever. As John Eyler and Graham Mooney show, a spirited debate amongst health officials ensued, during which the lack of consistent statistical evidence for a beneficial effect became manifest.[145] With epidemiology proving uncooperative, many authorities resorted to what they considered common sense: that many further cases of disease simply must be interdicted by removing infectious individuals from public circulation. They also came to stress that the value of the fever hospital was not purely preventative. It was the location of the best treatment and chance for recovery in most cases, for sure. But it also provided great convenience to affected families. In many cases, removal of the sick was vital for assuring employment of a breadwinner, continuance of a home business, and school attendance of siblings. Top administrators such as Arthur Newsholme, the chief Medical Officer to the LGB, would candidly acknowledge that a key rationale for hospital isolation was its "*immense social importance*, permitting the early resumption of all the duties of life by the members of the invaded family."[146]

In fact, this social normalization of the fever hospital had been preceded by an anticipation of how it might shape the natural norms of scarlet fever. By the mid-1890s health officers were starting to believe that isolation of a high proportion of cases acted to produce a milder disease and to distribute its incidence within a population over a longer period of time. John Wilson's widely cited study of 1897 proposed that the most important factor in societal mortality from scarlet fever was *type of disease* rather than prevalence of disease.[147] The idea was that general sanitation and hospital sequestration worked to temper the scarlet fever germ and make the disease less fatal on average, despite its continuing or increasing in prevalence. This took the old notion of "epidemic

constitution" and combined it with Darwinian concepts of "variation in type" frequently employed in bacteriology. "Although the stamping out of scarlet fever by universal isolation is a dream of some," the *BMJ* reasoned, "a lessening of the virulence of type is probably much more within the reach of practical medicine."[148] The discussion served, on the one hand, to direct scientific attention toward regular variations in scarlet fever infection rates that existed independent of sanitary measures or isolation. On the other hand, it also prompted researchers to claim, as Newsholme argued before the Epidemiological Society, that isolation had had the effect of moderating the severity of successive cyclical scarlet fever epidemics.[149] Its value was thus in a biopower that was at once calculative and regulative. Officials gradually gave up confidence that hospitals could decisively suppress the infectious fevers. The goal instead became to tame disease, to work upon its natural propensities and constantly manage this naturalness at the level of the population. While it no doubt might help to sever some of the individual links of transmission, the appropriate object of a policy of notification and isolation was "to reduce the magnitude of the upward wave and hasten the fall of the downward wave; in other words, we endeavour to mitigate or increase the *effects* of nature's laws."[150]

## "Little Glass Houses"

At the beginning of the new century the medical rationale for fever hospitals had come to rest upon taking hold of a large proportion of the sick—an objective that, given the reliance upon public cooperation, also depended upon gaining greater control over cross-infections and return cases. Isolation was no longer simply about guarding healthy persons from sick persons; it now also had to guard sick individuals from other sick individuals. And so, whereas previously the fever hospital had been defined mostly as undifferentiated space encircled by an enclosing perimeter, the new fever hospital started to resemble a more specialized region of multiple internal barriers and segmentations. "If isolation has been discredited," insisted the Medical Superintendent of the Northern Hospital, "it is in part because it has been insufficiently differentiated. What is needed is isolation within isolation, and the limitations thereby of conditions in which either new disease is contracted or existing disease and its infection overtly or covertly prolonged."[151]

The bacteriological thinking of the 1890s shifted clinical thinking about infectiousness away from the condition of places to the condition of bodies. Discoveries about diphtheria, for instance, directed importance away from crowding, damp, and sewer emanations and toward septic conditions of the nose and throat. In a key paper reflecting upon the successes of antitoxin treatment, Edward Seaton concluded that the mode of diphtheria bacilli infection was "mouth-to-mouth" only. Infectious diseases were thus no longer the province of sanitary engineering, he maintained, but more properly the domain of clinical physicians, laboratory bacteriologists, and hospital superintendents.[152] The germ of scarlet fever remained obscure, but the significance of desquamation nonetheless also diminished. Goodall's *Manual of Infectious Diseases* considered the period of peeling the time of least infectivity. Some went further and declared the epidermis no danger at all.[153] This focus on the germ in effect pointed inward, and gave the infectious body a radical new depth and dimension. It underpinned an emerging belief that the mucous membranes of the nasopharynx and laryngopharynx acted as "crypts" for the continual incubation of scarlet fever and diphtheria germs or as "storehouses" that might be emptied of infection by some sort of specific treatment. Doctors were now more attuned to the role played by rhinitis (running nose) and otorrhoea (discharge from the ear) in signaling the "protracted infectivity" of patients, which likely gave rise to further infections after they left hospitals. The fever ward was seen as a supercharged germ environment from a new perspective: it was not patients' skin and exhalations that produced an intensified, admixed diseased atmosphere. Rather, the danger was its density of specific infection sources: the diseased mucous membranes, moist discharges, and droplet sprays that traveled in specific lines between bodies.

The result was a rising belief that patients with the same disease could be infectious to one another. In a report for the MAB, the Professor of Hygiene at King's College, Dr. W.J. Simpson, found return cases of scarlet fever and diphtheria to be associated with non-specific infections and the recurrence of septic complications like suppurating noses and ears. The spread of these complaints within hospitals affected subsequent communicability of specific diseases and rates of return cases. Simpson faulted the final hot bath for causing patients to "catch colds" and stirring up bouts of rhinorrhoea. He also recommended more systematic application of local antiseptic treatments (like nasal douches and throat irrigations).[154] Others took this advice further and suggested

an aggressive assault on stubbornly infectious cavities, such as surgery to remove enlarged tonsils or to curette the post-nasal pharynx. The new importance of protracted infectivity is reflected in MAB statistical reports, which started to collect incidences not only of cross-infection by specific disease but of septic complications supposedly caught in its hospitals. In 1902 infectious complications occurred in 14,889 scarlet fever patients: 14.6% suffered from otitis, 7.58 from adenitis, 2.84 from diphtheria, 2.05 from chickenpox, 1.75 from measles, 0.89 from whooping cough, and 0.63 from mastitis.[155]

Opinion was clearly shifting against the practice of gathering together patients in different stages of disease, with different types of virulence, and exhibiting different complications and symptoms. The hospital was increasingly diagrammed as a space possessing variable zones of concentration, infectivity, and risk. One consequence was greater attention to procedures for ushering patients out of hospital. This included subdividing acute and convalescent cases and arranging their location in the hospital according to symptoms (suppurating nose or ears here, enlarged tonsils or glands there, etc.).[156] Another technique looked to divide early and late convalescence into separate wards and to mark each movement between wards with a bath and douching of the fauces, which one medical superintendent described as a process of "decantation."[157] MAB hospitals took steps toward greater differentiation in the preparation of patients for discharge. F.J. Woollacott, the Senior Assistant Medical Officer at the Park Hospital, stated that the primary object should be to restore the patient's throat to a normal state. Too often the patient was thrust back into a setting to which he was no longer inured; "he is a hot-house plant put out in the cold." Woollacott meant to "harden" the patient for discharge, gradually removing the "artificial" and "un-home-like" conditions of the hospital and introducing open-air exercise, plain clothes and plain food, and variable temperatures. "Trained and resistant mucous membranes," he contended, were "a more valuable asset than the plump flabbiness that hospital life not infrequently produces."[158]

Even greater attention was paid to managing infectivity from the commencement of hospital treatment. Dr. A.G.R. Cameron's study of return cases urged vigilance from the moment of admission to prevent spread of "superadded" complications, which he attributed "chiefly to infection by sepsigenic organisms to which aggregation predisposes." He recommended that the MAB drastically increase the amount of accommodation in small, mostly single-bedded rooms. Less than 5% of beds in most

of the hospitals were of this type; hospital superintendents were now asking for at least 20%.[159] The ideal as envisioned by Cameron was to have most scarlet fever patients in initial solitary confinement, perhaps as long as three weeks, where they could not be affected by or affect others. Perhaps as a way of addressing the perceived impracticality of this suggestion, a considerable portion of Cameron's report enthusiastically reviewed methods adopted in the previous decade at the Hôpital des Enfants-malades and the Hôpital de L'Institut Pasteur, where dozens of separately ventilated rooms divided by walls of metal and glass allowed the treatment of different diseases side by side. These Parisian wards had been the topic of much admiration and discussion since being toured by British physicians during the Exposition Universelle in 1900. Indeed, W.J. Simpson came away thinking that all fever hospitals' common wards would eventually give way to these *chambres d'isolement*.[160] Goodall captured the thoughts of many, remarking that the Pasteur Hospital's method for keeping every patient apart from time of entry to exit "more closely resembles our ideal of a hospital for infectious disease than any hospital that has hitherto been erected."[161] In reality, its practical application remained few and far between. The Walthamstow Urban District Council erected the first British fever ward on the cellular principle in 1905. This 12-bed pavilion featured wall panels extending from the floor to the ceiling, the top portion completely of plate glass. These formed 2000-cubic foot, separately ventilated chambers, each accessed from an open-air veranda extending around the pavilion.

The MAB implemented a number of variations upon glassed-in treatment. The earliest was a trial at the North-Eastern Hospital beginning in 1905 and involving two designs. One consisted of converting former administrative spaces into two- and four-patient "box rooms," where the walls were fitted with large panes of glass. The box rooms housed a variety of complicated cases, including combinations of scarlet fever, diphtheria, measles, rubella, mumps, whooping-cough, scabies, and ringworm. The medical superintendent described results as "surprisingly good," with few cross-infections (measles the unfortunate exception) (Fig. 7.1).[162] The second model tried at the North-Eastern Hospital involved taking three disused staff dormitories and forming a series of individual cubicles with wood and glass partitions between beds. Located on either side of a central corridor and less aerially distinct than the box rooms, these cubicles received patients with a doubtful admission diagnosis and patients who had been exposed to other diseases breaking out

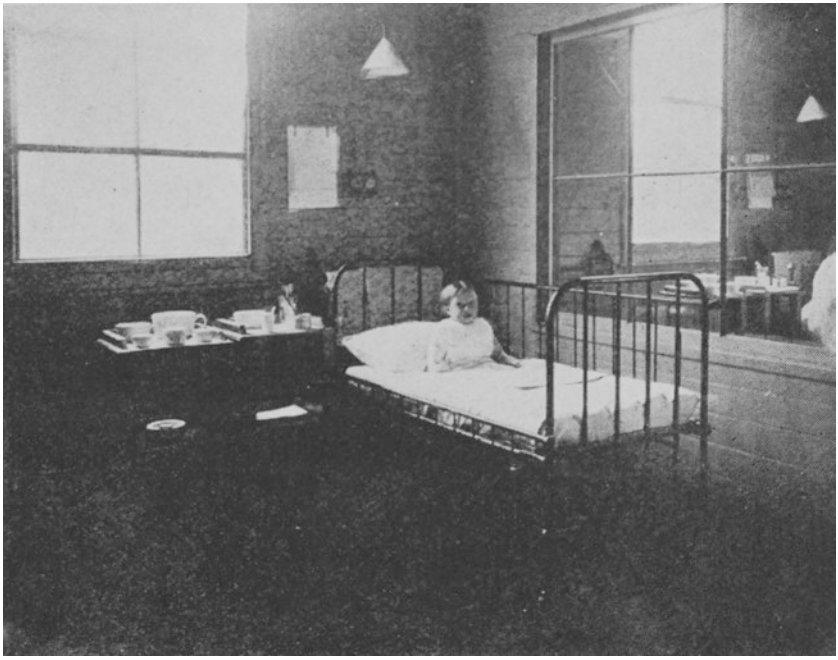

**Fig. 7.1** Box room at the North-Eastern Hospital. *The Modern Hospital* v. 13 (August 1919), 113. Courtesy of the Stanford Medical History Center

in the general wards. The hospital's physicians reported that they were of "utmost value" in affording greater classification of patients and thus dealing with the complicated "infectivity" of scarlet fever treatment.[163]

A more systematic trial of cubicles was initiated at the South-Western Hospital in 1907, with seven-foot iron and glass partitions placed in two ordinary fever wards. These cubicles were arranged "like high pews in a church," with patients unable to touch one another but sharing an atmosphere because of the large space above the partitions (Fig. 7.2).[164] According to F. Foord Caiger, the physician in charge of these "little glass houses,"[165] the cubicle design would test his supposition that most infections were not air-borne and required contact for transmission. But this meant also eliminating all other possibilities for conveying infection. On the cubicle ward all doctors and nurses were required to immediately wash their hands after touching a patient, bed, or belongings; don a

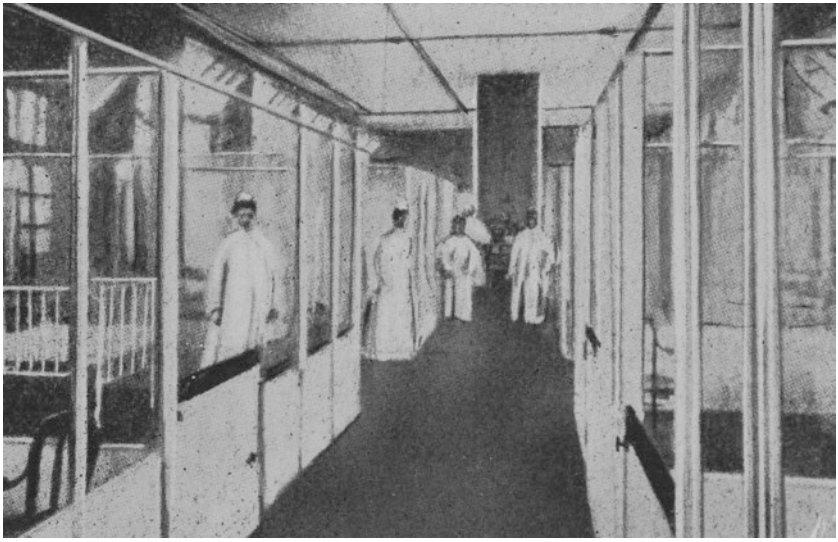

**Fig. 7.2** Cubicle block at the South-Western Hospital. *The Modern Hospital* v. 12 (May 1919), 332. Courtesy of the Stanford Medical History Center

separate overall while in each cubicle; sterilize every instrument, spatula, medicine glass, and eating utensil after each use; and keep to individual use all brushes, combs, flannels, soap, books, toys, and so on. Through experimentation, Caiger came to believe it was safe to treat many different diseases in adjacent cubicles.[166] His work attracted considerable interest, though at least a few observers were taken aback by the confidence Caiger placed in his method of partial separation. The Medical Officer for Newcastle, for instance, could not help but think the experiment amounted to "playing with infection" and in his opinion was too dangerous to conduct on young patients.[167]

Apprehensions such as these probably influenced the decision to try a third architectural design for isolation within isolation. In 1910 a large common ward at the Eastern Hospital was converted into twenty separate chambers. They came under the charge of Dr. Goodall, who admired the Walthamstow scheme and considered that separation provision would not suffice if it could not handle occasional cases of chickenpox and measles (which the cubicles evidently could not contain). He stipulated a complicated system of fan-powered ventilation that ensured

each glass-enclosed chamber had its atmosphere drawn off and expelled through the top of the building (an early version of a negative-pressure room).[168] Goodall considered these aerially distinct cells a valuable addition to the hospital, receiving exactly 1,000 patients over the first three and a half years (942 of these under 10 years of age). He reported that 16 patients on the ward caught another disease, mainly measles and chickenpox, which Goodall was inclined to blame on the breakdown of nursing precautions.[169]

A number of superintendents across the nation experimented with some sort of architectural sequestration. By 1909 a leading medical textbook on infectious diseases could declare that box rooms, partial cubicles, or a cellular system of complete enclosure "may be considered necessary in an up-to-date [fever] hospital."[170] It is instructive that descriptions from this time invariably seek to forestall one potential objection. Physicians were always careful to state that it did not impede the necessary visual surveillance of the ward.[171] What one gained in separation was not lost in sight. It in fact could provide the means of better organizing visibility and facilitating further scrutiny. At Walthamstow a semi-circular inspection window projected into both sides of the isolation ward, providing a clear view of every bed from the central nurses' station; each glass chamber had an electric light that could be turned on from this station, instantly illuminating that space.[172] Nightingale nursing had memorably diagrammed the ideal ward as a terrain needing to be commanded by the nurse's unwavering eye. The new fever hospital continued and even amplified this imperative. According to Goodall, nurses working his chamber-isolation pavilion could indeed see every patient from any place in the ward.[173] A writer in the *British Journal of Nursing* commented that the abundance of glass in the South-Western Hospital cubicles made patients "always visible to one another" and, rather than seeming cramped, it gave "an impression of space."[174] Glass panels, in other words, tended to guide the eye's attention to what was contained on the other side. *The Nursing Times* added that the nurse could "command at a glance the entire ward," and stated that this was an improvement over other separation rooms.[175] Partition, not privacy, was the main objective—although there was undeniably a connection between the two.

In his critical exploration of nineteenth-century visuality, Chris Otter argues that a "calculated mobilization of glass" accompanied many important urban practices and undergirded the Victorian material culture

of display and observation.[176] A ubiquitous hallmark of museums, aquariums, department stores, and exhibitions was the glass case, which "organized a particular form of viewing experience" and encouraged the "judicious, meditative distance of the visual."[177] Such arrangements no doubt often produced dissymmetries of observation, but Otter maintains that they rarely privileged simple, one-way viewpoints. Glass panels, in fact, tended to preclude ocular dominance; rather than heralding panoptic relations, they buttressed markedly liberal visualities. Otter mentions the glass-divided hospital ward proposed by the architect Henry Greenway much earlier than the period discussed in this chapter—in 1872.[178] He actually intended this design for treating infectious diseases and had been inspired by the controversy surrounding the Hampstead Smallpox Hospital. Greenway emphasized the need of individualized ventilation so that each patient could breathe air uncontaminated by fellow inmates. It aimed at "locating without intensifying infection—a condition which was not obtained in the fever hospitals."[179] Still, he could not avoid discussing at length how the presence of glass barriers could manage sight and regulate behavior. On the one hand, doctors would still be able to see patients through the "row of transparent compartments."[180] On the other hand, having "an apartment to himself," the patient might avoid "the unpleasantness often felt in associating with strangers" and, although isolated, "would not feel lonely, as he could see those around him, and, with a moderate amount of voice, could, if he were inclined, converse with his neighbor." The goal was therefore individualized air-space but also the ability to choose the amount of social interaction desired, while still within a shared ocular environment. Greenway ruminated on how patients would, "to a certain extent, watch each other while awake." The same must have been true of an ordinary ward, of course, but the glass barrier was thought to heighten the importance of the visual experience and, by conveniently combining obstruction and transparency, organize a safe space for mutual voyeurism. It spoke to how glass facilitated sensory separation, dampening if not outright eliminating sound, touch, and smell. In Otter's view, this sort of privileging of sight underpinned ideas about liberal aptitudes for individual contemplation and self-judgment.[181]

Thus, the glass hospital had been proposed and debated, but ultimately rejected (a top authority in hospital architecture considered it inconvenient to students and generally unnecessary[182]), decades before the concept was rediscovered and adopted as the preferred design for

fever wards after about 1905. The key advantage, now fully appreciated, was how more precise spatial classification might lend itself to the more precise governance of patients. This no doubt owed to the fact that the fever hospital needed to become not only a highly medicalized space but also a space accountable to public apprehensions of infection. Cubicles and chambers seemed an ideal solution for how to combine social aggregation with clinical distinction. This is because they literally enclosed individuals and constructed the subjectivity of the patient. Goodall and a number of others noted that the glass partition reduced "the sense of loneliness, amounting even to fear in the case of a child," experienced in small rooms with opaque walls.[183] This no doubt in part also reflected the widespread belief that working-class individuals must find a high degree of privacy disagreeable. But Caiger admitted that children especially benefited from being able to see each other and what was "going on" around the ward. Patients would be rigorously divided according to their disease, but in the cubicles at least they could talk freely with one another and nurses were "enabled to give them a word of encouragement, or admonition, if necessary." Greater separation was required throughout the normal fever hospital, but the glass walls preserved connection and supervision. In Caiger's opinion, this meant "greater happiness of the patients."[184] And contentedness was key not only to individual recovery but also ultimately to protection of the public health.

## Barrier Nursing: The Body Technic

The science of fever hospital hygiene at the turn of the century may have raised barricades between patients but nonetheless at the same time it also acted to question and dissolve the materiality of these barriers. Indeed, bacteriology continued to compel attention to the body itself in new ways. One isolation hospital superintendent observed that surgical practices had already been substantially transformed by "Listerism" and new aseptic techniques. "Can we say the same of our infectious fever hospitals? I am afraid not," he concluded.[185] If isolation had proven a disappointment, advised the *BMJ*, this was because of a "failure of technique in the matter of asepsis."[186] During these years the traditional practices of hospital cleanliness that had sought to negate the accumulation of infection in the ward eventually gave way to rituals of sterility aiming to barrier each patient as a unique source of infection. This went alongside the growing belief that few diseases had any

route of transmission other than close contact; not only did the "striking distance" of germs contract, so did the perceived importance of airborne infection. In effect, this placed significantly more importance upon prescribing and maintaining certain forms of behavior than erecting glass walls and partitions. This new regime of bodily discipline reflected a wider shift in thinking that located hygiene not in architecture but in procedures, gestures and their practically ritualized performance. Isolation therefore became less of a blockade and more of a mechanism. It was also increasingly embodied in the person of the nurse.

An article in *The Hospital* magazine entitled "Fever Nursing—Old and New Style" captured this remapping of hospital infection and isolation. "The territory on which the bed of each patient rests is to be regarded as the limit of that particular germ's excursions."[187] The concept of "barrier nursing" was first developed by John Biernacki, Medical Superintendent of the Plaistow Hospital in East London, who laid out his system in an eleven-part series of articles for *The Nursing Times* in 1908.[188] Complicated cases in a general fever ward were distinguished by placing a colored cord at the end of the patient's bedstead. (Blue identified ordinary acute fever cases, red the more dangerous patients suffering septic complications or exposure to a second infection.) Patients so marked were to be treated with full aseptic precautions and disinfection. The area between barriered beds contained tripods holding bowls for sterilizing hands and overalls for wearing while attending a patient. The stress was on policing the conveyances and routes of infection within the ward. Biernacki called it an "invisible barrier" system and obliged nurses to think of each corded-off space as equivalent to a *cordoned* isolation room and governed by the same strict procedures of entrance and exit that would be used in cubicle nursing.[189] Non-barriered cases faced fewer restrictions, but the patients themselves were also taught the importance of not trespassing upon these special isolation spaces. The procedure called for a careful disposition of space and instruments, much like the increasingly regimented and standardized routines of aseptic surgery. Single-use instruments were carefully placed on glass shelves next to the bed, so that "with a strict arrangement of the equipment the absence of any article is seen at a glance."[190] Barrier nursing was taken up by Dr. A.K. Gordon at the Monsall Hospital in Manchester, where he hung three-foot-high sheets around the beds of certain patients. The screen's only purpose, Gordon admitted, was to "act as a label and thus show that a certain ritual must be adopted in the nursing of the patient inside

it." Nurses were instructed to keep the sheets wet with a weak liquid disinfectant, but it was simply to remind them of its presence and to help them visualize the invisible barrier they actively maintained. There was no mistake that the "barrier" in barrier nursing consisted entirely of rules of behavior. Next to each marked bed, Gordon placed a large card clearly listing the numerous and meticulous requirements the nurse had to perform each time she passed through the barrier, in either direction.[191]

Barrier nursing enveloped the patient within aseptic procedures. The technique did not necessarily require any sort of physical partition, although the same precautions were deployed in cubicle and chamber isolation. Dr. Caiger, for example, required several pages to describe the "multiplicity of detail" he required nurses to follow when tending patients of different diseases at the South-Western Hospital cubicle wards. The "full ritual of disinfection" stipulated that nurses wash their hands after every action, prescribed exact rules for wearing the uniform (no cuffs, for example), described how to don the overall allocated for each case, required all items to be sterilized after each use, specified how patients would be wrapped for baths and how they would be prevented from meeting in hallways.[192] A trial of barrier nursing without walls took place in two scarlet fever wards at the MAB's South-Eastern Hospital in 1910. Here, Dr. Cameron placed new arrivals in beds closest to the fireplace; as new cases arrived the earlier ones were shifted towards the ends of the ward. Once convalescent, patients were taken to the other side of the ward and similarly transferred—the object being to situate the sicker patients in the most convenient positions for nursing. Nurses received detailed instructions on how to treat each patient "as if he were in an isolated compartment," surrounded in effect by a ring of hand-washing and the strict individualization of instruments. A trustworthy nurse was always present "to keep them separate and to prevent the little friendly attentions which one patient is apt to show to another." Cameron reported that infectious complications on these wards were distinctly lessened, as were the number of alleged return cases.[193]

The aseptic treatment of fevers was developed in many hospitals in Britain and exhibited several variations, but included four main tenets. First was an assumption that any object coming into contact with the patient might harbor pathogenic germs and must be treated in all instances as infectious. Second, although aseptic technique employed chemical disinfectants, it centered upon bodily procedure, comportment, and placement. Exhaustively prescribing the series and sequence

of individual actions served as the essential means by which to exclude and interdict all paths of germ transmission. Third, it was premised on producing an unambiguous spatial inside and outside. This form of nursing was realized in managing the gestures and movements that trace the partition between within and without, that govern the spots of transit between interior contamination and exterior sterility. Fourth, as in surgical nursing, asepsis described a technology of the body; it depended upon its dependable performance by a trained and disciplined aseptic subject.

The detail required in aseptic technique led physicians to recognize the value and indispensability of ritualized performance. Caiger remarked that the labor in this form of treatment was "exceedingly irksome, but after a while the nurses get used to it, and even like it."[194] He and others at first teasingly referred to the "ritual" employed by convent sisters at the Paris hospitals (who had been "accustomed from early life to attention to minutest details and blind obedience to their superiors"[195]), but soon realized the importance of designing some sort of bodily ceremony. The technique had to be performed correctly every single time. Dr. Pugh of the North-Eastern Hospital explained that "utmost care" in all these numerous precautions was essential and "a momentary lapse may undo the precautions of weeks."[196]

For some commentators, the final objective of aseptic ward ritual was a system of automatic routine and regulation. Barrier nursing was seen as a bodily mechanism aligning with contemporary ideas about the scientific management of labor. As in Taylorist industrial strategies, the individual nurse came into view as an object of knowledge and a target of considerable intervention. She was to be assessed, measured, supervised, and standardized. As one administrator explained, good preventive nursing was good technique. The goal was to create an "aseptic conscience" in the nurse, but this itself rested on establishing a highly prescribed system which "runs itself." "Every move which a nurse makes in the actual performance of her duties should be planned for her for months."[197] Aseptic conscience was thus built upon breaking movements into discrete elements and analyzing their effects, differentiating ward work into standard tasks, creating written instructions, and establishing a prescribed formula (or "technic") that ideally would replace individual judgment. Fever nurses attained the utmost efficiency and reliability only by attending to the technical aptitude of the body and after a "a considerable period of constant and elaborate drill."[198] The goal was a

routine that, once diagrammed, could be made more efficient through constant observation. In fact, "the supervision should be so constant that it should be taken as a matter of course."[199] As in the Taylorist technique of motion study, the aim of this supervision was not only enforcement of the rules, but also their improvement and refinement. Soon, textbooks of infectious disease nursing typically contained several pages of detailed instructions for each part of any specific task, such as the exact gestures required of the nurse to don and remove a gown without re-contaminating herself or objects. This all served to underscore the divisibility of the nurse's body and its operation. Hands came forward as a key focus of concern. Gordon maintained that when a child in hospital developed another disease or another variety of the same disease "the careful nurse will think of her own hands."[200] Others insisted that infections were not carried by germs lurking on doorknobs, blankets, wallpaper, or dust, but "rather by the reversion to an ancestral characteristic of our ring-tailed ancestors, the nasty habit of putting fingers into the mouth."[201] A number of commentators believed that control of one's hands would always be a matter of habit, but that this could be managed externally through a mechanism of bodily routine and discipline.

It was now widely admitted that hospital infection had become a problem quite simply of efficient and skillful nursing—which of course was not a simple undertaking at all. The quality of nursing required at modern isolation hospitals was far more difficult to obtain than the highest quality buildings. "The detail is immense, and there is no room for slipshod work," Biernacki explained. "Every channel by which infections can travel, every vehicle that may carry them, has to receive attention … By comparison surgical nursing is a simple matter."[202] Nurses themselves tended to agree, but also to voice skepticism toward the virtues of habitual ceremony and mechanical repetition. Many of them held that "stereotyped routine [was] always fatal to good nursing" and doubted that problems of hospital administration could be solved "by manual dexterity alone or by any machinery which can be automatically set in motion." Superintendents insisted too much upon uniformity of technique and its over-elaboration, when what was really needed was the "wit and ingenuity and sympathy of the individual nurse."[203] Some warned that the woman of "developed character" called into existence by Nightingale was in danger of being "mis-shapened" and "changed into a machine" by Lord Lister.[204] More than anything else, nursing was a "handicraft," and the "true nursing touch" could by conveyed only by "the deft and

clever hand" of the properly trained and cultivated individual.[205] It was not a leap to categorically state that "trained brains are more important than trained muscles."[206]

Aseptic technique came to be a key theme in debates over the standardization of fever nursing, the training of fever nurses, and the place of fever treatments in the overall nursing profession. *The British Journal of Nursing* held that the "aseptic sense" needed to be "based on a fundamental knowledge of scientific facts." In order to maintain an effective ward ritual, it explained, nurses "must not only be prepared to give exact effect to the directions they receive, but they must also understand the rules which are the basis of the aseptic method, and must bring their intelligence to bear upon their work so that it may be thorough in every detail." Habit would become second nature once underlying principles of infection were grasped, and a nurse would "instinctively" avoid those actions "which her subconscious warns her would endanger the aseptic environment."[207] A number of fever hospital superintendents were sympathetic to this position and believed that education was a critical part of any mechanism to ensure an efficient nursing staff. Gordon preferred to instill an "aseptic instinct" instead of a mindless "ritual." He wanted his fever nurses to "understand, not merely that such and such things have to be done, but rather why they have to be." They therefore needed a "good working knowledge of the principles of bacteriology," although not its details.[208] Caiger agreed, writing that it was *conscientiousness* that actively enlisted a nurse's "interest and loyalty" and made her dependable in carrying out aseptic technique.[209]

The originators of barrier and cubicle nursing were foremost among advocates for strengthening the professional status of fever nursing. They pushed for special training, certification, and state registration. (The last proved controversial, however, given the already two-decade campaign to have the government license nurses similar to doctors.[210] The British Nurses Association started a voluntary register in 1887; the Nurses' Registration Act did not pass until 1919.[211]) Bienacki helped to establish a Fever Nurses' Association in 1908. E.W. Goodall served as its first president, and the governing body included several MAB Medical Superintendents and Matrons. For the first several years the Association met annually at the central MAB offices or at one of the MAB hospitals. It proposed instituting a uniform standard of training for fever hospital nurses, issuing a model syllabus and ward practicum that was adopted by the Asylums Board managers in 1909.[212] The following year the

MAB resolved upon major changes designed to "form a strong inducement to better-class women" interested in taking up nursing as a profession.[213] The metropolitan fever hospitals therefore played a key role in defining fever nursing as a special discipline and branch of nursing. But these attempts to make fever nursing a gateway to the nursing profession were criticized by some as working to further separate fever nurses from the mainstream, to relegate them to a decidedly lower rung of status. Many prospective nurses continued to see work in the isolation hospitals as a "blind alley" professionally, not to mention a dangerous one.[214] Moreover, the MAB consistently failed to generate a reliable supply of labor. In 1913 it was forced to consider turning patients away as a result of the dearth of nurses.[215] A 1914 report stated that the inability to attract women to this line of work would likely be a permanent difficulty.[216] Managers again raised pay for nurses, offered more generous leave and off-duty time, and reduced the age requirement (from 21 to 19), but the situation only got worse following the start of the war. In reality, almost all fever hospitals constantly struggled with simply maintaining sufficient numbers nurses for ordinary operations, quite apart from bringing their training and aptitude up to the exhausting standards of complete aseptic treatment. Cultivating a proficient cadre of fever nurses generally fell away from view as a realistic ideal, and most hospitals as a result fell back upon a severe code of rules that treated nurses like machines. Aseptic technique in fevers failed to be standardized in the same way as in surgical nursing, and as a result its application varied across the country as well as within London.

## Bed Isolation: Experiments and Experiences in Hygiene

Practices of individualized isolation tested and expounded upon at fever hospitals worked to sustain a system for producing knowledge about the natural norms of infectivity and for normalizing new measures of disease prevention. It was already common to think of the isolation experience as one that carried beyond the hospital. Every child who entered a well-conducted isolation ward received "a lesson in hygiene," remarked one doctor. "Cleanliness such as many have never before experienced is taught, and some idea of nursing the sick must be acquired by the older children." The same author advised that fever patients were particularly impressionable, and it was during their time in hospital that some of the lower classes might be subject for the first time to "order, cleanliness,

ventilation, and sanitation."[217] As many others would come to see, the dissection of infection safeguards into discrete parts would open up and put on display a clear anatomy of the new hygiene. It thus also constructed a model for rational and civil behavior that ideally would follow the patient past the period of treatment. As one commentator explained, it had become necessary "to carry the principles of isolation and bed-side disinfection—which you can practice in your special isolation hospitals—into the humblest household."[218] The goal was to develop highly specialized methods of infection control in order to protect the ward itself, but also to make these techniques generalizable. Hygienic separation in this view would not be so much arrayed against patients as enacted by and through them.

A number of fever hospital superintendents sought to push the aseptic regime to its furthest extent, devising ways to discover the practical limits of infection control in complex disease environments. The isolation ward in fact became a crucial site for probing the spatial etiology of various diseases. The system of "bed isolation" deployed at the Liverpool City Hospital by Dr. Claude Rundle collected a variety of different infectious diseases in one open ward. It featured very tightly maintained rules of individual confinement: no patients permitted to mingle with others or ever allowed out of bed; no toys, books, or papers allowed. Instead of having only a few beds marked for aseptic treatment as in the "barrier nursing" system, this ward was a uniform zone of strictly enforced separation. Nurses were given to understand that any instance of cross-infection should "be regarded by them as a catastrophe for which they are collectively and individually responsible."[219] Many hospital chiefs declared Rundle's experiment courageous, although he believed that there was little enough danger to patients.[220] As a precaution he "diluted" the infectivity of the ward by locating cases of certain diseases amongst adults and alongside persons rendered insusceptible by a previous illness. The relative absence of cross-infections in this ward confirmed for him the unimportance of aerial communication. The true test of this doctrine would have been the introduction of smallpox amidst unvaccinated patients, but Rundle admitted he had not the courage to attempt that.

The exigency of such arrangements rose substantially for the MAB in 1910, when it began admitting patients with a primary certification for measles and whooping cough (these had previously been treated only as they arose in the hospitals). Emboldened by Rundle's experiment, Dr.

Frederic H. Thomson decided to extend and test the bed isolation concept at the North-Eastern Hospital. He boldly emptied one of his cubicle wards into an ordinary ward and drafted into it the hospital's most infectious cases, purposively excluding adult patients. The ward collected an extraordinary menagerie of different clinical cases, separated by nothing other than a severe barrier-nursing regime (Fig. 7.3). Thomson had been confident that a highly infectious disease such as chickenpox could be safely treated in the bed isolation ward. Almost immediately though, the introduction of a patient with secondary chickenpox caused a cross-infection and engendered "great distress" amongst the staff. Thomson chose to publically blame this incident on the coal strike (the MAB had forced him to restrict the hot water supply and as a result the nurses' hands were chapped and unable to be properly cleaned). In his opinion bed isolation would be perfectly adequate to accommodate measles, but because of its greater lethality Thomson could not bring himself to deliberately introduce this disease. He feared that if a child died owing to some accident the parents might take up "a hostile attitude about the system."[221]

Before it had to be discontinued in 1915 due to the war and the deficiency of trained staff, Thomson's bed isolation experiment at the North-Eastern Hospital supplied a concerted and meticulous study of the powers and circumstances of disease conveyance. Importantly, nursing and other precautions were supposed to minimize hospital infection, not eliminate it. Thomson maintained a daily plan of the exact location of patients and their diseases, allowing him to map the occurrence of cross-infections and record how sickness naturally distributed itself from bed to bed. He could, for example, note the spatial relations in how two cases of measles accidently admitted to the ward resulted in seven cross-infections. Over two years the ward also experienced 5 internal transmissions of whooping cough, 8 of chickenpox, and two of scarlet fever. Thomson satisfied himself that some of these were the consequence of the breakdown in aseptic technique. He continued to exclude measles, but intensified his inquiry of chickenpox. Cases of this disease received "special nursing"—meaning that a senior nurse was individually detailed to look after the patient and allow no mistakes in technique. Patients were classified according to the day of their sickness. Thomson started by admitting chickenpox at a late stage of eruption (not infectious) and slowly working his way backward in order to find the earliest period of the disease that proved transmittable in this ward environment.[222] A year

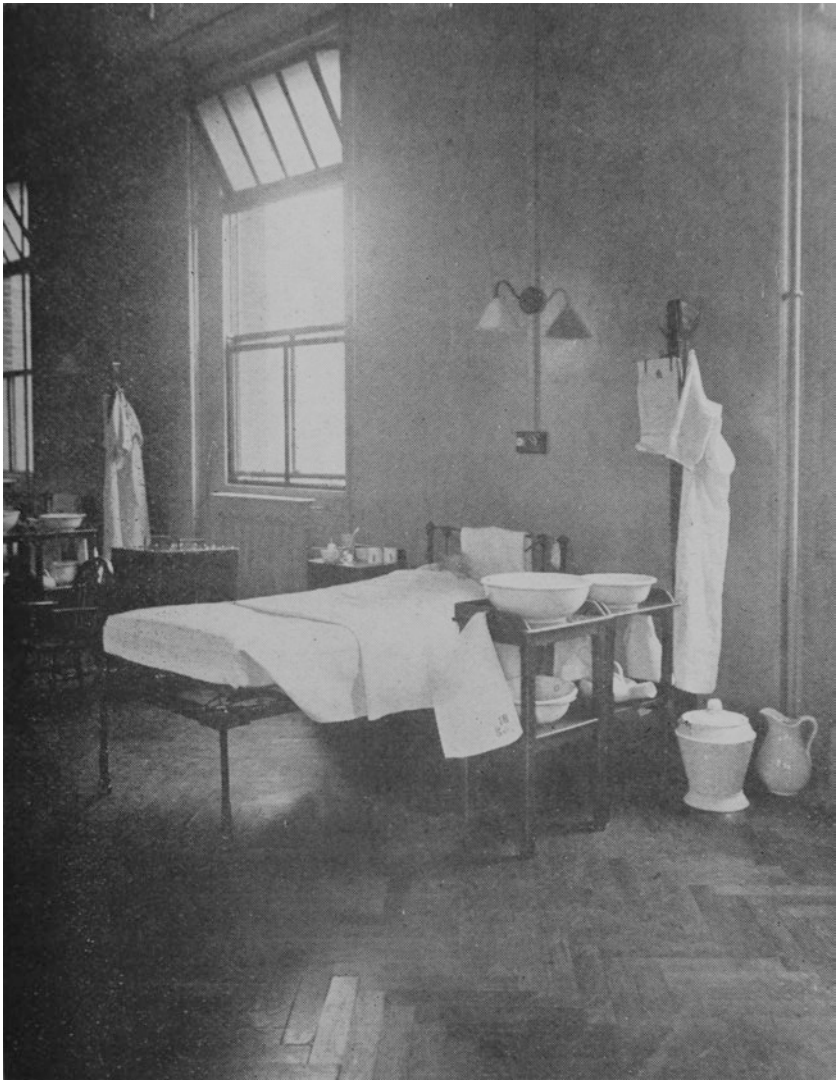

**Fig. 7.3** Bed isolation at the North-Eastern Hospital. *Modern Hospital* v. 12 (May 1919), 331. Courtesy of the Stanford Medical History Center

and a half of patient watchfulness showed that chickenpox was readily infectious from the first through third day of the disease and that it was probably airborne during that time only.[223]

These bed isolation experiments rested upon treating hospital infection as a practically inevitable event and noting the circumstances under which it occurred. They demonstrate the extent to which hospital physicians had generally reconciled themselves to the fact that hospitals always created opportunities for further infection. Why not recreate these opportunities under controlled conditions? As an extension of Thomson's inquiries at the North-Eastern Hospital, he chose to introduce cases of mixed chickenpox/scarlet fever into an ordinary boy's scarlet fever ward, but not guard against infection in any special way. Thomson purposively chose a ward of young patients and patients not protected by prior exposure to chickenpox. As none of the introduced chickenpox cases were less than eight days into the disease, he hypothesized no danger to the other patients—and indeed he had no further infections arise.[224] The risk of infecting children with chickenpox was deemed tolerable and predictable, and was conducted as a means of testing hunches about how to place infectivity under greater control.[225] Experiments such as this were premised on imparting a greater degree of internal intelligibility, recordability, and analysis. The fever hospital could be viewed as a natural laboratory of infectious disease and presented as governable in the same fashion as a laboratory. Managing hospital infection had become a matter of defining its natural limits, rendering it visible and measurable, compiling information on its unmodified behavior, and devising tools to modify its effects.

Special bed isolation experiments took place at a handful of fever hospitals, but most superintendents doubted the intense regimen was capable of being very widely applied. Meanwhile, the trials themselves largely escaped public attention and avoided the charge that doctors were dabbling with infection. The Assistant Medical Officer of the LGB, H. Franklin Parsons, believed the real value of special bed isolation would come in identifying specific ways that hospital infections might be brought to a tolerable minimum by an ordinary staff serving a common fever ward of the same disease.[226] And indeed, officials who lacked the courage to attempt bed isolation at their own hospitals nonetheless anticipated that assessments of rigid asepsis would yield significant lessons for institutional fever treatment more generally. Many architects continued to promote the importance of physical partitions, cubic footage, and

systems of ventilation. But bed isolation suggested that the prevention of hospital infection could be more directly (and potentially more cheaply) addressed by managing behaviors. Thomson explained that his experiments underscored the centrality of discovery and adaptation. The safe operation of the ward required him constantly to sleuth out and identify all the obscure, unexpected, cunning, and probably unnoticed little itineraries of disease communication. Some hazards were more clearly evident than others. He related that once chocolates had been given to convalescent patients in his bed-isolation ward; a "lively child" commenced throwing candy to others, "his example being followed by other children before the sister could put a stop to the game."[227]

One of the key lessons of bed isolation was to treat hygienic separation not as a spatial blockade, but a spatial discipline. It was a performance that needed to be kept under constant visual scrutiny and reinforcement. Rundle wanted his nurses to perform all their duties in plain view and so placed hand-washing basins at the center of the ward, "to which the nurse has to refer deliberately, and under the critical observation of those in charge."[228] This was far more important in his mind than any artificial barriers such as a glass walls; indeed, these imparted a "false security" among the staff and promoted the breakdown of aseptic technique.[229] This view was supported by Dr. F.G. Crookshank of the Barnes Urban District Council (then located just outside the Asylums Board district).[230] His plan of bed isolation not only eschewed glass partitions, but also deliberately discarded red cords and other visual emblems demarking the aseptic zone. To his mind, relying upon mere "symbolic barriers" of this sort was as ridiculous and useless as the "fetish of the wet sheet" (still faithfully strung up across entrances to home sickrooms).[231] In subsequent years Crookshank went on to write some seminal papers in medical semiotics, in which he criticized the tendency of physicians to confuse the *name* of a thing as a particular *referent* and have it stand for the *reference* itself. He insisted on distinguishing symptoms and signs and on differentiating clinical categories from physical disease.[232] Regarding the fever ward, Crookshank stridently maintained that efforts to *symbolize* barriers detracted from the integrity of actions that constituted asepsis. A barrier should not be symbolized, except as a performance—which was not a symbol of asepsis at all, but rather precisely the thing itself. He rigorously eliminated any "non-essential symbol" from the infectious ward.[233] Given nothing else to see, nurses and patients would be obliged to regard the ritual alone as the mechanism of prevention. The physical arrangement

of meaning must have a significant practical effect. Far more useful than purposeless glass walls, according to Crookshank, was to have a washstand at the foot of each bed "that hits the eye" as a concrete reminder of the task needing to be completed.[234]

Many fever hospital superintendents were as interested in the psychological and visual study of habit as were manufacturers of the day. A central consideration was how the inspectability of asepsis underpinned both external regulation and self-regulation. The patient needed to be kept in view at all times—that much had long been recognized. But the new idea was that the techniques of sterility should be organized so as to be perfectly visible to everyone in the ward. Thomson proposed that fever hospital hygiene rested upon the unobstructed, methodical exhibition of the care of the body. In fact aseptic ritual was more effectively carried out with no physical barriers at all, where it was "open to perfect supervision" by the senior nurses. Bed isolation at the North-Eastern Hospital was arranged so "everything that is done can be seen by the staff." The result was that "patients frequently comment on the routine" and notice when a precaution is neglected.[235] Thomson contended that the severity of ward rules and their performance intrigued patients. He had expected to find children miserable after banning toys and books but he came to consider the bed isolation ward the happiest in the hospital. The nurses were so busy that the children were "constantly interested."[236] Biernacki's successor at the Plaistow Hospital described patients able to carry on lively conversation from one end of the ward to another. Later, little difficulty was experienced in restricting convalescents to their bedsides because "by this time they are accustomed to the ward routine and are easily made to understand that they must not leave their own area."[237]

A key assumption was that the enactment of hygienic precautions by nurses and staff might be emulated in some form by the patients. Aseptic ritual therefore had a part to play in more generally habituating the codes of elementary asepsis and guiding patients to adopt the behaviors on display. This could only be the result of a clearly viewable and unerringly repeatable routine. It also implied a conscious effort to foster a visual environment of mutual inspection and enforcement. These concepts were taken up in a very direct way across the Atlantic. Dr. Charles V. Chapin, inspired by British bed isolation, developed an intricate "aseptic technic" at the Providence, Rhode Island infectious disease hospital.[238] The aim of ward procedure was explicitly didactic, and it focused

particularly upon children. His head nurse, Sarah Barry, wrote that "the period of childhood is the time of training and the average child soon understands what is meant by 'contaminated.'"[239] A colleague at the Los Angeles General Hospital explained further:

> Unless one is accustomed to working with children, it will be hard to believe how easily one can secure the cooperation of the patients, about 85 percent of whom are children. Each child is a self-appointed guardian of the medical aseptic technic, and nothing can be keener than the observation of a child. If a doctor's coat should so much as brush the bedside table of a patient, there will be as many voices as there are patients, crying out: 'Oh, doctor, you're contaminated, your coat tail touched.' All the patients are taught how to distinguish one unit from another. Little fellows two and three years old know what, and who, are 'clean' to them, and who is in their unit. … If the most precious toys touch the floor, on the floor they will stay until the nurse picks them up and takes them out. The owner of the contaminated toy may cry, probably he will, but he will make no effort to pick it up. We are not afraid of the children breaking technic.[240]

Another nurse insisted that the range of aseptic precautions insisted upon in the hospital were "practicable and easily understood." Very young children were taught the difference between clean and unclean areas, why the nose and mouth must be covered when coughing or sneezing, and why not to breathe directly into the face of doctors and nurses. All of this was decisive to what she envisioned to be a bottom-up system of surveillance and compliance. "A child three years of age was known to observe and report to the supervisor that the nurse entered a unit without putting on a gown."[241] The aseptic regime, in other words, depended in some measure upon the intelligent observation of patients and their potential to become tattletales, enforcers, and participants. Just as they were supervised, patients were to supervise the nurses, the doctors, and each other.

The prevention of hospital infection rested almost completely in the formulation of new and ever more stringent rules, but submission to rules had clear and obvious limits. Bed isolation represented the furthest edge in terms of the self-denying discipline required. Dr. Goodall frankly doubted that it could be safe. However dependable the staff could be made, he wrote, "the patients could not be trusted."[242] Knowledge of human nature "makes it certain that the rules are sometimes broken unconsciously, and at others willfully."[243] More so than being confined

to a cubicle, bed isolation appeared to many as "something akin to prison regimen."[244] Convalescence in septic scarlet fever not uncommonly extended over two months, and it was practically out of the question to expect patients not to leave their beds for that long.[245] There was a widespread assumption that adults would not submit to it for any length of time.[246] Barry admitted that it was "much harder to control the adult than the child, not always because he does not understand, but because he will not obey."[247] Others disbelieved that youngsters could be made as cooperative as needed. As one commentator warned, "We have in these beds not animals caged and unable to move, but human beings—and what is still more important, mostly unreasonable children."[248]

Skepticism about the level of discipline that could be realistically imposed upon hospital patients is a key reason why the full technique of bed isolation was practiced sparingly. It nonetheless served a hugely important purpose in testing the full possibilities of disease containment by hygiene alone and in determining which elements could be generally applicable. Bed isolation represented an exceptional level of precaution that might be employed in a more moderate form in more ordinary circumstances. In the end, though, these experiments essentially underscored to fever hospital administers that it was patients themselves who played a most important role in governing hospital infection. The ability to ward off complications resolved into a technology of the hygienic self.

Some form of aseptic procedure (some more elaborate than others) came to be expected in all isolation hospitals in the period between the wars.[249] The somewhat greater availability of nursing labor encouraged administrators to value systems of very strict routine and discipline as a means of preventing hospital infections. Still, most superintendents favored also maintaining some sort of physical partition as another line of defense against hospital infections—an aim that was, however, stymied by the suddenly prohibitive costs of construction. The MAB's hospital physicians pleaded unsuccessfully in 1920 that single-bed units be made more than 20% of overall accommodation.[250] Meanwhile, the questions of infectivity were giving way to interest in immunology.[251] The discovery of streptococcus serotypes in the mid-1920s and subsequent screening for scarlet fever-type susceptibility with the Dick test bolstered belief that greater physical classification was required.[252] The introduction of a greater variety of notifiable diseases (cerebro-spinal fever, epidemic encephalitis, dysentery, and mumps) underscored this need, as did

the realization that a variety of these infections were indeed airborne. For all these reasons, cubicle isolation returned in the 1930s as the leading and preferred model of fever hospital management. When the MAB passed into the hands of the London County Council in 1930, Frederic Thomson (one of the originators of bed isolation) contended that at least one third of all fever beds should be given over to single-occupancy chambers. A major reconstruction of the North-Eastern Hospital in 1938 featured two large blocks containing 112 one-bed and two-bed partial glass cubicle "wardlets." Nearly 40% of beds in this design were in separate cells of some sort.[253] Utilizing partitions or not, the reigning philosophy of fever hospitals across the land had become asepsis.

## Conclusion

The problem of hospital infection at infectious hospitals served in several ways to bridge the public and personal politics of hygiene. At the turn of the century the London fever hospitals became key places for formulating ever more stringent codes of bodily classification and conduct and for erecting new types of barriers between patients. At the same time, fever patients were never entirely passive objects of separation and control. They themselves were essential in bringing hospital infection to the fore as a problem requiring a remedy, and it was with patients that certain key mechanisms of infection management were ultimately entrusted. Questions of infectivity at the heart of "isolation within isolation" also placed the actions of nurses and even doctors under greater scrutiny. This re-problemization of hospital infection was at all times a matter of the spatial arrangement of institutional power, and it ultimately served to elicit new regimes of oversight and regulation.

Writing about the "individuating power" of the cubicle in modern life, Tom Crook contends that it should only partly signify some sort of external and domineering authority. The physical compartmentalization of modern life was no doubt deployed as a means of programming bodies and imposing order, but it is important also to recognize how "this power was also effected by subjects themselves." Crook argues that "the advent of the cubicle coincides with the advent of intense bodily hygiene," that it heralded "an accentuated intimacy between subjects and their bodies," and that this modern personal hygiene involved getting individuals to regard their bodies as "an exploratory site."[254] As this chapter has suggested, the fever hospital grew into a premier institution

for problematizing the body and ultimately for attempting to foster this sort of self-examination. Hospital techniques of "isolation within isolation" compartmentalized the body in radical new ways and produced new opportunities for governing the self—in effect allowing infection control to resolve in an important portion into a matter of self-control.

In 1914 a former fever hospital inmate provided an anecdote nicely expressive of the unpredictable manner that this knowledge could be actually applied. He recalled that scarlet fever patients were repeatedly warned about the dangers of going near the diphtheria pavilions. On one occasion he overheard a little boy frustrated at being denied something by a nurse. The boy snapped back: "If you don't give it me I shall go and catch dip!"[255] Hospital administrators in the early twentieth century sought to arrange space in accordance with the natural forces of infectivity, but in the end could not help but leave open (and create) many dangerous possibilities. Indeed, the focus on personal asepsis may have been the primary way of lessening institutional responsibility. In 1921 the MAB hospitals admitted 33,498 patients and just over 10% of these developed another disease. Of those who caught scarlet fever, diphtheria, measles, or whooping cough, 140 died; 208 patients caught two additional diseases, 11 patients caught three, and 2 patients caught four.[256]

## Notes

1. LMA/MAB/974: Northern Hospital Committee Minutes, 11 May 1894.
2. Edward Seaton, "The Value of Isolation and Its Difficulties," *The Lancet*, 14 March 1896, 698–702.
3. Seaton, "The Value of Isolation."
4. *PH* 16 (1903–04), 211.
5. E. W. Goodall, "Some of the Difficulties Incident to the Administration of Fever Hospitals," *PH* 12 (June 1900), 655.
6. *MAB Statistical Committee Annual Report for 1900*, 23–24.
7. Roger Cooter, ed. *In the Name of the Child: Health and Welfare, 1880–1940* (New York: Routledge, 1992); Marijke Gijswift-Hoftra and Hilary Marland, eds. *Cultures of Child Health in Britain and the Netherlands in the Twentieth Century* (New York: Rodopi, 2003); Lydia Murdoch, *Imagined Orphans: Poor Families, Child Welfare, and Contested Citizenship in London* (New Brunswick, NJ: Rutgers University Press, 2006).

8. Graham A. J. Ayliffe and Mary P. English, *Hospital Infection: From Miasmas to MRSA* (New York: Cambridge University Press, 2003); Marguerite M. Jackson and Patricia Lynch, "Isolation Practices: A Historical Perspective," *American Journal of Infection Control* 13 (February 1985), 21–31; Virginia Sharpe and Alan Faden, *Medical Harm: Historical, Conceptual, and Ethical Dimensions of Iatrogenic Illness,* (Cambridge University Press, 1998), 153–74; Sydney Selwyn, "Hospital Infection: The First 2500 Years," *Journal of Hospital Infection* 18 Suppl. A (1991), 5–64; Flurin Condrau and Robert Kirk, "Negotiating Hospital Infections: The Debate Between Ecological Balance and Eradication Strategies in British Hospitals," *Dynamis* 31 (2011), 385–405.
9. An excellent exception for the American context is Jeanne Kisacky, "Restructuring Isolation: Hospital Architecture, Medicine, and Disease Prevention," *Bulletin of the History of Medicine* 79 (2005), 1–49. Other works that touch upon this connection are Elizabeth Lomax, "The Control of Contagious Disease in Nineteenth-Century British Paediatric Hospitals," *Social History of Medicine* 7 (1994), 383–400; Paul Weindling, "From Isolation to Therapy: Children's Hospitals and Diphtheria in fin de siècle Paris, London and Berlin," in *In the Name of the Child,* 124–45; Lindsay Prior, "The Architecture of the Hospital: A Study of Spatial Organization and Medical Knowledge," *British Journal of Sociology* 39 (1988), 86–113.
10. Michael Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865–1900* (New York: Cambridge University Press, 2000), 5.
11. *The Times*, 4 September 1888, 7; *The Times*, 6 December 1887, 9.
12. *The Lancet*, 13 October 1888, 725.
13. *JSI* 20 (1899–1900), 423.
14. Anne Hardy, *The Epidemic Streets* (Oxford: Clarendon Press, 1993), 80–109; Evelynn Maxine Hammonds, *Childhood's Deadly Scourge: The Campaign to Control Diphtheria in New York City, 1880–1930, revised edition* (Baltimore: Johns Hopkins University Press, 2002).
15. *The Hospital*, 27 October 1888, 49.
16. *BMJ*, 18 February 1882, 233–34.
17. *MAB Minutes, v. 18* (22 November 1884), 1024.
18. *BMJ*, 17 July 1886, 119.
19. *Morning Post*, 20 September 1888, 2.
20. *BMJ*, 10 November 1888, 1074.
21. Sect. 20, Metropolitan Poor Amendment Act, 1869 (32 & 33 Vic., cap.63).
22. *Southwark Recorder and Bermondsey and Rotherhithe Advertiser*, 28 December 1889, 2. See also *MAB Minutes, v. 23* (8 March 1890),

750–51. On the notorious stereotype of medical students, see Keir Waddington, "Mayhem and Medical Students: Image, Conduct, and Control in the Victorian and Edwardian London Teaching Hospital," *Social History of Medicine* 15 (2002), 45–64.
23. *BMJ*, 6 March 1886, 453.
24. Ernest Hart, *RCSFH*, 212.
25. *Daily News*, 22 July 1892.
26. Letter from Louisa Twining, *Englishwoman's Review*, 15 December 1888, 549. See also John Henry Bridges, *SRSCHLMH*, 617–18.
27. *MAB Minutes, v. 22* (3 November 1888), 532.
28. Sect. 80 of 54 & 55 Vict., Chap. 76.
29. *Morning Post*, 30 September 1893, 4.
30. *The Lancet*, 15 October 1892, 893.
31. Letter from F. Lucas Benham, *The Lancet*, 13 June 1896, 672.
32. Letter from F. Graham Crookshank, *BMJ*, 10 October 1903, 937.
33. G. V. Poore, "The Circulation of Organic Matter," *Proceedings of the Royal Institution of Great Britain, v. 15* (1896–98), 170–71.
34. *BMJ*, 10 March 1877, 311.
35. *The Hospital*, 7 August 1897, 313–14.
36. Letter from MIDDLE CLASS, *Daily News*, 10 December 1901, 7.
37. *Islington MOH for 1893*, 69–70.
38. LMA/MAB/1522, Local Government Board Correspondence, letter dated 20 November 1895 from Dr. Waldo.
39. *The Lancet*, 14 December 1895, 1515.
40. *The Standard*, 24 September 1895, 2.
41. *The Hospital*, 10 September 1892, 391.
42. *Morning Post*, 23 October 1897, 6.
43. *Evening News and Post*, 21 June 1893; 23 June 1893; & 26 June 1893.
44. Newsom Kerr, "Sites of Complaint and Complaining."
45. *HHE*, 24 February 1894, 5–6.
46. Boisterous opposition in Tottenham (at the time just outside the metropolitan district) to the North-Eastern Hospital died out after the government agreed to allow local residents to receive treatment in it. *TEWHNMA*, 3 February 1893 & 16 June 1893.
47. *The Hospital*, 29 July 1899, 291.
48. *The Lancet*, 29 May 1897, 1482.
49. *BMJ*, 7 August 1897, 360.
50. *The Reform of the Poor Law, Fabian Tracts, No.17* (London, 1891), 13–14.
51. Letter from C. F. Simpkin, *Hackney Mercury*, 4 October 1890, 5.
52. Letters from Robert Judkins, *Hackney Mercury*, 1 November & 8 November 1890.

53. Letter from "The Mother of a Large Family," *Hackney Mercury*, 29 November 1890, 5.
54. *Hackney Mercury*, 15 November 1890, 5.
55. *Hackney Mercury*, 10 January 1891, 6.
56. *Hackney Mercury*, 28 March 1891, 6.
57. *Hackney Mercury*, 11 April 1891, 6.
58. *PMG*, 16 September 1891.
59. *Nursing Record*, 16 April 1891, 193.
60. *Hackney Mercury*, 7 March 1891, 6; 21 March 1891, 6 & 28 March 1891, 6.
61. Alexander Collie, *On Fevers: Their History, Etiology, Diagnosis, Prognosis, and Treatment* (London, 1887); Alexander Collie, "On Some Public Health Points in the Management of a Small-Pox Hospital," *MTG*, 5 June 1880, 603–06 & 12 June 1880, 629–30.
62. *SCHFSH*, 132–33. See also *RCSFH*, 147.
63. *MAB Minutes v. 5* (24 June 1871), 187–93; *MAB Minutes v. 5* (10 February 1877), 807–808.
64. Alexander Collie, *Small-Pox and Its Diffusion* (Bristol, 1912).
65. *Hackney Mercury*, 18 April 1891, 6.
66. *Hackney Mercury*, 24 October 1891, 6.
67. *The Hospital Nursing Supplement*, 19 September 1891, cxliv.
68. *PMG*, 3 April 1889. See also *PMG*, 26 December 1891.
69. *Nursing Record*, 11 August 1892, 661.
70. "Unhealthy Hospitals," *Nursing Record*, 23 January 1890, 38.
71. *The Hospital*, 17 August 1889, 317; Currie, *Fever Hospitals and Fever Nurses.*
72. Goodall, "Some of the Difficulties …" 661.
73. LMA/MAB/791: General Purposes Committee, Subcommittees Minutes book, volume 2 (20 January 1893).
74. *The Lancet*, 30 August 1890, 467; LMA/MAB/1577: *Annual Reports of the Statistical Committee and the Medical Superintendents of the Infectious Hospitals and Imbecile Asylums for the Year 1887*, 17–18.
75. "Fever Nursing," *Nursing Record*, 9 August 1888, 237.
76. *MAB Minutes, v. 25* (13 June 1891), 187; Ayers, *England's First State Hospitals*, 149.
77. *The Hospital Nursing Mirror*, 7 October 1899, 15; 21 October 1899, 43; 4 November 1899, 67 & 30 June 1900, 172.
78. Goodall, "Some of the Difficulties …," 660.
79. LMA/MAB/899: Eastern Hospital Committee Minutes, 31 May 1893.
80. Goodall, "Some of the Difficulties…," 650, 649.
81. Goodall, "Some of the Difficulties…," 650, 654.

82. E. W. Goodall, "The Treatment of Infectious Diseases Regarded from the Point of View of Hospital Administration," *Journal of the Royal Institute of Public Health(JRIPH)* 15 (1907), 707–08.
83. *BMJ*, 27 August 1881, 367.
84. *MAB Minutes, v. 16* (3 February 1883), 883.
85. *MAB Minutes, v. 15* (30 April 1881), 6.
86. *MAB Minutes, v. 16* (10 June 1882), 220–21.
87. *The Hospital*, 6 August 1887, 317.
88. *PH* 3 (August 1890), 105.
89. *The Lancet*, 22 June 1895, 1589.
90. *MAB Statistical Report for 1895*, 16; *Hospital*, 3 July 1897, 224.
91. *MAB Minutes, v. 23* (11 January 1890), 623.
92. LMA/MAB/1077: Smallpox Hospitals Committee Minutes, 14 May 1889.
93. *MAB Minutes, v. 22* (23 February 1889), 771–72.
94. *MAB Minutes, v. 23* (8 March 1890), 754; LMA/MAB/971 Northern Hospital Committee Minutes, 14 March 1890.
95. *MAB Minutes, v. 22* (9 February 1889), 723–24.
96. *MAB Minutes, v. 24* (12 July 1890), 291.
97. F. Foord Caiger, "Co-Existence, or the Occurrence in Close Succession, or More than One Infectious Disease in the Same Individual," *TESL*, n.s. v. 13 (1893–94), 94–113.
98. R. D. R. Sweeting, "Post-Scarlatinal Diphtheria: A Statistical and Etiological Study," *TESL*, n.s. v. 12 (1892–93), 94.
99. LMA/MAB/2369: C. E. Matthews, "Report upon the Prevalence of Diphtheria Amongst Scarlet Fever Convalescent Patients at Gore Farm Hospital."
100. *The Spectator*, 11 November 1893, 12.
101. *BMJ*, 6 March 1886, 453–54. In 1897 this amounted to at least 6%, from 1900–1904 it was 9.2%, and 10.6% in 1911. *Lancet*, 9 December 1905, 1710; Parsons, *Isolation Hospitals*, 210.
102. *MAB Minutes, v. 6* (18 May 1872), 116.
103. E. W. Goodall, "On Post-Scarlatinal Diphtheria in the Hospitals of the Metropolitan Asylums Board," *TESL*, n.s. v. 15 (1895–96), 68–86. See also LMA/MAB/900, Eastern Hospital Committee Minutes, 4 February 1893, report by Dr. Goodall.
104. Philip Boobbyer, "The Open-Air Treatment of Acute Infectious Diseases," *PH* (May 1911), 318–20; *The Hospital*, 27 July 1901, 277.
105. Goodall, "On Post-Scarlatinal Diphtheria," 73.
106. Edwin T. Hall, "Fever Hospital Construction," *JSI* 18 (1897), 506, 501.
107. Goodall, "Some of the Difficulties …," 658–59.

108. William Henry Power, *Reports and Papers on the Use and Influence of Hospitals for Infectious Diseases, Submitted by the Medical Officer of the Local Government Board, Second Edition* (HMSO, 1901), iv–v.
109. *MAB Minutes, v. 36* (4 October 1902), 606; *MAB Minutes, v.39* (9 December 1905), 282; *The Lancet*, 16 December 1905, 1790; ibid., 23 December 1905, 1848. See also *London Argus,* 10 October 1902.
110. *MAB Minutes, v. 25* (23 January 1892), 726; *The Hospital*, 30 August 1913, 645.
111. *The Hospital*, 15 August 1896, 321.
112. Charles H. Leibbrand, "How London Fights the Microbe," *Windsor Magazine* 9 (1899), 657–62.
113. Hardy, *The Epidemic Streets*, 103.
114. Weindling, "From Isolation to Therapy," 140.
115. Ayers, *England's First State Hospitals*, 197; *MAB Minutes, v.31* (20 November 1897), 626.
116. *The Hospital*, 9 February 1895, 323.
117. *Islington Gazette*, 29 March 1895, 3. See also *The Lancet*, 9 March 1895, 639. Bacteriological study of smallpox encountered similar objections in 1904. One MAB manager believed, contrary to assurances, that "it was evidently intended to experiment upon patients." *The Times*, 2 May 1904, 12.
118. *MAB Minutes, v. 29* (30 March 1895), 6 & (27 April 1895), 38.
119. Demetrius C. Boulger, "Antitoxin from a Patient's Point of View," *Contemporary Review* 69 (February 1896), 177–89.
120. Hardy, *The Epidemic Streets*, 103.
121. *PH* 9 (July 1897), 326–28.
122. LMA/MAB/1695, Report of the Medial Superintendents upon the Use of Antitoxic Serum in the Treatment of Diphtheria in the Hospitals of the Board during the Year 1895.
123. *The Lancet*, 18 January 1896, 190.
124. *The Hospital*, 31 July 1897, 305.
125. LMA/MAB/711: General Purposes Committee, 8 February 1897.
126. *MAB Statistical Committee Annual Report for 1900*, 201–19.
127. *MAB Report for 1909, Medical and Statistical Supplement*, 263–66; Frederic Thomson, "The Control of Infectious Disease," *PH* 38 (July 1925), 301–04.
128. Letter from D. Biddle, *The Times*, 16 February 1895, 4.
129. *Sanitary Record*, 1 August 1901, 99.
130. Eyler, "Scarlet Fever and Confinement," 5.
131. F. A. Mahomed, *The Times*, 17 January 1881, 5.
132. *MAB Minutes, v. 19* (26 September 1885), 650–51.
133. Goodall, "The Treatment of Infectious Diseases...," 721.

134. *MAB Minutes, v. 24* (3 May 1890), 68.
135. LMA/MAB/1519: Local Government Board Correspondence, 1 September 1893, letters of William Robinson.
136. *The Lancet*, 6 April 1895, 905; 13 April 1895, 940–41; & 20 April 1895, 1014.
137. *Paddington MOH for 1895*, 41; *Islington MOH for 1896*, 143.
138. Graham Mooney, "Infection and Citizenship: (Not) Visiting Hospitals in Mid-Victorian Britain."
139. *Sanitary Record*, 27 July 1900, 71; 3 August 1900, 85; 10 August 1900, 124; 24 August, 1900: 157–58; 31 August 1900, 175–76; 7 September 1900, 199–200.
140. See Mooney, *Intrusive Interventions*, 78–79.
141. Letter from Robert William Parker, *BMJ*, 5 November 1887, 1000.
142. Letter from Arthur Wigglesworth, *The Lancet*, 23 October 1897, 1040.
143. *The Hospital*, 20 April 1895, 38.
144. *PH*, 16 (June 1904), 574–75.
145. Eyler, "Scarlet Fever and Confinement," 10–16; Mooney, *Intrusive Interventions*, 90–92.
146. Arthur Newsholme, *10th Annual Report of the LGB, 1910–11, Supplement in Continuance of the Report of the Medical Officer of the Board for 1910–11* (London, 1912), v.
147. John T. Wilson, "A Contribution to the Natural History of Scarlet Fever," Supplement to *PH* 9 (February 1897).
148. *BMJ*, 11 May 1895, 1049.
149. *BMJ*, 9 March 1901, 578
150. *The Lancet*, 9 February 1901, 412–13.
151. F. N. Hume, "The Usefulness of Isolation Hospitals," *Journal of State Medicine* (*JSM*) 12 (1904): 654.
152. *BMJ*, 15 September 1894, 577.
153. E. W. Goodall and J. W. Washbourn, *A Manual of Infectious Diseases* (London, 1896); J. O. Symes, "the Infection of Scarlet Fever," *The Hospital*, 10 October 1896, 26.
154. *PH* 13 (April 1901), 523–28.
155. *MAB Report for 1902.*
156. *Sanitary Record*, 3 November 1904, 436–37.
157. A. K. Gordon, "Medical Superintendent Report on Monsall Hospital," in *Report on the Health of the City of Manchester, 1904* (Manchester, 1905), 294–318.
158. F. J. Woolacott, "Return Cases of Scarlet Fever: A Suggestion," *MAB Report for 1906*, 333–44. Reprinted in *Sanitary Record*, 29 August 1907, 177–78; 5 September 1907, 203–05 & 12 September 1907, 226–27.

159. *The Lancet*, 18 November 1905, 1487–88.
160. W. J. Simpson, "Infectious Hospitals," *JSM* 11 (1903), 521–29.
161. Goodall, "The Treatment of Infectious Diseases …," 711.
162. *MAB Minutes, v. 39* (8 July 1905); Frederic Thompson, *MAB Report for 1908, Medical Supplement*, 262–64.
163. W. T. Gordon Pugh, *The Infectivity and Management of Scarlet Fever* (London, 1905).
164. E. W. Hope, *Text-Book of Public Health* (Edinburgh: E. & S. Livingstone, 1915), 181.
165. *British Journal of Nursing* (*BJN*), 16 March 1907, 202.
166. F. Foord Caiger, "Cubicle Isolation: Its Value and Limitations," *PH* 24 (June 1911), 336–49. See also "Reports on Isolation Accommodation," *MAB Report for 1908, Medical Supplement*, 258–61.
167. H. E. Armstrong, *PH* 24 (June 1911), 346–47.
168. E. W. Goodall, "An Account of the Isolation Chamber Recently Provided at the Eastern Hospital," *MAB Report for 1910, Medical and Statistical Supplement*, 257–63.
169. E. W. Goodall, "On the Use of the Isolation Chambers at the Eastern Hospital," *MAB Report for 1914* (reprinted in *MAB Report for 1923*, 136–42).
170. Claude Buchanan Ker, *Infectious Diseases: A Practical Textbook* (New York: Oxford University Press, 1909), 530–32.
171. H. E. Corbin, "The Present Position of Isolation," *JRIPH* 19 (1911), 321–29.
172. *Municipal Journal*, 16 February 1906, 185–87.
173. Goodall, "The Treatment of Infectious Diseases …," 719.
174. *BJN*, 16 March 1907, 202.
175. *Nursing Times*, 2 February 1907, 99.
176. Chris Otter, "Making Liberalism Durable: Vision and Civility in the Late Victorian City," *Social History* 27 (January 2002), 11.
177. Otter, *The Victorian Eye*, 88, 90–91.
178. Otter, "Making Liberalism Durable," 11; Otter, *The Victorian Eye*, 91. See Henry Greenway, "On a New Mode of Hospital Construction," *BMJ*, 11 May 1872, 495–97; *The Builder*, 29 June 1872, 505; *BMJ*, 25 May 1872, 569; 28 September 1872, 366–67; 15 November 1873, 571–72 & 30 January 1875, 160–61.
179. *BMJ*, 28 September 1872, 367.
180. Greenway, "On a New Mode of Hospital Construction," 495.
181. Otter, *The Victorian Eye*, esp. 46–54.
182. Douglas Galton, *Remarks on Some Points of Hospital Construction* (London, Wyman & Sons, 1883), 23–25. In 1891 the LGB declined a

loan to the Plymouth Town Council for a fever hospital based upon this design.

183. Goodall, "The Treatment of Infectious Diseases …," 719.
184. Caiger, "Cubicle Isolation," 346.
185. R. E. Lauder, "Infectious Fever Hospitals," *Sanitary Record*, 3 November 1904, 436–37.
186. *BMJ*, October 24 1903, 1096.
187. *The Hospital*, 29 February 1908, 586.
188. John Biernacki, "Modern Fever Nursing," *Nursing Times*, 30 May 1908, 411.
189. *Nursing Times*, 6 June 1908, 429.
190. *Nursing Times*, 6 June 1908, 430.
191. *The Hospital*, 26 June 1906, 333–34.
192. F. Foord Caiger, "The Value of Cubicle Isolation in Fever Hospitals," *Medical Officer* 5 (February, 1910), 76–77.
193. A. F. Cameron, "The Treatment of Scarlet Fever on Aseptic Lines," *MAB Annual Report for 1911*, 242–46.
194. Caiger, "Cubicle Isolation," 346.
195. Theodore Thomson, *PRSM—Epidemiological Sect*. 5 (1911–12), 200.
196. Pugh, *MAB Hospitals Committee Annual Report for 1906*, 7.
197. Mabel F. Huntly, "The Importance of Good Technique as a Preventive Measure," *American Journal of Nursing* 16 (1916), 994–97.
198. *Nursing Times*, 6 July 1907, 579.
199. Huntly, "The Importance of Good Technique," 994–97.
200. *The Hospital*, 30 December 1905, 198.
201. *Nursing Times*, 29 December 1917, 1551.
202. *Nursing Times*, 23 May 1908, 391.
203. Isabel M. Stewart, "Possibilities of Standardization in Nursing Technique," *Modern Hospital* 12 (1912), 451–54.
204. *Nursing Times*, 3 May 1919, 413.
205. *BJN*, 13 January 1912, 21.
206. Stewart, "Possibilities of Standardization in Nursing Technique," 453.
207. *BJN*, 3 April 1909, 261.
208. *The Hospital*, 16 December 1905, 168.
209. Caiger, "Cubicle Isolation," 346.
210. *BJN*, 8 June 1907, 421–22; *BJN*, 6 July 1907, 17; *BJN*, 1 October 1910, 267.
211. Anne Marie Rafferty, *The Politics of Nursing Knowledge* (New York: Routledge, 1996), 44–94.
212. *MAB Annual Report for 1909*, 2. See Currie, *Fever Hospitals and Fever Nurses*, 32–37.

213. *Nursing Times*, 11 May 1911, 209. See *MAB Annual Report for 1910*, 2–3.
214. *Nursing Times*, 25 April 1908, 322 & 11 April 1914, 452.
215. *Hansard's HC Debates* (8 May 1913), c.2217–18.
216. *MAB Minutes, v. 48* (4 April 1914), 129–45.
217. H. Beale Collins, *BMJ*, 14 November 1903, 1310; *PH* 21 (1907–08), 83–84.
218. Carl Prausnitz, "Hospital Isolation in Infectious Diseases," *JSM* 20 (November 1912), 661.
219. C. Rundle and A. H. G. Burton, "The Bed Isolation of Cases of Infectious Disease," *Lancet*, 16 March 1912, 720–21; Claude Rundle, "The Bed Isolation of Infectious Disease," *Proceedings of the Royal Society of Medicine* (*PRSM*), *Epidemiological Section* v. 5 pt.2 (1911–12), 171–201.
220. Thomson, "Discussion, Bed Isolation of Cases of Infectious Disease," *PRSM, Epidemiological Section* v.5 pt.2 (1911–12), 182; Claude Buchanan Ker, *Infectious Diseases: A Practical Textbook* (London 1920), 601.
221. Thomson, "Discussion, Bed Isolation," 183–85.
222. Frederic H. Thomson and Clifford Price, "The Aerial Conveyance of Infection," *The Lancet*, 13 June 1914, 1669–73.
223. Frederic H. Thomson, "The Aerial Conveyance of Infection," *The Lancet*, 12 February 1916, 341–44.
224. Thomson, "The Aerial Conveyance," 344.
225. See also Frederic H. Thomson, *The Diagnosis and Treatment of the Infectious Diseases: A Manual for Practitioners* (London, 1924).
226. Parsons, *Isolation Hospitals*, 173. See also Ker, *Infectious Diseases*, 600–01.
227. Thomson and Price, "The Aerial Conveyance …" 1671.
228. Rundle, "The Bed Isolation of Infectious Disease," *PRSM—Epidemiological Section* v. 5 pt.2 (1911–12), 171–201.
229. C. Rundle and A. H. G. Burton, "The Bed Isolation of Cases of Infectious Disease," *The Lancet*, 16 March 1912, 720–21.
230. F. G. Crookshank, "The Control of Scarlet Fever," *Lancet*, 19 February 1910, 477–80; see also Crookshank, "The Control of Scarlet Fever," *PRSM—Epidemiological Section* v.3 pt.2 (1909–10), 73–94.
231. Letter from F. G. Crookshank, *The Lancet*, 23 March 1912, 830–31.
232. F. G. Crookshank, "The Importance of a Theory of Signs and a Critique of Language in the Study of Medicine," in *The Meaning of Meaning: A Study of the Influence of Language Upon Thought and of the Science of Symbolism*, edited by C. K. Ogden and I. A. Richards (London: Kegan

Paul, 1925), 511–37. See also Thomas A. Sebeok, *Semiotics in the United States* (Indiana University Press, 1991), 123–24.
233. *The Lancet*, 23 March 1912, 830–31.
234. *The Lancet*, 13 April 1912, 1018–19.
235. Thomson and Price, "The Aerial Conveyance …" 1673.
236. Thomson, "Discussion, Bed Isolation…" 184.
237. Donald MacIntyre, "Experience at Plaistow," *The Lancet*, 19 August 1922, 378.
238. Charles V. Chapin, *The Sources and Modes of Infection* (London: Chapman & Hall 1910).
239. Sarah C. Barry, "Discussion of the Unit System," *American Journal of Nursing* (September 1925), 767.
240. Edith B. Wilson, "The Unit System," *American Journal of Nursing* (September 1925), 764.
241. Elsie F. Mattson, "Medical Asepsis," *American Journal of Nursing* 33 (1933), 338.
242. Goodall, "Discussion, Bed Isolation …" 192.
243. Goodall, "On the Use of Isolation Chambers," 140.
244. *Transactions of the American Hospital Association* 12 (1910), 187.
245. Rundle, "The Bed Isolation …" 181.
246. Allan Parsons, *Some Administrative Aspects of Scarlet Fever (Report on Public Health and Medical Subjects, no.35)* (London: Ministry of Health, 1927), 72.
247. Sarah C. Barry, "Aseptic Technic in Providence," *American Journal of Nursing* 26 (March 1926), 175.
248. Prausnitz, "Hospital Isolation in Infectious Diseases," 665.
249. Parsons, *Some Administrative Aspects of Scarlet Fever*, 64–78.
250. LMA/MAB/856: Hospital Committee Presented Papers 1919–20, Report of the Western Hospital Sub-Committee, 5 February 1920.
251. G. C. M. McGonigle, "The Biological Concept of Preventive Medicine," *PH* 43 (May 1930), 239–45.
252. Sir Weldon Dalrymple-Champneys, "The Future of the Isolation Hospital," *JRSI* 57 (September 1936), 140–47.
253. *The Lancet*, 12 February 1938, 383–84. See also *The Lancet*, 7 March 1931, 536.
254. Tom Crook, "Power, Privacy and Pleasure: Liberalism and the Modern Cubicle," *Cultural Studies* 21 (July/September 2007), 549–569.
255. "The Patients' Column," *The Hospital*, 9 May 1914, 165.
256. *MAB Annual Report for 1921.*

# References

## *I. Primary Sources*


Anstie, Francis Edmund. *Notes on Epidemics: For the Use of the Public*. London: Jackson, Walford, and Hodder, 1866.

Armstrong, John. *Lectures on the Morbid Anatomy, Nature, and Treatment of Acute and Chronic Diseases; Delivered at the Theatre of Anatomy, Webb Street,* edited by Joseph Rix. London: Baldwin and Cradock, 1834.

Aschrott, P. F. *The English Poor Law System: Past and Present*. London: Knight and Co., 1888.

Atchison, T. *Letters to the Times on Small-Pox Encampments, on Cholera, and on the Contagious Diseases Acts, Third Edition*. London: T. Richards, 1871).

Barrington-Kennett, V. B. "The Ambulance Organisation of the Metropolis During Epidemics." in *The Health Exhibition Literature, v. VIII*. London, 1884.

Bateman, Thomas. *A Succinct Account of the Contagious Fever of this Country*. London: Longman, Hurst, Rees, Orme, and Brown, 1818.

Blyth, Alexander Wynter. *A Dictionary of Hygiene and Public Health*. London: Griffin, 1876.

———. *A Manual of Public Health*. London: Macmillan, 1890.

Boott, Francis. *Memoir of the Life and Medical Opinions of John Armstrong, M.D*. London: Baldwin and Cradock, 1833.

Collie, Alexander. *On Fevers: Their History, Etiology, Diagnosis, Prognosis, and Treatment*. London: H.K. Lewis, 1887.

———. *Small-Pox and Its Diffusion*. Bristol: John Wright and Sons, 1912.




M.L. Newsom Kerr, *Contagion, Isolation, and Biopolitics in Victorian London*, https://doi.org/10.1007/978-3-319-65768-4

Crookshank, Edgar M. *The Prevention of Small-Pox, with Special Reference to the Origin and Development of the Stamping-Out System*. London: H. K. Lewis, 1894.

[Drysdale, George.] *State Measures for the Direct Prevention of Poverty, War, and Pestilence*. London: E. Truelove, 1885.

Firth, Joseph F. B. *Municipal London; or London Government as it Is, and London under a Municipal Council*. London: Longmans, 1876.

———. *A Practical Scheme of London Municipal Reform*. London Municipal Reform League, 1881.

Guy, William. *Unhealthiness of Towns, Its Causes and Remedies*. London: Charles Knight, 1845.

Haygarth, John. *A Letter to Dr. Percival on the Prevention of Infectious Fevers*. London: Cadelll and Davies, 1801.

———. *A Sketch of a Plan to Exterminate the Casual Small-Pox from Great Britain; and to Introduce General Inoculation, v. I*. London: J. Johnson, 1793.

*Health of Towns: Report of the Speeches at a Meeting Held at the London Coffee House on the 17th of August, 1847 to Promote a Subscription in behalf of the Widow and Children of Dr. J. R. Lynch*. London, 1847.

Hobhouse, Arthur. *Some Reasons for a Single Government of London*. London: London Municipal Reform League, 1884.

Howard, John. *An Account of the Principal Lazarettos in Europe, 2nd Edition*. London: Johnson, Dilly and Cadell, 1791.

Jephson, Henry. *The Sanitary Evolution of London*. Brooklyn, New York: A. Wessels 1907.

Maclean, Charles. *Suggestions for the Prevention and Mitigation of Epidemic and Pestilential Diseases*. London, 1817.

McVail, John C. *The Prevention of Infectious Diseases*. London: Macmillan, 1907.

Mouat, Frederic J. and H. Saxon Snell. *Hospital Construction and Management*. London: J&A Churchill & Co, 1883.

Murchison, Charles. *A Treatise on the Continued Fevers of Great Britain*. London: Parker, Son, and Bourn, 1862.

———. A *Treatise on the Continued Fevers of Great Britain, second edition*. London, 1873.

Murphy, Shirley Foster, ed. *Our Homes, and How to Make them Healthy*. London: Cassell, 1885.

Nightingale, Florence. *Notes on Hospitals*. London: Parker, 1859.

———. *Notes on Hospitals, third edition*. London: Longman, 1863.

Oastler, Richard. *Damnation! Eternal Damnation to the Fiend-Begotten, "Coarser Food" New Poor Law*. London, 1837.

Parkes, Louis C. *Infectious Disease: Notification and Prevention*. London: Lewis, 1894.

Parsons, H. Franklin. *Isolation Hospitals*. Cambridge: Cambridge University Press, 1914.

Powell, Sir Allan. *The Metropolitan Asylums Board and Its Work, 1867–1930*. London: Metropolitan Asylums Board, 1930.

Pugh, W. T. Gordon. *The Infectivity and Management of Scarlet Fever*. London: J&A Churchill, 1905.

Rogers, Joseph. *Reminiscences of a Workhouse Medical Officer*. London: Fisher Unwin, 1889.

Simon, John. *English Sanitary Institutions, 2nd Edition*. London: Smith, Elder, 1897.

Simpson, Sir James Y. "Proposal to Stamp Out Small-Pox and other Contagious Diseases." In *Anaesthesia, Hospitalism, Hermaphroditism, and a Proposal to Stamp Out Small-Pox and Other Contagious Diseases*, 543–53. Edinburgh: Adam and Charles Black, 1871.

Smith, T[homas]. Southwood. *A Treatise on Fever*. London: Longman, 1830.

Squire, William. "On the Preventive Influence of our Increased Means of Isolation in Infective Fevers." in *Collected Essays in Preventive Medicine*. London: J&A Churchill, 1887.

Stanger, Christopher. *Remarks on the Necessity and Means of Suppressing Contagious Fever in the Metropolis*. London: W. Phillips, 1802.

Stevenson, Thomas and Shirley F. Murphy, eds., *A Treatise on Hygiene and Public Health, Vol. III: Sanitary Law*. London: J&A. Churchill, 1894.

Toulmin Smith, Joshua. *The Laws of England Relating to Public Health*. London: S. Sweet, 1848.

———. *Local Self-Government Un-Mystified*. London: Edward Stanford, 1857.

———. *The Metropolis and Municipal Administration*. London: T. Saunders, 1852.

———. *The Parish: Its Obligations and Powers, Its Officers and their Duties*. London: S. Sweet, 1854.

Tweedie, Alexander. *Clinical Illustrations of Fever*. London: Whittaker, Treacher & Co., 1830.

Twining, Louisa. *Workhouses and Women's Work*. London: Longman, Brown, Green, 1858.

Watson, Sir Thomas. *The Abolition of Zymotic Diseases, and Other Similar Enemies of Mankind*. London: C. Kegan Paul, 1879.

### *II. Secondary Sources*

Abel-Smith, Brian. *The Hospitals, 1800–1948: A Study in Social Administration in England and Wales*. Cambridge: Harvard University Press, 1964.

Abel, Emily. *Tuberculosis and the Politics of Exclusion: A History of Public Health & Immigration to Los Angeles*. New Brunswick, NJ: Rutgers University Press, 2007.

Ackerknecht, Erwin. "Anticontagionism between 1821 and 1867." *Bulletin of the History of Medicine* 22 (September–October 1948): 562–93.

Agamben, Giorgio. *Homo Sacer: Sovereign Power and Bare Life*. Palo Alto: Stanford University Press, 1998.

———. *State of Exception*. Translated by Kevin Attell. University of Chicago Press, 2005.

Alcabes, Philip. *Dread: How Fear and Fantasy Have Fueled Epidemics from the Black Death to Avian Flu*. New York: PublicAffairs, 2009.

Allen, Michelle. *Cleansing the City: Sanitary Geographies in Victorian London*. Athens, OH: Ohio University Press, 2008.

Anderson, Warwick. *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines*. Chapel Hill: Duke University Press, 2006.

Ayers, Gwendolyn. *England's First State Hospitals and the Metropolitan Asylums Board 1867–1930*. London: Wellcome Institute for the History of Medicine, 1971.

Bailin, Miriam. *The Sickroom in Victorian Fiction: The Art of Being Ill*. New York: Cambridge University Press, 1994.

Baldwin, Peter. *Contagion and the State in Europe, 1830-1930*. New York: Cambridge University Press, 2005.

Barry, Andrew, Thomas Osborne, and Nikolas Rose, eds. *Foucault and Political Reason: Liberalism, Neo-Liberalism and Rationalities of Government*. Chicago: University of Chicago Press, 1996.

Bashford, Alison. *Imperial Hygiene: A Critical History of Colonialism, Nationalism and Public Health*. New York: Palgrave Macmillan, 2004.

———. *Purity and Pollution: Gender, Embodiment, and Victorian Medicine*. New York: St. Martin's Press, 1998.

Bashford, Alison, ed. *Medicine at the Border: Disease, Globalization and Security, 1850 to the Present*. New York: Palgrave, 2006.

Bashford, Alison and Carolyn Strange. "Isolation and Exclusion in the Modern World: An Introductory Essay." In *Isolation: Places and Practices of Exclusion*, edited by Alison Bashford and Carolyn Strange, 1–19. New York: Routledge, 2003.

Behlmer, George *Friends of the Family: The English Home and its Guardians, 1850–1914*. Palo Alto, CA: Stanford University Press, 1998.

Bellamy, Christine. *Administering Central-Local Relations, 1871–1919: The Local Government Board in Its Fiscal and Cultural Context*. Manchester: Manchester University Press, 1988.

Bennett, Tony. *The Birth of the Museum: History, Theory, Politics*. New York: Routledge, 1995.

Brodie, Marc. *The Politics of the Poor: The East End of London, 1885–1914*. New York: Oxford University Press, 2004.

Brown, Michael. "From Foetid Air to Filth: The Cultural Transformation of British Epidemiological Thought, ca. 1780–1848." *Bulletin of the History of Medicine* 82 (2008): 515–44.

———. "'Like a Devoted Army': Medicine, Heroic Masculinity, and the Military Paradigm in Victorian Britain," *Journal of British Studies* 49 (July 2010): 592–622.

Buer, M. C. *Health, Wealth and Population in the Early Days of the Industrial Revolution*. New York: Howard Fertig, 1968.

Bynum, W. F. "Cullen and the Study of Fevers in Britain, 1760-1820." *Medical History, Supplement no. 1* (1981): 135–147.

———. "Hospital, Disease and Community: The London Fever Hospital, 1801–1850." In *Healing and History: Essays for George Rosen*, edited by Charles E. Rosenberg, 97–115. New York: Science History Publications, 1979.

Clark, Anna. "Gender, Class and the Nation: Franchise Reform in England, 1832–1928." In *Re-Reading the Constitution: New Narratives in the Political History of England's Long Nineteenth Century*, edited by James Vernon, 230–253. New York: Cambridge University Press, 1996.

———. "The New Poor Law and the Breadwinner Wage: Contrasting Assumptions." *Journal of Social History* 34, no. 2 (Winter 2000): 261–81.

Clinton, Alan and Peter Murray, "Reassessing the Vestries: London Local Government, 1855–1900." in *Government and Institutions in the Post-1832 United Kingdom*, edited by Allan O'Day, 51–84. New York: Edwin Mellen Press, 1995.

Cooter, Roger, ed. *In the Name of the Child: Health and Welfare, 1880–1940.* New York: Routledge, 1992.

Cordery, Simon. *British Friendly Societies, 1750–1914.* New York: Palgrave Macmillan, 2003.

Cosgrove, Denis, ed. *Mappings.* London: Reaktion Books, 1999.

Craddock, Susan. *City of Plagues: Disease, Poverty, and Deviance in San Francisco.* Minneapolis, MN: University of Minnesota Press, 2000.

Crook, Tom and Glen O'Hara. *Statistics and the Public Sphere: Numbers and the People in Modern Britain, c.1800–2000.* New York: Routledge, 2011.

Crook, Tom. *Governing Systems: Modernity and the Making of Public Health in England, 1830–1910.* Berkeley, CA: University of California Press, 2016.

———. "Power, Privacy and Pleasure: Liberalism and the Modern Cubicle." *Cultural Studies* 21 (July/September 2007): 549–569.

———. "Sanitary Inspection and the Public Sphere in Late Victorian and Edwardian Britain: A Case Study in Liberal Governance." *Social History* 32, vol. 4 (November 2007): 369–93.

Crowther, M. A. *The Workhouse System, 1834–1929: The History of an English Social Institution*. Athens, GA: University of Georgia Press, 1981.

Currie, Margaret. *Fever Hospitals and Fever Nurses. A British Social History of Fever Nursing: A National Service.* New York: Routledge, 2005.

Davis, John. "London Government 1850-1920: the Metropolitan Board of Works and the London County Council." *London Journal* 26 no. 1 (2001): 47.

———. *Reforming London*. Oxford: Clarendon Press, 1988.

Digby, Anne. *Pauper Palaces*. Boston: Routledge, 1978.

Doolittle, Megan. "Fatherhood and Family Shame: Masculinity, Welfare and the Workhouse in Late Nineteenth-Century England." In *The Politics of Domestic Authority in Britain since 1800*, edited by Lucy Leap, Ben Griffin and Abigail Wills, 84–108. New York: Palgrave Macmillan, 2009.

———. "Fatherhood, Religious Belief and the Protection of Children in Nineteenth-Century English Families." In *Gender and Fatherhood in the Nineteenth-Century*, edited by Trev Lyn Broughton and Helen Rogers, 31–42. New York: Palgrave Macmillan, 2007.

Driver, Felix. *Power and Pauperism: The Workhouse System, 1834–1884*. New York: Cambridge UP, 1993.

Durbach, Nadja. *Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907*. Durham, NC: Duke University Press, 2005.

———. "Class, Gender, and the Conscientious Objector to Vaccination, 1898–1907." *Journal of British Studies* 41, no. 1 (January 2002): 58–83.

———. "Roast Beef, the New Poor Law, and the British Nation, 1834–63." *Journal of British Studies* 52/4 (2013): 963–89.

Edsall, Nicholas C. *The Anti-Poor Law Movement*. New York: Manchester University Press, 1971.

Elden, Stuart. "Plague, Panopticon, Police," *Surveillance and Society* 1 (2003): 240–53.

Englander, David. *Poverty and Poor Law Reform in Britain: From Chadwick to Booth, 1834–1914*. New York: Addison Wesley Longman, 1998.

———. "From the Abyss: Pauper Petitions and Correspondence in Victorian London." *London Journal* 25/1 (2000): 71–83.

Eyler, John M. *Victorian Social Medicine: The Ideas and Methods of William Farr*. Baltimore: Johns Hopkins University Press, 1979.

Fairchild, Amy. *Science at the Borders: Immigrant Medical Inspection and the Shaping of the Modern Industrial Labor Force*. Johns Hopkins University Press, 2003.

Fairchild, Amy, Ronald Bayer and James Colgrove. *Searching Eyes: Privacy, The State, and Disease Surveillance in America*. Berkeley: University of California Press, 2007.

Finger, Simon. *Contagious City: The Politics of Public Health in Early Philadelphia*. Ithaca: Cornell University Press, 2012.

Fletcher, Anthony and Stephen Hussey, eds. *Childhood in Question: Children, Parents and the State*. Manchester: Manchester University Press, 1999.

Flinn, M.W. *The Medical and Legal Aspects of Sanitary Reform*. New York: Humanities Press, 1969.

———. "Medical Services under the New Poor Law." In *The New Poor Law in the Nineteenth Century*, edited by Derek Fraser, 45–66. New York: St. Martin's, 1976.

Foucault, Michel. *Abnormal: Lectures at the Collège de France, 1974–75*. New York: Picador, 2004.
———. *The Birth of Biopolitics: Lectures at the Collège de France 1978–1979*. Translated by Graham Burchell. New York: Picador, 2008.
———. *Birth of the Clinic: An Archeology of Medical Perception*. Translated by A. M. Sheridan Smith. New York: Vintage, 1994.
———. *Discipline and Punish: The Birth of the Prison*. Translated by Alan Sheridan. New York: Vintage, 1995.
———. "Governmentality." In *The Foucault Effect: Studies in Governmentality*, edited by Graham Birchell, Colin Gordon, and Peter Miller, 87–104.Chicago: University of Chicago Press, 1991.
———. *The History of Sexuality, Volume I: An Introduction*. New York: Vintage, 1990.
———. *Security, Territory, Population: Lectures at the College de France 1977–78*. Translated by Graham Burchell. New York: Picador, 2007.
———. *Society Must be Defended: Lectures at the Collège de France, 1975–1976*. Translated by David Macey. New York: Picador, 2003.
———. "Space, Knowledge, and Power." In *The Foucault Reader*, edited by Paul Rabinow, 239–256. New York: Pantheon Books, 1984.
Gestrich, Andreas, Elizabeth Hurren, and Steven King, (Eds.). *Poverty and Sickness in Modern Europe, Narratives of the Sick Poor, 1780–1938*. New York: Continuum, 2012.
Gijswift-Hoftra, Marijke and Hilary Marland, eds. *Cultures of Child Health in Britain and the Netherlands in the Twentieth Century*. Amsterdam ; New York: Rodopi, 2003.
Gilbert, Pamela. *Cholera and Nation: Doctoring the Social Body in Victorian England*. Albany, NY: SUNY Press, 2008.
———. *The Citizen's Body: Desire, Health, and the Social in Victorian England*. Columbus, OH: The Ohio State University Press, 2007.
———. *Mapping the Victorian Social Body*. Albany: State University of New York Press, 2004.
———. "Producing the Public: Public Medicine in Private Spaces." In *Medicine, Health and the Public Sphere in Britain, 1600–2000*, edited by Steve Sturdy, 43–59. New York: Routledge, 2002.
Goodlad, Lauren M .E. *Victorian Literature and the Victorian State: Character and Governance in a Liberal Society*. Johns Hopkins University Press, 2003.
Granshaw, Lindsay, and Roy Porter, Eds. *The Hospital in History*. New York: Routledge, 1989.
Green, David R. *From Artisans to Paupers: Economic Change and Poverty in London, 1790–1870* (Brookfield, VT: Scolar Press, 1995)
----. "Medical Relief and the New Poor Law in London." In *Health Care and Poor Relief in 18th and 19th Century Northern Europe*, edited by Ole Peter Grell, Andrew Cunningham, and Robert Jütte, 220–45. Burlington, VT: Ashgate, 2002.

———. *Pauper Capital: London and the Poor Law, 1790–1870*. Burlington, VT: Ashgate, 2010.

———. "Pauper Protests: Power and Resistance in Nineteenth-Century London Workhouses." *Social History* 31/2 (May 2006): 137–59.

Hacking, Ian. "Biopower and the Avalanche of Printed Numbers." *Humanities in Society*. 5 (1982): 279–295.

Hadley, Elaine. *Living Liberalism: Practical Citizenship in Mid-Victorian Britain*. Chicago: University of Chicago Press, 2010.

———. *Melodramatic Tactics: Theatricalized Dissent in the English Marketplace, 1800–1885*. Stanford University Press, 1995.

Hamlin, Christopher. *Public Health and Social Justice in the Age of Chadwick*. New York: Cambridge University Press, 1998.

———. "Public Sphere to Public Health: The Transformation of 'Nuisance,." in *Medicine, Health and the Public Sphere, 1600–2000,* edited by Steve Sturdy, 189–204. London: Routledge, 2002.

Hanson, Clare. "Biopolitics, Biological Racism and Eugenics." In *Foucault in an Age of Terror: Essays on Biopolitics and the Defence of Society*, edited by Stephen Morton and Stephen Bygrave, 106–117. New York: Palgrave, 2008.

Hardy, Anne. *The Epidemic Streets*. London: Clarendon Press, 1993.

———. "Power, Sir William Henry (1842–1916)." In *The Oxford Dictionary of National Biography*. London: Oxford University Press, 2004.

Harley, J. B. "Maps, Knowledge and Power," in *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments*. London: Cambridge University Press, 1989.

Harling, Philip. "The Centrality of Locality: The Local State, Local Democracy, and Local Consciousness in Late-Victorian and Edwardian Britain." *Journal of Victorian Culture* 9, no. 2 (December, 2004): 216–34.

Harris, Bernard. *The Origins of the British Welfare State: Society, State, and Social Welfare in England and Wales, 1800–1945*. New York: Palgrave, 2004.

Harris, José. "Between Civic Virtue and Social Darwinism: The Concept of the Residuum." In *Retrieved Riches: Social Investigation in Britain, 1840–1914*, edited by David Englander and Rosemary O'Day, 67–87. Burlington, VT: Ashgate, 1995.

———. *Private Lives, Public Spirit: Britain, 1870–1914*. New York: Penguin Books, 1994.

Hodgkinson, Ruth G. *Origins of the National Health Service: The Medical Services of the New Poor Law, 1834–71*. University of California Press, 1967.

Howell, Philip. *Geographies of Regulation: Policing Prostitution in Nineteenth-Century Britain and the Empire*. New York: Cambridge University Press, 2009.

Hurren, Elizabeth. *Dying for Victorian Medicine: English Anatomy and Its Trade in the Dead Poor, c.1834–1929*. New York: Palgrave, 2012.

———. *Protesting About Pauperism: Poverty, Politics and Poor Relief in Late-Victorian England, 1870–1900.* London: Royal Historical Society, 2007.

Johnson, Steven. *The Ghost Map: The Story of London's Most Terrifying Epidemic –and How It Changed Science, Cities, and the Modern World*. New York: Riverhead Books, 2007.

Joyce, Patrick. *The Rule of Freedom: Liberalism and the Modern City*. New York: Verso, 2003.

———. *The State of Freedom: A Social History of the British State since 1800*. New York: Cambridge University Press, 2013.

Kelly, Catherine. "'Not from the College, but Through the Public and the Legislature': Charles Maclean and the Relocation of Medical Debate in the Early Nineteenth Century." *Bulletin of the History of Medicine* 82 (2008): 545–69.

King, Steven. *Poverty and Welfare in England, 1700–1850: A Regional Perspective*. Manchester: Manchester University Press, 2000.

King, Steven and Alannah Tomkins, eds. *The Poor In England, 1700–1850: An Economy of Makeshifts*. Manchester: Manchester University Press, 2003.

Kisacky, Jeanne . "Restructuring Isolation: Hospital Architecture, Medicine, and Disease Prevention." *Bulletin of the History of Medicine* 79 (2005): 1–49.

Koch, Tom. *Cartographies of Disease: Maps, Mapping, and Medicine*. ESRI Press, 2005.

———. *Disease Maps: Epidemics on the Ground*. Chicago: University of Chicago Press, 2011.

Koven, Seth. "Borderlands: Women, Voluntary Action, and Child Welfare in Britain, 1840–1914." In *Mothers of a New World: Maternalist Politics and the Origins of the Welfare States*, edited by Seth Koven and Sonya Michel, 94–135. New York: Routledge, 1993.

———. *Slumming: Sexual and Social Politics in Victorian London*. Princeton, NJ.: Princeton University Press, 2004.

Kraut, Alan M. *Silent Travelers: Germs, Genes and the Immigrant Menace*. Baltimore: Johns Hopkins University Press, 1995.

Leavitt, Judith Walzer. *Typhoid Mary: Captive to the Public's Health*. Boston: Beacon Press, 1996.

Legg, Stephen. "Foucault's Population Geographies: Classifications, Biopolitics and Governmental Spaces." *Population, Space and Place*. 11 (2005), 137–56.

———. *Spaces of Colonialism: Delhi's Urban Governmentalities*. Malden, MA: Blackwell, 2007.

Lemke, Thomas. "A Zone of Indistinction: A Critique of Giorgio Agamben's Concept of Biopolitics." *Outlines* 1 (2005): 3–13.

———. "Beyond Foucault: From Biopolitics to the Government of Life," in *Governmentality: Current Issues and Future Challenges*, edited by Ulrich Brockling, Susanne Krasmann, Thomas Lemke, 165–84. London: Routledge, 2010.

Levine, Philippa. *Prostitution, Race, and Politics: Policing Venereal Disease in the British Empire*. New York: Routledge, 2003.

Levine-Clark, Marjorie. *Unemployment, Welfare, and Masculine Citizenship: 'So Much Honest Poverty' in Britain, 1870–1930*. New York: Palgrave, 2015.

Lobo, Francis M. "John Haygarth, Smallpox and Religious Dissent in Eighteenth-Century England." In *The Medical Enlightenment of the Eighteenth Century*, edited by Andrew Cunningham and Roger French, 217–53. New York: Cambridge University Press, 1990.

Lomax, Elizabeth. "The Control of Contagious Disease in Nineteenth-Century British Paediatric Hospitals." *Social History of Medicine* 7 (1994): 383–400.

Maglen, Krista. *The English System: Quarantine, Immigration and the Making of a Port Sanitary Zone*. New York: Manchester University Press, 2014.

Markel, Howard. *When Germs Travel: Six Major Epidemics That Have Invaded America and the Fears They Have Unleashed*. New York: Vintage Books, 2005.

———. *Quarantine! East European Jewish Immigrants and the New York City Epidemics of 1892*. Baltimore: Johns Hopkins University Press, 1997.

Markel, Howard and Alexandra Minna Stern. "International Efforts to Control Infectious Diseases, 1851 to the Present." *JAMA* 292 no. 12 (September 2004): 1474–79.

———. "The Foreignness of Germs: The Persistent Association of Immigrants and Disease in American Society." *Milbank Quarterly* 80, no. 4 (December 2002), 757–88.

McClelland, Keith. "England's Greatness, the Working Man." In *Defining the Victorian Nation: Class, Race, Gender and the British Reform Act of 1867*, edited by Catherine Hall, Keith McClelland, and Jane Rendall, 71–118. New York: Cambridge University Press, 2000.

———. "Masculinity and the 'Representative Artisan' in Britain, 1850–80." In *Manful Assertions: Masculinities in Britain since 1800*, edited by Michael Roper and John Tosh, 74–91. New York: Routledge, 1991.

McCormack, Matthew. "'Married Men and the Fathers of Families': Fatherhood and Franchise Reform in Britain." In *Gender and Fatherhood in the Nineteenth-Century*, edited by Trev Lyn Broughton and Helen Rogers, 43–54. New York: Palgrave Macmillan, 2007.

Mehta, Uday S. "Liberal Strategies of Exclusion." In *Tensions of Empire: Colonial Cultures in a Bourgeois World*, edited by Frederick Cooper and Ann Laura Stoler, 59–86. University of California Press, 1997.

———. *Liberalism and Empire: A Study in Nineteenth-Century British Liberal Thought*. Chicago: University of Chicago Press, 1999.

Mooney, Graham. "Infection and Citizenship: (Not) Visiting Hospitals in Mid-Victorian Britain." In *Permeable Walls: Historical Perspectives on Hospital and Asylum Visiting*, edited by Graham Mooney and Jonathan Reinarz, 147–73. New York: Rodopi, 2009.

———. *Intrusive Interventions; Public Health, Domestic Space, and Infectious Disease Surveillance in England, 1840–1914.* Rochester: University of Rochester Press, 2015.

———. "Public Health versus Private Practice: The Contested Development of Compulsory Infectious Disease Notification in Late-Nineteenth-Century Britain." *Bulletin of the History of Medicine*. 73, vol. 2 (1999): 238–67.

Mortimer, P. P. "Ridding London of Smallpox: The Aerial Transmission Debate and the Evolution of the Precautionary Approach," *Epidemiology and Infection* 136, no. 10 (2008): 1297–1305.

Murdoch, Lydia. *Imagined Orphans: Poor Families, Child Welfare, and Contested Citizenship in London*. New Brunswick, NJ: Rutgers University Press, 2006.

Nead, Lynda. *Victorian Babylon: People, Streets, and Images in Victorian London*. New Haven: Yale University Press, 2005.

Newsom Kerr, Matthew L. "'An Alteration in the human countenance': Inoculation, Vaccination, and the Face of Smallpox in the Age of Jenner." In *A Medical History of Skin: Scratching the Surface*, edited by Jonathan Reinarz and Kevin Siena, 129–46. London: Pickering and Chatto, 2013.

———. "Fevered Metropolis: Epidemic Disease and Isolation in Victorian London." Ph.D. diss., University of Southern California, 2007.

———. "'French Beef was Better than Hampstead Beef': Taste, Treatment and Pauperism in a London Isolation Hospital, 1871." In *Residential Institutions in Britain: 1725–1950: Inmates and Experiences*, edited by Jane Hamlett, Lesley Hopkins, and Rebecca Preston, 35–50. London: Pickering and Chatto, 2013.

———. "'Perambulating fever nests of our London streets': Cabs, Omnibuses, Ambulances, and Other 'Pest-Vehicles' of the Victorian Metropolis." *Journal of British Studies* 49, no. 2 (April 2010): 283–310.

———. "Sites of Complaint and Complaining: Fever and Smallpox Hospitals in Late-Victorian London," in *Complaints, Controversies and Grievances in Medicine: Historical and Social Science Perspectives*, ed. by Jonathan Reinarz and Rebecca Wynter. London: Routledge, 2014.

Osborne, Thomas. "Security and Vitality: Drains, Liberalism and Power in the Nineteenth Century." In *Foucault and Political Reason: Liberalism, Neo-Liberalism and the Rationalities of Government*, edited by Andrew Barry, Thomas Osborne and Nikolas Rose, 99–121. Chicago: University of Chicago Press, 1996.

Osborne, Thomas and Nikolas Rose. "Governing Cities: Notes on the Spatialisation of Virtue." *Environment and Planning D* 17 (1999): 737–760.

———. "Spatial Phenomenotechnics: Making Space with Charles Booth and Patrick Geddes." *Environment and Planning D*. 22, no. 2 (2004): 209–28.

Otter, Chris. *The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910*. Chicago: University of Chicago Press, 2008.

Owen, David. *The Government of Victorian London, 1855–1889: The Metropolitan Board of Works, the Vestries, and the City Corporation*. Cambridge, MA: Harvard University Press, 1982.

Parris, Henry. *Constitutional Bureaucracy; The Development of British Central Administration Since the Eighteenth Century*. London: Allen and Unwin, 1969.

Parry, J. P. *The Rise and Fall of Liberal Government in Victorian Britain*. New Haven, CT: Yale University Press, 1993.

Pelling, Margaret. *Cholera, Fever and English Medicine, 1825–1865*. New York: Oxford University Press, 1978.

———. "The Meaning of Contagion: Reproduction, Medicine and Metaphor." In *Contagion: Historical and Cultural Studies* , ed. Alison Bashford and Claire Hooker, 15–38. New York: Routledge, 2001.

Pickstone, John V. "Dearth, Dirt and Fever Epidemics: Rewriting the History of British 'Public Health', 1780–1850." In *Epidemics and Ideas: Essays on the Historical Perception of Pestilence*, edited by Terence Ranger and Paul Slack, 125–48. New York: Cambridge University Press, 1992.

———. *Medicine and Industrial Society: A History of Hospital Development in Manchester and Its Region, 1752–1946*. Manchester: Manchester University Press, 1985.

Pittard, Christopher. *Purity and Contamination in Late Victorian Detective Fiction*. Burlington, VT: Ashgate, 2011.

Poovey, Mary. *Making a Social Body: British Cultural Formation, 1830–1864*. Chicago: University of Chicago Press, 1995.

Porter, Theodore. *The Rise of Statistical Thinking, 1820–1900*. Princeton, NJ.:Princeton University Press, 1988.

Price, Richard. *British Society, 1680-1880*. New York: Cambridge University Press, 1999.

Prior, Lindsay. "The Architecture of the Hospital: A Study of Spatial Organization and Medical Knowledge." *British Journal of Sociology* 39, no. 1 (1988): 86–113.

Rabinow, Paul and Nikolas Rose. "Biopower Today." *BioSocieties* 1 (2006): 195–217.

Rawcliffe, Carole. *Leprosy in Medieval England*. Rochester, NY: Boydell Press, 2006.

Reinarz, Jonathan and Graham Mooney, Eds., *Permeable Walls: Historical Perspectives on Hospital and Asylum Visiting*. New York: Rodopi, 2009.

Richardson, Ruth. *Death, Dissection and the Destitute, 2nd Edition*. Chicago: University of Chicago Press, 2000.

Risse, Guenter. *Driven by Fear: Epidemics and Isolation in San Francisco's House of Pestilence*. Urbana, IL: University of Illinois Press, 2016.

———. *Mending Bodies, Saving Souls; A History of Hospitals*. New York: Oxford University Press, 1999.

———. *Plague, Fear, and Politics in San Francisco's Chinatown*. Baltimore, MD: Johns Hopkins University Press, 2012.

Rose, Nikolas. *Powers of Freedom: Reframing Political Thought*. New York: Cambridge University Press, 1999.

———. "Governing by Numbers: Figuring Out Democracy." *Accounting Organizations and Society* 16, no. 7 (February 1991): 673–92.

Rose, Sonya. "Fit to Fight but not to Vote?: Masculinity and Citizenship in Britain, 1832–1918." In *Representing Masculinity: Male Citizenship in Modern Western Culture*, edited by Stefan Dudink, Karen Hagemann, and Anna Clark, 131–50. Palgrave Macmillan, 2007.

Rose-Redwood, Reuben. "With Numbers in Place: Security, Territory, and the Production of Calculable Space." *Annals of the Association of American Geographers*. 102, vol. 2 (2012): 295–319.

Ross, Ellen. "Hungry Children: Housewives and London Charity." In *The Uses of Charity: The Poor on Relief in the nineteenth-Century Metropolis*, edited by Peter Mandler, 161–96. Philadelphia: University of Pennsylvania Press, 1990.

———. *Love and Toil: Motherhood in Outcast London, 1870–1918*. New York: Oxford University Press, 1993.

Saunders, Robert. *Democracy and the Vote in British Politics, 1848–1867: The Making of the Second Reform Act*. Burlington, VT: Ashgate, 2011.

Selwyn, Sydney. "Hospital Infection: The First 2500 Years." *Journal of Hospital Infection* 18 Suppl. A (1991), 5–64.

Shah, Nayan. *Contagious Divides: Epidemics and Race in San Francisco's Chinatown*. Berkeley: University of California Press, 2001.

Sheard, Sally. "Reluctant Providers? The Politics and Ideology of Municipal Hospital Finance, 1870–1914." In *Financing Medicine: The British Experience since 1750*, edited by Martin Gorsky and Sally Sheard, 112–29. New York: Routledge, 2006.

Sheppard, Francis. *London 1808–1870; The Infernal Wen*. Berkeley: University of California Press, 1971.

Siena, Kevin. *Rotten Bodies: Class and Contagion in Eighteenth-Century Britain*. New Haven: Yale University Press (forthcoming).

Smith, L., S. J. Thornton, J. Reinarz, and A. N. Williams. "Please, Sir, I Want Some More." *British Medical Journal* (17 December 2008): 1450.

Stedman Jones, Gareth. *Outcast London*: *A Study in the Relationship Between the Classes in Victorian Society*. New York: Pantheon Books, 1984.

Stepan, Nancy Leys. *Eradication: Ridding the World of Diseases Forever?* Ithaca, NY: Cornell University Press, 2011.

Stern, Alexandra Minna. "Buildings, Boundaries, and Blood: Medicalization and Nation-Building on the U.S.-Mexico Border, 1910–1930." *Hispanic American Historical Review* 79 (1999): 41–81.

Strange, Carolyn and Alison Bashford, Eds. *Isolation: Places and Practices of Exclusion*. New York: Routledge, 2003.

Strange, Julie-Marie. *Fatherhood and the British Working Class, 1865–1914.* Cambridge University Press, 2015.

Tanner, Andrea. "Thomas Orme Dudfield: The Model Medical Officer of Health." *Journal of Medical Biography* 6 (1998): 79–85.

Thane, Pat. *Foundations of the Welfare State, 2nd Edition*. New York: Longman, 1996.

Thomas, Ronald R. "Detection in the Victorian Novel." in *The Cambridge Companion to the Victorian Novel*, edited by Deirdre David, 169–191. (London: Cambridge University Press, 2001).

Tognotti, Eugenia. "Lessons from the History of Quarantine, from Plague to Influenza A." *Emerging Infectious Diseases* 19, no. 2 (February 2013): 254–59.

Tosh, John. *A Man's Place: Masculinity and the Middle-Class Home in Victorian England*. New Haven, CT: Yale University Press, 1999.

Waddington, Keir. *Charity and the London Hospitals, 1850–1898*. Woodbridge, UK: Boydell Press, 2000.

———. "Unsuitable Cases: The Debate over Out-Patient Admissions, The Medical Profession and Late Victorian London Hospitals." *Medical History* 42 (1998): 26–46.

Walkowitz, Judith. *City of Dreadful Delight: Narratives of Sexual Danger in Late-Victorian London*. Chicago: University of Chicago Press, 1992.

Weindling, Paul. "From Isolation to Therapy: Children's Hospitals and Diphtheria in fin de siècle Paris, London and Berlin." In *In the Name of the Child: Health and Welfare, 1880–1940,* edited by Roger Cooter, 124–45. London:Routledge, 1992.

Weinstein, Ben. "'Local Self-Government Is True Socialism': Joshua Toumlin Smith, the State and Character Formation." *English Historical Review* 123, no. 504 (October 2008): 1193–1228.

Windsheffel, Alex. *Popular Conservatism in Imperial London*, 1868-1906. London: Royal Historical Society, 2007.

Wohl, Anthony. *Endangered Lives*; *Public Health in Victorian Britain*. Cambridge: Harvard University Press, 1983.

Wood, Denis. *The Power of Maps*. New York: The Guilford Press, 1992.

Worboys, Michael. *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865–1900*. Cambridge: Cambridge University Press, 2000.

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