

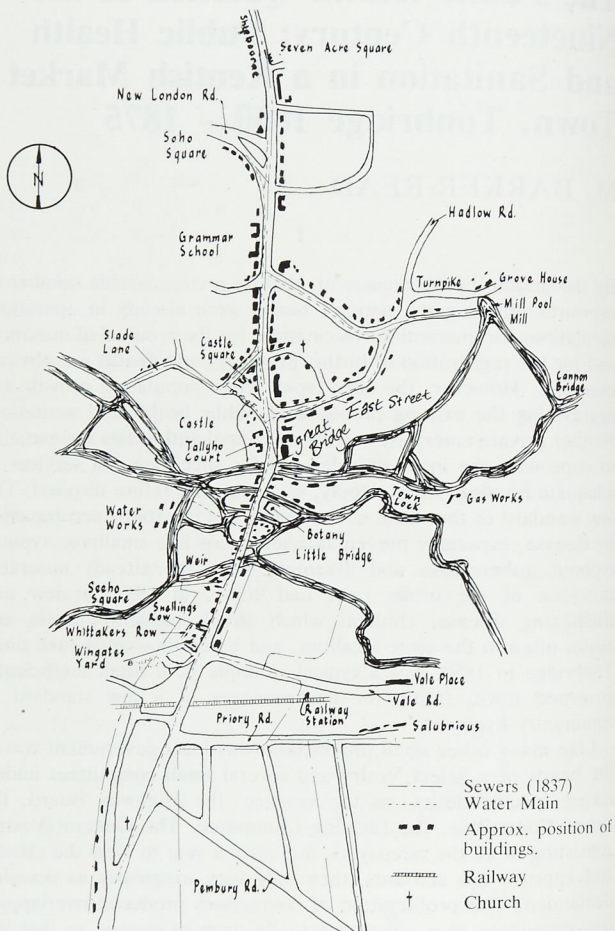
The Public Health Question in the Nineteenth Century: Public Health and Sanitation in a Kentish Market Town, Tonbridge 1850 – 1875

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I

By the middle of the nineteenth century a considerable number of measures affecting the nation's health were already in operation; regulations for quarantine, vaccination, for the removal of nuisances and for the registration of births, marriages and deaths are obvious examples. However, the very rapid urban population growth was aggravating the existing problems of public health and sanitation. Neither private enterprise nor the municipal authorities seemed able to cope with the increasing demand for such essential services as adequate housing, water supply, sewerage and refuse disposal. The low standard of the social environment was inevitably accompanied by disease, especially preventable infections like smallpox, typhus, typhoid, tuberculosis and dysentery. Into the already miserable existence of the urban poor had come, in 1831, a new and frightening disease, cholera, which struck suddenly, again and again, often in the same localities, and killed thousands each time. Tonbridge in 1850, was a typical example of a small inefficiently governed town, facing the consequences of a low standard of community hygiene.

Like many other small provincial towns local government was in the hands of a Select Vestry and several small committees undertaking specific duties, as for instance, the Highway Board, the Sewer Committee, the Lighting Committee. The General Vestry, consisting of all the ratepayers, met once a year to elect the officers and approve the accounts, then only very irregularly as occasion demanded. The proliferation of committees produced overlapping responsibilities; they were perpetually short of money, so that if a public health problem arose, for example, each tended to leave it to the others to take action. This usually meant nothing at all being done and the nuisance's persisting.¹ The town also had a long history of Courts Leet having some responsibility for the control of



Tonbridge c. 1850

nuisances, but these had ceased to meet in 1849.²

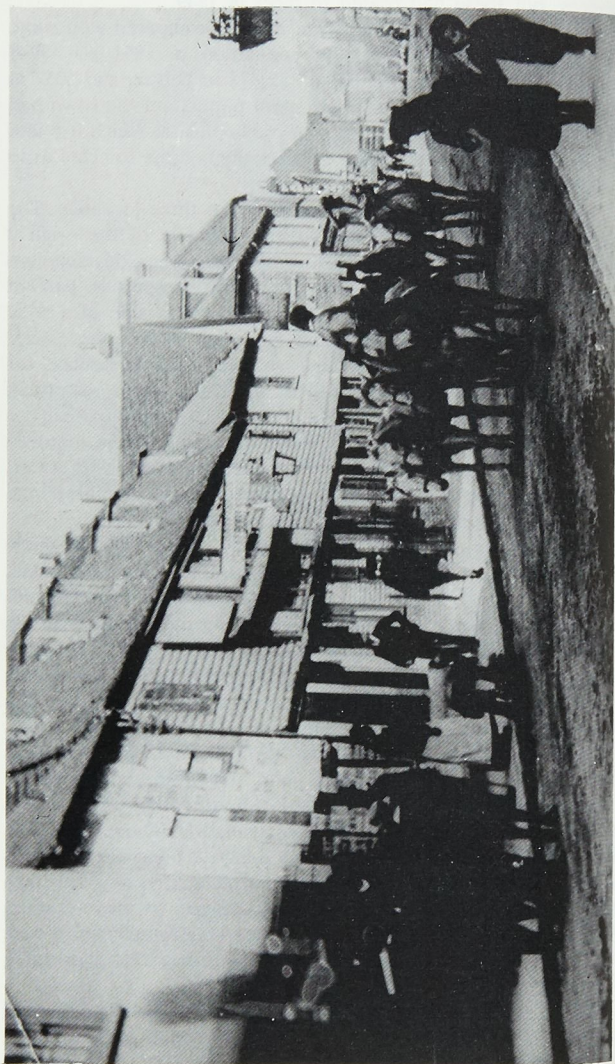
Tonbridge was quite a small town in 1850 compared with some other Kentish market towns. Its population in 1851 was 3948 compared with 20,740 in Maidstone, 13,873 in Dover, and 5057 in Faversham.³ Despite this relatively small population the town had continuous problems in the matter of public health, which it found difficult to overcome, and which occasionally became so acute as to become an overriding issue.

Geographically, the town fell naturally into three localities. The area north of the Great Bridge covered the site of the original medieval settlement, together with some later ribbon development along the main roads. This was the most prosperous part of Tonbridge, with large houses and shops on either side of a wide thoroughfare. Out of sight, behind the High Street, there was, nevertheless, plenty of poverty and squalor. In Castle Square, for example, the cottages backed on to the Castle moat, empty of water, but filled with refuse of all kinds. There were no rear exits so that any waste, unless thrown into the moat, had to be removed through the front doors. One pump provided the square with water, but it was dry more often than not. Inadequate surfacing turned the Square into a morass underfoot in wet weather.⁴

Slade Lane, winding round behind the Castle was usually ankle deep in horse manure, the result of heavy traffic to the racecourse. Running past the end of the Lane was the Hawden stream into which a public sewer outlet discharged its contents, immediately adjacent to which was a recognised dipping place where cottagers collected water. An open foul smelling drain ran through the middle of East Street, Swan Lane and Cannon Lane to empty into the stagnant Mill Pool.⁵

Beyond the railway, which had arrived in 1842, substantial building was in progress on some gently rising ground. A mainly working class development of about two hundred houses, this area was as yet not affected by problems of sanitation. There was ample evidence that these would not be long delayed; none of the houses was being supplied with water or house drainage; no new sewerage was being provided. Each builder was building to the maximum possible density, and in some places houses were actually being built over existing sewers, leaving no access to them except by digging through the floors.⁶

Between the Great Bridge and the railway was the flood plain of the river Medway; a low-lying area, traversed by four branches of the river and subject to frequent flooding. By 1850 these streams



Late Victorian Tonbridge

were often stagnant and unpleasant, the flow of water having been obstructed by bays, locks and weirs constructed by the Medway Navigation Company in 1745, in order to maintain deep water in the main channel. They received large amounts of house drainage, either directly from privies and cesspools, or from several sewer outlets.⁷

In the triangle of land bounded by the river, Barden Lane and the High Street were to be found in 1854:

'cottages of the most wretched description, crowded together, with little regard for common decency or convenience'.⁸

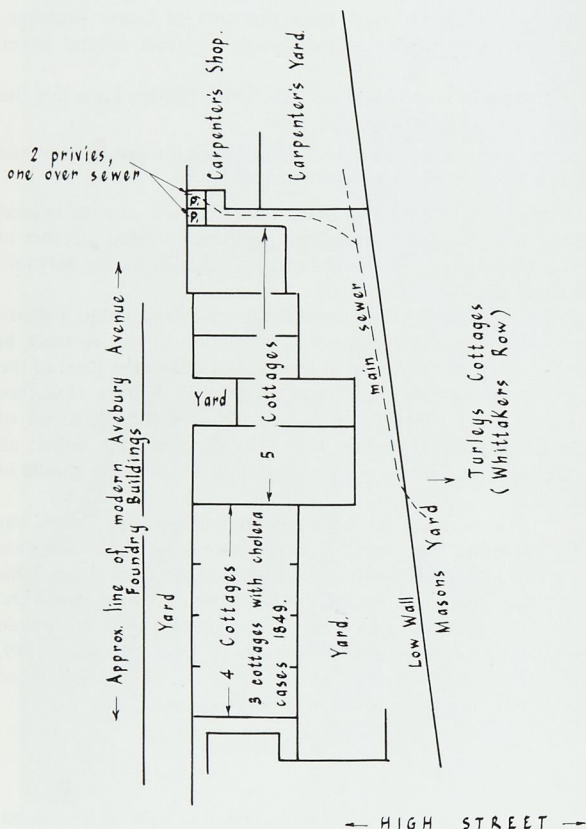
Seeho Square, occupying the bend of the lowest stream behind Lambert's Yard, consisted of eighteen cottages crowded together in close proximity to ash-pits, dungheaps and pigstyes, having only one surface drain for the whole square.⁹

Wingate's Yard, on the site now occupied by the Public Library and Adult Education Centre, was a collection of old cottages in poor repair, their floors' being at least a foot below the level of the yard, so that after heavy rain, water carrying all manner of surface filth, flowed directly into them. Mrs. Parkers' Cottages, a row of seven in Barden Lane, had no rear exits or even back doors; all shared the same pump and privy, standing together in the middle of the lane.

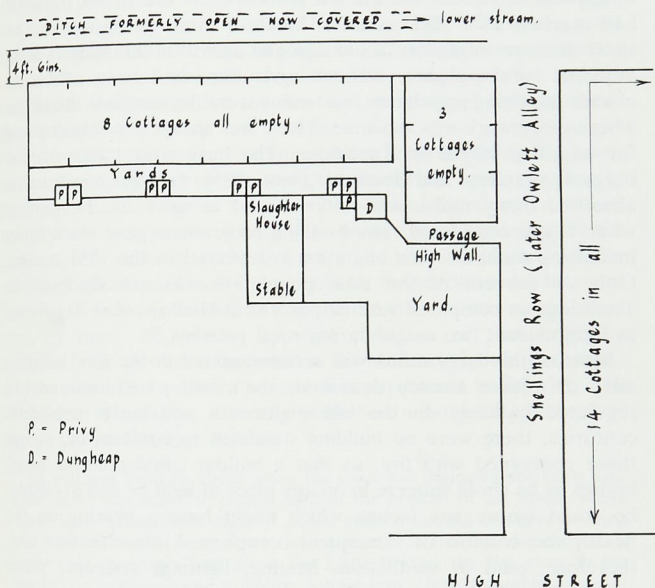
Whittakers Row, lying behind and parallel to the High Street, was probably the worst. For many years an open sewer four feet wide and sixty feet long passed within a few feet of the front doors. This conveyed the entire drainage of the lower end of the town to the lowest branch of the Medway, and was protected only by broken palings. Cholera decimated the inhabitants of these cottages in 1849, following which they remained empty for years, being re-occupied only reluctantly after the sewer was covered over.¹⁰

II

This unhygienic social environment had been of slow development. It was a widespread urban problem in mid-Victorian England; towns, large and small, had the same problems, which followed the rise of population, the influx into the towns of the labouring classes and the demand for cheap housing to accommodate them. Tonbridge began to expand when the Medway was first made navigable in 1742; and the process was greatly accelerated by the coming of the South Eastern Railway a century later. In earlier



Wingates Yard (Row) 1854. Built in yard formerly part of foundry (originally owned by Stephen Tully). Floors of all cottages 2 ft. below ground level.



1854. Whittakers Cottages (Row). Turleys Cottages. Cottages originally owned by Stephen Tully (Tithe Map 1838). Several cases of fatal Cholera, 1849.

times the flood plain was used only for grazing, but from 1780 was used increasingly for building as the demand for housing increased. The population had risen from 3000 in 1841 to 3948 in 1851,¹¹ a rise of approximately one-third in ten years. By the end of our period it had reached 8574 (1871 census). Much of the increase was due to short distance migration of unemployed agricultural labourers from adjacent rural parishes. Kentish agriculture had been unable to absorb the rising population, and many were flocking into the towns where more work was available. There was always a steady demand for unskilled labour in Tonbridge. The busy river traffic needed barges, haulers and loaders; from 1836 railway construction absorbed many more, who often stayed to work on the railway when it was completed. The building programme gave work to an increasing number. This migration is reflected in the 1851 census. Only 49 percent of the total population was actually born in Tonbridge as compared with 67 percent in Hadlow, and 70 percent in Shipbourne, two neighbouring rural parishes.¹²

Most of this large influx was accommodated in the kind of row, alley or square already described, the result of widespread unregulated building. In the late eighteenth and early nineteenth centuries, there were no building standards to conform to, except those concerned with fire, so that a builder could cram as many houses as he could squeeze in on any piece of land he had available; he could ignore any factors which might have a bearing on the health and comfort of subsequent occupiers. Little attention was, therefore, paid to ventilation, heating, lighting, drainage, water supply. Houses and cottages for the lower income groups were often built in some very unsuitable locations, as in Tonbridge, where dozens of small homes were provided on damp unhealthy ground, flooded every time there was a period of prolonged rain.

Little effort was apparently made to keep these cottages in reasonable repair; indeed in some instances the opposite would appear to have been the case — the lower the assessment the lower the rates. Contemporary deeds show that ownership changed on an average every ten years, while the length of tenancy was seldom more than a year.¹³ It would seem that no one was prepared to spend money on repairs and improvements from which others would reap the benefit.

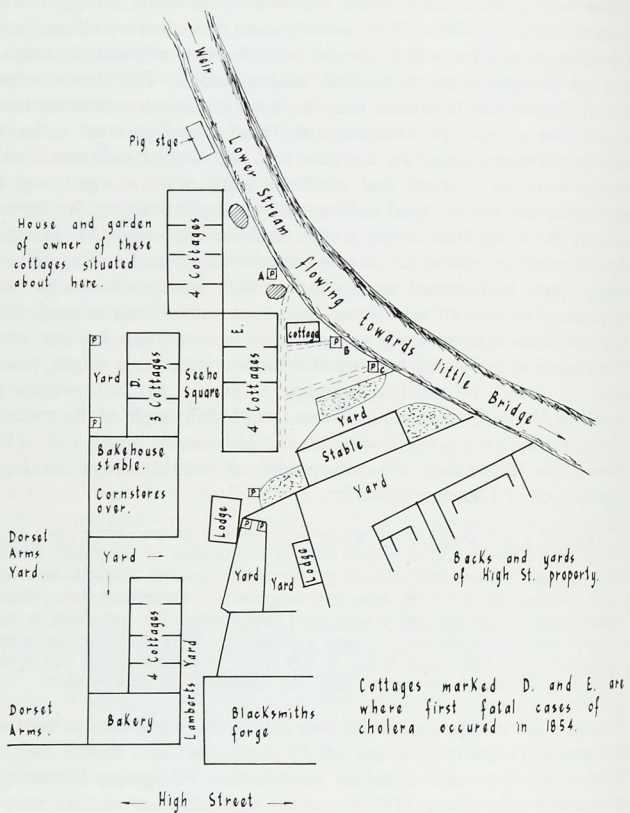
The drainage of the town, even by mid-Victorian standards was poor. Much of it consisted of open drains or ditches leading to the nearest Medway stream. A system of sewers had been constructed by the Vestry between 1837 and 1840.¹⁴ Examination of such plans

as have survived of this drainage scheme¹⁵ and of the sewers themselves when these have been exposed accidentally during road-works, seem to indicate little consideration of some very elementary scientific principles which should underlie any efficient drainage, and no thought at all to possible health hazards. The sewers were barrel-shaped flat-bottomed tunnels, large enough to accommodate a man, for manual periodic cleaning. Their rough internal surfaces and flat bottoms impeded the flow and encouraged sedimentation. Bends were very sharp and junctions were often at right angles which further encouraged sedimentation; those draining the lower half of the town had to run a slight but definite upward course to discharge their contents.¹⁶ As few houses had piped water, before many years had passed the smaller sewers were choked with the contents. For ease of access they were laid immediately beneath the road surface. Occasionally cesspools or house drains leading into them were at lower levels, so that the direction of flow might, from time to time, be in the opposite direction to that originally intended.¹⁷ Six sewers terminated in the Medway right in the middle of the town. This posed a serious and permanent health risk. *The Tonbridge Miscellany*, a locally published monthly magazine, had this to say in October 1854:

'The evil was brought about when the town was drained some years ago. One drain was made to empty itself at the bottom of the Slade, where there is an abominable mass of putrid matter, enough not only to bring the cholera, but to bring down the vengeance of Heaven. Another drain was made to empty just above the Little Bridge, the last place in the world one would choose to empty a drain into. Here is another immense collection of filth, and there it will stick, notwithstanding the great quantity of water which runs over the tumbling bay every night'.

Though this excerpt mentions flowing water, some of the smaller streams were completely cut off by these bays and sluices. When these were first constructed by the Medway Navigation Company, and also by the Town Mill, they were in regular use and the water was kept running. By 1850, however, the Mill had converted to steam power, and the Company was feeling the effects of railway competition, so that bays and sluices remained shut and unrepaired for long periods.¹⁸

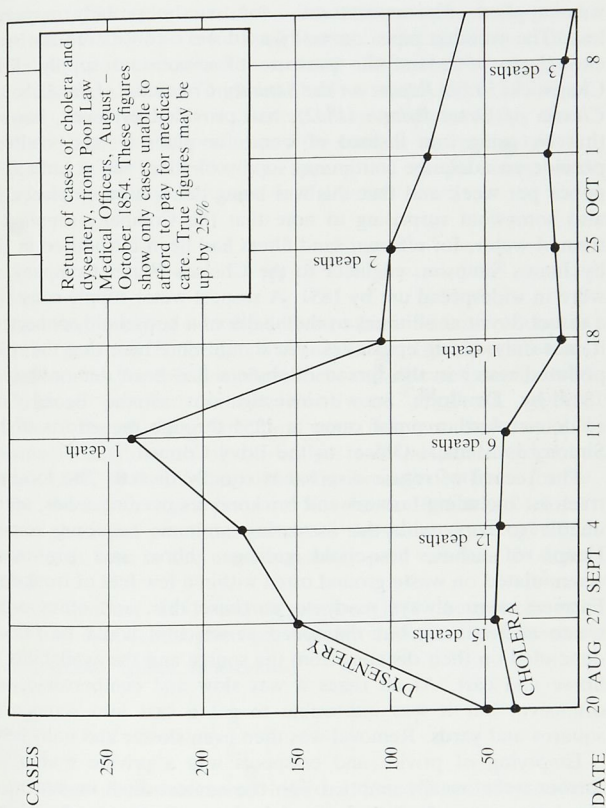
Inadequate water supplies also contributed to the prevailing sanitary problems. A liberal supply of water for cooking, drinking, washing, cleaning and drainage forms the essential basis of hygienic living. The Calverley Water Company began supplying water in 1851, but few of the residents seemed anxious to reap the benefits.



Cottages marked D. and E. are where first fatal cases of cholera occurred in 1854.

See-Ho Square, 1854

CHOLERA AND DYSENTERY. TONBRIDGE. 1854



A count in 1854 showed only 176 houses out of a total of 1120 receiving piped water. The water was abstracted from a 'New Cut' in the Medway, just west of the town, and supplied directly without being filtered or chemically treated.¹⁹ Because of the close proximity of the sewer outlets, here again is an obvious public health hazard.

The better off had their own wells or pumps, while several public pumps were provided for the poor. Water provided by the Company was supplied only intermittently, for four hours daily, sometimes less. The wooden pipes normally used were considered not strong enough to withstand the pressure of a constant supply. Edwin Chadwick, in his *Report on the Sanitary Condition of the Labouring Classes of Great Britain* (1842), had provided evidence, however, that by using iron instead of wood for pipes it was possible to provide an adequate continuous supply of water for as little as two pence per week and that this was being done in many places. It is also somewhat surprising to note that the Company supplied untreated water, for efficient sand filters had been introduced in 1829, by James Simpson, engineer to the Chelsea Water Company, and were in widespread use by 1851. A suspect water supply constituted a direct threat at all times to the health of a household connected to it, not only during epidemics. We should note here that the role of polluted water in the spread of cholera had been demonstrated in 1849 by Dr John Snow's investigations of the Broad Street epidemic; further proof came in 1854 through the efforts of John Simon, as Medical Officer to the Privy Council.²⁰

The record of refuse disposal is equally dismal. The local contractors, including farmers and brickmakers needing ashes, seemed unable to cope with the increasing amounts requiring removal. Heaps of ashes, household garbage, horse and pig manure accumulated on waste ground often within a few feet of front doors. Farmers were always ready to purchase this, and other organic waste as fertiliser, but the speed at which it could be removed depended on their distance from the source and the availability of a horse and cart. At all times it was slow and cumbersome, often offensive, but it was impossible to get a cart into some of the squares and yards. Removal was then even slower and unhygienic.

Emptying of privies and cesspools was a private matter. The former were usually emptied into the nearest ditch or stream, but the latter were dealt with at night by contractors, who charged around one pound for the service. This was considered dear by those who were able to pay, and quite beyond the means of the lower income groups, whose weekly wages at that time ranged from

fifteen to twenty five shillings a week.²¹ They had to deal with their own. Even when cesspools were emptied, it was not unknown for the contents to lie around for weeks awaiting disposal. It is recorded of two neighbours who in 1854 failed to agree over the division for manure of the contents of a shared cesspool. Before the dispute was settled, both had succumbed to cholera, the excrement still remaining spread out over their gardens.²²

This apparent carelessness may seem outrageous from the standpoint of the 1980s. The Health of Towns Commission reported in 1845 that the poor treasured their waste. Their foul smelling, fly-ridden, disease bearing middens had a cash value to them; scavengers, farmers, brickmakers were always prepared to buy them. Sometimes they even helped to pay the rent. It was not unknown, said Chadwick, for a landlord to appropriate all the refuse, and make a corresponding deduction in the rent.

III

With this broad array of sanitary defects, a high incidence of disease among the poor of Tonbridge was inevitable. Infectious diseases were endemic in the low lying localities, and diseases encountered there seldom occurred in the North end. Typhoid, typhus, tuberculosis, rheumatism, smallpox were frequent occurrences.²³ This same locality, south of the bridge, was the part invaded by cholera in 1831, 1849, 1854 and 1866. The average death rate for the town for the seven years prior to November 1854 was 24.3 per thousand, about 2.3 per thousand above the national average. The average death rate in the most insanitary part was near 28.0 per thousand.

Between January 1851 and September 1854 there were one hundred and one deaths from preventable infections as follows:

Fevers (typhoid, typhus, tuberculosis)	32
Dysentery	22
Cholera	42
Measles	3
Smallpox	2

Fifty of these deaths occurred between January and September 1854, a year of crisis.²⁴

In the late summer of that year crisis became disaster. In a period of two months from mid-August to mid-October there occurred an epidemic of disease unprecedented in the town's long history.

Dysentery and cholera struck rapidly and together. One hundred and seventy persons became cholera victims, thirty nine being fatal; nine hundred cases of dysentery were also reported, two fatal. This means twenty five percent of the total population fell sick within two months, but the weekly returns of the District Medical Officers to the Board of Guardians show quite clearly that the incidence of infection was confined almost entirely to the locality between the Great Bridge and the railway. Here out of a total population of 1131 over 1000 were infected. The medical services were completely overwhelmed by the magnitude of this disease, and could do little but let the epidemic run its course.²⁵

The town as a whole was stunned and shocked. Many of the more enlightened were well aware of the gravity of the situation and the urgent need to prevent a recurrence. After a hurriedly called public meeting, a petition was drawn up and signed by one-fifth of the ratepayers. It was forwarded to the General Board of Health, requesting an inspection of the sanitary condition of the town, under the provisions of the Public Health Act 1848.

This Act was the product of a decade of agitation and campaigning by a public health movement, spearheaded by Edwin Chadwick. As Secretary to the Poor Law Commission, Chadwick had become only too aware of a relationship between an unhealthy social environment, high mortality and poverty. His investigations prior to producing his monumental *Report* in 1842, had turned his suppositions into certainties. His development of the 'Sanitary Idea', whereby the medical consequences of deficiencies in the urban environment could be solved by engineering — that is, by schemes of piped water supply, drainage and sewerage — gave force and direction to the public health campaign. By 1848, the Government could no longer ignore the spate of reports that came from doctors, statistical societies, the Health of Towns Association, supporting Chadwick. The Act created the General Board of Health, and Chadwick was its first Commissioner. Permissive rather than obligatory, advisory rather than initiating, the Board only survived until 1854 under him when it then became a department of the Privy Council. Forbidden to interfere directly in any town unless the death rate reached 23 per 1000, its powers were so limited that it could only permit the setting up of Local Boards of Health at the request of local communities, if such a step was recommended by an official inspector after he had examined the sanitary condition of the town. Out of 222 such inspections carried out nationwide during the General Board's existence only 182 Local Boards were established.

Sanitary defects were not confined to one part of the country or to one type of town. Insanitary towns were to be found all over the South of England, for example, and 70 such inspections took place in places as far apart as Bristol and Dover.²⁶

The Tonbridge inspection took place on 29 November 1854. After countering many objections as to the legality of the proceedings, the visiting inspector, Mr Alfred Dickens, C.E., heard the evidence of ratepayers, and received written reports from medical officers, surveyors, the Board of Guardians, and members of the other interested professions. Then, accompanied by representatives of the Vestry, he spent three days touring the town, noting in great detail its various deficiencies, and pointing them out to his companions. His printed report and recommendations appeared in January 1855. It embodied many criticisms, including criticism of ineffectual local government, of negligence and of apathy towards the sufferings of the less fortunate among the residents. He concluded thus:

Cholera visited the place in 1831, 1849 and 1854, attacking the same locality each time; and though the more respectable inhabitants have hitherto escaped, they may not do so again. Epidemic diseases will sooner or later spread beyond the limits of the houses of the poor without the assistance of untrapped and unventilated drains.

Even if this were not manifestly the truth, it would be no less the duty of the better educated and more powerful to stand out on behalf of those who suffer most.

IV

After the publication of the Dickens Report, it was confidently expected in Tonbridge that the Vestry would shortly arrange for the election of a Local Board. The surveyors began to fix the boundaries of the new administrative region, but objection after objection by property owners to being included within its jurisdiction led to continuous delay. The tardiness of the Vestry in carrying out their obligations under the Act meant that by July 1855 no progress had been made.²⁷ Some sympathy may be extended to them in some respects, for without a backing of medical science, many sincere mid-Victorians felt unable to accept the connection between the recurrent epidemics and nuisances. The idea of a central government having power to interfere in local affairs was something new and 'un-English', cutting across widely held beliefs about the freedom of the individual and the rights of property.

Consideration had been given to these attitudes, during the

framing of the 1848 Act, but it did not prove strong enough to coerce unco-operative property owners into health. In the local debates on public health, many other controversial issues also came to the fore. The sheer physical engineering effort required to drain a town was daunting to most local authorities, but any mention of costs led to interminable discussions about who was going to pay. There may have been some reason for opposing the formation of a new municipal structure, but in Tonbridge, at least, opposition was often grounded in self-interest. Local power structures, centred round the Vestry, and local vendettas, between individuals who stood to gain or lose by change all played their part in the prevarication which went on in Tonbridge throughout 1855 about forming a Local Board. Yet all these factions temporarily sank their differences at the idea of a remote London body initiating new draining schemes and incurring expense over which they might have no control.²⁸

While Tonbridge was deeply divided over the question of a Local Board, Chadwick was sacked and the General Board of Health became another department of the Privy Council under John Simon. Whereas Chadwick had sought to bully the country into hygienic living, Simon intended to work his way towards it slowly, by piecemeal legislation, hoping thereby to avoid the resentment aroused by Chadwick. One of his first acts was to push through further legislation to control nuisances. The Nuisances Act of 1855 was intended to give provincial Vestries additional powers to compel recalcitrant owners to remove nuisances from their property. Though it was never intended as an alternative to the 1848 Public Health Act, the Tonbridge Vestry took it to be so. The General Board of Health was informed that the 1855 Act would give them all the authority they required to rectify the town's sanitary problems, and that it was no longer necessary to elect a Local Board.²⁹ It seems clear that the Vestry was not going to surrender its traditional role lightly; despite several stormy meetings of ratepayers the reform group failed to muster sufficient support to push through a change. Economy held more attractions than public health.

The limited coercive powers gained by the Vestry under the new Act made little real improvement to the sanitary condition. Agitation for improvement continued sporadically for years, and the high mortality at the lower end persisted, though fortunately no serious epidemics occurred. 1865 saw the extension of drainage deficiencies to the area north of the Great Bridge.³⁰ In December of that year, Dr James Ind Welldon, Headmaster of Tonbridge School,

having found it quite offensive for some months to walk through the town, on his own initiative prepared plans for a new scheme of drainage. He was assisted by Horatio Beeching, the local banker, and two solicitors, William Gorham and Sidney Alleyne. Together, they presented these plans to the Highway Board, (the Nuisances Committee set up under the 1855 Act being defunct). This plan was rejected because, it was said, the Vestry were already considering a less expensive scheme of their own. Despite being repeatedly requested by Dr Welldon to do something urgently and warned that the next wave of cholera was on its way, nothing had been done to improve the drainage by June 1866 when the first case of cholera occurred.³¹

In the meantime, fearful of the consequences of this new epidemic, Parliament had, under the guidance of Simon, taken a decisive step forward in public health legislation, with the Sanitary Act of 1866. For the first time the law acquired an imperative tone, expressly stating it to be the duty of local authorities to provide adequate drainage, wholesome water and to suppress nuisances. The question of costs was also taken care of. Money for large scale drainage schemes could be raised by mortgage of the general rates over 30 years. This counteracted the very powerful argument of conservative ratepayers who maintained it was unfair that they should have to pay the total cost of new drainage schemes from which future generations would benefit more. The frustrated Tonbridge ratepayers were encouraged once more to put pressure on the Vestry. Urged on by the presence of several cases of cholera in the town, they succeeded in forcing the election of a new Sewer Committee, the membership of which consisted of committed public health reformers headed by Dr Welldon.³²

The radical approach of this group to the problems awaiting solution owed much to Dr Welldon's guidance, stemming from wide knowledge and breadth of vision. A complete survey of the existing sanitary arrangements was made. The defects and dangers were outlined in a report, which concluded that as Tonbridge had outgrown the capacity of the old drainage system, piecemeal improvements would be useless. The only sensible course was to start afresh. Deputations visited several towns in the South of England, which had experienced similar problems, and which had recently been successfully and economically sewered. They were particularly impressed with the work done at Ealing, and offered its Engineer-Surveyor a commission to prepare plans and estimates for a similar scheme for Tonbridge. He accepted and the task was completed by

June 1867. The committee feared his estimated cost of six thousand pounds would bring the wrath of the ratepayers on their heads. They sought the opinion of Mr Robert Rawlinson, Chief Inspector to the General Board, about ways to spread the cost. His advice was to drain the lower half of the town first, where the problems were acute, and to attend to the rest of the town later.³³

When these proposals were laid before General Vestry on 26 November 1867, the outraged ratepayers threatened the committee with dismissal unless it continued its work with greater economy. The equally outraged committee resigned 'en bloc'.³⁴

The stalemate continued until July 1868, when after a long hot summer the conditions in the town were almost unbearable.³⁵ In desperation, and in protest at the apathy of the Select Vestry, Mr Joseph Snelling, secretary of the recent Sewer Committee, called a public meeting where the question of the drainage could be discussed.³⁶

Seeing that some action on their part was imperative if they were to safeguard their position, a hastily convened Vestry meeting elected yet another Sewer Committee, this time briefed to avoid any large expense. Apart from encouraging property owners to remove their nuisances, and making arrangements with the Navigation Company to open all the sluices for two hours every Sunday to flush the streams, little else was achieved. By October 1868 complaints were beginning again.

With obvious reluctance, the Vestry now conceded that they would have to drain the lower end of the town. A local surveyor was engaged to prepare the plans. At the same time, and for reasons which have not become apparent, notices were inserted in the local press inviting anybody to draw up similar plans. The Committee would be prepared to judge them in the Bull Inn in January 1869. According to A.H. Neve in *Tonbridge of Yesterday*, twelve sets of plans were submitted and drainage was the talk of the town for weeks. When the Committee did sit in judgement on them, they failed to agree over their respective merits and the meeting broke up in disorder.

At this point the Local Government Board stepped in and ordered a public enquiry into the affairs of Tonbridge.³⁷ This took place on 3 August 1869, under Mr Arnold Taylor, one of its inspectors. His report was published on 12 September 1869. After condemning the attitude of the Select Vestry, and pronouncing the activities of the Sewer Committee to be very irregular, he strongly advised the people of Tonbridge to elect a Local Board without

delay, so that they could apply the provisions of the Local Government Act and begin raising money for badly needed drainage schemes.³⁸

The customary petition to be included under the Act was prepared and the formal resolution adopting it was carried through Vestry on 20 January 1870, not without considerable opposition. Repeated rearguard attempts to sabotage the whole process continued throughout the year. But now the reformers were equally determined and gaining strength. A Local Board met for the first time on 5 October 1870.³⁹ No time was lost in re-examining the drainage question, and by February 1871, the plans of 1866 were brought up to date and mortgages arranged. By July 1874 every house was connected and the scheme fully operational.⁴⁰

V

The debate over the drainage question lasted nearly twenty years. Opinion was clearly polarised, and resulted occasionally in extreme bitterness, when blows were exchanged. A large influential group was implacably opposed to any change from the traditional form of local government, or to any large scale expenditure. Tonbridge was by no means unique; such struggles were being enacted in dozens of other towns, large and small. 'Laissez-faire' had been found wanting in the matter of public health, but central government had to abandon permissive legislation before any real progress could be made. Similarly, local élites had to abandon traditional roles and attitudes, a process which did not come easily in old towns, with centuries of Vestry government behind them. Progress also meant abandoning current orthodoxies about public finances; the keeping of rates to a minimum, and avoiding them wherever possible; ideas about profit. There was certainly no profit in town improvements, and the concept of spending money collectively for the benefit of a whole community necessitated a marked shift of public opinion which came only late in the nineteenth century.

Such ideas permeated only slowly to the society of a small provincial town, and especially to the small trader, who had saved a little money in business, acquired a little property and regarded his rights in it as sacrosanct, and the rates he had to pay an imposition. There was no power under any Act to compel a difficult owner to combine with others to improve the sanitary condition of the community. An unco-operative owner could hold up any scheme indefi-

nitely; by refusing to pay his share of the cost, or to allow drains to run under his land, or to sell. Any progressive local authority overriding these rights could find itself faced with litigation and high compensation, for the law always seemed to be on the side of property. On the other hand, responsible go-ahead groups of rate-payers, ready to meet the costs of improvement, might be thwarted by a conservative Vestry, self elected for many years, jealous of its position, and determined to resist change, often using the threat of massive rate increases to gather round themselves a large body of supporters who already found the rates a burden.

Such deep divisions could, as we have seen in Tonbridge, lead to a long period of acrimony in local politics, but the attitude to the public health problem as such, was one of apathy. Bad drains were almost a Victorian institution. Even the Queen's Apartments at Buckingham Palace were ventilated through a common sewer, and at Windsor they lay directly over a mass of old cesspits. During the 'Great Stink' of 1858, the condition of the Thames prompted serious discussion of the desirability of moving Parliament elsewhere.⁴¹ When such conditions as these were taken for granted by the aristocracy, it is no wonder that the social environment of the poor received little consideration.

From the evidence, it would seem that the one great obstacle to progress in Tonbridge was the unwillingness of a sizeable section of the ratepayers to tax themselves for the benefit of others. Rates were undoubtedly a burden. There were no really wealthy residents. Ratepayers were mostly small traders with a sprinkling of professional people or of moderate independent means.⁴² One petition of the very many signed during the years 1854/1855 contained eighty seven signatures, certified by the rate collector as being one-fifth of the total number of ratepayers. Thus only about half of the householders, out of a total of 1120 in 1854, were actually paying rates. It is clear from the correspondence of Churchwardens to the Board of Guardians and letters to the press that many dreaded the heavy expense entailed by wholesale sanitary improvements. Many, too, felt very aggrieved at having to pay to rectify the Vestry's former mistakes.

The surprising fact which has emerged from this evidence is the lack of leadership provided by the medical profession. In other towns they were in the van of the public health movement. There were never less than five practising in the town during the period, but they all remained aloof. It was only when Dr Henry Bishop took up a practice in 1866 that we begin to see some spirited action. The

lead in public health reform was taken mainly by individuals with a strong sense of humanity, troubled by the sufferings of those with whom they can have had little personal contact. Due credit must also be given to the Board of Guardians. Like many other efficiently run Unions, it had long realized that the solution of poverty required more than the handing out of small weekly doles, especially that poverty which resulted from ill health or premature death of the wage-earner. Over the years, they had acquired powers under various Acts, and employed their own Inspectors of Nuisances, to search out carelessness in public hygiene and to prosecute the property owners. Any reports by their Medical Officers containing adverse comments on the social environment of the sick poor were followed up by attempts to persuade landlords to carry out repairs and improvements. On several occasions the Churchwardens were approached to use their influence in Vestry. And when epidemics were present or likely to occur, they redoubled their efforts.

If the events of this small market town are placed in the wider perspective of preventive medicine as it was in the mid-nineteenth century and as it has developed since, the abyss of ignorance in which both the reformers and the 'parish-pumpers' groped their way is startling. Though the subsequent researches of medical science have shown that the public health campaigners were working along the right lines, at the time, the proposals they were putting forward seemed to be in direct contravention of some very cherished beliefs about the nature of infection. The commonest explanation of infection was that it was caused by the action of the sum on stagnant, decomposing organic waste, which produced an 'effluvium' or 'miasma' which caused the disease when inhaled. As this process was always accompanied by a nasty smell, it was often believed that all would be well if the smell was removed. All Nuisance Removal Acts were primarily concerned with the removal of obnoxious odours; it is frequently noticeable in the evidence how concerned the people of Tonbridge were about the smell.

As mentioned above, the connection between a polluted water supply and the spread of cholera was established in 1849, but the real link in the form of a causal organism could not be identified until after Pasteur and others carried out their experiments and isolated various micro-organisms. Between 1850 and 1875, the period under discussion bacteriology and epidemiology were sciences undreamed of; the 'germ theory of infection' was not formulated until the 1870s. It was only then that the true nature of

infection was understood, how it was caused and transmitted, and what factors in the social environment hastened or retarded its progress. It was only then that public health legislation, backed by irrefutable medical evidence, and beginning with the Great Public Health Act of 1875, could be made strong enough to overcome opposition, and produce a permanent improvement in the nation's health.

Notes

¹ Tonbridge Urban District Council Archives. (Held at Tonbridge Public Library.) Minute books of the Highway Board 1850–1863; the Nuisances Committee 1855–1863; the Sewer Committees 1856–1969.

² A.H. Neve, *Tonbridge of Yesterday* (Tonbridge 1933), *passim*.

³ *Abstract of Census Reports* 1851.

⁴ Alfred L. Dickens, C.E., *Report on the Sanitary Condition of Tonbridge* (1855) (hereafter *Dickens Report*).

⁵ *Dickens Report*.

⁶ (K)ent (R)ecord (O)ffice. U55 Knocker Collection of Deeds.

⁷ Nuisances Committee, *Minutes* 1855. Tonbridge Archives.

⁸ *Dickens Report*.

⁹ *Dickens Report*.

¹⁰ Reports of Nuisance Inspectors and Minutes of Board of Guardians of Tonbridge Union 1850–55. K.R.O. G/To/AM/Vols 10–12.

¹¹ Census. Enumerators Returns 1851.

¹² Census returns for Shipbourne and Hadlow 1851.

¹³ K.R.O. U55.

¹⁴ Neve.

¹⁵ Plans in possession of Tonbridge and Malling U.D.C., (formerly T.U.D.C.).

¹⁶ Barely perceptible now During the High Street improvements of 1894–1900, the entire area below the Little Bridge was raised two feet as a measure of flood prevention.

¹⁷ *Minutes* of Sewer Committee 1866.

¹⁸ Neve, *passim*.

¹⁹ *Dickens Report*.

²⁰ R.A. Lewis, *Edwin Chadwick and the Public Health Movement* (1952), *passim*.

²¹ Dr John Gorham (of Tonbridge) correspondence with Guardians. K.R.O. G/To/AM/Vol 10.

²² *Dickens Report*.

²³ Weekly Returns, Medical Officers to Guardians K.R.O. G/To/AM/Vols 10–12.

²⁴ *Dickens Report*.

²⁵ See note 23.

²⁶ D. Fraser. *The Evolution of the British Welfare State* (1973).

²⁷ Neve.

²⁸ Fraser, *op. cit.*

²⁹ W.M. Bridger (ed), *The Tonbridge Miscellany* 23 October 1855.

³⁰ *The Tonbridge Telegraph* 13 December 1865.

³¹ See note 23.

³² *Tonbridge Chronicle*, 12 December 1866.

³² *Minutes* of Sewer Committee 12 July 1867.

³³ Sewer Committee *Minutes* 20 October 1867.

³⁴ *Tonbridge Chronicle*, 5 December 1867.

³⁵ It may be of interest to note that near the Mill Pool, Tonbridge, on 22 July 1868 the highest temperature ever recorded in the British Isles was recorded by George Henry Fielding, a local meteorologist; Shade temperature was 100.5 F. Temperature in full sun reached 142.F.

³⁶ *Tonbridge Chronicle*, 27 July 1868.

³⁷ *Tonbridge Chronicle* 5 July 1869. Following the Local Government Act 1858, The Local Government Board became responsible for establishing new local authorities.

³⁸ *Tonbridge Chronicle*, 21 October 1869.

³⁹ *Tonbridge Local Board Minutes* 5 October 1870. Tonbridge Archives.

⁴⁰ *Minutes Local Board* 2 July 1874.

⁴¹ R.A. Lewis, *op. cit.*, *passim*.

⁴² Aggregate Census Returns 1851-1871.

⁴³ *Guardians Minutes*. K.A.O. G/To/AM/Vols 10-12.