UNIVERSITY OF SOUTHAMPTON

PUBLIC HEALTH IN SOUTHAMPTON 1848-1894

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by

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ABSTRACT

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The Poor Law investigations by Chadwick and the statistics published by the Registrar General in the late 1830s made the authorities aware of the Public Health problems posed by the rapid growth of towns in the early nineteenth century. Much of the work on Public Health in the nineteenth century has concentrated on the problems of the great industrial towns of the North. It is of particular value to study Southampton in this context as a town with a growth rate equal to many of the Northern towns and as a port in the front line of the nation's fight to keep major diseases like cholera and smallpox out of the country. This research study has concentrated on the minutes of the Council and its commitees and the reports of its officials, in particular the Medical Officer of Health, as they responded to the sanitary problems and the Public Health legislation of the second half of the nineteenth century. The town was fortunate in having three local newspapers which each reflected a differing political viewpoint. The local press provided not only editorial comment but also detailed accounts of Council meetings and public meetings on sanitary issues. Parliamentary Papers have been used to provide a national comparision with local efforts. The period covered is from the passing of the first Public Health Act in 1848 to 1894, when the decision was taken to extend the town boundaries to include the villages of Shirley and Freemantle, which increased the town's population by 20,000 and almost doubled its area. At the same time the Medical Officer's report on the dilapidated housing in the town gave a new direction to the town's public health efforts.

Although the Liberal party dominated local politics for much of the second half of the nineteenth century Public Health was rarely a party issue. Its earliest champions were Tory employers, like Engledue and Stebbing, who were concerned for the welfare of their workers and the poor. This study shows why Southampton decided to set up a Local Board of Health and how it provided the basic services of water supply and sewerage. Changes took place not only in the organisation of local government but in the relationship between the Councillors and the increasing number of officials they employed. In particular the status of the Medical Officer of Health changed, reflecting the professionalisation of the medical service in the nineteenth century. Public health reformers helped change attitudes towards government. By the 1890s it was no longer sufficient to remove abuses, a more possitive approach to improving health and living standards was expected.

ABBREVIATIONS USED

A.R.M.O.H.	Annual Report of the Medical Officer of Health
B.M.J.	British Medical Journal
H.A.	Hampshire Advertiser
H.I.	Hampshire Independent
L.B.Mins.	Local Board of Health Minutes
M.O.H.	Medical Officer of Health
P.P.	Parliamentary Papers
P.R.O.	Public Record Office
S.R.O.	Southampton Record Office
S.Times	Southampton Times
U.S.A.Mins.	Urban Sanitary Authority Minutes.

Table of Contents

INTRODUCTION

In the 1820s Southampton enjoyed a revival of its eighteenth century reputation as a fashionable resort. This Indian summer of Southampton as a spa was due mainly to the efforts of the town's two Whig M.Ps., Sir Champion de Crespigny and William Chamberlayne. Chamberlayne provided the town with gas lighting in 1820 and de Crespigny brought back events popular in the 1790s such as the town's annual race meetings. As the number of visitors to the town increased new facilities were provided. In 1829 the Royal Gloucester Baths and Promenade Rooms were opened. These Baths were described at great length in Skelton's 1837 Guide to Southampton and said to be "one of the chief objects of attraction." The same author claimed that the nobility's winter assemblies at the Royal Victoria Rooms were extremely well supported.[1] Eleven years later Baker's Guide to Southampton reflected the changes which were taking place in the town. Although the town is said to have "a good deal of the appearance of Venice" when seen from the water, the Royal Victoria Rooms and the Baths receive only a brief mention while much is said of the advantages of the port and the value of the rail link with London.[2] The change was obvious to visitors. In 1849 one expressed his astonishment at the rapid changes in the town "..till within the last few years, little better than a local harbour...the popular watering place has become an important commercial city."[3] Yet even in 1863 the town merited a chapter in The Watering Places of England and its attraction as a centre for visitors influenced the town's leading citizens well into the second half of the century.[4]

In 1831 the population of the town was 18,670 with a further 654 inhabitants in the tything of Portswood, a mile to the north of the original town boundary but under the control of the Corporation.

1. T.H.Skelton, Guide to Southampton, (Southampton 1837), p23-24.
2. T.Baker, Southampton Guide, (Southampton 1848), p81,83,106.
3. R.Douch(Ed.), Visitors' Descriptions Southampton:1540-1956, (Southampton 1961), p27. 4. E.Lee, The Watering Places of England, (1863).

The 1801 census had shown the town's population as only 7,629. In three decades the town's population had increased by 21.4%,39.5% and between 1821 and 1831 by 44.5%. This percentage increase was matched by few of the great industrial towns of the North. Although the town's population in 1841 of 27,103 showed an increase of 45% the figures were inflated by the large number of labourers temporarily resident in the town for the construction of the docks and visitors for the Chapel Fair. Patterson suggests that a more accurate estimate of the increase would be 37.13%. This figure was based on a contemporary estimate of the number of visitors and labourers as between 1,000 and 2,000.[1] These population increases were partly due to the revival of the spa but more to the introduction of steam vessels on the crossings to the Isle of Wight,Channel Islands and France. By 1830 over 100,000 passengers a year were using Southampton.

The town was divided into five wards by the 1835 Municipal Corporations Act. Three of the wards,Holy Rhood,St.Michael and St.Lawrence lay entirely within the old town walls. All Saints included the parish, part of Millbrook and the tything of Portswood. St.Mary's covered all the parish east of the town to the river Itchen. It was only in the wards of All Saints and St. Mary's that there was sufficient land for major housing development to cope with the town's growing population. St.Mary's offered space,cheap land and a reasonable proximity to places of work. The number of houses in the parish trebled between 1811 and 1831 when the number of houses was 1,640.[2] Holy Rhood was regarded as the fashionable church of the town and there were some very respectable properties within the ward but by 1830 All Saints had become the home of many of the town's leading citizens.[3] Even in 1851 despite having more than twice the number of ratings and almost double the population of All Saints the rateable value of St.Mary's ward was less than that of All Saints.[4]

1. A.Temple Patterson, A History of Southampton 1700-1914, (Southampton,1966),Vol.I p136. 2. J.R.Stovold, Building Developments in Southampton 1750-1830, (Ph.D.Thesis,Southampton 1984.), p43.
3. Patterson, op.cit., Vol.II,p24. 4. W.Ranger, Report on the Sanitary Condition of Southampton, (Southampton,1850.),p49.

When the Commission of Enquiry into Municipal Corporations visited the town in 1833 they found that the Town Corporation was neither corrupt nor unpopular. The chief complaint they heard was of apathy - the failure of the Corporation to take possitive measures to promote the benefit of the town. The inadequacy of a "police force" of only ten watchmen for a town of almost 20,000 inhabitants was stressed. The 1835 Municipal Corporation Act gave the vote to 2,300 Southampton ratepayers. The qualification for a Councillor set by the Act for a town of Southampton's size was the possession of £1,000 of property or being a £30 ratepayer.[1] Thirty Councillors were elected by the ratepayers and these Councillors elected, either from their own members or from outside the Council, ten aldermen. One third of the Councillors were elected each year with each Councillor remaining in office for three years and each alderman for six. The number of Councillors allocated to each ward was decided not by number of ratepayers but by rateable value. Thus All Saints, "the gentlemen's ward", was given 12 Councillors, St. Mary's nine and the remaining wards three each.

The first election for the new Corporation held in December 1835 did not produce great changes in either the powers, the politics or the social structure of the Council. The only new responsibility assumed by the Corporation was the creation of a police force. Although only eight of the old Corporation were re-elected the Council was preponderantly upper class with a strong Tory majority. This majority was strengthened by the election of ten Tory aldermen. St. Mary's representatives included four radicals, only one of whom, J. Lankester, reflected the non-conformist spirit which changed other town Councils like Leicester's in the 1830s.[2] The social and political continuity between the old and the new Councils may be explained by the lack of change in the town. The 1833 Commission had found little party bitterness or personal animosity towards the old Corportation. The town had yet to acquire a rail link with London and the construction of the Docks was far from complete. It was the combination of these two developments, which led to a great

1. P. Morris, Southampton in the Early Dock and Railway Age, 1830-1860. (M.A. Thesis, Southampton 1957.). p60-65. 2. Ibid. p69-70; Patterson, Vol. II p23.

increase in the town's population and a change in the town's social structure, which gave the radicals a political base in St.Mary's ward, which enabled them to challenge the Tory hegemony in the 1840s.

The new Town Council was only one of the bodies with special powers within the town. An Act of 1747 had established the Waterworks Commissioners and another Act in 1770 the Paving Commissioners, who became the Improvement Commissioners in 1844. The original 1770 Act had given the Commissioners the responsibility for the paving,watching and lighting of the town. A major weakness of the Act proved to be that its authority could be extended to new streets only if two thirds of the owners desired it. The rapid development of the town meant that by 1835 less than half the town was under the Commissioners authority.[1] It was to remedy this defect and to improve the efficiency of the Commisioners that a new Act was introduced in 1844. Under the new Act members of the Borough Council were ex-officio Commissioners and thirty commissioners were elected by the ratepayers. Despite the Tory majority in the Council the Improvement Commissioners were dominated by the Liberals, partly because of the poor attendance at meetings of Councillors.[2] The records of attendance at Council and Committee meetings indicate that many Councillors found it difficult to find time for their duties. As the Council was more important than the Boards the Tories appear to have decided to devote their time to the former. The 1747 Waterworks Act established a Board of Commissioners consisting of seven justices of the peace and twenty four inhabitants chosen from the parishes.[3] By the late 1830s the Waterworks Commissioners were dominated by the Liberals. This party friction between the two Liberal dominated Boards and the Tory controlled Council did little to advance the cause of improvements in the town.[4]

Both political parties found their supporters in the local press. The Whig victories in the Parliamentary election of 1818 had led to the setting up of a newspaper to reflect the Tory viewpoint. After two false starts the Hampshire Advertiser appeared in 1827. The Whig failure in the January 1835 election led to the local Liberals establishing the

1. Morris, op.cit., p14. 2. Patterson, op.cit., Vol.II p59. 3. Ibid.Vol I p35. 4. Ibid.Vol.II p29.

Hampshire Independent in March 1835.[1] During the 1850s a split occurred in the town's Liberal party, with the younger and more advanced Liberal tradesmen reacting against the domination of the local party by, what they called, "the P.& O. clique". In February 1860 a new weekly paper, the Southampton Times was produced as the organ of the radical wing of the local Liberal party.[2] This paper concentrated on Southampton and provided a more detailed coverage of the events of the town than its two rivals.

The development of the Docks in the late 1830s and the completion of the rail link with London in 1840 led to a great population increase in the St. Mary's ward, which helped change the political outlook of the town. Few of the workers in Southampton were employed in large factories. In 1842 Lankester's iron foundry and Andrews' coach building works were said to be the largest employers in the town. Yet Andrews employed only 120 men. After 1840 the Docks became a major employer but the dockers played little part in the town's political life for much of the century. It was the small shopkeepers and tradesmen of St.Mary's who became the principal supporters of the radicals in the town. The radicals had come to the fore in the agitation for parliamentary reform in 1831. Their leaders included William and Joseph Lankester, Francis Cooper and John T.Tucker all of whom were to be prominent in the town's affairs during the next thirty years.[3] In the 1840s these men were prominent supporters of the Anti- Corn Law League and in this they were joined by two newcomers to town politics, R.Andrews and the editor of the Independent, T.Falvey. Andrews provided the Liberal party with the organisational skill and the finance it needed to gain and retain power for almost twenty years.[4]

In the 1847 Parliamentary election Southampton Liberals produced two outstanding candidates, Brodie McGee Willcox, the managing director of the P.& O. Company, who had done much for the town, and Alexander Cockburn, a brilliant speaker and later attorney-general. The

1.Patterson, op.cit., I p149, p175. 2. Ibid. Vol.II p161, 163. 3. F.Morris, "Docks, Railways and Politics in mid-Nineteenth Century Southampton", Morgan & Peberdy (Ed.), Collected Essays on Southampton, (Southampton, 1958), p89. 4. Morris, op.cit., p114.

Conservative candidates had split over the repeal of the Corn Laws and alienated their local supporters by refusing to pledge themselves to oppose further endowments of the Roman Catholic Church in Ireland. This religious dispute led to both Conservative candidates withdrawing from the election and Willcox and Cockburn were returned unopposed. This disarray in the Conservative ranks was reflected in the municipal elections. The Liberals won all four seats in All Saints, which helped give the party a majority of six among the Councillors. When five Conservative Aldermen retired after the November elections they were replaced by five Liberals. This gave the Liberals a majority of 23 to 17 in the full Council.

It was this Liberal Council which had to face Southampton's first major Public Health problem in the ninteenth century. The rapid growth of Southampton in the early decades of the nineteenth century was typical of many towns in England. This urbanisation brought to the fore the problem of Public Health. Prior to 1831 the death rate in England had been falling but between 1831 and 1841 in the five largest cities in England it rose from 20 per 1,000 to 30 per 1,000.[1] The cholera epidemic of 1831-32, when 16,000 died, led to the compulsory creation of local boards of health in many towns but these faded with the passing of the epidemic. The 1838 London typhus epidemic led to an enquiry into the living conditions of the poor and the probable causes of disease. When Smith, Arnott and Kay published their report they supported the theory that foul air was the main source of infection. This miasmatic or pythogenic theory was to be the dominant theory of the spread of disease until late into the century. The report recommended that steps should be taken to end overcrowding and to provide modern sanitation for working class houses.[2]

The basic idea behind the 1834 New Poor Law was that much pauperism was voluntary, caused by drink and idleness. By the late 1830s this view was being questioned. In 1839 the Bishop of London speaking in the House of Lords on Smith's report asked for an inquiry into the sanitary condition of the labouring classes. In 1842 Chadwick published his

1. M.Flinn, Public Health Reform in Britain, (New York 1968), p
2. O.Macdonagh, Early Victorian Government 1830-1870, (1977), p134.

famous report after which there was no excuse for the middle class not knowing the condition of the slums. Further reports on Internment in Towns in 1843 and the Health of Towns in 1844 and the setting up of the Health of Towns Association helped make Public Health a major issue.[1] Yet the topic failed to capture the public imagination as the Corn Laws or the climbing boys did.[2] The Anti - Corn Law League and the Irish Famine pushed the Public Health question into the background. It was only when the Corn Law question was resolved and rumours spread of a second cholera epidemic approaching England that the Commons turned its attention to the question of health. The 1848 Public Health Act established a General Board of Health which could sanction loans requested by Local Boards and establish Local Boards in areas where the death rate was 23 per 1,000, which was well above the national death rate of 21 per 1,000.[3]

This study examines Southampton's reaction to the 1848 Act and the town's first cholera epidemic. It considers how the Local Board provided the town with the basic services of water supply and sewerage on which Chadwick laid such stress. The developing role of the Council officials, in particular the Medical Officer of Health, is traced. The relationship between the local and central authorities is shown and the difficulties the Council faced in raising and handling the finance needed for the complex engineering required by the new services. The health patterns and the treatment of disease in the town are considered. The housing problems in the town and the Council's slow response are set against the national picture. The study ends in 1894 when the decision was taken to extend the town boundaries to include Shirley and Freemantle, which almost doubled the area of the borough and increased its population by fifty percent.

1. P.P. Report of the Commission on the Sanitory Condition of the Labouring Population of Great Britain, 1842(007)[H.L.] XXVII.1; P.P. Report of the Special Inquiry into the Practice of Imternment in Towns, 1843[509] XII.395.

2. M.Flinn, Public Health Reform in Britain, (New York, 1968) p35.

3. Macdonagh, op.cit., p144.

CHAPTER I

SOUTHAMPTON AND THE 1848 PUBLIC HEALTH ACT

In 1845 cholera broke out in Kabul and during the following two years it spread as it had done fifteen years earlier towards Europe and Britain. With this threat in the background a Public Health Bill was introduced into the Commons in February 1848. Despite the efforts of Chadwick and the Health of Towns Association the Bill met with much opposition both in Parliament and the country. In the Commons the most powerful attack was made on the centralisation implied by the Bill. One M.P. claimed that it would revive Star Chamber powers in England.[1] Delegates from the town councils of Leeds, Manchester, Bradford and Birmingham came to London to protest against the Bill. It was found that opposition to sanitary reform was bound up as much with economy as with fears of centralisation.[2] Some support for the Bill came from several towns including Liverpool and, as the danger of cholera increased, the Bill became an Act on 31st August 1848.

A General Board of Health was established which could apply the Act to any town where the average death rate over the previous seven years was above 23 per 1000. This figure was chosen as it was 2 per 1000 above the national average and, according to Viscount Morpeth who proposed this, no one could object to the Act being applied in such unhealthy areas.[3] The Board was reluctant to apply the Act unless there was some local support. In Exeter the Act had been denounced at public meetings as a manifestation of government interference and a threat to property. The death rate in Exeter 1838-44 was 25/1000 and in 1848 26/1000. Yet no attempt was made either by the ratepayers or the General Board to introduce the 1848 Act.[4] Exeter escaped the 1848-9 cholera but Bristol did not. The death rate in Bristol 1848-51 was 29/1000 and 444 died of cholera in 1849. It was this shock which led the city council to request

1. R.A.Lewis, "Edwin Chadwick and the Public Health Movement 1832-1854", (1952), p167. 2. Asa Briggs, "Victorian Cities",(1963), p376.
2. Parliamentary Debates, 7.8.1848. 4. R.Newton, "Victorian Exeter", (Leicester 1968), p83.

an inquiry in 1850. There was fierce opposition from the Pavement Commisioners to the setting up of a Local Board of Health. Toulmin Smith, a noted opponent of centralisation, was invited to the town to speak against the Act. However in 1851 a Local Board of Health was established.[1]

The Act could be invoked by a petition signed by one tenth of the ratepayers in a town. When this petition was received by the Board a preliminary inquiry by an inspector from the Board was held in the town. His report to the Board was published and the town council could decide to apply to come under the Act. Chadwick realised the importance of his inspectors and selected them very carefully. The men he chose were all enthusiastic sanitary engineers and most of them young and flexible. William Ranger, who was to carry out the Southampton inquiry, had been a lecturer at the College of Civil Engineering, Putney.[2] The inspectors soon found that their best weapon was a perambulation of the town with the leading citizens, many of whom claimed they did not know the conditions of the poor. This had been apparent in Parliamentary debates on Public Health when M.Ps. had refused to recognise Chadwick's descriptions of their towns. The Inspector's report which was published showed all the suggested expenses. One great advantage of the Public Health Act was that the cost of applying it by Order in Council was £85 whereas local Improvement Acts cost on average £1600.[3].

Southampton ,in the 1840s, was not considered an unhealthy town. Its death rate 1838-1844 was 20.4/1000 when the national rate was 22.2/1000 and the town had not been included in Chadwick's sanitary surveys of the early 1840s.[4] It had escaped lightly in the cholera epidemic of 1832 and in 1847 its death rate was only slightly above the national rate at 21.74/1000. Yet the Council was aware both of the passing of the Public Health Act and the cholera danger. In April and May 1848 the Council discussed the Bill and sent a petition to the Commons protesting over certain clauses, which gave compensation to displaced

1. D.Large & F.Round, "Public Health in Mid-Victorian Bristol",(Bristol 1972),p4-6. 2. R.A.Lewis, op.cit., p287. 3.Ibid.,p288.
4. P.Brannon,The Picture of Old Southampton,(Southampton,1850),p90.

officers of local boards. The Council thought that compensation should only be paid if needed and not as of right.[1] At a meeting of the Improvement Commisioners on 16th August 1848 the mayor D.Brooks called the attention of the board to the removal of nuisances because of "..the probability that the town would be visited by the cholera now making rapid approach to this country."[2] The Hampshire Independent at the beginning of August had urged the town to prepare for cholera by removing all filth and refuse to secure "purity of atmosphere" and had concluded that "...we ought to be prepared for the worst"[3]

In September 1848 the mayor called a meeting of the Improvement Commissioners, the Council and the medical gentlemen of the town to discuss the best method for dealing with the expected cholera. Mr.Wooldridge, a surgeon, suggested that all the medical men should discuss the problem and report back. Their report stressed the danger to health from the drains; all defective drainage should be repaired. The Council's attention was also drawn to the need to remedy known nuisances such as open ditches and stagnant waters. The town should be divided up into districts with a view to inspecting the dwellings of the poor and lodging houses to abate nuisances. A committee was appointed to carry out these recommendations and the report of the medical men published throughout the town.[4]

In October 1848 a joint committee of members of the Council, Improvement Commissioners, Guardians and medical men formed themselves into a local board of health as had been done in 1832.[5] The town was divided up into districts each with a district committee whose task it was to inspect and report nuisances, promote cleanliness and ventilation among the poorer classes and to ensure prompt medical assistance if an epidemic appeared. The report of the local board in November showed the poor sanitary state of the town. Open ditches were reported in Western Terrace, Bevois Street and Millbank Street. Every district reported on the filthy state of the streets for want of scavenging. The need for new sewers was stressed and there were numerous references to unemptied privies, pigsties and manure heaps. A committee of the Council was appointed to take action

1. Council Mins., 6.4.1848, 4.5.1848; H.I.8.4.1848. 2. Council Mins., 18.8.1848. 3. H.I.,5.8.1848. 4. H.A., 16.9.1848. 5. H.A. 12.11.1831.

but as the Ranger Report was to show, little appears to have been achieved.[1]

The local press reflected little concern with the problem of cholera in the first months of 1849. In March a brief reference was made to a new antidote against cholera - the leaves of a lavender-like flower, the Zhorabia.[2] In June the General Board of Health issued a report on the quarantine laws in which it recommended entire discontinuance of existing quarantine establishments and the subsitution of sanitary regulations.[3] This reflected the triumph of the miasmatists over the contagionists. If disease was spread by atmospheric influences then quarantine could not keep it out of the country. On 16th June 1849 the first deaths from cholera in England were reported. Nine workers on a railway tunnel near Manchester had died from drinking water that flowed through the soil and rock. The same paper reported a public meeting at Fareham which had petitioned for the application of the Health of Towns Act to Fareham. Fears were expressed over the expenses involved and later the town decided not to come under the Act.

As it was recognised nationally that cholera had reached England, the General Board of Health published a list of sanitary precautions. The Hampshire Advertiser reported this and commented that the town must get rid of "...the filth and dirt and overcrowding which are the hotbeds of this most destructive disease."[4] A meeting of the Board of Guardians in June considered the appointment of medical officers. The Board had increased its number of medical officers from one in 1840 to three in 1845. It was suggested that two should be appointed at £100 per annum. The officers objected that this was too low. Mr.Cheeseman said he had attended 1,729 patients and had made 10,139 visits in the previous year. Mr.Sainsbury proposed the appointment of four medical officers because the town was too large for the exertions of only two surgeons. It was agreed that the town be divided up into four districts each with an M.O. paid £62-10-0 [£62.50] with additonal fees for vaccinations.[5]

In July deaths from cholera were reported in London at Blackfriars and

1. H.A., 11.11.1848. 2. Ibid., 31.3.1849.
3. H.A., 2.6.1849. 4. Ibid., 16.6.1849.
5. Ibid., 7.7.1849

Rotherhithe. The deaths at Rotherhithe arose it was said not from any local cause but from atmospheric influences. At Blackfriars, however, the bad state of the drainage in the district was noted. In the same edition of the Hampshire Advertiser, which reported the London deaths an article appeared headed "False Alarm of Cholera in Southampton." The paper accused some medical gentlemen of proclaiming every death was caused by Asiatic cholera. The editor concluded that it was wicked and foolish to set up a cry of cholera "...and thus drive away visitors and cause panic among the nervous."[1] This reluctance to admit that cholera was in the town was not an unusual reaction at this time. In the General Board's report on the 1848-9 epidemic it was pointed out that several towns where cholera was prevalent either sent in no returns or the attacks and deaths were much understated and that this was especially the case with places whose prosperity depended on the resort of visitors.[2] The Hampshire Independent admitted that there were some cholera cases in the town but claimed that if precautions were taken there was no need for panic.[3]

Four days after these reports in the local press the Times in London gave the first accurate account of the situation in Southampton. There had been twenty five cases of Asiatic cholera, fourteen of which had proved fatal. The paper urged the Council to take action. It refered to many of the more respecable inhabitants whitewashing their houses but claimed the authorities had not acted on the advice of medical men on the sanitary state of the town.[4] This article was discussed at a special meeting of all the town's medical men called by the mayor at the Audit House. Some doctors claimed Asiatic cholera was in the town but Dr.Oke, a councillor, denied this and said only English cholera had been found. There was much discussion over the distinction between English and Asiatic cholera. Lack of knowledge of the disease proved to be a major problem both in the diagnosis and treatment of cholera throughout the nineteenth century.[5] The mayor sent a letter to the Times claiming the paper's report was incorrect and likely to cause unnecessary alarm. There had only been ten deaths from Asiatic or spasmodic cholera in the town and the majority of the medical

1. H.A., 7.7.1849.
2. P.P. Report on Epidemic Cholera, 1850 [1273-5]Vol XX1 .3 ,185 p11.
3. H.I., 7.7.1849. 4. The Times, 11.7.1849. 5. see Chapter VI.

profession thought most cases would have yielded to treatment if the proper steps had been taken in time. The precautionary measures suggested by the paper had been adopted for some time and a placard published and circulated in the town instructing the inhabitants how to act and exert themselves for the removal of all nuisances affecting general health.[1] The Hampshire Advertiser commenting on the Times article claimed that the cholera in Southampton was English cholera and with a temperature of 84 F. in the shade these deaths were to be expected.[2] The following week the Advertiser published two letters on cholera. The first signed Medicus Extra Urbem claimed a subtle poison in the air was giving rise to disease in many forms. There was no one cure for this as the form of the disease depended on the consitution of the victim. Southampton was no worse than elsewhere; it was just that medical staff were called out more often because of public alarm. The second letter talked of a fearful malady visiting the town but denied it was cholera. In an editorial the paper said it had been commended by the majority of the medical men and the magistrates for arresting a panic over cholera. It concluded, "There has not been a single case of Asiatic cholera ...which cannot be traced to some excess or wantonness in the diet or the patient being resident in a contaminated locality....among the humbler classes the cause in all cases, bad food or bad air." Yet on the same day the Independent admitted that there had been 63 cholera deaths in Southampton in the past three weeks.[3]

It was at this time when the cholera scare was at its height that a petition was being circulated among the ratepayers of the town to ask for a government inspector to visit the town with a view to bringing the town under the 1848 Public Health Act. The editor of the Advertiser thought that an inquiry would be held but that the inspector would find that it was not necessary to interfere with "our local provision." Meanwhile the local boards were taking some action. The Board of Guardians said it was essential that the streets and courts should be watered by fire engines in view of the extremely unhealthy state of the town. The medical officers could not cope with the increase in disease. The Board authorised them to hire a fly for a week and to perscribe any medicine or liquor from any

1. The Times, 12.7.1849. 2. H.A., 14.7.1849. 3. Ibid., 21.7.1849, H.I., 21.7.1849.

chemist or publican for the poor until 1 September 1849 and the Board would pay. At the mayor's suggestion the Guardians agreed to visit the poorer districts to check on nuisances. The medical officers were also asked to help in this. The Board of Waterworks appointed a plumber Mr.Meacher to check and repair the town's 51 conduits.[1]

On 25 July 1849 the petition to bring the town under the 1848 Public Health Act was discussed at a Council meeting. The Reverened C.S.Fanshaw, the rector of the wealthy parish of All Saints, and the author of the petition, Captain J.R.Engledue, addressed the Council. Engledue was the Port Superintendant for the P.& O. Line and had been resident in the town for only a few months when he began the petition. P.& O. employed 3,600 men in the town and Engledue said he had been shocked by the prevalence of sickness among these men. He was to become a prominent figure in the local Conservative Party and was twice asked to stand for Parliament. He was not a very persuasive speaker as his speech to this meeting was to show.[2] He claimed that the Council was too much mixed up with politics, parties and self interest to achieve anything. The ratepayers lacked confidence in the Council and felt their rates were not judiciously expended. Not suprisingly these remarks produced uproar. The mayor G.Laishley, a wealthy draper, outlined the achievements of the town commisioners and said that with an additional rate of 6d [2.5p] all that was needed could be accomplished. In contrast to this modest sum a Local Board under the new Act could lay out pleasure gardens, do anything it liked and tax the town to any extent it pleased. He could write off 30% of his property if the town came under the Act. The Councillors had property and that property had to be protected. On the other hand the promoters of the petition had no permanent property in the town. "They might if they succeed involve the town in heavy burdens which by removing from it they would not feel while those who had permanent property in the town would have to sustain them." These remarks were greeted with cheers. R.Andrews, one of the richest men in the town, opposed the petition and described it as "a hole in the corner affair." Another councillor said that at Fareham the inspector had increased the rate to 7/6 [37.5p] in the £1.

The question of cost and the issue of centralisation dominated the

1. H.A., 21.7.1849. 2. H.I., 21.7.1849.

discussion. Several councillors who had signed the petition claimed they had done so by mistake or had since changed their minds. Only J.R.Stebbing, an optician, put foward a pos itive argument in favour of the petition. He congratulated the mayor and the boards on their efforts to combat cholera. He had signed the petition because the council had not only to legislate for property but for the numerous people of the town for the preservation and safety of the poor. The organisers of the petition had not acted out of disrespect but because their friends were dying around them. Well known nuisances like the Marsh had not been properly remedied. A thousand ratepayers should be heard. Though he was a Tory he advocated the rights of the poor as much as he did those of the rich. W.J.Le Feuvre, a shipping agent, also supported the petition saying the boards could not do the job. Disease came from foul sewers and manure heaps. The Council concluded the discusion by resolving to resist all attempts being made to bring the town under the 1848 Act. This resolution was carried by twenty votes to one. Only W.J.Le Feuvre was prepared to vote against the motion.[1].

The local press were divided in their response to the Council meeting. The Independent criticised the conduct of Le Feuvre and Engledue and described the latter as the tool of a disappointed faction which had lost control of the local boards. The Advertiser commented on the discreditable conduct of some of the Council towards the petitioners. However it noted that there had been no new cholera cases and "We may expect company flocking into the town as one of the pleasantest and healthiest in the South of England."[2] In this last week of July the sanitary state of the town was discussed at a special meeting of the magistrates of the town with the mayor. A report prepared by the medical men of the town for the mayor claimed that there had been a great diminuition in cholera cases. This was taken as a sign that the town's health would soon be back to normal. The mayor asked for suggestions for sanitary measures and the completion of the town's sewerage and improving the water supply were mentioned. A general inspection of the town should be carried out and more medical officers for the poor were needed. In a discusion on the petition to the General Board of Health the expense it would involve was stressed. One of the magistrates claimed that a similar petition in Fareham had involved

1.H.A. 28.7.1849., Council Minutes 25.7.1849. 2. H.A. 28.7.1849.

the town in so much expense that "..they were ready to eat their fingers off for having acted so foolishly." Brooks, the Liberal mayor in 1847, said that there was not one case of cholera in Chichester and not one sewer. Finally the mayor and magistrates resolved, "That considering the report of the medical gentlemen and the evidently decreasing state of the present epidemic together with the precautionary measures taken it is quite unnecessary to place the town under the Public Health Act of 1848, which would involve the necessity of greatly increased rates and expenses." This report was ordered to be printed and circulated through the town.[1]

Despite the optimism of the local press and the magistrates the petitioners continued to put pressure on the Council and the cholera epidemic did not fade away. On 2nd August 1849 the Council agreed to set up a new committee to consider the 1848 Public Health Act. The committee was to consist of five councilors, five improvement commissioners, five waterworks commissioners, five guardians and five ratepayers.[2] Of the five councillors chosen three, Hunt, Clark and Davis had spoken against the petition at the previous Council meeting. Allen, who was to prove a reluctant sanitarian, and Palk who was to play a major part in improving the town's public health, made up the five.[3] The continued presence of cholera was shown by the further precautions taken by the Board of Guardians in early August. Depots were to be set up to provide warm baths and blankets for the necessitous poor and nurses to attend the poor in their own homes. Cooper, a Poor Law Medical Officer, said that these precautions would make a cholera hospital unnecessary. The Town Clerk proposed that nurses, brandy and mustard blankets be kept at the workhouse for delivery at the Medical Officer's discretion and this was agreed.[4]

It was clear that the cholera epidemic was not over. The mayor received a letter claiming that the poor were dying from lack of medical attention because there were not enough medical officers. A meeting of the town's medical gentlemen was called to discuss the letter. The four Poor Law medical officers, Cooper, Mackay, Cheeseman and Dusautoy all denied that the poor were dying from lack of attention. Cooper said the poor died because they were " ...ill fed, ill lodged and their houses ill ventilated."

1. H.A., 28.7.1849. 2. Council Minutes 2.8.1849. 3. see Chapter V.
4. H.A., 4.8.1849.

Mackay agreed with Cooper. Cheeseman claimed his cholera cases had been caused by impure atmosphere. Dr.Bullar said there were not enough medical officers and that the Poor Law Medical Officers had worked themselves almost to death. Tucker, a prominent Liberal Councillor and Guardian, pointed out that the Guardians had appointed extra medical officers, paid for coach hire and provided extra provisions for those in need. Dr.Oke proposed that a cholera house be established and that the medical gentlemen should decide on the provisions needed. Dr.Buller supported this idea but many opposed it. Andrews said that people were leaving the town for fright. If a pest house were set up it would drive people to Winchester. Idle and thriftless people would enter the pest house under pretence of being ill. Plymouth and Devonport had cholera worse than Southampton but had no pest house. Keele, a surgeon and former councillor, objected to a pest house because of the alarm it would raise. More medical officers and more home visits were suggested as alternatives to a pest house. The mayor regretted the lack of unanimity among the medical gentlemen and closed the meeting after three hours with no resolution agreed. A leader comment in the Advertiser agreed with Andrews that a pest house would drive thousands from the town.[1]

In late August a meeting took place between deputations from the Public Boards and a deputation from the inhabitants on the question of placing the town under the 1848 Public Health Act. The town deputation consisted of Captain Engledue, A.Lamb, Engineering Superintendant of F.& O., O.Elmsie, a Councillor, and two of the best known doctors in the town W.Buller and Wiblin. The chief complaints put foward by Engledue were the town's defective drainage and insuficient water supply. The mayor said the town had a daily supply of 35,000 cubic feet, which was six gallons a day for each inhabitant and a sub-committee was seeking a fresh supply. He added that £15,000 had been spent on sewers.[2] Neither answer could have satisfied critics. Technical opinion in the nineteenth century thought thirteen gallons per head of population daily was needed for a satisfactory water supply.[3]

1. H.A., 18.8.1849.

2. Ibid., 25.8.1849. 3. R.Newton, Victorian Exeter.,(Leicester 1968),p83.

When the Improvement Commissioners met to discuss the sewerage problem one commissioner claimed that a Local Act would enable them to get on with a one shilling (5p) rate whereas under the Public Health Act they would have to pay five or six shillings (25-30p). This demand for their own Act and the claim that the Public Health Act would be coercive and expensive were both repeated at a later meeting of the Commisioners. At this meeting the mayor pointed out the problems facing the Board. They owed the Gas Company £3,000, needed £6,000 for the completion of the town's sewers, roads cost £800 a year and they only had £300 per year, therefore more rates were needed.[1] Despite these difficuties the continued presence of cholera in the town made some action imperative.The mayor visited Charlotte Place, one of the slum areas of the town, where there had been twenty one cholera deaths in the third and fourth weeks of August. It was decided to fumigate the place with chlorine gas.[2]

At the end of August the Board of Guardians discussed a report from its medical officers on cholera in the town. Health had improved generally but in some areas cholera was as bad as ever. It was agreed to continue the extra help given to the medical officers. The mayor spoke at length on the necessity of having some house for the cholera sick. Tucker suggested that a detached building in the yard of the Poor House should be fitted up for cholera patients and this was agreed. The acceptance of a pest house rejected only a few weeks earlier may reflect a change of attitude in the town, a feeling that something had to be done. The Advertiser in a leader urged its readers to attend a public meeting at the Guildhall on the water supply. It claimed a strong demonstration of public feeling might induce the Board of Waterworks to greater activity. The paper had expressed little criticism of the town's services in the past. The editor's view was that the Board should go to the rivers for a new water supply. The meeting agreed and urged the Board to take water from the river at Mansbridge. The Board ignored this advice and at their next meeting voted to spend another £1,000 on the well on the Common. Le Feuvre condemned this as a waste of time and money and said that water should come from one of the rivers. [3]

1. H.A., 1.9.1849. 2. H.A., 25.8.1849.

3. Ibid.,1.9.1849.

By the end of September 1849 it was clear that the cholera epidemic in Southampton was over but the question of coming under the Public Health Act continued to be debated. At the end of October the Improvement Commisioners were informed by the mayor that their amended Improvement Act would add only one shilling (5p) to the rates but the Health of Towns Bill would increase the rates by several times that amount. One of the commisioners claimed that the Act would depreciate the value of the greater proportion of the property of the town. Le Feuvre urged the commisioners to come under the Act. At the next meeting of the Board he informed them that he had joined the committee of ratepayers and believed that a great saving could be made by using the Health of Towns Act. The petition was backed by seven hundred names and J.Sharpe had been engaged to oppose the local Improvement Act in the House. The mayor supported the local Act by saying it was a question of self government. The effect of coming under the 1848 Act would be unlimited taxation and the town in the hands of strangers. Palk supported the mayor and said expenses would increase and that centralisation had done all the mischief in France.[1] These arguments had figured prominently in the Parliamentary debates on the Public Health Bill a year earlier.[2] Neither of the town's M.Ps. spoke in these debates.

In November the General Board of Health informed the Town Council that they had received a petition from the ratepayers of the town. Palk condemned centralisation and claimed that the Board could remove all the town's officers, there would not be a Southampton man among them. Laishley and Andrews proposed a resolution asking the Board not to interfere in the town and assuring them that whatever was said by the few the general feeling in the town was most decidedly against any government interference in local government. The resolution was carried by twenty one votes with only Le Feuvre opposing it. It was also resolved unanimously that a committee be appointed to draw up petitions on the foregoing subject to be sent to the borough members for presentation to the House of Commons and the House of Lords. A circular outlining what the Council had done was to be sent to other councils urging them to adopt the same course.[3]

1. H.A., 10.11.1849.2. Parliamentary Debates vol.98 May 1848 p712-800.
3.Council Minutes 19.11.1849., H.I., 24.11.1849.

The visit of an Inspector from the General Board of Health and a list of the topics on which he would examine witnesses and receive evidence was announced by the local press in mid December. A leader in the Advertiser admitted that like others they had seen the Act as a centralising effort to destroy local independence, "..a tribe of foreign officials was to step in and usurp all functions of our own officers." Yet the editor said there were no proofs of its bad working in any town and there had been many recent converts to the Act. Still more converts would follow if the alleged government centralisation proved to be only the power of the Central Board to control the waste of public money, a power which would have saved the town £20,000 in recent years.[1]

The next edition of the Advertiser came out even more strongly in favour of the Inquiry. Similar inquiries in Birmingham and Dover were discussed and the expenditure and achievements of the local boards considered. The salaries paid to the officials of the jail, the Improvement, Waterworks, Pier and Harbour, Poor Law Boards totalled £3051-4-2d (£3051.21p). It was felt that as in Birmingham a consolidation of the conflicting powers exercised within the Borough would produce great economy. The Improvement commisioners had already borrowed £20,000 for sewerage and were about to apply to borrow £15,000 to complete the system. In Birmingham liquid manure was to be sold and it was said this could gross £100,000 per year. At Coventry with a population of 25,000, £800 per year was obtained from this. Little had been done about this in Southampton. The Inspector would be shocked at the lack of water supply in the town. The water rate in Birmingham was 6d (2.5p) in the £ and a similar rate could be expected in this town. The Inspector would visit the poorer areas of the town "...the flooded masses of tenements near Northam and other places where the working man and his family imbibed malaria at every breath." The article concluded by saying that much good and no possible harm could come from this inquiry."Enquire and learn-then and not until then decide."[2]

This was the first time the local press had suggested that the 1848 Act might save the town money. The profit to be made from the sale of sewerage had been stressed by Chadwick throughout the 1840s but this was

1. H.A., 16.12.1849. 2.Ibid., 22.12.1849.

the first mention of it in Southampton and the town was to waste a great deal of time and money in pursuit of Chadwick's dream.[1] Unlike the Advertiser, the Independent showed no signs of changing its attitude towards the Act. While admitting that the public health of the town had to improve, the editor claimed this could be done without the help of the General Board of Health.[2] Opposition to the Act was still evident in the town. The mayor Andrews insisted that the Act was an attempt to impose unlimited taxation and to take away self government.[3] A public meeting at the Guildhall with the mayor in the chair was attended by over three hundred people. Borrett, a councillor, claimed the Act was opposed by many other towns and would not save money. The Board of Health was under the control of the Commissioners of Woods and Forrests, the worst managed of all Government Boards. Did a London board know more about local works than men born and bred in Southampton? He objected to the annihilation of self government and proposed a motion that the Act was unnecessary in Southampton. P.Brannon seconded this motion. Alderman Allen said the Act was suicidal if they wanted to preserve their property, taxation would be excessive and self government lost. J.Elliot defended the Act as being of benefit to the poor and claimed it would not interfere with self government. A resolution to appoint a committee to watch proceedings before the Inspector was opposed by only five people. The Independent in an editorial on the meeting declared itself in favour of maintaining the present system.[4]

In late December vestry meetings were held in all the town's parishes to discuss the Act but the attendances were small. All Saints decided not to express an opinion. Le Feuvre at Holy Rhood spoke in support of the Act but after he left a motion supporting the local boards and stressing self government was passed by the ten people present. At St.Mary's no support for the Act was forthcoming. Rev.T.Shapcott of St.Michael's described the poor sanitary state of the parish and a motion supporting the Act was carried by nine votes to two. With twenty five present at St.Lawrence's a motion opposing the Act as unnecessary but defering a final decision until

1. see Chapter V. 2. H.I., 22.12.1849, 29.12.1849. 3. H.A. 22.12.1849.
4. Ibid., 29.12.1849.

after the inquiry was passed by twelve votes to seven. Poor attendences at vestry meetings were not uncommon at this time. Yet a month later when changes in the Poor Law were being discussed the meetings were described in the local press as numerously attended with over a hundred present at St.Mary's and over fifty at both Holy Rhood and St.Lawrence. Despite all the press publicity and public meetings the question of coming under the Act does not seem to have made a great impact at grassroot level.[1]

On 1st January 1850 Inspector Ranger opened his Inquiry at the Guildhall. Ranger was one of eight inspectors employed by the General Board of Health in 1850. He had carried out thirty similar inspections including three within three weeks on Teesside in 1849.[2] He began by outlining the terms of the Act and explaining the powers of the Local Board. The latter could appoint all its own officers but the surveyor and medical officer had to be approved by the General Board. The first topic discussed was the water supply. Captain Engledue said there was a great deficiency of water and its quality was poor. It was filled with worms, leeches and other things. A resident of Cumberland Place claimed that last summer the conduits in his neighbourhood had no supply except for one hour in the morning. There was a similar situation in Charlotte Place. This discussion continued on the second day. Rev. Shapcott, rector of St.Michael's complained that his parish had suffered greatly in the epidemic but there was not a single sewer in the parish. £15,000 had been spent on sewers but not one farthing on them. When drainage and internments were discussed on the third day Cooper, a Poor Law Medical Officer, offered to give evidence. Wiblin, F.R.C.S., gave a report on the sanitary state of the town on the fourth day and in the afternoon Ranger and several Councillors visited houses in St.Michael's parish. Ranger commented on Simnel Street "Nothing else than a pulling down can cure the internal defects of such a place." [3]

At the end of the first week of his Inquiry it was clear that Ranger had made a great personal impact on the town. The mayor, R.Andrews, a

1. H.A., 29.12.1849., H.I. 26.1.1850. 2. C.Perkins, " The General Board of Health 1848 - 1854 ", E.Gay, (Ed.) Facts and Factors in Economic History, (Havard 1932) p248.; T.Richmond, Local Records of Stockton and the Neighbourhood,(Stockton 1868), p207. 3. H.A.,5.1.1850.

strong opponent of the Inquiry in 1849, informed the Board of Guardians that Ranger had come to perform a great public duty and of "....what I have seen of him today it is my belief that he will perform it candidly, impartially and with great advantage to the public." The editor of the Advertiser was equally impressed and commented on Ranger's "urbanity and patience....imperturbable good humour." The following week the paper came out even more strongly in support of Ranger and the Act. "Never was there any measure so universally popular as that proposed." After commenting on the sanitary faults revealed by the Inquiry the editor concluded "Till it [the 1848 Act] is introduced the improvement of Southampton cannot be said to have commenced."[1] The once critical Independent had also been influenced by Ranger's skill. His manner and determination were praised and said to have won him golden opinions from all sorts of men. The editor concluded that when Ranger's Report was published the town could decide what action to take. This attitude showed a marked change from the strong support for the town's boards the paper had displayed throughout 1849.[2]

During the second week of the Inquiry the major objections of loss of self government and unlimited taxation were raised by the town's former mayor Laishley. Ranger claimed these fears were imaginary; centralisation existed only in their minds. In this town the Council would be the Local Board and there was nothing in the Act which invaded the self government of the town. He complimented the ex-mayor on his work during the cholera epidemic. Dr.Moore, the P.& O. medical officer, gave his views on Southampton's health problems. He said the major problems were the town's low situation, poor water supply, poor drainage and overcrowding. The afternoons of this second week were spent on further visits to the poorer areas of the town. In the evenings Ranger held meetings from 7 p.m. until 10 p.m. at the Guildhall to enable working men to express their views. Despite the extensive coverage given to the Inquiry by the local press these evening meetings went unreported.

On the twelth and final day of the Inquiry the Guildhall was very crowded to hear the Inspector's farewell address. In this he criticised the town's medical officers for their lack of cooperation although two medical

1. H.A., 12.1. 1850. 2. H.I . 5.1.1850.;12.1.1850.

gentlemen had helped him. He thanked everyone else especially the working class who had let him into their homes where he had seen their dreadful living conditions. At this point, according to a local reporter, Ranger's voice failed him and tears ran down his face. The repeated cheers of the assemblage at the conclusion of the Inquiry showed how fervently Ranger's efforts had been appreciated. The editor of the Advertiser praised the fine tone of sentiment and intensity of feeling displayed towards the poor by the Inspector. "While the respectable public of Southampton have been in total ignorance of the wretched dwellings of the extreme poor, of the squalor, filth malaria and misery in which they exist, the Inspector has visited the retreats of poverty, the abodes of disease and the living charnel houses where fever and cholera divide supremacy and age and infancy are alike surrendered to an unnatural death."[1] A more restrained leader appeared in the Independent in which the editor concluded that if the Act was necessary as Ranger had said then the sooner it was introduced the better. The parochial surgeons criticised by Ranger were defended. They had been unable to help with the Inquiry because they had been busy dealing with a flu epidemic. In a long letter to the paper Cooper, one of the parochial surgeons, claimed he had visited between 150 and 160 patients a day during this epidemic.[2]

During the Inquiry a report on the cholera epidemic of 1849 drawn up by G.Laishley, the mayor in 1849, and W.Bullar, M.D.was sent to Ranger. The report gave the number of cholera deaths as 239 and pointed out that while no district had escaped, certain areas had proved to be centres of infection." It is owing to the considerable mortality in these spots magnified, however and exaggerated by rumour that the great alarm originated which was the cause of so much anxiety to the inhabitants and so detrimental to the trade of the town." The explanation for these centres lay in an impure air. This weakness of the blood made cholera a fatal disease. Thus by removing the causes of impure air, that is filth of all kinds, this proness to disease would disappear. "When it is duly considered that half a dozen filthy and neglected spots in this town were the causes by producing a panic of three months almost entire stagnation of trade,

1. H.A., 19.1.1850. 2. H.I., 19.1.1850.

the close connection between our commercial prosperity and our sanitary condition will be acknowledged and that the prosperity of the men of business is dependent on the water supply,drainage and cleanliness of the tenements of the poorest inhabitants."[1]

In March the Advertiser reported that there were some parties in the town who boasted that they had enough power to get a confirmatory Bill for bringing the town under the Health of Towns Act thrown out.[2] In the Council however opposition was crumbling. The memorial, proposed by Laishley and Allen in November 1849, opposing the Bill was not sent. It was thought inexpedient and further discussion on it was postponed until after Ranger's report was published.[3] When the report appeared in May the Advertiser declared that the report would convince all of the necessity of coming under the Health of Towns Act. Like the Independent the paper gave details of the report and its conclusions were published in full. The cause of much of the town's ill health lay in atmospheric impurities which could be removed by sanitary appliances. Thus "...The annual loss to the rate payers from the premature deaths of the heads of families and the expenditure for sick relief is excessive and is a pecuniary burden susceptible of being greatly reduced ... I am strongly of the opinion that a very large amount of sickness, excess of premature mortality and expense contingent thereon, may be greatly alleviated and additional comforts secured to the inhabitants especially to the working classes by the application of the provisions of the Public Health Act of 1848 to the borough of Southampton."[1]

There was still some opposition to the Act in the Council. Alderman Allan and Sheriff Tucker, two of the leading Liberal opponents of the Act in 1849, attacked the expense Ranger's suggestions would involve and complained of "frightful misrepresentations" in the Report. The £400,000 cost of the recommendations would lead to a property depreciation of twelve to fifteen per cent. Laishley objected to centralisation but said as it was good for the health of the town they should take the Act and do the best they could with it. Only the Pier and Harbour Board of all the local Boards strongly objected to being brought under the Act. A Local Board established under the 1848 Public Health Act could only take over the powers of the

1. H.A., 25.5.1850.

Pier and Harbour Board with the latter's consent. All the dues collected by the Pier and Harbour Board were spent on harbour improvements and shipping. It was feared that under a new board part of the dues would be spent on other objects and that trading interests would be less well represented. For these reasons the Board refused to hand over its powers to the new Local Board.[1] The other local boards showed little interest in retaining their powers. When the Improvement Board came to consider the change in July before it could be mentioned "...One gentleman left to get his dinner, a second because he was busy and a third and fourth because the others did and the rest because there were not enough left to make a Board."[2] On 21st August 1850 the Council was informed that the town was now under the Act and they agreed unanimously to set up a committee with Ranger as adviser to implement the Act.[3]

In Southampton the progression from cholera to petition, to General Board, to Inquiry, to the establishment of a Local Board has the appearance of inevitability. Yet this was not the case elsewhere. Leicester, with a D.R. of 27 per 1000 and ranked as the fourth unhealthiest town in the country by the 1844 Royal Commission on the State of Large Towns, was an obvious candidate for the 1848 Act. When Ranger held his Inquiry there in January 1849, he met with little opposition and a Local Board was set up in August 1849.[4] Yet Leeds, with a D.R. of 34 per 1000, sent a deputation to Parliament to oppose the Public Health Act and made no effort to set up a Local Board. The General Board made no attempt to force Leeds to take action.[2] Bristol, with a D.R. in excess of 23 per 1000, adopted the 1848 Act after an Inquiry by Clark from the General Board, despite strong objections from the local bodies superceded and the local press.[6] Stockton on Tees, where Ranger carried out an Inquiry in October 1849, decided not to set up a Local Board.[7] Despite having an average D.R. of over 25 per 1000 between 1841 and 1847 and suffering a severe cholera epidemic with over 800 deaths in 1849, the committee set up to examine

1. H.I., 22.6.1850. 2. H.A., 27.7.1850. 3. Council Minutes 15.7.1850, 21.8.1850. 4. M.Elliott, The Leicester Board of Health 1849-1872, M.Phil. Thesis(Nottingham 1971.),p37. 5. J.Toft, Public Health in Leeds c1815 - 1880, M.A.Thesis (Manchester 1966). 6. D.Large and F.Round, op.cit., p5. 7. Richmond, op.cit., p209.

the General Board's Inspector Rawlinson's report on the town, felt unable to recommend the application of the 1848 Act to Portsmouth.[1] Another town inspected by Rawlinson, Fareham, decided that the application of the Act would be too expensive for the town.[3] By the end of May 1851 two hundred and fifteen towns had applied for the 1848 Public Health Act and a further sixty, after an inspection, had decided not to come under the Act. Of the thirty-one inspections carried out in 1850, Southampton's was the most expensive, costing £368-11-3d(£368.56p)[3]

The initiative for the petition to bring Southampton under the 1848 Act came from outside the leading political group in the town. Engledue, a newcomer to the town, may well have been motivated by a genuine concern over the prevalence of sickness among his company's employees, but his speeches in Council meetings in the summer of 1849 did little to further his cause. He received support from two of the town's leading doctors J.Bullar, M.D. and J.Wiblin, F.R.C.S. Among the town's politicians J.R.Keele, a surgeon and former Whig who joined the Conservatives in 1849, W.J.Le Feuvre and J.R.Stebbing were the main speakers in favour of the petition. Although Le Feuvre had twice been mayor in 1835 and 1846, he was notoriously ill tempered and was very unpopular with the Liberal dominated Councils of 1849 and 1850. Stebbing, like Le Feuvre a Conservative, was the one talented speaker who supported the petition in the Council. With such strong Tory support for the petition it is not suprising that it was seen as a way for a defeated party to limit their opponents power, as the Liberals dominated all the local Boards. This party element may partly explain the strong opposition to the petition in the Council.

The leading opponents of the petition on the Council were Laishley, mayor in 1849, and R.Andrews. Laishley was a very influential figure in the town being a director of the Chamber of Commerce and a wealthy businessman. Andrews was one of the richest men in Southampton being the owner of a coachbuilding firm with an international reputation and a supplier of coaches to Queen Victoria. He was to dominate the town's politics in the 1850s, being mayor five times and a Liberal candidate in the 1857

1. M.Hallett, Portsmouth's Water Supply, (Portsmouth 1971), p23.
2. H.A., 16.6.1849. 3. P.P.1850(110), Returns of Towns asking for Inspection, XXX111.591 p24-26.

Parliamentary by-election. These two were consistently supported by Alderman Allen. The influence of these leading Councillors and their outspoken opposition to the petition may explain the sudden change of mind at the July Council meeting by several councillors who had signed the petition.

The controversy over the petition and the cholera epidemic in the summer of 1849 led to a great increase in interest in sanitary reform, but neither changed the minds of the leading Councillors opposed to the petition.[1] Despite the publicity given to the topic by the local press the poor attendances at the vestry meetings, called in December 1849 to discuss the petition, seem to indicate that public opinion was not strongly committed either for or against the petition. With the exception of the Pier and Harbour Board, none of the local Boards made a concerted effort to oppose the Act. The approach of the Government Inquiry, according to the local press, led many to show more sympathy towards the petition. It was this Inquiry which was the decisive factor in bringing the town under the Act. It showed the inefficiency of the local Boards and the dreadful sanitary state of the town. At the same time Ranger's careful explanation of the limitations of the Act and his skill in dealing with both Laishley and Andrews helped change the opinion of the Council. Both the Ranger Report and Laishley's report on the 1849 cholera epidemic emphasised the link between sanitary reform and the prosperity of the town. This was a link businessmen like Andrews and Laishley could not ignore. The Council had begun moves to bring in a Local Improvement Act as an alterative to the 1848 Act. When Ranger showed that the 1848 Act would be cheaper and easier to obtain than a Local Act and control would rest with the Council, Andrews and his supporters realised that they had nothing to lose in accepting the Act. The immense popularity of the Ranger Inquiry would have made it difficult for them to do anything else.

1. Council Minutes 19.11.1849.

CHAPTER II

THE SOUTHAMPTON LOCAL BOARD OF HEALTH 1850-1854.

In August 1850 when the town came under the 1848 Public Health Act a Council committee was set up with Ranger as adviser to consider the implications of the Act.[1] The General Board of Health encouraged its engineering inspectors to devise plans for the local areas they had examined as public officials. The General Board thought that local bodies and engineers lacked the ability to tackle the complex works which Public Health required.[2] This practice was not always followed. In March 1853 when over 150 towns had come under the 1848 Act only 15, including Southampton, employed the General Board's inspectors although a further 21 were said to be about to employ one.[3] The first appointment made in Southampton under the Act was Ranger as consulting engineer to the new Local Board. He was proposed by Laishley the former Liberal mayor and Hunt, a Conservative and prominent member of the Watch Committee. It was said that Ranger would be free of local influences and his appointment would help avoid conflict with the General Board. Not all the Council supported this view and Ranger was appointed by 14 votes to 11 with 2 abstentions. Ranger's supporters included the early leaders of the campaign for the Act, Le Feuvre, Breton and Stebbing, as well as late converts such as Laishley and Lankester. The opposition came from consistent campaigners against the Act like Tucker and Allan.[4]

The August Committee reported to the Council in October with a list of the officers they felt were necessary for the new Board and an outline of their duties following Ranger's recommendations. The surveyor was not to be allowed private practice, had to keep a full diary, receive and require plans of new houses, visit houses reported as unhealthy by the

1. Council Mins., 21.8.1850. 2. R.Lambert, Sir John Simon, (1966) p219; C. Perkins, "The General Board of Health 1848 - 1854", E. Gay,(Ed.), Facts and Factors in Economic History (Havard 1932), p252.3. P.P. 1853, Places Petitioning for Application of 1848 Public Health Act XCV p27. 4.Council Mins. 23.9.1850; H.I. 28.9.1850.

Medical Officer and investigate causes of fires. The duties of the Inspector of Nuisances were listed at great length. The first point made by the Committee was that he should be able to discharge the duties of his office with discretion. The owners of premises had to be given twenty four hours notice to remove a nuisance before action could be taken against them. In the case of house drains, cesspits and ash pits the Inspector had to apply to the Local Board before taking proceedings against a nuisance. These limitations were to prove a handicap to the Inspector.[1] Other areas of responsibility included slaughter houses, street cleaning, ditches, unfit food, filthy houses, noxious businesses, lodging houses and cellar dwellings. The Committee concluded that the duties of this officer could be undertaken by the present Inspector of Police, Enright.

Ranger had informed the Committee that the clerk of the Board was usually the Town Clerk and that confusion would arise if the offices were separated. The Town Clerk had contacted several towns where the Act had been applied and the great majority of these supported Ranger's view. The clerk was to keep the Board's book separate from Council Minutes because the former were open to inspection by ratepayers while the latter were open only to burgesses. A clerk of accounts was to be appointed to take charge of all Borough accounts including Public Health and to keep a check on the collectors. Two collectors, each with their own district, had to pay the treasurer daily the money received and were to be paid a percentage of money collected. This percentage was usually one and a third.[2]

The Committee said that to secure the efficient working of the Act it was essential that an Officer of Health should be appointed, especially as one of the strongest arguments of the gentlemen, who petitioned for the introduction of the Act, was the absolute necessity of such an appointment. As the General Board was then engaged in defining the duties of an Officer of Health, Ranger suggested that the appointment should be postponed until these duties were known. A mechanical engineer was needed because the surveyor was not competent to manage the existing steam works. Mainwarring, the former engineer of the Waterworks Commissioners,

1. H.A. 30.10.1850; see Chapter II. 2. see Chapter VIII.

was appointed temporarily.

Four committees were suggested for the new Local Board. The Finance Committee was to be amalgamated with the financial committee of the Council and was to supervise all accounts. The Works committee was responsible for roads, gas, water supply and general improvements. A Special Works committee was to consider all matters appertaining to an efficient water supply and an effective sewering of the town, making new roads and considering the reports of the Consulting Engineer. The Sanitary Committee was to supervise the work of the Inspector of Nuisances and the Officer of Health. It was also to act in the event of any epidemic disease appearing or threatening the town.

All the officers were to be elected by the Council and appointed for six months. Before salaries were fixed further information was to be obtained from the General Board, but the Finance Committtee was authorised to advance such payments as they thought fit. Although it had not been asked to consider them, three matters seemed very important to the Committee. These were water supply, the sewering of the town and the widening of Bridge Street. The Committee concluded its report by recommending that Ranger be instructed to survey all three matters and prepare plans for each of them. The Council approved the committee's report unanimously.[1]

The Council then turned to the task of appointing its officers. Rumours had circulated in the town that officers of the defunct boards were to be overlooked and the posts given to those already in possesion of office but these proved to be without foundation. There were three applicants for the post of surveyor, G. Doswell of the Improvement Board, G.J. Poole of the Waterworks Board and a W. Read. Stebbing said the post should go to either Doswell or Poole. This was accepted by the Council and no reference was made to the third candidate. As Doswell had held office for over fifty years the majority of members felt a younger man was needed and Poole was appointed by 29 votes to 0 with 2 abstentions. There were three applicants for the Inspector of Nuisances but these were ignored and J.T. Enright, the Superintendant of Police, who had not applied, was appointed by 21 votes to 9. It was thought that Enright would

1. Council Mins. 10.10.1850.

be helped by twenty to thirty constables who had little to do and this would save money.[1] Yet a government inspector in 1857 thought Enright's force was insufficient to provide adequate protection to property in the town.[2] C.Deacon, Town Clerk and clerk to the Waterworks Board, was appointed to the Local Board without dissent. The clerks to the Harbour Board and the Improvement Board, Brooks and Farrand, applied for the post of clerk of accounts. As neither won a Council majority the appointment was postponed to allow the two gentlemen to make some arrangement satisfactory to the Board. Brooks was later appointed to the post.[3] The two collectors appointed from four applicants were J.Bungey and W.Royall.

The most controversial appointment was considered next, that of the Officer of Health. It was proposed that the proper discharge of the duties of the Inspector of Nuisances would make the appointment unnecessary. Captain Breton, a Conservative representing All Saints, in supporting this motion claimed that there was not a healthier town in England and that it did not need a medical gentleman to tell that a privy was objectionable. Dusautoy, Liberal St Mary's, a Poor Law Medical Officer said that the appointment was essential. Scarlet fever was assuming a malignant form in the parish of St Mary's. The cure was to be found in fully carrying out the Act.Alderman Palk, a Liberal, insisted on the great salubrity of the town and deprecated the originating of a panic. The town had not yet recovered from the ill effects of a panic that had been created the year before last. It was decided to correspond with the General Board of Health to ascertain the extent of the Officer of Health's duties. This reluctance in appointing a Medical Officer was typical of the time. By October 1850 only four towns had appointed Medical Officers under the Act and in the period 1848-1855, when Chadwick dominated the General Board, only 39 were appointed, although 166 towns came under the Act. The General Board had to approve the appointment and dismissal of the Officer of Health. As a result the 1848-1855 appointments were usually of men of high standing in their profession.[4]

1. H.A., 12.10.1850. 2. A.Cook, The Southampton Police Force 1836-1856, (Southampton 1972) p46. 3. L.B.Mins., 9.11.1850.
4. C.F.Brockington, Medical Officers of Health 1848-1855 (1957) p20

The Council concluded its Public Health business by appointing the four committees each with seven members and the mayor as chairman as recommended in the committee's report.[1]

The Public Health issue, which had provoked so much discussion both in the local press and the Council, made little impact on the municipal elections of 1850, which passed off almost without incident. The four retiring Liberal councillors for All Saints were returned with little opposition and four other candidates were returned unopposed. Andrews was re-elected as mayor and there was talk of his being a Liberal M.P. soon.[2]Before the first meeting of the new Council on 9th November 1850 its predecessor had been in contact with the General Board about the appointment of an Officer of Health. The 1842 Medical Act had recommended that Poor Law Medical Officers should have two qualifications,one from the College of Physicians or Surgeons and one from a university or the Society of Apothecaries.[3] F.Cooper, a Liberal councillor for St.Mary's, was an L.R.C.S.(Edinburgh). The Council asked if the General Board would sanction the appointment as an Officer of Health of a medical practioner not legally qualified. The Board replied that it would "... sanction the appointment of any regularly educated member of the medical profession even though his degrees might exclude him from practising in a particular place as for example London." Ten of the 39 Officers of Health appointed between 1848 and 1855 did not have the Licence of the Society of Apothocaries and so could not practice in London.[4]

At the first meeting of the new Council a letter of resignation from F.Cooper was read. He enclosed the £15 fine to which he was subject under the bye law for resigning before his tenure of office was complete. The Sanitary Committee reported that the duties of the Local Board could not be carried properly into effect unless the Officer of Health was appointed. The report was attacked by Tucker and Hunt. Tucker claimed that disease was not to be kept out by Act of Parliament. Hunt said it was a ridiculous expense and not of the slightest advantage. Dusautoy, a Poor Law Medical Officer, claimed that all the parish officers who knew

1. L.B.Mins., 10.10.1850. 2. H.A., 2.11.1850.
3. D.Fraser, The New Poor Law in the Nineteenth Century (1976) ,p52.
4. C.F.Brockington, op.cit., p19.

the conditions in the town were convinced the appointment was necessary. He proposed Cooper and that he should be allowed to continue with his private practice. Laishley seconded this and referred to his experiences as mayor in 1849. The Act of Parliament was not worth the paper it was written on without an Officer of Health. Money would be saved on the rates because lodging houses would be licensed and so a source of disease modified. Tucker said that Dusautoy hoped the Officer of Health would save him work. The whole idea was wrong "..they did not give credit to the author of all good for inflicting some disease upon them as a punishment for evil doing." This was not an unusual attitude towards disease in the nineteenth century. Days of Humiliation were held in many towns during the 1849 cholera epidemic. The Bishop of Chichester issued a letter to be read out by all his clergy on their day of humiliation. The letter informed them that when God sent the people unwonted suffering he was reminding them of their unworthines for "...all suffering is for sin."[1] A similar attitude led to criticism of the Contagious Diseases Acts as encouraging sin by reducing the possibility of infection.[2] Stebbing supported Cooper's nomination and praised his work. Only Tucker voted against the appointment.[3] At a vestry meeting in All Saints in April the appointment was attacked as a "job". This accusation received little support at a subsequent Council meeting although Hunt suggested that the Appointment was the only way the Council could be free of Cooper's "incessant speechifying".[4]

The 1848 Act did not require an Officer of Health to be a full time appointment and this was a great disappointment to Chadwick who tried to persuade the local boards to make full time appointments. When Cooper's appointment was sent for approval to the General Board the Board replied that "..they can not concur in the opinion of the Local Board, nor can they sanction in the case of so large and populous a district as Southampton an appointment of an Officer of Health who continues to act as a private practioner. The duties of the situation if efficiently discharged will be found to be utterly incompatible with private practice."[5] Cooper wrote to the General Board expressing his

1. H.A., 22.9.1849. 2. see Chapter VI. 3. H.A., 16.11.1850. 4. Ibid., 26.4.1851; 3.5.1851. 5. L.B.Mins. 21.11.1850.

willingness to resign from private practice, which he felt to be incompatible with the discharge of his duties. However the Council asked for approval of a part time appointment. The General Board promised to consider the matter but acceded after the Council again asked for the appointment. In March 1851 Cooper wrote to the General Board pointing out the difficulties of discharging his duties while continuing in private practice. He asked whether the Board intended to require the relinquishment of private practice at the end of the year for which his appointment was confirmed. The General Board took no action on the matter and Cooper continued in private practice until his death in 1865. The Council may have decided on a part time appointment as a way of avoiding having to increase Cooper's salary. Requests for such an increase feature frequently in the minutes of the Local Board throughout Cooper's period of office. Cooper himself may have forseen the difficulties his office would bring, as the writer of his obituary was to point out it "..scarcely allows of private practice and certainly brings no business; the well to do dreading the visits of a man always in contact with typhus and cholera and stenches and other unpleasant things."[1]

Once the Local Board had appointed its officials and established its committee system it turned its attention to the major problems of Public Health facing the town. The three issues which dominated the early years of the Board were:- the water supply, the drainage and sewerage of the town and nuisances.

The Water Supply.

The first action of the Board was to repair the pumps of the well on the Common. In December 1850 the well was producing 20,846 cu. ft. of water per day and the quanity had not increased recently. Mainwaring reported that pebbles had been found at 1,307 ft. and that the pipes needed cleaning.[2] Ranger produced his report on the town's water supply in January 1851. He claimed it had been ten times more difficult than that

1. British Medical Journal, 4.11.1865. 2. L.B.Mins., 28.1.1851.

of any other town he had surveyed. This fact together with the length of time and expense taken in preparing his 1850 Report indicate that the town's drainage and water supply problems were more complex than most.[1] He suggested that a new supply of water sufficient for the town could be obtained from Mansbridge Springs. At the Local Board meeting held to discuss his plans Laishley said Ranger thought that the best source for the town was Otterbourne but that as it would cost £1,200 a year more than Mansbridge it was too expensive. Le Feuvre regarded this as a false economy and urged the Board to use Otterbourne. It was decided to take water from the Itchen at Mansbridge Lock as Ranger had suggested.[2]

Further problems over the water supply led the Board to reconsider this decision in the summer of 1851. The well on the Common ran into dificulties in April when the drill for the borehole was broken and drilling ceased. The water supply to the Royal Mail factory was stopped in July because of the reduced water supply to the town. An artesian well in the docks was used to supply the lower part of the town around St. Mary's Street, Orchard Place and Terninus Terrace. The well supplied 90,000 gallons a day at a cost of £15. The Board decided to use this supply "only during the present scarcity of water."[3] When the Board discussed new sources of water supply in August it decided to look for a new supply from Otterbourne or Mansbridge Springs. A special committee was set up to consider the question and after twelve meetings it reported to the Board in October.

The committee recommended Otterbourne Springs. The yield from the Springs was estimated at 1,169,280 gallons per day. This was said to be three times as much as the town needed. It was thought at the time that the average amount needed per head of population for all uses was 20 gallons.[4] Southampton's population in 1851 was 35,305 which seems to indicate that the Board either underestimated the town's population or its demand for water. The committee assured the Board that the water was pure and could be softened by boiling.The cost of the supply from

1. see Chapter III
2. H.A., 3.5.1851., L.B.Mins., 28.4.1851.
3. L.B.Mins. 7.8.1851.
4. see Chapter III

Otterbourne was estimated at £27,000, £10,000 more than the cost of the Mansbridge supply. This was worked out by the Board to be only 1/10d (9p) per house per year more. Mansbridge would yield only 360,000 gallons per day and the water was much harder than Otterbourne Springs. The other sources available were the Common as a gathering ground, the Test, wells at Northam, the Sugar House and the Common. The supplies from these places amounted to 181,318 gallons per day plus the reservoir with 598,420 gallons. The committee said the town needed 700,000 gallons per day and therefore recomended Otterbourne and that the money should be borrowed with the permission of the General Board of Health and repaid over fifty years.[1]

While the Board was searching for a more efficient water supply criticism of its work was growing in the town. In August the Independent in a leader commented on a curious change of opinion in the town. Ranger's leading supporters in January 1850 had deserted him. Two of them, Engledue and Keeele, had left the town afraid of the rates while a third, Le Feuvre, had declared in the Council that he had no confidence in him.[2] In September a ward meeting in St.Mary's attacked the Board's work on the water supply. Keele said he was disappointed in the 1848 Act which he had done so much to bring into the town. Now he considered it useless. The meeting urged the Board to postpone all but the most essential improvements.[3] In December 1851 a memorial from over six hundred ratepayers headed by Keele was presented to the General Board. The memorial criticised Ranger and the number of staff and expense of the Local Board. It asked the General Board to refuse to sanction any more loans until the present works on sewerage and water supply were completed.[4] The General Board, as was to become its custom, refered the memorial to the Local Board for comment. The Advertiser supported the memorialists and accused the Local Board of dilly dallying over the water supply. It questioned whether the Board was aware of the true situation at public conduits "..the old of both sexes waiting for hours for their turns to obtain a few pints of filthy looking sluggish run of so called water." It concluded by urging the use of Mansbridge "the

1. L.B.Mins., 21.10.1851. 2. H.I., 9.8.1851. 3. H.A., 29.9.1851.
4. H.I., 27.12.1851

limpid water of the Itchen", as the Otterbourne supply was doubtful.[1] In February 1852 the Bill to allow Southampton to take its water supply from Otterbourne was introduced into Parliament. In the town a public meeting was held to discuss the Bill. It was suggested that there was no reason to abandon the artesian well on the Common and that Robert Stephenson should be brought in as an adviser. As a result of the meeting a Town Committee was set up to meet the Local Board. This committee of twelve included some Councillors, the most prominent being Le Feuvre and Colonel Bullock. When the Committee met the Board they asked that Robert Stephenson be sent for to consult on the probability of obtaining water from the well on the Common. The Board replied that further experiments with the well were futile as the supply was doubtful both in quantity and quality. They assured the Committee that the quantity of water from Otterbourne was not in doubt and the town would be able to supply Shirley and so make money. When the Committee questioned Ranger's expenses the Board claimed he had saved them money. His report had shown that the well on the Common could only provide 131,250 gallons per day-about a fifth of the town's needs.[2]

The local press was divided on the question of the Otterbourne Bill. The Advertiser supported the Town Committee but the Independent favoured the Bill. The former criticised the Council and claimed it was dominated by a few men,Laishley, Stebbing, Palk and Lankester with occassional help from Borrett, Davies and Payne. The fusion of the Council and the Local Board had given too much power to a few men. The old boards had been dominated by the Liberals and both the sewerage and water supply of the town had been deficient. It was for this reason that the Board of Health had been set up but as the leaders remained the same little had been achieved. The Town Committee had been formed because the supply of cheap water must be the town's top priority. Yet the Committee had been met with a torrent of abuse. The leader concluded that the Council no longer possessed the confidence of the public and that the sooner they gave way to honest men the better for their own honour and the interest of the ratepayers.[3]

1. H.A., 27.12.1851. 2. L.B.Mins., 11.3.1852. 3. H.A., 20.3.1852.

The public interest and excitement aroused by the water supply question was reflected in a public meeting chaired by the mayor at which many Councillors were present. When Andrews opened the meeting he said that he had questioned the wisdom of holding the meeting partly because he was responsible for the peace of the town and partly because of the inflamatory handbills which had been circulated in the town and were calculated to lead to a breach of the peace. Stebbing presented the case for Otterbourne which he claimed would provide pure and abundant water for a population of 100,000. Brannon, a leading radical in the 1830s but now a member of the Town Committee, rose amid much applause. He said that the Common well supply was as good as any, £20,000 had been spent on it and if it were abandoned now eleven years work would be wasted. Lankester, one of the largest ratepayers in Southampton, tried to speak but there was too much jeering. The mayor threatened to close the meeting and thought of calling the police. C. Davies, a Conservative from All Saints, said that if a motion against Otterbourne were passed then the Bill's opponents in Parliament were bound to win. The meeting ended after six hours when according to the Advertiser's reporter amid great confusion a motion was carried supporting Otterbourne although many of the voters thought it was against the new supply. In a more restrained account of the same meet ing the Independent congratulated the public on supporting Stebbing's motion in favour of Otterbourne and declared its own support for the Local Board's decision.[1]

The Local Board wrote to the General Board asking for its support to secure a water supply from Otterbourne and the General Board agreed.[2] The Advertiser continued its campaign against the scheme. It pointed out that it was not just that Otterbourne cost £10,000 more than Mansbridge; there were problems over compensation and doubts about the certainty of supply. The paper went on to ridicule the Local Board's efforts. A town of 35,000 with pure water on either side had spent £20,000 boring at the highest point in between and was now spending more money on an Act of Parliament to rob people of water eight miles away every drop of which they needed.[3] The Bill was defeated because of

1. H.A., 20.3.1852; H.I., 20.3.1852. 2. H.A., 27.3.1852.
3. Ibid., 5.4.1852.

opposition from the Dean and Chapter of Winchester, Magdalen College, Oxford and some local landowners. Otterbourne was a possible source of water for Winchester and the local landowners felt there would not be enough for both towns.[1] The Local Board decided to go ahead with the Mansbridge scheme, which it was hoped would be ready in early autumn. The conflict in the town which the Otterbourne Bill had aroused led the Local Board to decide that in future the ratepayers were to be consulted through the vestries or through public meetings or both before any Parliamentary Bill was presented.[2]

In August 1852 the Local Board heard that the works at Mansbridge were going well and that an abundant supply was expected within a few weeks. In October the new reservoir on the Common had begun but there were problems over the Mansbridge-Common link due to delays over the supply of pipes from the Weardale Iron Company. The land at Mansbridge was bought for £250 and in January 1853 compensation was paid for damage done by the construction of the new reservoir on the Common. Further problems arose when the contractors Hutchings and Co. ran into financial difficulties. In April an application for a water supply to the Star Brewery was deferred because the supply of water to the town was expected to be completed in about a month. Mainwaring informed the Local Board that work on the water supply had been delayed because of the non-arrival of fire hydrants. The 17 inch main and valves from Mansbridge to the reservoir had been completed. A mains supply had been laid to Bedford Place, Charlotte Place, Kingsland Place, Pound-tree and Hanover Buildings. New works had ben started at Mansbridge with Carlisle as superintendant. A shaft had been sunk and 700,000 gallons a day was expected but a letter from Councillor Tucker claimed that only 350,000 gallons could be expected.[3]

The critics of the Local Board continued their activities. Le Feuvre, Keele and Dr.Oke, a future Conservative Councillor for All Saints, each sent letters to the Home Secretary Palmerston criticising the Local Board's work on the water supply and sewerage. Palmerston forwarded these letters to the General Board and they sent the letters to the Local Board. Le Feuvre had claimed that the reservoirs at

1. H.A., 7.2.1852. 2. L.B.Mins., 4.5.1852. 3. Ibid., 28.4.1853.

Mansbridge were dry. The Local Board visited the Mansbridge works and reported on the quantity of water available. In the last five days of June Mansbridge produced between 425,000 and 462,000 gallons of water every twenty four hours. It was agreed that an ample supply was possible from Mansbridge and that there was no need to go to the Itchen Navigation Company as was suggested by Colonel Bullock and Le Feuvre. The estimates for the water rate amounted to £1,565..16..0d (£1565.80p), the major items being interest payments of £453..10..0d (£453.50p) and the cost of pumping water at Mansbridge and at the Common well £885. A water rate of 4d (2p) plus 2d (1p) for water on the premises was suggested and this was expected to bring in £1776.[1]

Despite their earlier decision the Local Board decided to ask the Itchen Navigation Company for an estimate of the cost of 120,000 cu. ft. of water. Problems with the new reservoir on the Common where the work was progresssing very slowly had forced them to seek alternative sources.[2] The need for improving the water supply was shown by the increased demands being made on the Board. The Star Brewery was granted a supply because it did not need more than fifty barrels a week. Other brewers were facing difficulties. Scarce complained that his brewery could only brew twice a week instead of the three times needed. An application was also recieved from the Screw Steam Navigation Company for water for its offices and works. To meet these new demands it was suggested that the upper part of town could be watered from the old reservoir and that salt water could be used for the middle of the town instead of using the mains to water the streets.[3]

In September 1853 the Local Board discussed the work done on the new reservoir by Hutchings. It was felt that the work had been done so badly that the town had suffered and that action should be taken against the contractors. Although no action was taken, the incident seems to confirm the General Board's view of local workmen and its eagerness to use its own engineers. Yet Ranger as consulting engineer had authorised all payments to Hutchings as each stage of the work was completed. In November the Local Board applied to the General Board for more money to

1. L.B.Mins., 1.7.1853. 2. Ibid., 7.7.1853. 3. Ibid., 25.8.1853.

complete the water supply. The General Board agreed providing that the works were done to their satisfaction and authorised the Local Board to borrow £30,200 to complete the water supply. Frost in December caused further delays to the work at Mansbridge.[1] In February 1854 the Local Board secured a £30,200 loan from the Bank of England at 4.5% interest over 30 years. In March Cooper, the M.O.H., urged the Special Works Committee to take immediate steps to increase the water supply. Engines were sent from the Common to pump water at Mansbridge.[2]

The slow progress and mounting expense of the water works led to increased criticism of the Local Board. Bullock, the Conservative Councillor for All Saints, asked for plans to show the extent of work on the water supply and sewerage carried out and what remained to be done. In response to Bullock's request Ranger produced a report at the April meeting of the Local Board. An analysis of the water at Mansbridge had been carried out and the water found to be perfectly suitable for the town's supply. Mansbridge was providing 397,400 gallons a day for the town. However Burton the contractor for pumping was bankrupt. The cost for the works completed for the water supply was £22,881..15..0d (£22,881.75) and the estimate for the works remaining was £29,267..5..0d (£29,267.25). As the supply from Mansbridge was almost ready Ranger suggested house to house visitations to check new waterworks fittings and watermeters as a way of avoiding water wastage. In June a further report of expenses was given. The cost of the works so far had been £23,055..3..4d (£23,055.17) and the application to Parliament for the Otterbourne supply had cost £4,013..14..7d (£4,013.73), giving a total cost of the water supply of £27,068..17..11d (£27,068.90).The estimate for completion was £15,918..1..5d (£15,918.07p). Thus the total cost of the towns water supply would be £42,986..19..4d (£42,986.97p). This did not include the £850 paid to the contractors for the well on the Common because the Council had given up its original contract.[3]

After four years in office the Local Board had provided the town with its promised water supply but at a cost almost fifty per cent more than the original estimate. The frequent changes of plan, from

1. L.B.Mins., 4.1.1854. 2. Ibid. 25.4.1854.; H.A., 29.4.1854.
3. L.B.Mins., 22.6.1854.

Mansbridge to Otterbourne and back to Mansbridge, and the inefficiency of the contractors Burton and Hutchings, both of whom were bankrupt by May 1854, help explain the delays and the rising cost. Ranger blamed price rises in materials between the estimates and the acceptance of tenders.[1] Yet as consulting engineer Ranger himself must bear some of the responsibility as he was responsible for the choice of contractors and the supervision of their work as well as the overall design of the works undertaken.

Sewerage.

Second only in importance to the water supply was the Board's task of providing an efficient sewerage system for the growing town. In January 1851 the Board received a memorial from the owners and occupiers of Bedford Place on the necessity of sewering that part of the town.[2] Apart from constructing new sewers the Board had to maintain the system it had inherited. Complaints were received about the old sewer outlet on Western Shore. The Board's solution was to extend the sewer a further hundred yards.[3] The possibility of making a profit from the town's sewerage was discussed in the local press and at its October meeting the Local Board decided that the town's sewerage could be sold at 3d[1p] a ton. The press took up the topic again in December when a lecture was given on the application of sewerage. This was a popular theme in the 1850s and 1860s. Many people including Chadwick were convinced that sewerage systems could be paid for by the sale of sewerage.[4] However the lecturer in Southampton did point out that the cost of collection and conveyance would counterbalance any profit. This the Advertiser felt was a warning to the Local Board.[5]

The memorialists who had criticised the Local Board's waterworks also attacked the town's drainage. They claimed that many parts of the town were without drainage and this was especially true of those parts

1. H.I., 29.4.1854. 2. L.B.Mins., 28.1.1851. 3. Ibid., 22.7.51.
4. R.A. Lewis, Edwin Chadwick and the Public Health Movement 1832-1854.(1952), p55. 5. H.A.,6.12.1851.

where fever and other diseases were found to prevail. The Local Board replied by pointing out that plans had been published and that within a few months all parts of the town would be well drained. All the works of the Local Board had been approved by the General Board and had been inspected by Austin of the General Board.[1] H.Austin was the chief civil engineer employed by the General Board and was a fulltime official with an annual salary of £600.[2]

Little further was heard on the sewerage question until the following summer. In August 1852 the Local Board said £30,000 was needed to complete the sewerage and £20,000 was to be borrowed from the Economic Assurance Company.[3] Ranger presented his plans for the completion of the sewerage to the Council in October. He wanted to use stoneware pipes and this was questioned. Ranger denied that these pipes were an experiment. Fifty miles of pipes were being produced each week and they had been in use in Manchester since 1849. He estimated that the main or arterial sewers would cost £7,705 and the Local Board accepted Hutchings' tender of £7,669..15..0d (£7,669.75) provided that Ranger approved. According to the Advertiser the Council studied the plans for two hours and admitted that they did not understand them. However they did adopt the report which meant that the town would have some form of sewerage.[4] Further problems arose within a few weeks when the contractors admitted they were unable to fulfill their contract and new workers had to be found.[5]

In February 1853 Le Feuvre attacked Ranger's plan for sewering the town, calling it an expensive experiment. Le Feuvre had retired from the Council in November 1851, but had been elected for St. Lawrence's ward in November 1852, and so had not been present when Ranger's plans had been discussed by the Council in October. Bullock supported Le Feuvre and said that the plans should be delayed until the cause of the Croydon fever was known. He suggested it might have been caused by the sewers. This was a reference to an outbreak of typhoid in Croydon shortly after

1.L.B.Mins.,22.12.1851. 2. P.P.1850 XXXIII.335, Return of Inspection Expenses, p53. 3. L.B.Mins.,2.8.1852. 4. H.A.,2.10.1852. 5.L.B.Mins.,14.1.1853.

the laying of a new sewerage system using the new stoneware pipes and many shared Bullock's view that the new pipes were to blame.[1] Le Feuvre also objected to Ranger's bill of £380..8..7d(£380.43p) for six months work. Ranger's assistant had received thirty shillings(£1.50p) a day for 89 days whereas the town surveyor had only £150 a year. Ranger's expenses were approved by four votes to one with three abstensions. The Board meeting broke up because the attendance had fallen below the quorum of fourteen. At the next Council meeting Bullock complained of the poor attendance at committee meetings and proposed a fine of 2/6(12.5p) for absentees but he could not find a seconder.[3]

In March 1853 the Southampton Local Board was crticised in the House of Commons by Colonel Harcourt, M.P. for Isle of Wight, for wasting public money. The Times carried a report of the speech and this was discussed at the April meeting of the Council. It was alleged that Le Feuvre had spoken to Harcourt before he made his speech in the Commons.[1] Despite these criticisms the work was progressing. The three main sewers for the town were completed by the end of April. Ranger recommended the use of stone pipes for all future work. In this Ranger was following the General Board's policy. In its report on the working of the 1848 Public Health Act figures were published to show that the new pipes halved the cost of the sewers. The figures quoted for Southampton were £26,063..16..3d(£26,063.81p) with the new pipes and £53,713..2..0d(£53,713.10p) with the old system.[2]

Conscious of the need for economy the Board turned its attention again to schemes for making a profit from sewerage. It planned to build an iron tank for the town's sewerage. This sewageometer was to have been built on the timber ponds but because of objections plans were delayed until a new site was found. The mayor visited Leicester and inspected a process which converted sewerage into manure. The Board decided to send a deputation of nine including the Officer of Health to study the Leicester process. The deputation left on 3rd May 1853 and returned two days later convinced of the practicality of carrying out such a plan for

1. W. Frazer, A History of English Public Health 1834-1939, (1950), p129.
2. H.I., 5.2.1853, 12.2.1853. 3. Ibid., 5.2.1853. 4. P.P.1854 XXXVI, Report on the Administration of the 1848 Public Health Act, p40.

Southampton.[1] The next meeting of the Local Board approved the Leicester process and arranged a meeting in Southampton between Ranger and Wickstead, the engineer of the Leicester Local Board. The town deputation had also visited Rugby and inspected its sewerage system. There a contractor was to set up works to manufacture manure for which he paid the Council £50 per year. Cooper gave a report in which he praised both the Leicester and Rugby works. Le Feuvre attacked the whole visit which he described as a farce. He claimed that the deputation thought they were visiting a town about which little was known. Yet it turned out that Ranger was the Superintending Inspector of Leicester.[2] Ranger had carried out the original Inquiry before Leicester had come under the 1848 Act but he had not been appointed as Superintending Inspector; that post was taken by Wickstead.[3]

The May meeting of the Local Board considered a letter from Hill, a local engineer, which criticised Ranger's sewers. Hill claimed that the three main sewers were "injudiciously, inconsiderately and carelessly laid down." Ranger was present at the meeting and defended his work. The Local Board supported Ranger by 15 votes to 1 with 3 abstentions.[4] During the summer work on the sewers progressed steadily and was reflected in the regular payments to the contractors Marriot and Webb for work completed. In July and August they received £1177..6.3d (£1177.31p).[5] The need for an efficient sewerage system was made more urgent as reports of cholera in other parts of the country reached Southampton. The Board of Guardians wrote to the Local Board in July 1853 pointing out the need for a sewer near the new poor house because "...exhalations from present drains was very offensive and pointing out the heavy responsibility that would attach to the Local Board in the case of cholera again visiting the town if the construction of the sewer in that locality was any longer delayed."[6]

In November the Local Board was busy with a sewer through Deanery land and the drainage of Northam, Charlotte Place and Chichester

1. L.B.Mins.,10.5.1853. 2. H.I., 14.5.1853. 3. M.Elliot, The Leicester Board of Health 1849 - 1872, M.Phil.Thesis (Nottingham 1971,) p38. 4. H.I.,25.5.1853. 5.L.B.Mins. 25.8.1853. 6. Ibid., 20.7.1853.

Terrace. The contractors, Marriot and Webb, received a further £592..8..5d(£592.42p) for their work. Letters were received from Ranger and Wickstead pointing out that it was six months since the Council's visit to Leicester and asking what they were going to do. The Local Board decided to go ahead with the scheme. A report from Cooper in December on the sanitary condition of Northam stressed the need for sewering that part of town. Complaints were received about the delays over the sewering of St.Mary's Street. However the Board was informed that the new large main drains had been laid. The Officer of Health was asked for his opinion on the part of town requiring immediate attention and he recommended the St.Mary's district. It was agreed to go ahead with the immediate construction of all sewers as laid down in Ranger's plans.[1]

The problem of the site for a sewageometer was discussed by the Local Board in January 1854. Two thousand square yards of land was needed and no offers had been received. The topic was debated again in April when Ranger explained that it would not be a nuisance as it was water tight and air tight. Nothing similar existed elsewhere. In June the mayor suggested a site for the sewageometer on the mudlands at Cross House and this was approved by Ranger. Work on the town's drainage continued. When premises in Mill Bank Street, Winchester Street and Chichester Terrace were found to be without proper drainage their owners were required to construct drains. Contractors were continuing to face problems over price rises. This was the reason given by Stiffs when he asked the Local Board in March for permission to increase his contracted price for pipes.[2]

When Ranger resigned his post as Consulting Engineer in June 1854 after almost four years in office all the main sewers for the town had been laid, but at a cost well in excess of the original estimate. In his 1850 Report, Ranger had estimated the cost of the sewers and water supply for the town at £63,490 but by March 1853 the Local Board had applied for permission to borrow £68,000 for these projects and neither

1. L.B.Mins., 28.12.1853. 2. Ibid., 25.1.1854, 9.3.1854, 22.6.1854.

was complete.[1] Rising prices may account for some of the increase. The Local Board showed little sense of urgency over the sewerage question. The idea of a sewageometer was put forward in May 1853 yet it was over a year later before a site was found for the project. It was only after a reminder from both Ranger and Wickstead that the Board decided to take action following its visit to Leicester six months earlier.

Nuisances

The third major area of Local Board activity was the problem of nuisances. Despite the numerous Nuisance Removal Acts of 1855, 1856, 1860 and 1863 nuisances were never satisfactorily defined at law. Chadwick described them as "..anything by which the health or personal safety or the convenience of the subject might be endangered or affected injuriously."[2] It was regarded as the primary function of the Sanitary Committee to deal with nuisances. The Committee started its work by ordering the printing of 5,000 handbills, advising butchers and lodging housekeepers on how the 1848 Public Health Act affected them. A copy of the Act was given to each member of the Council. Although an Inspector of Nuisances had been one of the first appointments made by the Board it was Cooper, the Medical Officer of Health, who brought the majority of nuisance cases before the Board and became the dominant official of the Sanitary committee.[3]

In the early months of 1851 several nuisances were considered by the Sanitary Committee. These included the transportation of corpses in flys, overflowing privies and the keeping of pigs in the High Street. However the powers of the committee proved to be more limited than they had expected. In June they considered a manure making nuisance in Northam. In the Committee's report to the Local Board it claimed that

1. W. Ranger, Report on the Sanitary Condition of Southampton, (Southampton 1850) p171; P.P. 1854 XCV Report of All Places Petitioning for Application of the Public Health Act 1848, p21 2. A.P. Stewart & E. Jenkins, The Medical and Legal Aspects of Sanitary Reform (1866, M. Flinn, Ed. Leicester 1969), p14. 3. Sanitary Mins., 21.10.1850.

the smells and stenches were a prejudice to health and life. The firm of Twyman and Dixon were ordered to discontinue their works but the Board discovered that they had not the power to do this. It was left to the Sanitary committee to appeal to Twynam to stop work for the sake of public health. As this same nuisance continues to crop up in the Committee's minutes it is clear they had little success with their appeal.[1]

A further disappointment to the Local Board was the failure of the police to fulfill the public health role expected of them. This was an expectation shared by many of the towns which adopted the 1848 Act. As late as 1866 when Stewart and Jenkins drew up their list of 53 towns employing an Inspector of Nuisances 23 were still using the police.[2] Enright, the police superintendant of Southampton, had been appointed Inspector of Nuisances but his name appears rarely in the Sanitary Committee minutes. In July 1851 the surveyor was asked to take over as Inspector of Nuisances and to give up private work. His salary was increased to £300 per annum.[3] The police were asked to tackle the problem of rubbish in the streets. Handbills were printed informing the public of the penalties for leaving rubbish. Tucker told the Local Board that Enright and 28 auxillaries should be able to stop all nuisances , yet they had failed to do so. Heaps of oyster shells lay in every street. Lankester suggested that the Inspector and his men's salaries should be cut by half if the nuisances were not stopped. Stebbing pointed out that the police were better employed looking after property than oyster shells. The salaries of the Board's officers were discussed at this meeting. The Town Clerk said that many nuisances had been removed through the intervention of the Officer of Health. Laishley thought that £150 p/a was the least that could be offered for the job of M.O.H. and this was agreed after much discussion. [4]

In August the Local Board received a memorial from the parishoners of St. Michael's on the nuisances existing in the parish and the lack of efficient sewers. This was referred to the Sanitary Committee, who

1. Sanitary Mins., 28.6.1851.
2. Stewart and Jenkins, op.cit., Appendix 2. 3. L.B.Mins., 22.7.1851.
4. H.A., 26.7.1851; L.B.Mins., 22.7.1851.

directed Poole to see that the streets were properly scavenged.[1] No tenders were received for this scavenging and Poole had to continue supervising the work himself. In the last Local Board meeting of 1851 further nuisances were reported by Cooper and Enright. Twenty seven pigs were being kept in a yard in the High Street and action was to be taken in this case and a similar case in Beovis Street. An overflowing cesspit in Simnel Street and an offensive privy in Brown's Court were reported.[2] Similar nuisances appeared in May when the Board decided to contact the owners and order them to abate the nuisance. In August one of the nuisances, overflowing privies in Brown's Court, was reported again. The Board decided to set a 40 shilling penalty and a further five shillings a day if the nuisance continued.

The problem of attendance at Council and Committee meetings was discussed by the Board in August. Laishley said it was difficult to get more than two members of the Finance Committee together. The Sanitary Committee faced similar difficulties. In 1852 it met six times. On one occasion only one member was present and on two others only two Councillors attended. Stebbing said that men joined the Council for presige not for work. These comments confirm the view of the local press that the Council was dominated by a few men.[3] The Local Board's Minutes and the press accounts of Board meetings are dominated by the same names. Attendance at Council meetings was rarely above seventy per cent and as the votes recorded in the minutes show, the numbers present fell the longer the meeting lasted. This was particularly unfortunate for the Local Board as Public Health matters were usually the last items on the Council's agenda and as both the minutes and the press show business was frequently abandoned because numbers fell below the quorum of fourteen councillors, one third of the Council.

The problems the Sanitary committee faced in dealing with nuisances were made even more apparent in the last months of 1852. In September the committee discussed the difficulty of supressing the keeping of pigs in the town. It was decided to refer the problem to the General Board. Cooper reported a nuisance in Vincent's Walk, where the drains of stables were stopped up and the contents soaked through into the

1. Sanitary Mins., 8.8.1851. 2. L.B.Mins., 22.12.1851. 3. see p 38.

kitchens of properties in Hanover Buildings. This soakage problem was discussed but the Committee decided that little could be done until the sewers of the town were completed. The Local Board meeting in late October was dominated by discussion of nuisances. Large amounts of refuse were reported in Melbourne Street, Tin Shore and Back of the Walls. The Board ordered warning notices to be put up. A nuisance arising from Dixon's patent manure manufacture was discussed. Although the stench was perceptible half a mile away the powers of the Board under the Act did not allow it to intervene. The Sanitary Committee in December discussed a nuisance in Blue Anchor Lane. It was reported that ".. the inhabitants threw their refuse and urinal matters in the lane." The Committee decided that the parties should be cautioned.[1]

Yellow Fever was reported on ships in Southampton in December 1852 and the Local Board received advice from the General Board on measures to be taken. This advice together with reports from the town's Medical Society and the M.O.H. Cooper were referred to the Sanitary Committee. The Committee recommended quarantine for ships with Yellow Fever aboard.[2] Local medical opinion, like national, was divided on the value of quarantine. Dr.Herne, a prominent local doctor, claimed that Yellow Fever was not infectious but another local expert, Dr Sutherland, said it was.[3] The Local Board decided on six days quarantine and considered the possible use of a hospital ship. Two cases of Yellow Fever were admitted to the workhouse in August but no further cases were reported.[4]

Some of the nuisances reported were the responsibility of the town surveyor Poole. He was asked to deal with the offensive state of the Itchen Bridge sewer and the Houndwell ditch. The Local Board received many requests for building new or altering existing houses and Poole was expected to inspect and report on all these. He had to see that all new properties followed the provisions of Acts of Parliaments on 9 inch party walls and sewer cesspools.[5] In June 1853 a further responsibility was given to Poole. Complaints had been received that the

1.Sanitary Mins., 17.12.1852. 2. Ibid. 11.1.1852. 3. H.I., 29.3.1853.
4. L.B.Mins., 25.8.1853. 5. Ibid., 14.1.1853.

watering of the streets especially the High Street, Above Bar was inefficient. The town paid a contractor, Hayes, £8..8..0d (£8.40p) for this task which was carried out three or four times a month. The problem of scavenging and repairing the streets was discussed and Poole was asked to prepare estimates for the costs of horses and men required if the Board was to undertake the task itself.[1]

The rapid development of the town in the 1850s provided further problems for the Local Board. In his report to the Board in March 1853 Cooper stressed the insanitary condition of Northam. The great increase in building in that area demanded proper sewerage. He warned of the danger of an epidemic if a main brick sewer was not immediately laid down. Alderman Palk complimented Cooper on the manner in which he had carried out his duties as M.O.H.[2]

In August the Sanitary Committee reported further nuisances to the Local Board including the keeping of swine in the High Street. The Committee had sent a letter to the General Board pointing out the difficulty of carrying out the 59th section of the Public Health Act because of the need to give 24 hours notice before a penalty was imposed. This enabled the offender to remove one herd of pigs and bring in another when the danger was passed. Drainage problems were reported in Beehive Court, King's Street, where fifteen tenements shared one privy and there were complaints of overflowing privies in Field Lane. The Committee failed to complete its report to the Board as the number in the Council fell below a quorum and the meeting closed.[3]

The news of cholera in The North of England led to increased activity by the Sanitary Committee. Cooper said that the causes of death must be known. The mayor decided to meet with the Guardians of the Poor to prepare plans in case of an epidemic. [4] The Independent greeted the news of a special meeting of the Local Board in a leader. The editor pointed out that two thirds of the Board had to be present if bye laws were to be made and this number had not been achieved recently. He urged the members to attend as bye laws were necessary to improve the sanitary condition of the town in the face of the cholera

1. L.B.Mins., 7.7.1853. 2. Ibid., 28.4.1853.; H.I., 30.4.1853.
3. L.B.Mins. 25.8.1853.; H.I.,27.8.1853. 4. L.B.Mins., 25.8.1853.

threat.[1] The fear of an epidemic was reflected in the long list of nuisances reported by Cooper when the Board met in September 1853. Many of these concerned privies and drains and were referred to Poole. Le Feuvre claimed that the town nuisances were little better than in 1849 and that it was Ranger's fault that nothing had been done.

The General Board sent the Local Board a list of preventative measures to be taken in case of an epidemic. Cooper was authorised by the Local Board to collect information on the causes of death and the locality in which they occured and the Local Board promised to pay any expenses involved. The Sanitary Committee was authorised to take legal proceedings and such measures as necessary for the removal of all nuisances in the borough. A new set of bye-laws concerning the emptying of privies and cesspools was drawn up. Fines were fixed from five shilings(25p) for placing ashes in the streets to forty shillings(£2) for a defective privy. A list of seventeen bye-laws for the regulation of common lodging houses was also produced. Every room was to be inspected by the M.O.H. and the number of lodgers limited by him. A return of the number of sick in the lodging houses giving details of age and sex was to be sent to the M.O.H. each week. Fifteen bye-laws for slaughter houses were also drawn up. The town was divided up into special districts for paving, sewering and water supply.

On 27th September 1853 a meeting of the Sanitary committee, the Board of Guardians, the medical gentlemen of the town and the clergy was held. The Medical Society submitted reports on preventative measures, washing, cleansing and lime washing were stressed. The town was divided into thirty two districts and visits planned on a house to house basis. The Sanitary Committee held five meetings within fourteen days between 29th September and 12th October 1853. Four of these meetings were attended by the Board of Guardians and the last by the Guardians and the Medical Society. As articles on the disease and the daily returns for cholera deaths in Newcastle were published in the local press the people of Southampton were well aware of the impending cholera danger.[2] Tubs were provided for refuse in the yards around Blue Anchor Lane. Poole was

1. H.I., 17.9.1853. 2. Sanitary Mins., 1.10.1853.; H.I., 1.& 8.10.1853.

instructed to lime wash all offensive drains and engage more scavengers. In bad localities walls were to be dusted with quicklime once a week. Nine separate nuisances mainly of soakage from cesspits were reported by Cooper. The bye laws drawn up by the Local Board for common lodging houses had been sent to Palmerston for approval. He returned a draft copy of regulations for common lodging houses which had been very generally and most beneficially used and recommended them. [1]

Long term public health works were considered by the Council and its committees in December 1853. The Sanitary Committee together with three members of the Medical Society considered the state of Northam. At the next meeting of the Local Board Cooper presented a report on the sanitary condition of Northam and the necessity for sewering that part of the town. The Board heard complaints from St. Mary's ward over delays in sewering St.Mary's Street and £2,000 was set aside for improvements in St.Michael's parish. Captain Breton criticised the Board's work on the Western Shore Road improvement. He claimed that it had cost much more than estimated. £2,946..16..9d(£2,946.84p) had been spent and more money was needed. Lankester defended the works and said the improvements had led to properties being rented along the road and rates received.[2]

In April 1854 the Conservatives in the Council led by Le Feuvre, Colonel Bullock and Captain Breton launched an attack on the Board's expenditure. Colonel Bullock said that rates of 2/6d(12.5p) in £1 were needed to pay for borrowed monies. Present taxation was 7/6d(37.5p) and would soon be 9/-(45p). Property would be swamped. Money was spent widening streets but the poorer parts of town were in a sad condition, not in the sanitary state they ought to be to ward off cholera. Captain Breton opposed the St. Michael's improvement scheme for widening Blue Anchor Lane. Although the estimate was only £1787..10..0d(£1787.50) he felt it should be postponed because of the town's finances. He went on to list the Board's bank balances and showed it was £14,057..7..7d (£14,057.38p) overdrawn. The amounts borrowed by the late

1. L.B.Mins., 23.11.1853; H.I., 26.11.1853.
2. L.B.Mins., 19.12.1853; H.I., 31.12.1853

Improvement and Waterworks Boards and the Local Board amounted to £132,020..7..7d(£132,020.38p). He listed the Board's unfinished works on which £50,836..10..0½d(£50,836.50p) had been spent and £38,295..14..1d (£38,295.70p) had yet to be paid. He asked the Board to stop all new works because so many works were in progress the Board was unable to give them the attention necessary and the rates must go up. Colonel Bullock supported Captain Breton. The Board was for sanitary purposes and roads were not necessary for that. Tucker defended the St. Michael's scheme as it would get rid of a great nuisance and a crop of flea dens. The scheme was carried by fifteen votes to eleven with one abstension. The total cost of the scheme was put at £2,924.[1]

The Board's finances dominated the May meeting of the Board. Payments on debts amounted to £7,066..7..0d(£7,066.35p) per year. The total expenditure of the Board in the previous year had been £97..13..0d(£97.65) more than the rates paid into the Board of £12,900. In June the Independent compared the expenditure of the Local Board with the old Boards. The rate collected by the Improvement Commissioners in their last six months was 1/6d(7.5p) in £1. The rate of the Local Board from August 1853 to February 1854 was 2/-(10p). Great improvements had been made for 6d(2.5p). When the new rate was fixed in August 1854 it was 2/3d(11p), 1p higher than ever before. Le Feuvre called for Ranger's resignation.[2]

It was against this background of financial difficulties that Cooper, the M.O.H., made his requests for a salary increase. When he wrote to the Board in late November 1853 he claimed that his duties were much more onerous than he had expected. They were not solely of a scientific character and his duties had been much increased by the new bye-laws. All this work greatly interfered with his private practice. Dr. Oke thought the medical officer should have a salary which made him independent of private practice. The request was referred to the Sanitary Committee. When this was discussed by the Committee it was decided that the clerk should write to twenty other towns for details of their pay scales. It was May before the Local Board considered Cooper's

1. H.I., 29.4.1854. ; L.B.Mins., 25.4.1854. 2. H.I.,3.6.1854 ; 24.6.1854

salary again. The Sanitary Committee had suggested that Cooper should be given the additional title of Inspector of Common Lodging Houses and Poole, the surveyor, that of Inspector of Nuisances. The Local Board wrote to twenty other Boards about these posts. It was decided that Poole was overworked and so his duties could not be increased. Alderman Allen said a full time M.O.H. would cost £500 a year and this the Board could not afford. Cooper was made Inspector of Nuisances but his salary was not increased.[1]

The Local Board, introduced into Southampton under Chadwick's General Board, fulfilled neither the hopes of its supporters nor the fears of its opponents. The role of the General Board proved purely advisory. It did not interfere in the work of the Local Board and only in the case of Cooper did it attempt to influence appointments. The Local Board looked not only to the General Board for advice but also to other Local Boards. Whenever requests for salary increases were received the Board contacted other towns rather than the General Board to find out common practice. The General Board helped secure finance, inspected works and gave support where possible as in the case of the Otterbourne Bill. Yet the real power remained firmly in local hands as the Local Board's opponents soon realised. Neither Palmerston nor the General Board were prepared to intervene in the town's quarrels in 1851 or 1853.

Public Health matters dominated the Council meetings and expenditure and several public meetings were held to discuss the Board's work. Yet only in 1852 and 1853 did this feeling make any impact on the municipal elections. In November 1851 when the Board was under much criticism the elections were noted for the apathy of the Conservatives and the Council's composition was unaltered. In 1852 and in closely contested elections in 1853 the Conservatives made gains in All Saints but in 1854 all nine retiring Liberal Councillors were returned almost without opposition. Thus only in the best represented and wealthiest ward of the town, All Saints, did the Conservatives make any real gains. However the Liberal majority remained secure and as the Independent remarked would remain so for some time to come.[2]

The key figure in this period of the Local Board's history was

1. L.B.Mins. 2.5.1854 ; H.I. 6.5.1854. 2. H.I., 4.11.1854.

William Ranger. At first his expertise went unchallenged but as expenses mounted and estimates were so frequently exceeded he came under increasing criticism. His plans were changed by the Board in 1854 and at a vote for his dismissal only ten out of forty Councillors could be found to support him.[1] Unlike some of his fellow inspectors Ranger had no hesitation in resigning his Southampton post when the General Board banned private practice for its inspectors. His resignation was accepted without thanks by the Local Board. The criticism of Ranger was not without some justification. During his period as Consulting Engineer from November 1850 to June 1854 he was paid £3569..3..10d(£3569.19p) by the Local Board for his work on widening streets, completing sewerage works and the new water supply. This was far more than any other Consulting Engineer employed by a Local Board received.[2] When Ranger's work was examined by other engineers faults were found.[3]

Yet Ranger was not solely to blame for the Board's problems. The Board changed its mind on the water supply, from Mansbridge Lock to Mansbridge Springs to Otterbourne, before being forced to return to Mansbridge Springs by the failure of its Parliamentary Bill. Nor were the contractors chosen by Ranger always dependable. As with the rate collectors the job undertaken seems to have been too complex for the men and their machinery. The Local Board had to learn by trial and error. When Chadwick's Board fell in July 1854 none of Southampton's ambitious schemes was complete and all had cost much more than their original estimates. The town's rates had increased but only slightly. The Improvement and Waterworks rates in the last six months of the Commissioners period of office in 1849 had been 2/2d(11p). The Local Board's rates at the end of 1854 were 2/3d(11.5p).[4] Yet even the Board's critics in the local press had to admit much had been achieved.[5] The full effects of the Board's work became more apparent later.

1. H.I., 24.6.1854, 22.7.1854. 2. P.P. 1854-1855 LIII p80.
3. see Chapter V. 4 . see Chapter VIII 5. H.I., 24.6.1854.

CHAPTER III.

THE SOUTHAMPTON WATER SUPPLY 1874-1894.

During the last quarter of the nineteenth century the major public health problem facing the Corporation was providing the town with a pure and abundant water supply. In his annual report for 1874 the Medical Officer of Health Dr. Osborn described the town's water supply from Mansbridge as "abundant and constant" and "one of the greatest blessings to the inhabitants of the town."[1] Dr. Osborn made little reference to the water supply in his subsequent reports and his successor Dr. Wellesley Harris commented favourably on the excellent quality of the town's supply in his first annual report in 1890.[2] Yet the subject was rarely absent from the pages of the local press or the minutes of the Corporation. It was easy to measure a shortfall in the town supply but much more difficult to reach agreement on the quality of the town's water. Even the failure of supply provoked problems since some attributed this not to a lack of supply but to waste. The town's leaders had to find a satisfactory definition of quality and an acceptable measure of the quantity needed for a town like Southampton. The rapid growth of the town and the increased use made of the supply provided, as baths, water closets and garden hoses became more popular, further complicated the problem. All over England towns were facing similar difficulties and it was to their colleagues in these towns as much as to the Local Government Board in London that the Corporation turned for advice.

The first suggestion that all was not well with the town's water supply came in a letter from the County analyst, Angel, which appeared in the .Advertiser. He had carried out an analysis of the town's water which showed it was unfit for drinking purposes. A copy of this analysis had been sent to the town's sanitary authority in the hope that something would be done to remedy the situation. Yet nothing had been done and he concluded "...you are still drinking water...which...is.

1. A.R.M.O.H. 1874. 2. A.R.M.O.H. 1890

..questionable." The editor added a footnote saying he was sure the authorities would give immediate attention to the subject.[1] The letter provoked neither editorial comment nor further correspondence. The Sanitary Committee discussed Angel's letter and asked Dr. de Chaumont of the Royal Victoria Hospital at Netley to analyse samples from the upper reservoir and the drinking fountain in East Street. Although this decision was confirmed by the Council no further reference was made to this analysis and it does not appear to have been carried out.[2]

Within a year of Angel's letter the quality of the town's water was discussed again by the Council. The need to filter the water supply was stressed by Councillor Furber, who claimed that if this was not done the town might just as well draw its supply from the wells of Portswood, which everyone knew to be seriously contaminated. Councillor Buchan supported Furber's view and added that filtering the water was necessary "...so that it might be supplied to the people free from snails, shrimps or anything of the kind." Councillor Rodgers agreed that there was an enormous amount of foreign matter mixed with the water and he blamed this on an accumulation of filth in the water pipes. A leader in the Southampton Times supported the need for water filtration. The need for a good water supply was stressed at the Council meeting in August but the meeting was counted out before a decision was reached. This was not untypical of sanitary business as it was often the last item on the Council agenda. [3]

In October 1877 the Special and General Works Committee received a report from Brierly, the borough analyst, on water taken from the Itchen. The sample contained little chlorine and no ammonia and Brierly declared it to be very good water. The Committee advised the Council that no further steps were needed concerning the water supply. [4] It is difficult to understand how the Council could accept so readily Brierly's report after the comments made on the impurity of the town water at their July meeting. It may well be that the presence of animal life in the water supply was common in the nineteenth century and so

1. H.A., 7.10.1876. 2. Sanitary.Mins,. 16.10.1876. 3. S.Times, 21.7.1877. 4. Ibid., 20.10.1877.

more easily accepted. In Hamburg collecting animals found in the water supply was a popular children's hobby as late as 1890 and in 1885 a book on the fauna of the town's water mains, listing eight varieties of snail and four kinds of mussels, had been published. Yet in 1892 the city's leading medical experts claimed this Elbe water the healthiest of drinks.[1]

The quality of the town's water was referred to at a Council meeting in January 1880. The question under discussion was skating on the lower reservoir. The mayor thought this would not affect the water supply as only the upper reservoir was used for drinking water. The waterworks engineer, Mainwaring, corrected the mayor by pointing out that the lower part of the town was supplied from the lower reservoir and so a drowning would be damaging to the town. The dust and dirt of the skates were also a problem. It was Le Feuvre who drew the Council's attention to a more serious danger. He said it was absurd to worry over skating when they were drinking from Mansbridge the sewage of Winchester.[2] These comments provoked reaction from neither the local newspaper editors nor their correspondents. It was over two years later when the Council was discussing the problem of waste that the question of quality was again raised. A former Councillor, J.T.Harper, wrote to the Southampton Times saying that the Council should not be investigating waste but searching for a pure and abundant supply of water instead of the "diluted sewage and land drainage at present supplied to us at enormous cost." He suggested that water should be brought from springs outside the town as Liverpool had done.[3]

Harper's letter was discussed by the Council in April and it was agreed that Dr.de Chaumont and Brierly should make separate analyses of the town water. During the debate Alderman Perkins, a former mayor and Liberal M.P. for Southampton in the 1870s, declared that Harper's letter would do the town great harm. Dr. de Chaumont's analysis in 1865 and Brieley's in 1880 had shown the town water to be exceedingly wholesome. Despite the irritation Harper's letter provoked among the Councillors

1. R.Evans, Death in Hamburg, (1987) p148.
2. S.Times, 31.1.1880. 3. Ibid., 1.4.1882.

when a letter, from the South Hampshire Water Company offering to provide a pure water supply for the town, was considered the Council broke up before the Town Clerk had finished reading the letter. [1] When the results of the two analyses were discussed by the Special Works Committee in May, it was decided to recommend the Council to carry out new works to improve the filtration at Mansbridge. [2]

In July 1882 James Lemon, the former borough surveyor and consultant engineer, gave an address on the town's water supply to the Southampton Liberal Association. With reference to the recent complaints of the impurity of the supply, he said that as it was drawn from the lower regions of the Itchen it was bound to be dangerous. The Royal Commission on river pollution had condemned all water supplies drawn from rivers and streams to which sewage had access. Filtration of the water could remove the floating particles but the constituent elements could not be changed. The estimated cost for a filtration system at Mansbridge was £20,000 and the Council was considering spending £10,000 on a new pumping engine there. Lemon went on to propose that a new water supply for the town should be drawn from the springs at Arlesford. He claimed that the cost of his scheme would be £3,500 per annum, a saving on the present cost of pumping at Mansbridge which was £3,710.

In the discussion which followed Lemon dismissed the well on the Common as an alternative source of supply as he felt it would be insufficient. One speaker informed the meeting that sewage was running into the river at Bishopstoke and that the colour of Southampton's water was not due to rust but something much worse. Water was run off as a deliberate waste until the water was clear. The Independent and the Southampton Times gave full reports of the meeting and editorial comment but the Conservative Advertiser failed to mention the meeting. The Times and the Independent both supported Lemon's views and said he had shown a practical solution to Southampton's unsatisfactory water supply.[1]

After a year in which little progress had been made in improving the town's water supply the Council returned again to the question of

1. S.Times, 8.4.1882. 2. Water Mins.,23.5.1882. 3. J.Lemon, Reminiscenses of Public Life in Southampton (Southampton 1911) p148.

filtration in August 1883. The borough surveyor Bennett had produced a plan to filter the water at Mansbridge. The estimated cost of these works was £5,000. The Council considered a report from Dr.de Chaumont in which he said that Southampton's water was not bad if the suspended matter could be removed. The Special Works Committee recommended de Chaumont's views to the Council and its deputy chairman Alderman Perkins said this would give as good water as they could wish for. The shortness of supply could be accounted for by waste and when this was remedied the supply would be abundant. Dr de Chaumont said filtration would be all that Southampton required for some years, even though he did admit it could not remove dissolved organic matter. It was pointed out that the filter beds could provide an immediate remedy, whereas seeking a new source would take years and cost at least £25,000. Councillor Paine rejected this argument. He complained that he had been without water for three or four days. They needed a pure supply from the chalk hills or the South Hampshire Water Company. Mainwaring, the town's waterworks engineer, had resigned after forty years service with the town's boards and Paine thought the Council should make no decision until the advice of the new engineer was available. Falvey and Lomer supported the filtering plan and said de Chaumont was a good authority. The Council voted by 17 to 6 to accept the filter beds plan at Mansbridge. The Southampton Times condemned this decision and concluded that a pure water supply would "...never be secured by filtering what comes to us from the river Itchen." The editor did not suggest which of the various alternatives to the filtration plan the town should adopt.[1]

The problems facing those advocating a pure water supply were well illustrated in a Council debate in May 1886. The Special Works committee proposed removing two of the town pumps. The results of analyses of water taken from the pumps were presented to the Council. The sample from the first pump had a pleasant taste and was very clear, but had serious sewage contamination. The second sample was clear with a faint yellow colour and flat taste, but totally unfit for drinking purposes. Alderman Perkins said he had received a memorial from the townspeople asking for the pumps to remain as they had been used for many years. He

1. U.S.A.Mins. 29.8.1883.; S.Times., H.I., 1.9.1883.

recognised that they were totally unfit for drinking. Falvey said he hoped the pumps would remain. He thought that analytical reports were not always to be relied on and perhaps practical experience was something very superior. White claimed he had drunk from the pumps for twenty four years and preferred their water to any other. The Council agreed to remove the pumps.[1] Dr Wellesly Harris encountered similar problems when he tried to close contaminated private wells in 1890. He examined fifteen wells of which eleven provided the only water supply for their owners. All fifteen were contaminated with sewage and Harris ordered all the wells to be closed and town water substituted. The three worst examples formed the sole supply for private houses and the owners showed great obstinacy over closing them and an order had to be obtained from the magistrates.[2]

The quality of the town's water supply was accepted as vital to the health of the town only towards the end of the nineteenth century as methods of water analysis improved and the link between contaminated water and disease was generally recognised. In both Portsmouth and Hamburg the question of water supply was seen at first as one of quantity with little regard to quality. It was only as Portsmouth's population increased rapidly by 36 % in the 1840s and 31 % in the 1850s and the supply from the town's wells became seriously contaminated by seeping sewage that the Corporation took action. By 1873 almost all the inhabitants of Portsmouth were receiving a piped water supply of good quality.[3] In Hamburg's case it took the disaster of the 1892 cholera epidemic to convince the town's authorities of the necessity to implement the long planned filtration works for the water supply.[4] In Southampton's case the question of both quality and quantity came to the fore in the 1870s. Ranger's 1850 Mansbridge works had provided the town with an adequate and, by the standards of the time, tolerably pure supply for its 35,000 inhabitants. By the 1870s with the town's population moving towards 60,000 Mansbridge could no longer supply the quantity needed nor as the pollution of the Itchen increased and

1. S.Times, 1.5.1886. 2. A.R.M.O.H. 1890. 3. M.Hallett, Portsmouth's Water Supply, (Portsmouth 1971) p24. 4. R.Evans, op.cit., p474.

awareness of the importance of a pure supply grew could it provide the quality.

When the Council received the first complaints over a lack of supply it attempted to improve the works at Mansbridge and at the same time tackle the problem of waste. In July 1877 the waterworks engineer Mainwaring advised the Special and General Works Committtee to lay a new low level pumping main to increase the supply to the high level portion of the town. He said the new main would lead to a saving in coal which would pay for the main. The Committee recommended Mainwaring's suggestion to the Council as an answer to the complaints of low pressure in the upper part of the town.[1] As a result of further complaints from Rev. Wigram, rector of St. Mary's, and Major Bullen the Committee inspected the works at Mansbridge and approved of the new works being carrried out there. They agreed to issue handbills cautioning the public against wasting water.[2] Bullen was not satisfied with the Council's actions and wrote to the Local Government Board complaining of a shortage of supply. Like the General Board before it, the Local Government Board simply fowarded the complaint to the Council. As with all recent complaints the Council's reply was that a new low level pumping main was under consideration and that this would give an increased supply to the upper part of the town.[3] The new main was approved by the Council in February 1878 at an estimated cost of £3,740. In September the loan was sanctioned by the Local Government Board and finance arranged.[4]

It was more than two years before the Council held another lengthy debate on the water supply. The Councillors saw the problem as not one of an insufficient supply, but as one of waste of water. When the Local Government Board was asked for advice it replied that several other towns had faced and solved similar problems and it suggested that the Council's enquiries should be directed to them. A report from the Special and General Works Committee recommended that the police should inspect the fittings in houses and a reward of 2/6d(12.5p) should be given for every conviction for waste. The cost of the present supply

1. Water Mins., 12.6.1877; 25.6.1877. 2. Ibid., 2.7.1877; 9.7.1877.
3. Ibid., 9.10. 1877. 4. U.S.A. Mins., 20.2.1878; 4.9.1878.

was £4,000 and this could be cut to £1,000 by a saving in waste. The use of policemen as water inspectors met with several objections. Le Feuvre reminded the Council that an Englishman's home was his castle and the Committee was asked to reconsider its report. The Southampton Times in a leader said that the daily demand in the town was 3.5 million gallons - about sixty gallons per head, whereas in London the average was ten gallons. The editor claimed that if waste were prevented £3,000 a year would be saved and the £9,000 new pumping engine would not be needed. Indoor fittings should be inspected and the public educated.[1]

The Special and General Works Committee did examine various waste water meter systems during 1881 but it was almost a year before the Council followed up the Local Government Board's suggestion about contacting other towns. In January 1882 a committee of eleven Councillors and officials was appointed to visit Liverpool and London to inspect the systems used there. The deputy chairman of the Special and General Works Committee, Perkins, said the question of waste water had occupied the Committee for over a year and the waste had not been prevented. 1,217 million gallons had been pumped from Mansbridge in 1881 an average of 50 gallons per head per day whereas in other towns the average was between 16 and 20 gallons. Nichols said the water inspectors should adopt the London system and take leather washers with them to carry out immediate repairs to stop waste. Thomas claimed that it was a well known fact that for every gallon used in Southampton five were wasted. Mainwaring said that the town's water consumption was 3.25 to 3.5 million gallons per day and that houses, not damaged mains, were the great cause of waste.

All the local press gave full coverage of the Council debate but only the Times and the Observer made editorial comment. The Observer confirmed briefly the view that the waste was prodigious and very expensive. The Times supported the deputation to Liverpool and London and hoped the adoption of their methods would reduce consumption to 22 gallons per head per day, the Liverpool level. The following week the Times returned to the subject. If Southampton could reach the Liverpool

1. S.Times, 26.3.1881.

standard it would save £17,885 and make the new pumping engines unnecessary. The editor urged the Council to adopt the Liverpool system. This system measured the flow of water through the mains and enabled engineers to detect wastage caused by leaking pipes.[1] The figures produced in the local press and by Council officials in March 1881 and January 1882 for the town's water consumption did not correspond. Although both agreed on the total daily consumption of 3.5 million gallons the press claimed this was a per capita of 60 gallons but Mainwaring put it at 50. The discrepancy appears to have been caused by conflicting estimates of the town's population. The press figures are based on a population of 58,333 and Mainwaring's on one of 66,685. The 1881 census gave the figure as 60,051.

Both the Council and the local press were agreed on the unsatisfactory nature of the town's water supply but there was little agreement on the solution to the problem. While the Council concentrated on the waste aspect Lemon's scheme to look for a new pure and plentiful source had found much press support in 1882. In the same year the British Association held their annual meeting in Southampton and paid a visit to the well on the Common. The visit led to a letter in the local press suggesting that the well, which was the second deepest in the world, should be re-opened as a tourist attraction.[2] It was this interest in the well shown by these eminent scientists which encouraged the Council to consider re-commencing boring at the well. Perkins, deputy chairman of the Special and General Works Committee, said this would be an experiment in connection with the visit of the British Association and no great expense was envisaged. Lomer claimed it would only cost £300 to £400 to find out if it was possible to supply the town but another Councillor, Chipperfield, complained that £30,000 had been wasted already on the well. In a leader on the subject the Southampton Times said Lemon's scheme would cost far more than the £70,000 he had suggested. The best solution to the problem would be to buy up the South Hampshire Water Company because it had a pure and plentiful water supply. The Independent commented that the site of the

1. H.I., H.A., S.Times, S.Observer, 28.1.1882.
2. S.Times, 24.6.1882

Artesian Well was marked appropriately by a weeping willow and showed little enthusiasm for a previous notable failure. Despite these adverse comments the Council voted by 19 to 4 to accept a tender from Smith to re-commence boring at the well in October 1882.[1]

Work on the well was begun in January 1883 and the first reports were favourable. In May Alderman Perkins admitted that progress was not as satisfactory as had been hoped. A boring drill had fallen into the bore hole and blocked it. Several Councillors opposed the continuation of the work. It was agreed that Smith should work for one more week and then the Council would decide.[2] The Special and General Works Committee recommended the Council at its next meeting to abandon the works at the well. The Town Clerk said that Smith's contract to cleanse the bore hole was carried out satisfactorily from January until March when an obstruction caused by a broken drill blocking the hole was discovered. Mainwaring, who as waterworks engineer had worked on the well in the 1850s, denied any knowledge of a drill or other tool being left in the well. There was much criticism over the money wasted on the well but the Committee said they had acted on the advice of distinguished members of the British Association. The Council voted by 15 to 12 votes to cease work at the well.[3]

The press showed little sympathy for the Council. The Southampton Times criticised the Council, said they ought to have been better informed and concluded "..we can only regard the whole matter as a bungle."[4] Yet the Council did not forget the well. In July a deputation was sent to Richmond to examine the tools used at an artesian well there.[5] Some years later in 1887 in an address to the Institute of Civil Engineers Matthews, the borough waterworks engineer, referred to the well on the Common and said that skil ful well sinkers with proper tools would have overcome the problem of the broken drill blockage but admitted that recent geological opinion was against any large quantity of water at the site.[6] In the late 1880s water from the well was used for street watering and cleaning. This supply failed

1. H.I., S.Times, 29.7.1882. 2. U.S.A. Mins., 9.5.1883. 3. Ibid., 16.5.1883. 4. S.Times, 19.5.1882. 5. U.S.A. Mins., 25.7.1883. 6. Water Supply from Wells. (Southampton 1887) p41.

during the dry summer of 1890 and the well was given up completely when further extensions were made at Otterbourne in 1891. [1]

The failure of the well led to the Council turning its attention to improving the supply from Mansbridge. An application was made to the Local Government Board for sanction to borrow £5,000 to construct filter beds at Mansbridge. As was usual when a large sum of money was to be borrowed the Board sent down its own inspector, Harrison. He recommended the Council to look for new sources of water before spending £5,000 on filter beds. He suggested a trial boring at Mansbridge. [2] This idea was not followed up by the Special and General Works Committee when they considered new sources of supply. They concentrated on three possibilities, Lemon's Alresford scheme, a plan from a Mr. Ross and an offer of supply from the South Hampshire Company. Although the Committee rejected Lemon's scheme as too expensive it advised the Council to seek the help of an eminent engineer before making a final decision.[3]

The next problem to engage the attention of the Committee was the appointment of a new waterworks engineer. From the original 61 applications a short list of five was drawn up and after interviews the Committee recommended Matthews, the waterworks engineer of Peterborough.[4] When the Council discussed the Committee's report they decided to consider the application of another of the short listed candidates, Laing of Leicester. It was even proposed that two of the Council should visit Leicester and Peterborough to check on the work and testimonials of the applicants. A third candidate, Alder, was proposed as a local man by Falvey and Payne, who declared he distrusted testimonials. Lemon preferred the 35 years old from Leicester to the 28 years old Matthews from the much smaller town of Peterborough. After a lengthy debate the Council accepted the Committee's advice with 23 votes for Matthews to 6 for Laing and only 3 for Alder. Matthews took up his new appointment on 20th March 1884.[5] The split in the Council appears to be a random one as Lemon, Falvey and Payne were all Librals and party

1. Annual Report of the Waterworks Engineer 1891. 2. S.Times, 19.1.1884. 3. Ibid., 1.12. 1883. 4. Water Mins., 11.12.1883. 5. U.S.A. 16.1.1884.

feeling in the Council at this time was not intense.

In February 1884 a major step foward was made in the quest for a pure water supply. The man responsible was Councillor Nichols, a cabinet maker from Somerset who made his reputation as a builder in Southampton. He was described by Lemon as not a highly educated man but his speech to the Council on the water supply was regarded by Lemon as " the best on the subject ever placed before the Council." He pointed out the faults of the works at Mansbridge. The pumping engines were old and inefficient making pumping costs there greater than in several other towns. Mainwaring had advised the Council to buy new engines ten years ago. Four of the boilers were over thirty years old. He had taken samples of the water along the Itchen from above Winchester to Mansbridge and found that the further the water travelled the more contaminated it became. A new supply was needed. Nichols found support from a new Councillor Dr. Maclean who said that pure water was the greatest guard against zymotic diseases. The filtering works at Mansbridge were too expensive and only an experiment. He recomended Russ's scheme which would cost only £4,000 a year. Another Councillor, Miller, urged the Council to buy out the South Hampshire Water Company. Lomer defended the town's present supply but said that all the schemes should be referred to the Special Works Committee. The Council took Lomer's advice. The local press praised Nichols for persuading the Council to reconsider the whole question, "..what we have advocated from the first."[1]

Russ and Lemon gave evidence to the committee when it considered the schemes for a water supply. In May they received a copy of Harrison's report on the Mansbridge supply which they had requested from the Local Government Board. Harrison had suggested that the Council should try boring at Mansbridge before setting up filter beds there. The Committee recommended the Council to seek the advice of Whittaker, an eminent geologist who lived in Southampton. The Council were not in favour of Harrison's idea as Ranger had tried it without success in 1854, but they agreed to seek the advice of Whittaker. Whittaker's report was presented to the Special Works Committee in July 1884. He disagreed with Harrison's ideas on the geology of the Mansbridge area.

1. Lemon, op.cit., I p162., S.Times, 9.2.1884

The failure of the artesian well similarly placed to Mansbridge was hardly an encouragement to making a bore hole there. A large supply was usually found where the chalk was near the surface. The success of the South Hampshire Company in the Test area gave confidence of a similar success in the Itchen Valley. Otterbourne was near the town and he recommended this source .[1]

During the summer the Committee considered the cost of the various schemes. Russ's scheme which would provide three million gallons a day for £4,000 per year was rejected. Later at a Council meeting Bance, a member of the Special Works Committee and a future mayor, explained that although the Council was grateful for the information Russ had provided the Council was determined to keep the waterworks under its own control rather than place it in the hands of one man. Matthews reported that Lemon's Alresford plan would cost £107,000 and advised against it. Another reason for rejecting Lemon's scheme was the fear that the town would have to pay claims amounting to £10,000 for compensation from mill owners and water cress farmers. The idea of purchasing the South Hampshire Water Company was considered but rejected because the Council would have had to build new mains to carry the water to the reservoirs on the Common and the cost of these mains alone would have been £50,000. Matthews estimated the cost of a supply from Otterbourne at £50,870 and the Committee agreed to trial borings there.[2]

When the Council considered the Committee's report which recommended Otterbourne Alderman Perkins defended the Mansbridge supply as not as bad as represented by some. Bance disagreed and claimed that no supply in the United Kingdom, the United States or Canada from open lakes or rivers could be regarded as good. The cost of purchasing the South Hampshire Water Company and providing the necessary mains was said to be £165,000. Otterbourne was supported as the cheapest scheme. Chipperfield said eminent men had been wrong about the well on the Common and could be again. He doubted that Otterbourne would cost only £50,000. Payne supported this argument and said £100,000 would be the real cost. Falvey asked about possible opposition to Otterbourne but the Town Clerk said he had seen the bulk of the land owners and did not

1. S.R.O. SC/AH/8/58. 2. Water Mins., 8.1.1884., 22.8.1884.

anticipate any opposition. Ireland said the present supply was good enough. They were scaring themselves with too much scientific opinion. Rowland claimed the well on the Common would have worked and the Council had given up too easily. The Committee's recomendation to take a supply from Otterbourne was adopted by 18 votes to 4. This decision was greeted with caution by the local press. The Southampton Times said the Council should have waited until the results of the trial borings were known before it applied to Parliament and warned that a mixture of the Otterbourne and Mansbridge supplies would be unacceptable to the town.[1]

The Southampton Corporation Bill came before Parliament in May 1885. In the evidence presented to the Select Committee of the House of Lords the Corporation's case was explained. Originally the town's water supply was taken from the tail of the lock in the canal but when the canal fell into disuse the water was taken from the Itchen "...a river by the side of which there are a very large number of irrigated meadows, those meadows are very highly cultivated and highly manured. The consequence has been that from year to year the water supply has become a very serious matter for the town of Southampton, which is a town of a very large population consisting very largely of working people and people of that kind and from being a sea port they are more or less liable to all sorts of risks to human health from sources that are not applicable to inland towns and therefore the water supply is of course of the first importance to Southampton." [2] The only opposition to the Bill came from the South Hampshire Water Company, which objected to Southampton supplying the Otterbourne district which was within the Company's area. A compromise was reached whereby Southampton supplied only Otterbourne village and did not infringe in any other way on the Company's area. The Local Government Board supported Southampton's Bill and it was passed without any further opposition in August 1885. The Special Works Committee negotiated with the local landowners over the question of compensation. Only Tankerville Chamberlain provided any difficulty. After a prolonged series of negotiations he agreed on £900

1. S.Times, 25.10.1884. 2. S.R.O., Minutes of evidence before House of Lords Select Committee on Southampton Corporation Act 1885 (SC/AH/2)

in place of his original claim for £3,300 largely thanks to the efforts of Nichols.[1]

The decision to go to Otterbourne for a new water supply had been taken by a Conservative Council but the driving force behind the search for a new supply had come from the Liberals Lemon and Nichols. It had taken the Council over three years to reach this decision and while the debate went on the Special Works Committee had to tackle the more immediate problem of making more efficient use of the supply available. The question of what constituted an adequate daily supply per head for the town and the amount of water wasted had been raised in the late 1870s. The Council looked to other Councils for guidance. In 1881 a report was received from the Stockton and Middlesborough Water Board on their waste water meter system. The use of a meter in one area there led to the discovery of leaks which eventually caused consumption to fall from 61.5 gallons per head per day to 11.19 gallons.[2] In an attempt to establish the necessary consumption, questionaires were sent to 41 towns, ranging in size from Bolton with 222,000 inhabitants to Boston with 20,000. Almost all the 28 Councils which replied gave their town's daily water supply. In some like Macclesfield and Lincoln this was as low as 15 gallons per head per day but the great majority averaged around 25 gallons.[3]

Soon after his arrival Matthews presented a report on a system of waste water meters which would cost £1,300. The introducton of these meters in the summer of 1884 proved very successful. A year later in July 1885 the deputy chairman of the Special Works Committee informed the Council that water consumption had fallen from 60 gallons per head per day to 47 since the introducton of the meters and should fall to 20. Extra charges were introduced for those making great use of the supply. The local press thought some of these were unfair on some tradespeople such as laundresses but the charge of 10/6d(52.5p) for those using garden hoses passed without comment.[4] Matthews in his next report claimed consumption was down to 41 gallons per head per day making a total annual saving of £647. The stop cocks showed the mains were in a

1. Lemon, op.cit., I p205. 2. S.R.O. SC/AH 8/51. 3. Water mins., 22.4.1884. 4. Ibid, 9.6.1885, Southampton Times, 25.7.1885.

bad and worn out condition requiring renewal at the earliest possible time. In one area of the town 194,000 gallons a day was being wasted through the mains and faulty fittings. When the whole town was fitted with meters and stop cocks Matthews thought consumption would drop to 20 gallons per head per day. It had fallen to 18 gallons in the West Street district. The Special Works Committee estimated that 90% of waste was due to leaky mains and only 10% to fittings. This made the renewal of the mains a matter of great necessity.[1] Matthews 1887 report to the Local Government Board on the town's water supply confirmed the unsatisfactory state of the mains some of which were completely perished especially along the clayey foreshore of the Itchen and those areas subject to tidal sea water.[2]

While the Special Works Committee continued to improve the efficiency of the old system, work had begun on the new supply from Otterbourne. The official opening of the works at Otterbourne was carried out by the mayor Bishop in October 1885. In his speech to mark the occassion Matthews said the works were the largest single expenditure ever undertaken by the Council.[3] The inaugural ceremony took place nine months later in July 1886. The local press referred to the softening plant as the largest water softening arrangement ever carried out in any system in the world. The work continued throughout 1887 while the Special Works Committee reached settlements on claims for compensation with the local land owners Magdelene College and Winchester College. The majority of the staff from Mansbridge were transferred to Otterbourne in November 1887 and a new foreman appointed from 146 applicants in January 1888.[4] In the same month Matthews informed the Council that the main works would be completed by the end of the month and in July gave the total cost of the works as £62,351..7..3d(£62,351.36p).[5]

In the summer of 1888 press reports showed some disquiet in the town about the progress at the works. Matthews was questioned by the Council on the subject. Doubts were expressed about the supply of water

1. S.Times, 26.2.1886., Water Mins., 8.6.1886. 2. S.R.O. SC/AH8/68a. 3. S.Times, 17.10.1885. 4. Water Mins., 26.7.1887., 22.11. 1887., 14.1.1888. 5. U.S.A. Mins., 8.2.1888; Water Mins., 10.7.1888.

available and he was asked to explain why the town supply had to be 2.3 million gallons per day when he had said only 20 gallons per head per day was required. For an estimated population of 65,000 this would have meant a daily supply of only 1.3 million gallons. Matthews explained that there was sufficient water available and the present high demand would diminish as summer passed. The failure of the softening plant he said was caused by the inexperience of the workmen. He denied that any new headings had been driven at Otterbourne. 1.8 million gallons a day was being pumped from Otterbourne and the shortfall of 500,000 gallons was being supplied from Mansbridge. He recommended the Council to drive another 100ft of headings so that this shortfall could be obtained from Otterbourne. Several speakers made reference to "evil rumours" in the town condemning the works. Other Councillors condemned the works and the quality of the water. The Special Works Committee was criticised for saying sufficient water was available at Otterbourne. In a leader the Southampton Times said Matthews replies would allay alarm over the supply. Estimates that half the town's supply was wasted were too high. Lemon's suggestion of 600,000 gallons a day was more reasonable. The Advertiser praised Matthews for his replies and said the town was to be congratulated on having such an abundant and excellent supply of water provided for it by the Council.[1]

A fortnight later Matthews apologised to the Council for misleading them. He had been under a heavy physical and mental strain in carrying out the works. He admitted that he had carried out driving extra headings at his own expense without the Committee's knowledge. Lemon urged the Council to accept this apology and they agreed. Lemon said he knew two wells only six feet apart could not yield three million gallons. The adits were necessary from the start. Lankester and Lemon were added to the Special Works Committee to consider the whole matter.[2]

When the Council met in early August complaints were heard over the quality of the water supply. Alderman Perkins said this was caused by the incrustation of the pipes. Lemon suggested discontinuing pumping at Mansbidge. Councillor Privett said the water at the bottom of East

1. H.A., S.Times, 14.7.1888. 2. H.A., S.Times, 28.7.1888.

Street was so thick he could not drink it. Despite these problems the Council was assured by Lemon that there was no reason for supposing they would not receive an adequate supply of the purest quality. The Special Works Committee reported a recommendation from Matthews that the Council employ an engineer of repute and eminence to inspect the Otterbourne works to alleviate the anxiety of the public. This suggestion received wide support from the Council. In reply to further questions on the water supply Matthews said 1.25 million gallons a day were wasted through defective mains.[1]

As a result of further complaints over the water supply the Special Works Committee inspected the works at Otterbourne. The supply had reached 1.5 million gallons a day. In an attempt to answer the complaints Matthews was instructed not to mix the Otterbourne and Mansbridge supplies. There was to be no pumping from Mansbridge until after 9 p.m. because at that time the water would be used for purposes other than drinking.[2] The Advertiser said the complaints over the supply were exaggerated and assured its readers that there was "..every ground for confidence that all difficulties will soon be overcome...the efforts that are being made will be perfectly successful." The Southampton Times presented a more critical view. One correspondent accused the Council of lack of vigilance and claimed that a less costly scheme would have given an abundant supply of water. Another letter writer mentioned the numerous complaints over the quality of water in the last week and suggested that a committee be set up to find out the truth about the Otterbourne supply. Only J.Blunt Thomas, a former Councillor, signed his letter. He defended the Otterbourne works and said they would provide an excellent supply at less than a quarter the cost some towns of a similar size had paid. In a leader headed "Water a Temporary Failure" the editor acknowledged that the Otterbourne scheme was a sound one but it had been too hastily adopted. Too much had been expected from the young waterworks engineer. Otterbourne had failed to supply the town's needs. Mansbridge had the quantity required. The editor concluded that the Council must learn to check costly schemes

1. Water mins., 31.7.1888. 2. Ibid., 18.8.1888, 21.8.1888.

more carefully.[1]

The last Council meeting of August 1888 was dominated yet again by the water question. Perkins defended the Otterbourne supply saying that Mansbridge was to blame for the " stinking water". The Southampton Times said the Council needed the advice of James Mansergh the expert recommended by the Institute of Civil Engineers. In the correspondence columns Thomas's defence of Otterbourne was attacked. One critic said Thomas had claimed when writing about the well on the Common that new tools would slice through old, like a knife through a turnip. Thomas could not be trusted. The director of the South Hampshire Water Company said Southampton wasted as much water as it used. Consumption should be only 20 gallons per head per day. The Advertiser commented that the Otterbourne works had been opened prematurely, but saw no cause for misgivings in the future.[2]

In September the Special Works Committee made arrangements for Mansergh to report on the waterworks. It was agreed that his fee should be ten guineas a day plus expenses and pay for his assistant. Mansergh wrote to the Committee asking for guidance on the lines his enquiry was to take and for drawings of the works that he might be "coached up" before he arrived. The Committee drew up a list of twenty questions and sent these together with the drawings to him in October.[3] He carried out his investigation in December and submitted his report in January 1889. He could find no fault in the construction of the works but the two wells were not enough for 2.5 to 3 million gallons a day. The reservoirs on the Common should be covered like the Otterbourne reservoir. He found it difficult to quantify the waste in the town but he thought it might be one gallon per head per day. The quantity required for the town was estimated at 20 gallons per head per day and Mansergh thought this a reasonable quantity. Some towns used only 14 gallons but he thought this was too low. He pointed out with the increased use of baths and W.Cs. consumption should rise to 25 gallons per head per day. The cost of the works at £62,000 was reasonable. He suggested that more water should be obtained by driving more headings.

1. S.Times, H.A., 25.8.1888.
2. H.A., S.Times, 1.9.1888.
3. S.R.O., SC/AH8/74.

If any extensions were planned at Otterbourne they should be at a lower level. On the question of waste he advised that the mains of the town should be renewed.[1] The report was ready for the February meeting of the Council but presssure of other business forced the Council to defer it to their next meeting. The local press gave the main points of the report and the Council gave its unanimous approval in its last meeting in February 1889.[2]

Mansergh's report was seen as a vindication of both the Council and its engineer Matthews and the works at Otterbourne. Yet Mansergh confirmed Matthews' view that there was a problem over waste and a need to renew the town's mains. Matthews had informed the Council in September 1888 that 399,000 gallons a day was wasted because of leaky mains. This measurement of waste was questioned by several Councillors including Lemon. Cleveland supported Matthews and pointed out that Liverpool and Hull used similar waste water meters to check their consumption. Councillor Summerville suggested the town should use the water available in the Test and Itchen. When the question of renewing the mains was discussed in February Matthews showed the benefits of the waste water meters. In 1884 the town had used 3,500,000 gallons daily and by 1888 this had fallen to 2,100,000 gallons. This meant the consumption was 32 gallons per head per day and Matthews hoped it would fall to 20 gallons. New mains were expected to save 391,000 gallons a day. If this were achieved the new headings would be unnecessary. Several Councillors refused to accept the figures for waste. Payne said such a quantity would come to the surface. It was decided to check the results of renewing the mains in one portion of the town, the Chapel area.[3]

While the problem of waste was being tackled in the town the works at Otterbourne continued. In April 1889 Matthews reported the success of the new headings there. The supply had reached 2,150,000 gallons per day and Mansbridge was no longer needed. The Southampton Times declared the water problem solved. The works received further praise in May when they were visited by the Home Counties Municipal and Sanitary Engineers who were holding their annual conference in Southampton. The local press

1. S.R.O.,SC/AH8/74 2. S. Times, 16.2.1889 3. Ibid., 23.2.1889.

reported that the works were visited continually by delegations from distant Corporations.[1] This satisfaction with the water supply did not last long. At a Council meeting in June the water was described as the colour of whitewash and the supply as poor. The explantion given was that the supply had been turned off at night. If the water was allowed to stand it would become clear. Matthews admitted that pumping from Mansbridge had been used for a short time.[2] A fortnight later the Council held another major debate on this question. The high consumption in the town was blamed for the breakdown in the supply and the renewal of pumping from Mansbridge. Consumption in the town was 3 million gallons a day, 2.5 million from Otterbourne and 0.5 million from Mansbridge. Gayton said that a month ago Matthews claimed he had reduced the consumption to 29 gallons per head per day which was only 1,885,000 gallons a day. Matthews explained that consumption was up by 50% in the last week. When asked how much of this was due to waste he replied that it was the wilful act of consumers. Between 7p.m. and 10p.m. there were an immense number of cases of watering gardens by hose and of hose pipes lying in the grass and the water running to waste. Water fell in the reservoirs between 5p.m. and 11p.m. whereas in ordinary times it rose. He assured the Council that the Otterbourne supply was sufficient for the town. Nichols asked whether the weakness lay in the waste water meters or the inspection. Mathews replied that he had recommended that £700 should be spent to check waste but this had not been done. Nichols was not satisfied with these answers. A leader in the Southampton Times expressed a similar dissatisfaction with the supply and a correspondent urged the Council to admit that the Otterbourne supply was not sufficient for the town.[3]

The Special Works Committee visited Otterbourne in July and reported to the Council. Mathews was too unwell to answer questions and was said to be suffering from the effects of overwork. Despite objections Lemon answered questions on behalf of the Committee. He informed the Council that the works were pumping at a rate of 2,685,000 gallons per day and it would soon reach 3,000,000 gallons. Brown claimed that if the pipes necessary to prevent waste were provided Mansbridge

1. S.Times, 11.5.1889. 2. Ibid., 15.6.1889. 3. Ibid., 6.9.1889.

would be unnecessary. The Southampton Times thought that 40 gallons per head per day was excessive when Portsmouth used only 18 gallons. No blame was attached to anyone but all available appliances should be used efficiently and full information given to the public. The Mansbridge supply must be used and waste avoided.[1] Although the editor underestimated the Portsmouth consumption which was 34.5 gallons per head per day he was right to point out that Southampton's was well above average at over 40 gallons.[2]

Another heated discussion on the the supply took place at the Council meeting in late July. Again Matthews was absent and a Councillor complained that he was always ill. The Council had overspent by £981 mainly because Mansbridge had been kept open. The Sheriff complained that they had spent £100,000 and still had not enough water to flush public conveniences. Waste water meters were useless. The Special Works Committee had not told the truth. These comments were refuted by Cleveland who said Councillors refused to face facts. Old mains would not last for forty years and waste water meters had proved successful in over fifty other towns. Gayton accus ed the engineer of holding back information from the Council. Another Councilor claimed that questions were being asked and officials bullied because the November elections were approaching.[3] This seems an unlikely explanation of the Council's activity as the elections were still three months away and the late 1880s was not a period of intense activity in municipal politics.

In August the Council agreed to increase the adits at Otterbourne in depth to 14ft. at a cost of £800.[4] A month later Cleveland tried to reverse this decision. He said the Council should implement Mansergh's sugestion and replace all old mains. The Otterbourne supply would be sufficient if waste were stopped. Gayton claimed that Matthews had miscalculated the amount pumped from Otterbourne but this was refuted by Lankester and Lemon. Lemon went on to urge that the adits be extended as Mansergh had suggested. Nichols complained that the water they had in the last three weeks fairly smelled of the Itchen and it should be

1. S.Times, 13.7.1889. 2.S.R.O. SC/AH10//6 3. S.Times, 27.7.1889.
4. U.S.A. Mins., 14.8.1889.

better softened. Matthews replied that the water had not been softened as the filters were being used for other purposes. Cleveland's proposal was defeated by 14 votes to 9 with 2 abstentions. The Southampton Times supported this decision and added that the works at Otterbourne were on too small a scale. [1]

In February 1890 there were further complaints over the water supply. At a Council meeting Nichols complained about excessive chalk in the supply, which would corrode the boilers. Matthews explained that the chalk debris was caused by the many men employed on the adits at Otterbourne. The filters were unable to cope. He had reduced the number of men employed and the water had improved. The local press supported Nichols and said that if the Council could not be certain of obtaining clear water from Otterbourne it should revert to Mansbridge.[2] Later in the same month the Special Works Committee had to deal with more complaints on the supply being cut off without notice and the poor quality of the water. Matthews explained that the mains had become airlocked and abnormal flushing had been necessary. The supply from Otterbourne was three million gallons a day and the problems had been resolved. Three days later more stoppages occured. The Mansbridge supply had been resorted to in order to remedy the original shortage and the latest stoppages had been caused by the breakdown of a sluice valve at Mansbridge. The sluice valve was repaired and extra air valves fitted into the mains to prevent further airlocks. Matthews was asked to inform the Committee of any future breakdowns in order to enable them to satisfy public enquiries.[3]

When the Council met in late February 1890 Nichols read out several letters complaining of lack of water supply and he criticised the Special Works Committee. The problem could have been avoided by using Mansbridge when the new headings were being driven at Otterbourne. He was tired of amateur engineering. The Committee should discharge their officials if they were not good enough and get new ones. The local press

1. S.Times, 28.9.1889. 2. Ibid., 15.2.1890. 3. Water Mins. 21.2.1890., 25.2.1890

supported Nichols and suggested that the Council should use Mansbridge with improved filtration if there were doubts about the Otterbourne supply. After such large expenditure the inhabitants were entitled to drinkable water and a satisfactory supply.[1] There was no follow up of this criticism in either subsequent Council meetings or the local press. The Special Works Committee visited the reservoirs on the Common and inspected the works at Otterbourne and Mansbridge. In July they discussed selling the disused works at Mansbridge but reached no decision.[2] Work at Otterbourne continued in the autumn of 1890 when the Council applied to the Local Government Board for permission to borrow a further £6,000 to complete the works.[3]

In its review of the year for 1890 the Southampton Times said that the town's expectations of a continuous and ample supply from Otterbourne had been fully realized.[4] This was a marked contrast to its view earlier in the year when it had suggested a return to Mansbridge. Nor were the problems of water supply over. In January 1891 the supply failed yet again. The dryness of the headings at Otterbourne and the great waste caused by burst pipes were blamed. The Special Works Committee considered using Mansbridge but decided unanimously to stop off the water supply from 10p.m. to 5a.m. A man was put on duty at Portswood police station to turn on the valve in case of fire. Despite these problems the Committee agreed to Matthews' request for an increase in salary. His salary was raised to £350 per annum with a further increase of £20 in each of the next three years. The Council approved this by 17 votes to 5.[5] Nor did the problems of supply prevent the Committee from advising the Council not to borrow more money as they did not see the necessity for more works at Otterbourne.[6]

Although the Special Works Committee had decided not to use Mansbridge during the shortages of the winter of 1891 they were reluctant to give it up altogether. When Eastleigh produced a drainage scheme for their district which included an outfall above the Mansbridge

1. S.Times, 1.3.1890. 2. Water Mins., 8.7.1890.
3. S.Times, 25.10.1890. 4. Ibid. 27.12.1890.
5. Council Mins. 25.3.1891. 6. Water Mins., 12.3.1892.

works the Committee insisted that the outfall should be resited below the works to prevent any pollution at the works. Eastleigh replied that the plan had been drawn up with the advice of Mansergh who said that treatment would render the effluent water entirely innocuous. This did not satisfy the Committee and they urged Eastleigh to reconsider their plans because they feared that "..discharge of effluent above Mansbridge will prove very disast rous to the best interests of the town, should circumstances arise to cause a resumption of water supply from Mansbridge."[1] So strongly did the town oppose the Eastleigh scheme that the Town Clerk wrote to the Local Government Board expressing the town's opposition. The issue was settled when the two local authorities agreed to an outlet at a point approved by Matthews.[2]

The annual report of the waterworks engineer for 1891 showed the great progress the town had made. The annual output of Otterbourne was given as 830.5 milion gallons, a daily supply of 2,275,342 gallons although this figure was not quoted. The daily consumption per head had fallen from 57.5 gallons in 1884 to 35.5 in 1887. The figure for 1891 was 34.8 gallons but this was not given by Matthews. Little had been done in 1891 about replacing the old water mains and Matthews warned that some areas could give serious trouble. The net cost of the supply for the year was £4,339..1..11d (£4,339.10p). When the Council debated the report Bone claimed that consumption was down to about 30 gallons per head per day because of waste prevention. The cost of water in Southampton was 1.5d(0.6p) per 1000 gallons which elsewhere cost 2d(0.75p). Matthews was congratulated on his report by the Council and the local press which said all the difficulties at Otterbourne had been overcome.[3]

In the summer of 1892 water consumption was very high and the Special Works Committee restarted pumping at Mansbridge but this water was used only for sanitary purposes. In September Matthews informed the Committee that £734 was needed for additional headings at the Otterbourne works. The Committee retained Whittaker to advise on the site of adits and shafts. By January 1893 Matthews was able to report

1. Water Mins., 10.5.1892. 2. Ibid., 14.6.1892
3. 1892 Report of the Waterworks Engineer, S.Times, 2.4.1892

good results from the headings. The supply had increased by 300,000 gallons a day. The necessity for these was shown in the waterworks engineer's report for 1892. The very dry summer had led to a high demand which had almost exhausted the town's supply. Mansbridge had been used and despite efforts to keep the supplies separate some admixture had taken place. In August the drought had been so acute the Mansbridge supply had been used for the domestic suply for two days. The Committee was aware that this was possitively dangerous to health. The new headings which had increased the supply by half a million gallons a day had made the town secure for the present.

In the remainder of the 1892 report Matthews outlined the problems yet to be tackled if the water supply was to made secure. Only two engines were available for pumping at Otterbourne and Matthews warned that if one was to break down then the Mansbridge supply would have to be used. It was essential for the health of the town that another engine was provided. The failure of the well on the Common to provide a sanitary supply of 340,000 gallons a day during the summer showed that a new source was needed. According to Matthews the cheapest way was to increase the supply from Otterbourne. The additional headings would cost £500 and the extra softening a further £800. Again the necessity of renewing the town mains was stressed. Many were over forty years old and repairs and maintainance were costly. The Local Government Board regarded thirty years as the average life of mains. Matthews suggested that the town should renew three miles of main each year for the next six years. An estimated cost for all these improvements was given. The new engine and pumping house at Otterbourne would cost £10,000, the extra headings £1,300 and the renewed mains £750 a mile. These measures would place the town supply on a thoroughly satisfactory basis. He concluded his report by warning that demand would increase as shipping at the docks grew. The supply for trade had increased by 120,000 gallons a day s ince 1888 and a similar increase was expected in the next two years.[1]

The report came at a time when the Council was facing several demands for heavy expenditure and fears of another cholera epidemic. At

1. 1893 Report of the Waterworks Engineer.

the Council meeting in June which discussed the report, Alderman Bone said that if the town had to spend £10,000 for a hospital for epidemics then it was essential to spend for a copious supply of pure water to prevent epidemics. Increased trade would lead to increased consumption and with Mansbridge abandoned an extra engine was needed. They should have spent more on the works at the beginning. Alderman Lankester and Le Feuvre supported the report. The mayor said that he had always thought two engines were not enough at Otterbourne. The report met with some opposition from Alderman White and Councillor Bee who pointed out that steamers did not carry extra engines. The new engine and the additional headings were agreed without further opposition. On the question of renewing the mains, however, the Council adopted a more cautious approach. Matthews said between £200 and £250 had been spent on repairs recently. Some mains had been patched till they could be patched no longer. The mayor said the entire cost of the water supply was covered by a rate of 1/0.5d(5.2p) and a comparison with the South Hampshire Company showed how much cheaper was Southampton's water. It was agreed to renew the mains where necessary but not to exceed three miles per year. Despite the advice given in Matthews report the Council refused to abandon the Mansbridge works.[1] The Advertiser approved the Council's decisions with the comment "No one will grudge a reasonable and proper expenditure for placing our water supply - like Caesar's wife - above suspicion."[2]

In October the Council agreed to borrow £20,000 for the new works on the water supply. Only £11,000 was needed but the Council decided to ask for £20,000 as suggested by the Local Government Board in order to have a reserve for future needs.[3] The Southampton Times approved this bold course.[4] In January 1894 Colonel W.M.Ducat an inspector of the Local Government Board held a public inquiry in Southampton on the borrowing of the £20,000. The acting Town Clerk put the case for the loan. He pointed out that many people in the suburbs of Southampton worked in the town so that its population by day rose by 8 to 10,000 to

1. S.Times, 17.6.1893. 2. H.A., 17.6.1893. 3. Council Mins., 25.10. 1893. 4. S.Times, 28.10.1893.

more than 65,000. In the summers of 1892 and 1893 both pumps at Otterbourne had worked continuously leaving nothing to fall back on in case of accident or a rise in population. Matthews said the average daily consumption in 1893 was 2,941,000 gallons a rise of 489,000 gallons on 1892. The total cost was 1.5d per 1000 gallons. During July and August the daily consumption rose to 3,427,000 gallons. The rateable value of the town was given as £253,736 and its debt under Local and Public Health Acts as £253,981. The inspector visited Otterbourne to inspect the works and the proposed additions. [1]

In February there were complaints over the water supply at the Council meeting. The failure of the supply was caused by burst pipes due to frosts. The resulting waste let air into the pipes. Further problems arose in May over the softening process at Otterbourne and the plant was described as inadequate by the local press.[2] At the same time one of the pumps at Otterbourne broke down.[3] Meanwhile Mansbridge was finally closed in April 1894. It had not been used since August 1892.[4] When Matthews published his report for 1894 he showed the progress made in fulfilling the promise of Otterbourne, which supplied 13,635 houses. Despite the breakdown of the pump in May and an earlier failure in March there had been no suspension of supply because of the good stock in the reservoirs. It had been a wet year and this together with a more stringent inspection of fittings and a better class of appliances used had ensured no shortage in the supply. The yield from Otterbourne had reached four million gallons per day. 703,285,000 gallons were used for domestic purposes giving a consumption per head of 28 gallons per day. Over 50,000 house visits were carried out by the waste water inspectors. Southampton had at last an ample and continuous pure water supply.[5]

Matthews favourable comments on the water supply were supported by other experts. The M.O.H. Harris in his 1892 annual report contrasted the purity of the Otterbourne supply with the dangerous and suspicious water formerly obtained from the river Itchen at Mansbridge. Two years later he said Otterbourne was supplying three million gallons per day to

1. S.Times, 6.1.1894. 2. Ibid. 17.2.1894, 26.5.1894.
3. Water Mins. 22.5.1894. 4. Ibid. 13.2.1894, 10.4.1894.
5. 1895 Report of the Waterwork Engineer

give 38 gallons per head daily for domestic and trade purposes.[1] Thesanitary services of the town came under close scrutiny when a local inquiry was held in January 1895 to consider the extension of the borough boundaries.The inspector heading the inquiry was Major General C.Phipps Carey,R.E. described by Lemon as one of the Local Government Board's ablest representatives. The borough water rate of 10d(4p) was compared favourably with the 2/-(10p) paid by those districts supplied by the South Hampshire Water Company. Dr. Mason the Medical Officer of Health for Hull examined all the town's sanitary arrangements and reported that they were above the usual standard of sanitary administration.[2]

The credit for Southampton's achievements particularly its water supply appears to belong to a few prominent Councillors. The local press paid attention to the water question only at times of crisis. Although these were frequent once the immediate problem had been solved the issue was forgotten. All the local press gave good coverage to the Council debates but only the Southampton Times gave frequent leader comment and letters on the water question were comparatively rare. The Times was a keen supporter of a pure water supply, but it was not consistent in its views as to how this should be obtained. As with the general public for the Times quantity came before quality . The paper had condemned the Mansbridge supply as polluted in 1883 and supported the early moves for a new supply from Otterbourne in 1884. When Otterbourne failed to live up to expectations by 1889 the Council was advised to use Mansbridge, yet in December 1890 the editor declared that Otterbourne had fulfilled all the town's hopes.

The water supply was not a party issue. The decision to go to Otterbourne was taken by a Conservative Council but the key figures in urging the Council to go to Otterbourne were the Liberals Lemon and Nichols. Yet other Liberals, Chipperfield and Payne, had their doubts about Otterbourne and Falvey's attitude to the closing of the two contaminated town pumps in 1886 reflected little concern for a pure water supply. There was little evidence of pressure from the Local

1.1895 Report of the Waterworks Engineer. 2. A.R.M.O.H. 1892,1894.
3. Lemon, op. cit. II p 90-100.

Government Board to make the Council seek a new supply. The Board's influence appears to have been only as a check on spending. It gave advice and approved plans but does not seem to have influenced any major decisions. On some occasions it was reluctant to give advice. When asked by Southampton about the supply necessary for the town and ways of tackling the problem of waste the Board advised the town to contact other towns which had faced and solved similar problems. The plans for Otterbourne were prepared by the 28 year old newly appointed Matthews and were far from perfect. When the Council decided to have the works inspected it was not to the Local Government Board but to Mansergh that the Council turned, just as they had earlier sought advice from Whittaker, neither of whom was employed by the Board. Again, perhaps learning from their earlier failure, the Council employed Whittaker as an adviser when expansions were planned at Otterbourne in 1892.

When the Local Government Board failed to provide the guidance the Council needed they turned elsewhere. Unfortunately the expert advice they received was often conflicting. Angel's analysis of the town's water in 1876 was contradicted by Brierley in 1880. Dr. de Chaumont's view on the value of filtration at Mansbridge conflicted with those of Lemon and the Royal Commission on Rivers. The Local Government Board inspector Harrisson recommended boring at Mansbridge where Ranger had failed to find water but Whittaker chose Otterbourne. The British Association experts recommended using the artesian well on the Common and this proved a disaster. Not suprisingly practical men like Falvey showed scant respect for expert advice. These conflicts of opinion can be partly explained by the novelty and complexity of the works being undertaken. The engineering works had to be approved by non experts who were eager to keep the costs as low as possible and complete the works quickly. Consequently Otterbourne was adopted too hastily and built on too small a scale. The increased use of water once it was easily available was not anticipated by the authorities in 1884. Matthews was not incompetent. He went on to become a highly respected figure in engineering, being elected president of the sanitary engineers when they

held their national conference in Southampton in 1899.[1] Given the lack of central guidance, the absence of consistent expert advice and the innovative nature of the work the Council was undertaking, the Council deserve credit for the perseverance they showed in tackling the problem without much press or public support and achieving a satisfactory solution. Portsmouth Council faced with similar problems left the task to the Portsmouth Water Works Company. The Company's report for 1889 showed that it was providing 34.5 galons per head per day for population estimated at 153,000. The balance sheet showed the cost of the works, land, engines and mains to be £390,303.[2] Although the Portsmouth Company were providing a daily supply of 5,278,5000 gallons, almost double the Otterbourne supply in 1889, the total cost of the Southampton supply from Otterbourne was only £66,000 at this time.[3] As the works at Otterbourne were extended to meet the growing demands of the town and trade so the costs increased in the 1890s yet in comparison with its neighbour Southampton could claim to have solved its water supply problem efficiently and cheaply.

1. Report of the Sanitary Institute Autumn Congress 1899, (Southampton 1899) 2. S.R.O. SC/AH10/6. 3. S.R.O. SC/AH4/4/11.

CHAPTER IV

THE MEDICAL OFFICERS OF HEALTH

The idea of a Medical Officer of Health was first put foward by Edwin Chadwick in his Sanitary Report of 1842 and it was mentioned again in his recommendations on internment in 1843. The Royal Commission on the Sanitary State of Large Towns in 1844 also urged the appointment of a M.O.H. The first local authority to appoint Medical Officers was Leicester. In October 1846 Drs. Barclay and Buck were appointed each with a salary of £21 per annum.[1] Local Acts in Liverpool and the City of London followed which led to the appointments of Duncan and Simon in 1847 and 1848. Yet in the 1848 Public Health Act the importance of the M.O.H. was given little prominence. The local authorities were given permission to appoint a Medical Officer subject to Crown approval. The Act said the M.O. had to be "a legally qualified medical practioner or member of the medical profesion" and the appointment and removal of the M.O.H. by the local board had to be approved by the General Board of Health in London.

At this time the medical profession consisted of three groups. The physicians formed the senior branch. They held a medical degree and were members of one of the national Colleges of Physicians. The title Dr. was used only for those who had degrees in medicine. At a much humbler level came the surgeons. This term was also used for military and naval doctors who were often better qualified than the average civilian medical man. The most numerous section of the profession was the apothecaries who were drawn from a lower social class.[2] This rigid tripartite structure of the profession had begun to change by the 1840s in response to changes in society caused by the Industrial Revolution. The growth of a sizeable middle class led to an increased demand for medical care. The new middle class could not afford physicians and so used other medical men. These men charged low fees and treated all

1. M.Elliot, The Leicester Board of Health 1849-1872, (M.Phil.Thesis Nottingham 1971.) p26
2. S.Holloway, "Medical Education 1830 - 1858", History Oct.1964 p299.

medical and surgical cases. By 1848 it was estimated that there were over 14,000 general practitioners in England and Wales, more than half of them with double qualifications. The divisions in the professions, which had been so clear in the early part of the century, vanished with the 1858 Medical Registration Act when all registered qualified practioners were accorded the same status.[1]

When local boards were established under the terms of the 1848 Act many towns decided not to appoint a Medical Officer of Health. It was felt that an inspector of nuisances was all that was needed. Even in 1866 the majority of local boards did not employ a M.O.H. and of those eighteen towns with permanent appointments only five were full time. Liverpool had led the way with the appointment of Duncan in 1847 but this example was not followed outside London until the 1860s when Edinburgh in 1863, Birkenhead in 1864 and Leeds and Southampton in 1866 made permanent fulltime appointments.[2]

The special committee which the Southampton Council had set up to report on the operation of the Act did not follow the popular trend in 1850. When the committee reported to the Council, it declared that an officer of health was "absolutely necessary" and was one of the strongest arguments put foward by those who petitioned for the introduction of the Act. Although the report was approved unanimously by the Council the appointment of the M.O.H. was questioned. An amendment to dispense with an officer of health was defeated by 18 votes to 10 with the supporters of the amendment being made up almost equally of Conservatives and Liberals.[3] It may well have been the double shock of the cholera in 1849 and the Ranger Report in 1850 which convinced the Council leaders of the necessity to take every possible action to improve the sanitary state of the town.

The 1850 municipal elections resulted in a strongly Liberal

1. I.Waddington, "General Practitioners and Consultants in Nineteenth Century England.", J.Woodward & D.Richards, (Eds.) Health Care and Popular Medicine in Nineteenth Century England (1977), p167-82.
2. A.P. Stewart & E. Jenkins The Medical and Legal Aspects of Reform (1866, M.Flinn, ed.,Leicester1969), Appendix B. 3. Council Mins. 10.10.1850; H.A., 12.10.1850.

Council and the re-election of R.Andrews as mayor. At the first meeting of the new Council in November the Sanitary Committee gave its report on the operation of the 1848 Act. It stated that the duties of the Local Board could not be properly carried into effect unless the officer of health was appointed. The report was adopted by 20 votes to 2. Dusautoy (Liberal), a Poor Law Medical Officer, and Laishley (Liberal),the mayor during the 1849 cholera epidemic, proposed the former Liberal Councillor Francis Cooper for the post and recommended that he be allowed private practice. Only the Conservative Hunt and the Liberal Tucker opposed the appointment. Stebbing, the leading Conservative speaker on the Council, strongly supported Cooper's appointment and said the Act without an officer of health was like "Hamlet" without Hamlet. Palk (Liberal), a chemist and deputy chairman of the Sanitary Committee, expressed his high approval of Cooper and his conviction that the appointment would increase the comfort and health of the poor.[1]

Francis Cooper was born in Fareham, Hampshire in 1806 and gained his medical qualifications in Edinburgh in 1827 as a L.R.C.S. In the 1830s he was in practice as a surgeon in Southampton where he became a prominent figure in radical politics. He played a great part in the campaign for parliamentary reform in 1832 and was an advocate of universal male suffrage.[2] When he stood successfully for the Council in 1842 he was referred to as a Chartist and his title "Doctor" ridiculed by the Tory Hampshire Advertiser.[3] He declined to stand again in 1845 but returned to active politics in 1849. When he spoke at a meeting of the National Parliamentary and Financial Reform Association he said he was happy to see middle and working class on one platform. It was the system of class and class legislation and individuals against which he and his friends waged war.[4] He was elected to the Council in November 1849 for the St.Mary's ward and he resigned a year later to become Medical Officer of Health. He had already written to the General Board of Health about the post and been informed that he would have to

1. Council Mins. 9.11.1850; H.A. 16.11.1850; H.I.16.11.1850.
2. P.Morris, Southampton in the Early Dock and Railway Age 1830-1860, (M.A.Thesis Southampton 1957), p26.
3. H.A.22.10.1842. 4. H.I.27.10.1849. 5. H.A. 16.6.1849.

resign if he was to hold office under the Council.

During the cholera epidemic of 1849 the Board of Guardians increased the number of Poor Law Medical Officers from two to four. Cooper was one of the new appointees at £62..10..0d (£62.50p) per annum plus fees for vaccinations.[5] When Ranger held his inquiry in 1850 Cooper was the only one of the P.L.M.Os. who volunteered his services and was thanked for his help by Ranger in his closing speech.[1] Despite Ranger's praise, relations between Cooper and the Board of Guardians were soon strained. In January 1850 he wrote to the Board asking for an increase in salary. The Board conceded the justice of his claim but deferred consideration of the claim until after Easter. Cooper wrote again and this led to a lengthy discussion of the role of the P.L.M.O. The Board considered that they gave too many orders for relief without referring to the relieving officer. A resolution was passed that no relief order was to be given by a Medical Officer or Guardian until the applicant was seen by a relieving officer. When the question of salaries was considered it was said that Cooper was the mouth piece of the group if he were given a rise they would all want one. Consequently Cooper's request was rejected.[2] In April 1850 Cooper complained about the treatment his orders for relief had received and asked if he had the power to order relief. He claimed that one of the relieving officers had told him he cared no more for doctors' orders than a pinch of snuff. He could never accept as a medical man to stand second to a relieving officer. The Master of the Workhouse stated that orders had to come from a relieving officer.[3]

In January 1851 Cooper came into conflict with the Guardians over the Dinah Embury case. Dinah Embury had died in a state of destitution after being refused assistance by the Guardians despite a request from Cooper. She had been on a monthly assistance of 2/-(10p) and a loaf of bread a week but this had been stopped because the Guardians wanted her in the workhouse. Cooper appealed to the Board personally and gave a relief order but this was ignored. The verdict in the case was that death was by natural causes but the Guardians should have attended to

1. H.A., 19.1.1850.
2. Ibid., 2.2.1850; 9.2.1850; 23.3.1850.
3. Ibid., 13.4.1850.
4. H.A., 4.1.1851; 18.1.1851; H.I. 18.1.1851.

the requests of the Medical Officer and life might have been prolonged. The Advertiser commented on the national coverage the case had received and the criticism of the Guardians. The editor claimed this was unfair and that the affair was a "tale of a tub" loosely hooped together by a "self conceited blustering and bungling cooper." The Independent supported the Guardians and criticised Cooper.[1] A few weeks later Cooper attended a meeting of the Guardians about an order for admission to the workhouse, which had been ignored. He was suspended by the Board because his manner in addressing the Chairman was dictatorial and unbecoming of an officer of the court. Cooper resigned a few days later. He attempted to bring a case against the Chairman of the Board for defamation of character but this was dismissed by the magistrates who saw it as an attempt to advertise himself.[1]

Cooper's relations with the Local Board appear to have been much less stormy than his brief career as a P.L.M.O. would have suggested. Although there were some differences he survived to become the longest serving M.O.H. in the country at the time of his death in 1865.[2] At the time of his appointment his medical qualification L.R.C.S. was not recognised as a full legal qualification. The Local Board raised this problem with the General Board, who replied that they would sanction the appointment of any regularly educated member of the medical profession. The General Board under Chadwick kept a close check on all the early apointments. Of the 39 M.O.H. appointed between 1848 and 1855 and listed by Fraser Brockington Cooper appears to be the least well qualified. The great majority held the Licence of the Society of Apothocaries as well as a medical qualifiction and the remainder either a M.D. or a F.R.C.S. Although Brockington stresses the General Board's efforts to ensure no one of inferior quality was appointed only eleven of the 39 were Doctors of Medicine the most highly regarded branch of the profession.[3] A. Wohl claims that a successful doctor with experience could earn between £500 and £1000 per annum. The low salary offered by the local boards made it highly unlikely that the best qualified practitioners would apply and ensured that those medical men who

1. H.A. 1.2.1851. 2. Stewart and Jenkins, op. cit. p36.
3 .C.F.Brockington, The Medical Officer of Health 1848-1854, (1954), p20.

became officers of health would want to retain their private practice.[1] In this the M.O.H. resembles the P.L.M.O. Yet there was no shortage of applicants for the Southampton post whenever it fell vacant.

Cooper's appointment as M.O.H. in November 1850 was expected. He was the only person nominated and the Conservatives had already begun campaigning for his seat in the St. Mary's ward.[2] In February 1851 the General Board sent out a statement on the duties of the M.O.H. The broad definition of his duties was "the detection, the promulgation and as far as practicable the removal and prevention of the common localising causes of disease and more especially of those causes on the existence and extent of which experience has shown that the outbreak and intensity of epidemic diseases of every class mainly depend." This broad definition was followed by a list of thirty specific duties including the inspection of schools.[3] Although the Sanitary Committee did discuss the duties of the M.O.H. in its March meeting when the Local Board next met in April the General Board's statement was not discussed.[4] However the topic was taken up by the local press which agreed with the General Board that the M.O.H. should be full time and added "..if he faithfully and fu lly carries out his duties it will be a matter of some considerable suprise that he should find time to execute them."[5] Yet at the next meeting of the Local Board in May Hunt said he hoped that the post was an annual appointment and that they would soon be rid of him.[6]

The General Board had suggested that one of the first tasks of the M.O.H. should be to prepare a report on the sanitary needs of the town The Sanitary Committee had asked Cooper to prepare such a report in January and he presented it to the Committee in March 1851.[6] The rapidity with which Cooper completed his report may be explained by the fact that Cooper had already written articles describing the living conditions of the poor in Southampton. In the debates on the 1848 Bill Lord Ashley quoted Cooper's description of visiting the poor "..more than once compelled to stand in the street... not being able to breath

1. H.I., 9.11.1850. 2. C.F.Brockington, op. cit., p39-45.
3. Sanitary Mins., 25.3.1850; L.B.Mins., 14.4.1850. 4. H.A. 29.3.1850.
5. L.B.Mins., 3.5.1851. 6. Sanitary Mins., 2.1.1851;25.3.1851.

the air of the apartment." [1] This same description appears in Cooper's 1851 Report [2] Although the Local Board ordered the Report to be printed it provoked little discussion in committee or Board meetings or the local press. This may well have been because the Report contained little that had not been revealed in the Ranger Inquiry and Report a year earlier.

Cooper's Report is in many ways similar to the M.O.H. for Darlington, S.E.Piper's, report for 1851.[3] Both stress the need for better ventilation in slum areas, the dangers of overcrowding and the value of a pure and abundant water supply. Cooper made a greater effort to show the financial savings resulting from sanitary improvements, claiming that the application of the 1848 Act could save the town almost £1000 by reducing the sickness costs paid by the Union. He attempted to prove this point by comparing the mortality rates in the various districts of the town. The figures he quoted were 17.3 per 1000 for All Saints and 25.4 per 1000 for St. Mary's. He pointed out that Liverpool had reduced her mortality rate by 6 per 1000 since the introduction of its Act.[4] Liverpool's death rate 1839-1844 was 35 per 1000 but in 1847 a year of epidemics it rose to 46 per 1000.[5]

The General Board had established its right to sanction the appointment and removal of Medical Officers of Health and attempted to produce a comprehensive list of their duties. Yet it had failed to make the appointments either compulsory or fulltime. After Chadwick left the Board, little attempt was made to persuade local boards to reappoint when the term of office expired or vaccancies occurred. The General Board even approved the Dudley Local Board's decision to dismiss their M.O.H. as "..a totally useless and uncalled for expense upon the district." Many of the early appointments were temporary to

1. Parliamentary Debates 1848 (100) p783. 2. F.Cooper The Sanitary Condition of Southampton (Southampton 1851).3. Piper's report is reprinted as the earliest available copy of an annual report of a M.O.H. in C.F.Brockington, op.cit,. p30-38. 4. F.Cooper, op.cit. p58. 5. B.D.White, A History of the Corpoation of Liverpool,1835-1914, (Liverpool,1951) p31.

meet the cholera scare of 1853. [1] In 1866 when Stewart and Jenkins carried out their survey of Medical Officers of Health they could list only 18 towns as having permanent appointments. Not suprisingly the General Board's advice on salaries carried little weight and little guidance was given. An annual salary of £75 was suggested by the General Board for Cooper and this would have made him one of the best paid medical officers in the country. Yet when the Southampton Local Board met to discuss the salaries of its officials it made several changes to the suggestions of the General Board. In every case the salaries were increased. Only in the case of the M.O.H. did this provoke a lengthy discussion. Laishley insisted that the Act was impossible without the M.O.H. and after listing his duties said he could not think of offering him less than £150. The salary did not exceed 1/4d in the £1 rate yet he would save 3d(1.25p) in £1. Palk, Dusautoy and the Town Clerk all supported the increase. The new salary was approved by 9 votes to 3 with 2 abstentions.[2]

Once Cooper's appointment had been confirmed by the General Board no further reference was made to re appointment and at no stage did the Local Board consider dispensing with his services. Although the M.O.H. had to produce an annual report and quarterly reports, very few of these early reports have survived anywhere in the country. In Southampton's case apart from Cooper's initial report which was printed there is only one reference, in December 1851, to an annual report and the local press makes no mention of any reports by Cooper.[3] In the early 1850s Cooper's name rarely appears in the minutes of the Local Board but he is mentioned frequently in the Sanitary Committee minutes as reporting on or inspecting nuisances. Several of his reports on nuisances have survived in manuscript form.[4] Enright,the Superintendant of Police,had been appointed as Inspector of Nuisances in 1850 but it is clear that he found it difficult to carry out his duties. In September 1853 Cooper wrote to the Local Board asking for the extra time of an efficient Inspector of Nuisances "..as Mr.Enright cannot attend except in the afternoon and

1. C.F.Brockington, op.cit., p14. 2. H.A., 26.7.1851.
3 . L.B.H.Mins. 22.12.1851. 4. S.R.O., SC/AH8/19.

intermittently but then."[1] The Board took no action over this request. The bulk of the nuisances mentioned in Cooper's reports and the minutes were of overflowing privies and collections of refuse. In 1856 Cooper published a pamphlet describing his work as an Officer of Health. In the first four years of his office he claimed he had inspected 2,139 nuisances. Each had to be seen three times a week at least. The forty seven slaughter houses and nineteen lodging houses had to be inspected weekly. This gave Cooper a total of 5,442 visits a year which on a salary of £150 worked out at less than 7d(3p) a visit. He argued that an increase in salary was needed if private practice was to be avoided.[2]

Although nuisances took up a great deal of Cooper's time he was called upon frequently to provide expert advice on all sanitary problems. In January 1853 he prepared a report on Yellow Fever.[3] Later in the same year he was a member of a deputation sent to Leicester to study the process used there to convert sewerage into manure.[4] The cholera scare of 1853 led to a flurry of sanitary activity. A long list of nuisances reported by Cooper was dealt with by the Sanitary Committee and several new bye laws, including regulations for Common Lodging Houses, were prepared. The M.O.H. was expected to play a key role in enforcing these new bye laws.[5] Yet when Cooper applied for an increase in salary the Local Board referred it to the Sanitary Committee who sent out enquiries to twenty towns on their pay scales. In April 1854 the Committee recomended that Cooper be given the additional post of Inspector of Common Lodging Houses at a salary to be determined. No further reference was made to the matter and Cooper's salary remained at £150 p.a.[6]

Probably Cooper's most famous report was on Netley Hospital. In June 1857, during a debate in the House of Commons on the Hospital, attacks were made on the health of Southampton where it was alleged that ague was common. The Sanitary Committee asked Cooper to prepare a report to refute these allegations. This report was sent to Palmerston and a deputation from Southampton including Cooper offered to give

1. S.R.O., SC/AH8/19 2. H.I., 19.1.1856. 3. L.B.H.Mins., 14.1.1853.
4. Ibid., 28.4.1853. 5. Ibid., 20.9.1853. 6. Sanitary Mins., 26.4.1854.

evidence before a Parliamentary Commission. Cooper's report showed that the death rate for Southampton had declined from 26.1 per 1000 in 1851 to 20.5 per 1000 in 1857 giving an average of 22.9 for the past seven years. A memorial refuting the criticism of the Netley site was signed by thirty three of Southampton's medical men and a copy was printed in the Times. These efforts to defend the site were needed as the town's M.Ps. did not intervene in the debate as they had never been to Netley.[1]

Despite these examples of the M.O.H. expertise it was the removal of nuisances which many regarded as the chief function of the Local Board. Yet nuisances were never satisfactorily defined in law. Chadwick had defined them as "..anything by which the health or personal safety or the conveniences of the subject might be endangered or affected injuriously." The Nuisance Removal Acts of 1855,1860 and 1863 extended the power of local authorities to include overcrowding of houses and the seizure of diseased food.[2] When the Public Health Act was adopted it was thought that nuisances would be reported by the police or by neighbours but it was soon clear that this system was not efficient. In the debate on the Officer of Health in 1851 Tucker complained that Enright with 28 auxillaries could see all the nuisances yet there were heaps of oyster shells everywhere. The mayor and Lankester supported this and suggested that the salary of the police should be cut by half until the nuisances were cleared.[3] In September 1855 the local press complained of "..vile heaps of offensive matter in sundry sly corners of the town and pigsties in unlikely places" and demanded to know what the M.O.H. was doing.[4]

It was thought that once the M.O.H. had confirmed a nuisance existed a verbal warning would be sufficient to see that it was removed. If this failed a written notice was given and if this failed a summons was issued. Cooper appeared before the magistrates to give evidence in several nuisance cases. In August 1857 W.Burridge was summoned for depositing rubbish. Cooper said that despite repeated warnings nothing had been done. He did not want a penalty but simply the abatement of the

1.L.B.H.Mins. 23.6.1857; H.I., 13.6.1857,4.7.1857. 2. Stewart & Jenkins,op.cit.,p10. 2. H.A., 26.7.1851. 3. Ibid., 22.9.1855.

nuisance. Burridge agreed to do so and was discharged. In another case of a W.C., which discharged into adjoining premises, Cooper was accused of being like Nelson able to see what he wished in some persons, but blind to the offences of others. Another charge of personal spite was made against Cooper by the town's scavenger, J.Croft, when he was summonsed for the fourth time in 1859, for keeping offensive matter at his wharf. [1]

Individual nuisances were time consuming but complaints usually brought results. It was much more difficult to take action against an industrial nuisance. If the defendant could prove that the nuisance was necessary for his business it was difficult to persuade the magistrates to act. In 1857 the Local Board was presented with a memorial about a nuisance caused by tallow melting. A medical certificate signed by Drs.Wiblin and Parday confirmed the nuisance. This fact obliged the Local Board to take action. A Councillor objected that this was nonsense as the premises had been used for tallow melting for fifty years. Cooper reported that the works were very defectively constructed and should be domed over to prevent the escape of effluvia. The works were unfit to be in the midst of dense population.[2]

Tibbs the propriator of the works was summoned before the magistrates. Cooper gave evidence that the nuisance had been partly abated. The Bench thought there had been a great delay in remedying the nuisance and with a view of speeding things up fined Tibbs £5, the highest penalty the law allowed. Tibbs appealed against the decision. It was decided to let the case stand adjourned while Tibbs used the best practicable means for carrying on his manufactory. If the Local Board was not satisfied with the alterations the case was to come up again. The local press criticised this decision and demanded that the nuisance should be abated.[3] In January 1858 following unfavourable reports from Cooper and Poole, the borough surveyor, the Board decided to go ahead with the case but Tibbs asked for another adjounment as he was still

1. H.I., 8.8.1857, 26.9.1857, 18.6.1859, 26.11.1859.
2. L.B.Mins., 15.8.1857; H.A., 22.8.1857.
3. L.B.Mins., 9.11.1857; H.A., 24.10.1857

trying to improve his works. A month later Cooper reported that great improvements had been made but suggested more and his advice was passed on to Tibbs. The appeal had cost the town £104..17..0d(£104.85p) less Tibbs' £5 fine. Palk said the improvements would prevent the nuisance but others thought the town had paid a great deal for nothing. The Town Clerk said there was no hope of Tibbs paying the town's expenses as his was an old established business.[1]

In October 1863 Cooper reported to the Local Board that the increasing size of the town required an Inspector of Nuisances to be placed entirely under his direction and he asked the Local Board to appoint a suitable person.[2] For some years Cooper had employed Thomas Powell as an assistant inspector of nuisances and paid his salary himself.[3] Cooper's suggestion was referred to the Sanitary Committee. Unfortunately the Committee held only two meetings, both concerned with defective drainage, over the next fifteen months and the question of an inspector appears to have been forgotten. Cooper revived the issue in afurther letter to the Board in February 1865 and they referred it to the Special and General Works Committeee. In April the Local Board decided to appoint an Inspector of Works at 24/-(£1.20p) per week under the M.O.H. who was to advise on his duties and the following month Walter Haines was given the post.[4] The appointment met with much criticism. The deputy chairman of the Sanitary Committee had supported Cooper's suggestion in view of the high death rate due to atmospheric causes. Mackay objected to the idea of an assistant for Cooper and said if he could not do the job because of his private patients then the town should find some one who could devote his whole time to it. However several key figures in the Council including Alderman Perkins, Le Feuvre and Sheriff Emanuel praised Cooper's work and supported the idea. When it was approved in April Alderman Palk claimed Cooper made 7,000 visits a year and so needed an assistant.[5]

Towards the end of his life Cooper wrote to Sir George Grey at the General Board of Health outlining the problems faced by a Medical

1. L.B.Mins., 6.1.1858, 15.2.1858; H.I.,20.2.1858. 2. L.B.Mins., 14.10.1863. 3. H.I.,11.2.1860. 4.L.B.Mins., 5.4.1865, 22.5.1865. 5. S.Times, 25.2.1865, 8.4.1865.

Officer of Health and suggesting a solution. Cooper found his public duties clashed with his private interests and as the emoluments of office were small compared with private practice it was a matter of constant self sacrifice to carry out the law. Sometimes the local authorities refused to carry out his requests. As a local health officer he could not compel them but as a district officer paid by the government he could. He gave examples of how his public duties damaged his private practice. A patient whom he summonsed in a nuisance case never called him again. Owners of small properties were hostile to official inspections and created a local prejudice against him. The only solution was for the M.O.H. to be independent of all local interests and politics and paid by the government. He suggested that the most economical way of doing this would be to group several towns under one M.O.H. He pointed out that inspections of factories, mines and schools were conducted under this principle and concluded that it was "..the only one which can be successful."[1] Cooper was not the only M.O.H. to have difficulty with his local authority. Sir Arthur Newsholme faced similar problems in Brighton in the 1890s.[2] Glasgow's first M.O.H. Dr.W.T.Gardner was forced out of office because of friction with city officials.[3]

When Cooper died in October 1865 all the local press carried lengthy accounts of his career. Even the Tory Advertiser referred to "a universal feeling of sorrow pervading the community" and described him as a zealous public servant.[4] The British Medical Journal included two articles on Cooper. The obituary notice outlined his career and claimed he had exhausted himself in his duties during the 1865 cholera epidemic. The second article was taken from the Pall Mall Gazette. It described Cooper's work as M.O.H. carrying out ten visits a day during his fifteen years and working "double tides" during the cholera crisis. "He fell fighting as much as any soldier who ever died in the field."[5] This last comment was a reference to the fact that Cooper continued working even though he was ill in the last week in October. He inspected a

1. P.R.O., M.H.13,1712. 2. A.Newsholme, Fifty Years in Public Health(1935) p153-8. 3. O.Checkland & M.Lamb, Health Care as Social Care. (Aberdeen 1982).p8 4. H.A., 28.10.1865. 5. B.M.J. 4.11.1865.

notorious nuisance, a cement factory in Northam, on Friday and collapsed and died of cholera on the following Tuesday. The general respect in which Cooper was held was reflected in the number of leading figures in Southampton who attended his funeral. At a Council meeting in November Stebbing proposed the placing of a tablet in honour of Cooper in Holy Rhood church. As Cooper was a Weslyan the plaque was placed in the porch. The motion was carried unanimously.[1]

Despite the praise given to Cooper after his death the appointment of a new M.O.H. did not go unchallenged. Among the applicants were T.Hayes "a plumber well acquainted with the sewerage of the town" and Dr. Bond, Principal of the Hartley Institute, who was supported by Drs. Parkes and Atkins of the Army Medical School and many medical men of the town.[2] The Sanitary Committee decided that the M.O.H. should be the public analystand that the post should be advertised in the local press and in medical and military papers.[3] When the Local Board considered the Commmittee's report it was proposed that "No medical man be appointed as Officer of Health for the town.". Stebbing made a lengthy speech refuting the arguments against a M.O.H. He said that Cooper had not achieved more as M.O.H. because the post was combined with that of Inspector of Nuisances which had taken up much of his time. It was not true that there were only 70 or so M.O.H. in five hundred towns and none in a town of over 80,000 inhabitants. A medical expert was needed to check Southampton's water after the cholera of 1865. As the country's chief packet station Southampton had a special need for a Medical Officer. Objection was taken to this and one Councillor claimed that all that was needed was an Inspector of Nuisances;".. if they had not had a sanitary officer the late report of cholera would not have got abroad. All medical men were alarmists." Stebbing and Le Feuvre both stressed that the M.O.H. would save the town money. There was no discussion on private practice and only a brief one on salary. Stebbing said £100 would get a good retired army or hospital surgeon while other suggestions ranged from £75 to £300. The proposal not to appoint a M.O.H. was defeated easily by 21 votes to 8.[4]

1. H.A., 25.11.1865. 2. L.B.Mins., 20.11.1865, 2.12.1865.
3.Sanitary Mins.,30.12.1865, 1.1.1866. 4. S.Times, 6.1.1866.

The post was advertised two weeks later in the local press. It was made clear that the post was full time and that the appointee "will be charged with the health of the town, and must possess competent medical, chemical and microscopical knowledge." Despite this advert further attempts were made to block the appointment when the Council met in February. Councillor Coles, a future mayor, defending the Council's decision quoted the Registrar General who had said every district in the kingdom should appoint a Medical Officer. Stebbing concluded the debate saying "..the health of the town - the commerce of the town - the reputation of the town demand that the appointment be made." The January decision was confirmed by 18 votes to 6. Yet a week later when the candidates had been reduced from the original 16 to a short list of 3 an attempt was made to postpone the appointment. This was defeated by 28 votes to 4. Dr. Bond had withdrawn his application partly because of the difficulty of combining the post of M.O.H. with that of Principal of the Hartley Institute. The appointment of Dr. J.MacCormack a graduate of Trinity College Dublin and a Member of the Royal College of Surgeons was approved unanimously by the Council.[1]

The local press supported the appointment, but criticised the low salary of £150 for a full time post. Although the salaries of the other four full time M.O.H. were not mentioned in the local debate on MacCormack's salary, they were very much more than Southampton was prepared to pay. These salaries ranged from Liverpool's £1,000 to Birkenhead's £350. Press comments were quoted in a Council debate. Alderman Perkins claimed the low salary had made Southampton a laughing stock and he quoted the Lancet, "They require the entire services of a physician, a chemist and a microscopist to whom they offer the salary of a small clerk." He also quoted the Evening Standard, "The Officer of Health in Southampton is to be a gentleman who has tried and cannot make £150 out of the medical profession." In defence of the appointment it was pointed out that Dr.MacCormack was a gentleman of property who wanted something to occupy his mind and attention. He was a first rate character, an analytical chemist who had shown his great talent and ability in a pamphlet on cholera. [2] These comments on MacCormack were

1. S.Times, 20.1.1866, 17.2.1866. 24.2.1866. 2. H.A., 24.2.1866.

repeated by Stebbing when he gave evidence before the Royal Commission in 1869.[1]

In March 1866 the Sanitary Committee met to consider the appointment of a Principal Inspector of Nuisances. A short list of four was drawn up from the twenty eight applicants and the final selection left to the Local Board. Here the decision was influenced by party politics. Pegler, a Liberal Councillor, proposed Bridger and Mackay, a Tory said that as Pegler had proposed a Liberal, he would propose a good Tory, E.Powell. Powell was selected by 15 votes to 10 which reflected the party strengths present in the Council chamber.[2] The Sanitary Committee outlined Powell's duties. Hewas to meet the water inspectors daily, keep a book of nuisances and submit it to the Committee at every meeting.[3] The cholera of 1865 and the fear of its return in 1866 may explain the appointment of Powell after the Board had ignored Cooper's earlier requests.

The work of the Sanitary Committee in 1866 was dominated by the return of cholera. The Local Board asked MacCormack to make quarterly reports on the sanitary condition of the town but it was only in November when the crisis was over that these were mentioned by the local press. Dr. Farr of the Registrar General's Office thanked MacCormack for an excellent report and congratulated him on the measures taken to combat cholera.[4] MacCormack's fourth quarterly report covering the period from November 1866 to February 1867 was published in full by the local press. The town, he said, was quite healthy but if the improvements in paving, drainage and ventilation were not made disease would increase and cholera return. The three outstanding problems of the town were overcrowding, ventilation of sewers and the proper disinfecting of beds. In some areas of the town the number of inhabitants per acre was 183 whereas for good sanitary conditions the number should be under 100. He suggested that clause 35 of the 1866 Public Health Act should be used to bring all houses let out in lodgings

1. P.P. 1868-9, [4218] XXXII. 301, Royal Commission on the Operation of the Sanitary Laws in England and Wales, p330 2. S.Times, 24.3.1866. 3. Sanitary Mins., 29.3.1866. 4. S.Times, 24.11.1866.

under the same regulations as common lodging houses.[1]

In July 1867 MacCormack again urged the Council to tackle the problem of overcrowding in houses occupied by more than one family describing this as "... one of the most prominent evils of this and all large towns" and claiming that in parts of Southampton the number of inhabitants per acre was double or treble what it should be if a high standard of health was to be expected. The Council supported MacCormack's view but some Councillors did warn that if they carried out his ideas they must find places for these poor people as they might turn out two thirds of the population of the town. A month later the press gave a full account of MacCormack's quarterly report(6.5.1867 - 5.8.1867). The town's death rate of 21.3 per 1000 was said to be lower than that of any other town in England which proved the advantage of sanitary measures despite their expense. Complaints over the offensive smells in Northam were attributed not only to the cement works but the Belvidere sewer outlet and the want of ventilation in the main sewers. Although there was a complete absence of zymotic diseases there was a strong probability of the return of cholera. "Its presence in the Mediterranean and Western hemisphere prove to us that there still exist the peculiar influences atmospheric and terrestial which may at any moment cause it to spring up." Lodging houses inspected were found to be remarkably clean and healthy. 109 notices of nuisances had been issued and ten prosecutions made.[2] Both the medical reports published painted a favourable picture of the town . It may be that such publicity was needed after the unfavourable press coverage the town had received nationally during the 1866 cholera epidemic. Southampton had figured prominently in the cholera reports given in the Times in July and August 1866.[3]

Despite the sanitary progress being made in the town MacCormack's period of office was not without difficulties. He had come into conflict with the Local Board over his request for extra payments during the cholera epidemic and his letters to the Board were described as impudent and insolent. It was even suggested that he had resigned.[4] When he

1 .S.Times, 9.2.1867. 2. S.Times, 24.8.1867. 3. Times, 23.7.1866, 25.7.1867, 1.8.1866. 4. L.B.Mins., 3.4.1867; S.Times. 6.4.1857.

applied for the post of M.O.H. in Manchester, a Councillor expressed the hope that if he were successful they would do away with the post and save £150 a year.[1] When MacCormack asked for a few days leave in December 1867 it was pointed out that he was granted a month's leave every year as he was a surgeon to a militia corps. It was said that Cooper had to pay an inspector of nuisances out of his £200 whereas MacCormack's £150 was all for himself. It was proposed to set up a committee to consider the duties of the M.O.H. but the Council broke up before a vote could be taken.[2]

Another good report from MacCormack was quoted at length in the local press in August 1868. The death rate of 17.3 per 1000 was given, again one of the healthiest in the kingdom. The new regulations on overcrowding were being implemented and this was expected to lead to a further diminuition in disease. The slaughter houses had required constant attention "..indeed so long as there exists no public abattoir these places will be always a source of trouble to me and annoyance to the public." This was a point made earlier by Cooper and to be repeated by all the M.O.H. for the rest of the century. At the Local Board meeting which considered this report a memorial was received from 40 butchers of the town complaining of the unnecessary severity shown by the M.O.H. in enforcing bye laws on slaughter houses. The memorial was rejected.[3]

In December 1870 MacCormack warned the Local Board of the danger of smallpox on ships arriving from France. The major epidemic came in 1871 and dominated the activities of the Sanitary Committee. It met 38 times in 1871in contrast to its 11 meetings in 1870, three of which were void because only one or two members attended. Despite the epidemic MacCormack was absent from the town for over a month in May and June 1871 when his post was taken by Dr.H.Osborn. In December 1871 MacCormack resigned as he had been appointed M.O.H. for Lambeth at £500 per annum. The local press described him as a valuable medical officer and his work was praised by the Town Council.[4]

1. S.Times, 21.9.1867. 2. L.B. Mins., 4.12.1867.; S.Times, 7.12.1867.
3. S.Times, 15.8.1868. 4. L.B.Mins.,6.12.1871; H.A., 2.12.1871, 9.12.1871.

When the Sanitary Committee met to consider MacCormack's resignation it immediately suggested that Osborn, who had been in charge of the smallpox hospital in 1871 should be appointed as a temporary Officer of Health at 5 guineas(£5.25p) a month. This was approved by the Local Board in January 1872.[1] The delay in making a permanent appointment may have been due to the fact that a new Public Health Act was being prepared. In September the Local Board received a circular from J.Lambert, the Secretary of the Local Government Board, outlining the clauses concerning the constitution of Sanitary Authorities and the appointment of officers. These clauses included the offer of a grant to pay half the salary of some local officers. At the same meeting a letter was received from the Town Clerk of Nottingham urging the Board to reject this grant under the present conditions. It was felt by many authorities that accepting the grant would weaken their independence and for this reason many refused including Leeds and Portsmouth. Southampton ignored the Nottingham letter and resolved unanimously to adopt the Act and become the Urban Sanitary Authority. Osborn was reappointed as medical attendant at the Hospital and acting M.O.H. for six months and paid 50 guineas(£52.50p) in both capacities.[2]

Even with the encouragement of government money the U.S.A. were reluctant to appoint Osborn as a permanent M.O.H. The Sanitary Committee recommended the appointment at £250 per annum without private practice but this was referred back to the Committee.[3] Although the recommendation was repeated in October 1873 the Urban Sanitary Authority came to no decision on the subject in 1873. When the Committee recommended that Osborn be given the posts of M.O.H. and Port Sanitary Officer in February 1874, the U.S.A. decided to advertise both positions.[4] When a letter appeared in the local press suggesting that the work of the M.O.H. should be carried out by the Poor Law Medical Officers the U.S.A. asked the Sanitary Committee to consider the idea. This was not a new idea as it was already in practice in Exeter and the majority of towns in Dorset.[5] The Committee recommended the Authority

1. Sanitary Mins., 27.12.1871; L.B. Mins., 3.1.1372. 2. L.B.Mins., 4.9.1872. 3. Sanitary Mins., 10.1.1873. 4.U.S.A.,Mins., 18.2.1874. 5. P.P.1873(359) Appointments of M.O.H. Vol.LV.817 p867.

to advertise for a M.O.H. without private practice who would also be in charge of the Hospital. Only two replies were received - from Osborn and from the Poor Law Medical Officers, Cheeseman, Lawrence and Archer. Osborn was appointed as M.O.H. and the post of Port Sanitary Officer was given to Dr.Bencraft, who was to be paid per ship's visit. Both appointments were subject to the approval of the Local Government Board.[1] The Board did not agree to paying Bencraft by visits and the Sanitary Committee recommended a salary of £52..10..0d(£52.50p) per annum. The appointment of Osborn and the Inspector of Nuisances was to be for not more than four years.[2]

Henry Osborn was born in Sussex in 1812 and was a Member of the Royal College of Physicians(London). He had been in private practice in Southampton for many years before he became M.O.H. in 1871. In the debate on his appointment Councillor James said Osborn had been virtually appointed by MacCormack and in a leader comment on the appointments the Advertiser claimed that one, Osborn, was a Conservative and the other, a Liberal.[3] Yet he had gained a great reputation for his work during the 1871 smallpox epidemic and had been acting Officer of Health when MacCormack was on leave. He published his first annual report in accordance with the instructions of the Local Government Board and the 1872 Public Health Act in February 1875. This is the first Southampton annual report which has survived. It was given good coverage in the local press and was regarded as satisfactory.[4] Osborn showed great concern over the ventilation of the streets, courts and alleys as essential to improving the sanitary state of the town. Although zymotic diseases were not confined to one part of the town he was convinced that certain causes of disease could be controlled "..though a certain state of atmosphere may favour the development of morbid poison more readily in one period than at another." He attributed the success in containing smallpox to the hospital where cases could be isolated. The number of nuisances removed by notices was 746 of which 431 were defective W.Cs. and yard drains. The need for a public abattoir was mentioned and this was supported by the Southampton Times which

1. U.S.A.Mins., 18.3.1874. 2. Ibid.,20.5.1874. 3. H.A., 21.2.1874, 21.3.1874. 3. H.I.,H.A.,S.Times, 17.4.1875.

claimed to have advocated a public abbatoir ten years earlier. The cement works nuisance was mentioned, but he had found it difficult to prove.[1]

1875 proved uneventful in Southampton's public health progress. There were only three meetings of the Sanitary Committee. It discussed the question of a public abattoir and the application of the 1875 Artisans and Labourers Dwellings Improvement Act to Southampton. Osborn and the borough surveyor J.Lemon inspected some of the unhealthy dwellings in the town.[2] The comparative good health of the town was reflected in Osborn's second annual report, which commented at length only on the measures taken to combat scarlatina by inspecting and disinfecting schools. The need for a public mortuary was mentioned as being particularly helpful to those families living in only one or two rooms.[3]

The lack of urgency felt about sanitary matters was shown by the attendance at the first two meetings of 1876. Only two members were present in January and one in February so both meetings were abandoned. Between September 1875 and March 1876 only one meeting of the Committee was held. This lack of zeal among the Councillors may help explain some of the problems Osborn faced with his staff. He was the first M.O.H. to have the assistance of three inspectors of nuisances yet he found it a constant struggle to persuade them to carry out their duties efficiently. Dr.Hearne, a well known local doctor, Councillor and frequent letter writer complained in the local press about the work of the inspectors "..a knock on the door, a look into the closet, and the inspection is over." The visits he claimed were few and far between.[4]

In July the Sanitary Committee considered the case of Inspector George. It was alleged that he kept a beer shop and failed to carry out his morning and evening duties. George admitted the offence and was dismisssed.[5] Despite this experience Osborn insisted that at least three inspectors were needed in addition to the Port inspector. The

1. A.R.M.O.H. 1874. 2. Sanitary Mins., 27.9.1875, 27.11.1875.
3. A.R.M.O.H. 1875. 4. S.Times, 11.10.1879.
5. Sanitary Mins. 25.7.1876.

Council agreed and C.Field a brass fitter was chosen from 29 applicants for the job in March 1877. Another inspector, Hazard, resigned in August because he had neglected his duties and was replaced by Dacombe, who was condemned as a party man by the press.[1] The problem caused by inefficent inspectors was shown when a temporary inspector Dean and inspector Masters gave their evidence very badly in a nuisance case resulting in a conviction being quoshed on appeal. The case cost the U.S.A. £73..7..10d(£73.38p). Dean who had been criticised by the Recorder was dismissed. Councillor Le Feuvre remarked that the inspectors were not the class of men they ought to employ. W.Tubbs, a 42 year old carter, was appointed from 28 applicants as an inspector in January 1878. During the next ten years he, like Masters and the other inspector Cox, was to be severely reprimanded and threatened with dismissal for failing to carry out his duties.[2] It was left to Osborn's successor A.Wellesley Harris to ask the Sanitary Committee to dismiss Tubbs because he was "..perfectly useless owing to his unsteady habits."[3]

In July 1878 the Sanitary Committee wrote to the Local Government Board asking for permission to reappoint Osborn as M.O.H. at £250 for four years. Although the Board confirmed the reappointment of an Inspector of Nuisances for four years it gave permission to reappoint the M.O.H. only until December 1880 and both posts had to be advertised. Neither the U.S.A. nor the local press commented on this decision. The Council received several applications although the local press described the proceedings as of "a purely formal nature". Osborn and T.M.Cox were reappointed unanimously.[4] In January 1879 the Southampton Times seemed confident that a public abattoir was about to be built. In May the Council asked for tenders for an abattoir. In October Osborn informed the Council that all the slaughter houses were more or less a nuisance because they were not properly constructed. Yet at the end of the year the M.O.H. Report still urged the setting up of an abattoir.[5]

1. S.Times, 29.9.1877. 2. Sanitary Mins., 24.5.1880, 18.1.1882, 19.7.1882, 17.1.1883, 29.9.1887. 3. Ibid., 19.11.1890. 4. Ibid. 24.7.1878; S.Times, 12.10.1878.
5. S.Times, 25.1.1879, 3.5.1879, 25.10.1879.

Despite his problems with his inspectors, Osborn's reports on the sanitary state of the town claimed that good progress was being made and they were well received by the local press. When Osborn's term of office expired in December 1880 the Sanitary Committee recommended his reappointment at the increased salariy of £300 per annum.[1] The recommendation was based on Osborn's length of service and his increased duties. The increase was well supported by the Councillors who praised Osborn's work but met with some opposition. The Southampton Times questioned the wisdom of the increase while recognising Osborn as a "..most efficient... officer..zealously performs the duties of his office." It argued that as three inspectors were employed instead of two and the increase was not requested the Council should have waited.[2]

The local press began 1881 with detailed comment on Osborn's 1880 annual report. There had been a great increase in deaths from measles and consequently the town's death rate was higher than usual. This led the Southampton Times to urge the sanitary authorities "..to look closely after the sanitary surroundings of the poorer classes."[3] The paper's attitude to sanitary progress was not always so positive. When Osborn recommended the U.S.A. not to sanction the erection of any lime kilns or brick kilns in the borough the Times protested."There can be no doubt that it is exceedingly undesirable to impose vexatious restrictions upon persons engaged in business or trade, and anything which unduly hampers or impedes the employment of labour cannot be too strongly condemned." It went on to suggest that the bye laws be changed.[4]

When the Sanitary Committee discussed the reappointment of Osborn in November 1883 they asked the Town Clerk to make enquiries about the salaries paid in other towns. As a result of these enquiries the Committee recommended the U.S.A. to increase the M.O.H.'s salary by £50 to £350. The Committee argued that Osborn did, not only the work of the M.O.H., but many of the duties of an Inspector of Nuisances and was one of the lowest paid officers in the country doing a similar job. The M.O.H. for Cheltenham was paid £500 per annum and the Swansea M.O.H.

1. Sanitary Mins., 15.12.1880. 2. S Times, 24.12.1879.
3. Ibid., 8.1.1881. 4. Ibid., 27.8.1881

received £300 a year and was allowed private practice unlike, Osborn. Since his appointment Osborn had not had one day's holiday. As in 1880 the application for an increase came from the Committee not from Osborn, who was said to be the last man to say anything for himself. In this respect he was very much the exception among Council officials. The increase was approved unanimously by the Urban Sanitary Authority.[1] Osborn's appointment was renewed for a further three years in December 1886. The increasing range of his work was reflected in the comments in the U.S.A. minutes. References appear to prosecutions under the Sale of Food and Drugs Act of 1879 and the registration of the manufacturers of margarine was referred to the Sanitary Committee under the 1887 Margarine Act. Problems over the legality of pig killing in gardens in St. Denys were discussed as was the appearance of rabies in the area in 1889.[2] In his reports for 1888 and 1889 Osborn lists over 4000 inspections each year in addition to house to house inspections. The work of the Inspectors included not only slaughter houses and common lodging houses but stable yards and cow sheds, bakehouses and fish shops. By 1889 Osborn was able to report an end to the intolerable nuisance which formerly existed at the cement works in Northam. Yet there was still no public abattoir.[3]

Although the major issue before the U.S.A. during the 1880s was the water supply the problems of housing played an increasing part in their discussions and in the M.O.H. reports. In April 1882 the Council listened to a passionate appeal from Councillor Payne to do something about the "slums" around York Square. Bennetts the borough surveyor was asked to investigate and improvements were introduced in the form of additional W.Cs. and paving of courts.[4] In the 1889 annual report Osborn's attention was focused on the state of housing in the lower part of the town. He condemned back to back housing as there was no means of providing through ventilation, so essential to health. Of Goater's Court, High Street he said " Some of the houses in this court, the property of the Corporation have been pulled down, and the sooner the others are

1. S.Times, 26.1.1884.
2. U.S.A.Mins. 8.12.1886, 21.3.1888, 12.12.1888, 14.12.1888, 14.2.1889.
3. A.R.M.O.H. 1888 ; 1889. 4. S.Times, 22.4.1882 , 13.5.1882

demolished the better."[1]

The Sanitary Committee unanimously recomended the reappointment of Osborn for a further three years in November 1889. When the Committee's report came before the Council the Town Clerk informed them that he had had two or three interviews with Osborn since the report was made. Osborn was very desirous of resigning his office in consequence of his advanced age as soon as possible. It was proposed that the appointment should be renewed for six months only to give the Council time to decide what course should be taken. As Osborn was seventy eight the announcement led to little discussion in either the Council meeting or the local press.[2] When he died in March 1891 lengthy obituary notices described him as a most energetic public officer. Particular comment was made on his work during the 1871 smallpox epidemic and the great attention he paid to the hospital at West Quay. His devotion to duty shown in emergencies and his prompt action had contributed largely to the stamping out of disease. After his retirement as M.O.H. he had continued as consulting physician to the Southampton Dispensary. He had never married and had no relatives. In contrast to Cooper's, Osborn's funeral was, according to his express wishes, without flowers and private.[3]

When the Urban Sanitary Authority met in January 1890 it discussed a report from the Sanitary Committee which stressed the increased workload of the M.O.H. and recommended that the new M.O.H. should be paid £350 per annum and not allowed private practice.[4] The report was not favourably received by the Council. Lemon said that if Osborn had discharged his duties efficiently at his time of life a younger man with a horse and carriage would get the work over in half the time and so would accept the job for £200. The M.O.H. was not a superior Inspector of Nuisances but a medical expert who considered the inspectors' reports, determined the causes of diseases and took measures to prevent their recurrence. He suggested that the posts of M.O.H. and Port Sanitary Medical Officer should be combined. Lemon's view was that the new M.O.H. could carry out all his duties and still retain his

1. A.R.M.O.H., 1889. 2. S.Times, 30.11.1889. 3. Ibid. 14.3.1891.
4. Sanitary Mins. 7.1.1890.

private practice. In this he was supported by Payne who asked whatrising man would give up private practice for £350 a year. The chief supporter of the Committee's view was Cleveland a former member of the Committee. He said he knew of the work of the M.O.H. Osborn had been up night after night at the hospital when infectious diseases were prevalent. A medical officer with private practice would be serving two masters and the town might suffer. Several Councillors expressed a wide variety of views and with such a lack of unanimity it was not suprising that the report was referred back by 20 votes to 9.[1]

As a result of the Council's recommendations the Committee's next report suggested appointing a M.O.H. at £200 per annum with private practice. Yet at this meeting only Payne was prepared to support the idea of a part time M.O.H. After a brief discussion it was decided to appoint a fulltime M.O.H. at £300 p.a. and a new Inspector of Nuisances with a diploma of the Sanitary Institute of Great Britain at £100 p.a., almost double the salary of Osborn's inspectors. The local press hoped the new arrangement would improve the health of the town.[2] In March the Council appointed A.Wellesley Harris from the short list of four, selected by the Sanitary comittee from the original fifteen applicants. Dr. Harris was the first Southampton M.O.H. to hold the new qualification of Diploma of Public Health. He was a Member of the Royal College of Surgeons and a Licenciate of the Society of Apothacaries. He had trained at Charing Cross Hospital and was employed at Holborne Infirmary. At thirty he was the youngest doctor to hold the appointment in Southampton. The Local Government Board refused to sanction the appointment of Harris as M.O.H. and Medical Officer of the Infectious Diseases Hospital as this was not part of a M.O.H.'s duties. The Council solved this problem by appointing Harris as M.O.H. at £280 p.a. and as Medical Officer at the Hospital at £20 p.a. [3]

In February 1891 Harris produced his first annual report and this was given good coverage in the local press. The main facts were given and the comment made that the report was on a larger scale than ever before. The report was regarded as very satisfactory.[4] Harris listed

1. S.Times, 25.1.1890. 2. Sanitary Mins. 19.2.1890; S.Times. 1.3.1890. 3.U.S.A.Mins. 26.3.1890, 9.7.1890. 4. S.Times. 1.3.1891.

among the many new features in his report the statistics on marriages and the vaccination returns. A section was given over to the working of the Infectious Diseases Notification Act. The report gave a detailed account of each case and its suggested source. The water from local wells was analysed. Harris' view of the Common Lodging Houses was much more critical than that of his predecessor. "The general uncleanliness giving a sickening odour on entering from the fresh air." Strict enforcement of the bye laws and daily visits by the chief inspector led to great improvements. Harris concluded this section of his report with a comment familiar from his predecessor, "It is greatly to be deplored, however, that we have not better constructed Common Lodging Houses as it is impossible to structurally improve the existing ones owing to their ancient structure." A novel feature of the report was the inclusion of the first annual report of the Chief Sanitary Inspector, J.Corben, Certificate of the Sanitary Institute. He claimed that 37,140 inspections and visits to premises had been made.[1]

Harris applied for an increase in salary in March 1891 and in April his example was followed by the Chief Inspector of Nuisances. Both had just completed their first year of service. The Council set up a special committee to consider officers salaries. It was to this committee that the Sanitary Committee's suggestions of a £50 increase for Harris, followed by a further £60 spread over three years and J.Corben's £20 and £30 over three years, were referred in April. Before Harris was appointed in March 1890 the Southampton Town Clerk had written to 37 towns about the salary of the M.O.H. In 17 of the towns the M.O.H. was allowed private practice and the salaries paid by these towns ranged from £80 to £150. The Medical Officers employed fulltime had salaries of £450 to £900. Yet in June 1891 the Council ignored the Sanitary Committee's ideas and reappointed Harris at his old salary "..until he die or resign or be removed by the Corporation with the approval of the Local Government Board or be removed by that Board or be proved insane."[2]

In September 1891 Corben resigned to take up an appointment as

1. A.R.M.O.H. 1890.
2. Council Mins., 25.3.1891, 8.4.1891, 22.4.1891, 26.6.1891.

chief sanitary inspector in Cape Town. This gave Harris the opportunity to re-organise his department along more professional lines. There were twelve applicants for the vacant post coming from as far afield as Bristol and Bradford. The Council had fixed the salary at £100 rising by £10 increments to £150 p.a. The successful applicant had to hold the Certificate of the Sanitary Institute, reside in the borough, be fulltime and be between 25 and 40 years old. The man appointed was Daniel Amor, the former clerk in Osborn's office.[1] Harris wrote to the Sanitary Committee in January 1892 suggesting that the Committee dispense with the two assistant inspectors Gardiner and Dacombe as they were "quite unable to perform their duties." The resultant vacancies and that of Tubbs, sacked in 1890, should be filled by three intelligent and competent young men. The Council accepted Harris' advice and sacked the two inspectors. Gardiner was found a job as a messenger at £1 per week which was the same as his salary as an inspector. Dacombe was given a £15 gratuity and Tubbs' case was referred to the Sanitary Committee. The new inspectors were M.Batchelor, W.S.Powell and C.G.Rabbetts. By the end of 1893 Powell and Rabbetts had gained their certificates and an increase in salary to £1..10..0d(£1.50p) per week. Batchelor was given a further twelve months to pass the examination.[2]

New legislation in the 1890s increased greatly the work load of the M.O.H. and his department. Harris spent much more of his time dealing with housing than had any of his predecessors.[3] In his 1892 annual report he admitted that his department had been unable to carry out satisfactorily their duties under the 1891 Factory and Workshop Act. The Act applied to over three hundred establishments in Southampton but with his present staff it would be impossible to check them all efficiently. Nothing had been done to implement the 1892 Shop Hours Act for the same reason. He suggested that another inspector should be appointed for these two Acts. He had been unable to visit all the schools but had managed to see those brought to his notice and all his suggestions for sanitary improvements had been carried out. The Common

1. Council Mins., 14.10.1891, 28.10.1891, 16.12.1891.
2. Sanitary Mins., 21.1.1892,16.3.1892.;Council Mins. 13.4.1892, 21.1.1894. 3. see Chapter VII.

Lodging Houses of the town had received 555 visits and the 38 slaughter houses 1,433 and the inspectors had reported 3050 nuisances.[1]

In 1893 the town faced not only the threat of cholera but an outbreak of smallpox. Harris urged the Council to buy a disinfector for clothing, which could be placed at West Quay and used for articles fromships. He estimated that such a machine would cost £400. The Council had paid Harris £120 in December 1892 for his work on cholera precautions. In June they decided to ask for £1,000 to meet expenditure if cholera arrived. The M.O.H. was asked to prepare monthly reports on the condition of the town. These reports were given good coverage in the press and Harris was praised for his efforts.[2] As the number of small pox cases increased the Council was forced to consider the question of hospital accomodation. In his report for the year Harris blamed tramps who had come into the town for the spread of smallpox. The report showed that the Factory and Workshops Act was being put into force and almost four hundred inspections had taken place.[3]

Dr. Harris' name appears frequently in the minutes of the Council in 1894 in connection with the closing of houses unfit for human habitation under the 1890 Act. Yet he was not able to control the Common Lodging Houses as he would have liked. In April he reported Cunio's premises as not desireable "..but owing to the lack of accomodation in this respect, suggested that Mrs. Cunio be allowed to carry on the house until better accomodation could be offered in the town." The condition of slaughter houses was still causing concern but the question of a public abattoir was postponed until the Medical Officer reported on the problem in other towns.[4]

In his annual report for 1894 Harris produced a series of tables giving detailed statistics of the town's population and health over the years 1885 to 1894. He listed the factors which he considered had influenced the death rates in the wards as the class of the inhabitants; occupation; overcrowding and poverty. He supported his views by giving statistical tables of the wards in the town showing their population per acre and their death rates. A table of the major health statistics for

1. A.R.M.O.H. 1892. 2. S.Times, 28.10.1893 3. A.R.M.O.H. 1893.
4. Council Mins. 24.1.1894, 11.4.1894, 4.7.1894.

forty towns showed Southampton as having the seventh best death rate and the second best infant mortality figures. This evidence confirmed the success of the department in the eyes of the Council and the Local Government Board. The success of the inspections under the 1875 Food and Drugs Act was shown by the decrease in the number of samples found adulterated from 38.7% in 1884 to 9% in 1894.[1]

In 1901 Dr. Harris took up a new and more lucrative appointment as M.O.H. in Lewisham. The Southampton Times described him as a thoroughly efficient officer who always displayed a gentlemanly and genial disposition towards all and wished him prosperity. The Council echoed this view but one Councillor said Harris was leaving not because of a low salary but because of unnecessary harrassing. It was suggested that friction with one member of the Sanitary Committee was responsible for his departure. Despite Harris's good work when the salary of the new M.O.H. was discussed a reduction to £400 was suggested as an economy measure as the town's rates were 10/1d(50p) in the £1. The mayor replied that £500 was the minimum the Local Government Board would accept.[2]

A comparison of the reports by the M.O.H. between 1851 and 1894 shows the changing attitudes to Public Health in the second half of the nineteenth century. Cooper's 1851 report was descriptive and emotional. The high sickness and mortality rates were partly blamed on the need for "better air" and the dwellings of the working classes compared with the Black Hole of Calcutta. Tramps-" the image of his Creator so defaced as scarcely to be recognised"-were thought to be responsible for spreading disease.[3] The extracts from MacCormack's reports published in the local press indicate that they were brief and contained few statistics. By the 1890s the seven or eight pages of comment and statistics which made up Osborn's early reports had given way to lengthy accounts and detailed statistics covering seventy or eighty pages in Harris' reports. The change reflected the growing awareness of the importance of Public Health and the rising status of the Medical Officer both nationally and locally. In 1851 Cooper, whose medical qualifications had been mocked in the local press was the sole official employee in his department and remained so until his death in 1865. Southampton's first fulltime

1. A.R.M.O.H. 1894. 2. S.Times, 3.8.1901. 3. F.Cooper, op.cit., p5,35.

inspector of nuisances was appointed in 1866. In this the town was not unusual. As late as 1875 Birmingham had only one inspector for every 30,000 inhabitants and St. Pancras had only one for a population of 59,000.[1] Although MacCormack was given a full time permanent contract his successor Osborn had to be reappointed every three years. In this again Southampton was typical. In 1888 only 55 of the 1300 M.O.H. were on long term contracts and 1000 had to have their appointments renewed annually.[2] This showed the local authorities' desire to keep a close check on their officials. For the same reason only eight, including Southampton, of the forty four towns with M.O.H. in 1872 accepted the Local Government Board's offer to pay half the M.O.H. salary.

In the mid nineteeth century the medical profession was not highly regarded socially. The question was asked as to whether a medical man was a gentleman.[3] Only the top ten per cent of the profession were university trained. By 1890 the medical profession had become much more organised and its status had risen along with the qualifications its practioners had acquired. In this respect the academic qualifications of Cooper and Harris typify the change which had taken place. The profession was helped by the great increase in scientific knowledge in the second half of the nineteenth century. In the 1850s the "miasmatic" theory of disease was widely accepted. It can be found in MacCormack's work and in Osborn's early reports. The increased mortality in the first quarter of 1875 was ascribed by Osborn to "..some other atmospheric cause."[4] In 1875 Dr. Goldie, M.O.H. for Leeds, blamed rickets on air pollution.[5] The work of Pasteur, Koch and their successors destroyed this view. Between 1880 and 1900 the specific etiological agents for twenty diseases were isolated.[6] This change in scientific knowledge is shown in Osborn's later reports. In 1880 he explained the spread of scarlatina by those who visited the sick and " receive the germ of the

1. A. Briggs, op.cit., p224. 2. A. Wohl, op.cit. p187-8. 3. J. L'Esperence, "Doctors and Women in Nineteenth Century Society", J. Woodward & D. Richards (Eds.), Health Care and Popular Medicine in Ninetenth Century England., (1977), p107. 4. A.R.M.O.H. 1875. 5. J. Toft, op.cit., p303. 6. R. Hodgkinson, Science and Public Health, (O.U. 1973), p58.

disease on their clothes and carry it to their own homes."[1] The growth of this specialist scientific knowledge in the late nineteenth century was of great benefit to the medical profession. The doctors were seen as the experts who could use this knowledge and this led to a great increase in the prestige of the medical profession and the status of its members.

The early Public Health reformers of the 1840s did not appreciate the compexity of the problem. Chadwick thought that a good engineer would make the doctor redundant. The first sanitary authorities concentrated their efforts on water supply, sewerage and the removal of nuisances. The M.O.H. was expected to concentrate on nuisances and from the available evidence this is what Cooper did. In the later part of the century the emphasis moved to environmental factors and housing became an important issue nationally. This change is seen in the increasing attention paid to the topic by Osborn in the 1880s and the major role of Harris in the development of Southampton's housing policy.[2] Despite the change of attitude some problems remained. The model lodging house, suggested by Cooper in 1851, was yet to be built in 1894. The public abattoir, a familiar theme in the 1860s and 1870s in both the local press and the Medical Officer's annual reports, was left unbuilt in the nineteenth century. Portsmouth faced a similar problem and it too failed to find a solution before 1900.[3] Even in 1901 the salary of the M.O.H. in Southampton was seen as a target for economy cuts. Yet the ease with which this suggestion was brushed aside confirms the changed status of the M.O.H. The mayor informed the Council that £500 was the minimum the Local Government Board would accept. Fifty years earlier the General Board's demand for Cooper's appointment to be fulltime was ignored by the Council. Then the appointment was seen as optional and the M.O.H. as little more than an Inspector of Nuisances. In 1901 the appointment was obligatory and the minimum salary more than treble that paid to Cooper on his appointment.

1. A.R.M.O.H. 1879.

2. see Chapter VII 3. K. Carpenter, Public Health in Portsmouth 1870 - 1900, (B.Ed. Thesis. Portsmouth 1932).

CHAPTER V.

THE SEWERAGE AND DRAINAGE WORKS OF SOUTHAMPTON 1854-1894

Even before his resignation in August 1854 Ranger's plans for the sewerage of Southampton had come under mounting criticism. The cost of the sewageometer was questioned and the arterial drains said by some Councillors to be incorrectly laid. Le Feuvre claimed that the plans drawn up by Ranger for deodorising sewage and converting it into manure were a complete failure.[1] The difficulties Lemon faced when he took over as borough surveyor in 1866 suggest that much of this criticism of Ranger was justified. In October 1854 the Local Board decided that Ranger's plans should be checked by James Simpson or some other eminent engineer.[2] When Ranger took up his appointment as an inspector with the new General Board of Health, this body refused to allow him to discuss his plans for the drainage of the town with Simpson. When Simpson's report expressed doubts about Ranger's scheme the Local Board wrote to the General Board enclosing a copy of Simpson's report and asked whether in the circumstances Ranger's plans should be carried out. Simpson's letter to the Local Board had contained the following: "..my firm conviction that the sewerage works at Southampton as proposed...will lead to most serious disappointment and in all probability the sewers will entirely fail in keeping the lower part of the town effectively drained; hence the necessity of the fullest information being required from the consulting engineer employed by the Local Board."[3] A deputation of five from the Local Board went to present Southampton's case to the General Board.

As a result of this pressure from the Local Board a meeting did take place between Simpson and Ranger. A report of this interview was given by Simpson to the Local Board in Febuary 1855. One of the major points of difference was the need for only one outfall for the town's sewerage. Ranger said this had been done on the advice of the General

1. H.I 20.5.54, 22.7.54. 2. L.B.Mins, 27.10.1854. 3. H.A,6.1.55.

Board and because it was cheaper. He maintained that a great profit could be made by converting the sewerage into manure. He claimed that it would be worth £ 5,150 p.a. to the town and mentioned the experiments at Leicester and Rugby. Simpson expressed doubts that any profits could be made from sewerage. The Mansfield experiment had yielded less than 3% and at Fulham the experiment had been a total failure at a cost of £40,000. Ranger claimed that he had been hampered by the rules of the old General Board. This last point was taken up by one of the Councillors in the discussion which followed the reading of Simpson's report. He claimed Chadwick wanted to get manure for the farmers out of the town and was trying experiments at the town's expense. Simpson recommended major changes in Ranger's plan. The sewageometer should be abandoned and an underground sewage tank built to receive the drainage of the lowlands. More lines of sewers were needed and a more powerful pumping engine. It was estimated that this plan to cure the faults of Ranger's scheme would cost £ 15,000 - £ 20,000. [1]

Despite Simpson's doubts on the subject the hope of making great profits from the town's sewerage remained with many local politicians until almost the end of the century. In June 1855 Dr. Oke, one of the town's leading medical men, gave a report to the Local Board in which he claimed that the town's sewerage could be made profitable. He said that Leibig, the great German scientist, had proved this in Germany. Oke had written to the Town Clerks of Edinburgh, Leicester and Rugby. The reply from Edinburgh said that attempts to use sewage water for irrigation had caused a nuisance and no mention was made of profit. At Leicester the Local Board had a contract with the Patent Sewage Solid Manure Company and the experiment appeared successful. At Rugby a lessee had paid a premium of £300 and an annual rent of £50 to pump the sewage over land for irrigation. Oke concluded that private enterprise would prepare sewerage for agrcultural purposes. Southampton should advertise its sewerage for sale.[2] The Leicester experiment which began in 1855 proved to be successful in treating the sewage but was an economic failure. Wickstead, the head of the Company, had hoped to sell manure at

1. H.A, 10.2.1855. 2. Ibid.9.6.1855.

£2 a ton but by 1858 the price had fallen to 1/- (5p) a ton and the Company's funds were exshausted.[1]

The utilisation of sewerage was one way of solving the problem facing all Local Boards - how to dispose of the town's sewerage without creating a nuisance. In August 1856 the Itchen Bridge Company threatened legal action against the Local Board after it had failed to act over an earlier complaint about the nuisance caused by the discharge of sewage near the Company works. This threat lead the Board to contact Wickstead and to advertise both locally and nationally for anyone willing to deodorise sewage.[2] Two of the four who replied were invited to discuss their plans with the Board. Manning of Leith's plan, which involved the town constructing three large tanks, was clearly the more expensive of the two. Vertue's plan which was supported by the M.O.H., Cooper, was chosen. Vertue asked for £100 expenses and if the plan was successful after one month he asked for a further £150 for his invention. It was agreed to give Vertue's plan a three month trial.[2]

It is difficult to determine the success of Vertue's work. When he asked the Board for a certificate that his method was operating successfully the Board was unable to comply. When Vertue was challenged by a letter from Fleming, the owner of a salmon fishery, declaring his experiment was a failure, he claimed that the nuisance was caused by the mud, sodden with filth over the years, and disturbed by the Floating Bridge. He suggested the construction of a two foot diameter pipe to take the deodorised sewerage to the low water mark or twenty feet beyond, where the river could carry it away immediatly. Although the Special and General Works Committee suggested that H.Austin the Chief Inspector of the General Board of Health should be asked to give advice, they felt that Vertue's work had been successful and recommended that he be paid £150. The Itchen Bridge Company did not agree and decided to go ahead with legal action as the nuisance had not been abated.[3]

Austin visited Southampton in June and his report was read to the Board in August but the Board refused to pay Vertue his £150. By

1. M.Elliott, The Leicester Board of Health 1849 - 1872 (M.Phil. Thesis, Nottingham 1971).

2. L.B.Mins., 25.6.1856, 6.8.1856. 3. Ibid. 1.4.1857.

November the need to take action over the sewage outfall had become more pressing. The outfall at Belvidere had been damaged by a vessel settling on it.[1] The Local Board considered six reports on the sewage outfall. The reports included those of Ranger, Simpson and Austin, together with those of Marriot the contractor who carried out much of the sewerage works and Guillamme, a local engineer. The Special and General Committee had asked Poole the borough surveyor to prepare a plan and estimate for the outfall and it was his plan which they recommended to the Board. Faced with such a range of complex and conflicting advice it is not surprising that the Board decided to delay making a decision. New information had become available and the Board decided to send a deputation to Cheltenham to inspect the sewage works there. The local press commented that it hoped the results would be more successful than the late trip to Leicester.[2]

The deputation reported to the Local Board in December that the Cheltenham works were the best they had seen. There was no perceptable smell or nuisance and the system could be used in Southampton. A key point in their report was that the cost of preparing manure was 2/10d (14p) a cubic yard and it could be sold at 3/6d (17p) a cubic yard. This meant that the sale of manure covered the expenses and the interest on the capital. Poole presented a plan for Southampton based on the Cheltenham scheme. The estimated cost was £ 4,000 but it was assumed that the scheme would reduce pollution of the Itchen and make money. Poole's plan was accepted by the Board. The supporters of the scheme on the Board claimed that 6,000 tons of manure would be produced at 3/- (15p) a ton, giving the town £900. This, together with savings in pumping and deodorising costs, would give the town a balance of £1,000 in favour of the present system. [3] The local press were more cautious in their welcome for the scheme. A leader in the Hampshire Independent questioned the value of the Cheltenham manure. It went on to warn municipalities not to be deceived by Austin as to the success of the Cheltenham experiment. The cost of transport would soon render application of manure impossible. [4]

1. H.I., 14.11.1857 2. L.B.Mins. 15.8.1857, 9.11.1857; H.I, 21.11.1857. 3. H.I., 19.12.1857.

The first benefit of the Board's decision to adopt the Cheltenham scheme was that the Itchen Bridge Company dropped its legal action. Damages were agreed at £470 to cover the Company's costs for dredging made necessary by the silting up of sewage from the outfall.[1] Meanwhile the Board went ahead with Poole's plan. The decision to use the Cheltenham system meant that all the town's sewerage had to be taken to one outfall. This meant that Simpson's plan for a separate outfall at the Platform had to be abandoned. A further saving in Poole's plan was to be made by reducing the pumping of sewage. It was felt that one of Ranger's major blunders had been to lay the main sewers too low which necessitated pumping which cost £700 p.a. Poole put forward the idea of a Syphon Chamber which would intercept the sewage of the Weston Shore sewer and convey it to the Itchen without pumping.[2] The Board's desire for economy was reflected in the discussion which followed the presentation of Simpson's bill of £273-5-1 (£273.25) for his advice on the town's sewerage. Palk, a keen sanitarian, commented that the bill should be a lesson to them all. Poole and Mainwarring would have been better than "those exceedingly expensive (experts)."[3]

Poole estimated that it would cost £ 5,000 to complete the works and the Local Board applied to the General Board for its sanction to borrow the money. The General Board requested a detailed estimate and sent its inspector Austin to report on Southampton's works and plans.[4] The General Board approved the loan but Austin's report was critical of the Local Board's work. He regarded the Syphon Chamber as a retrograde step taken to avoid the expense of pumping. It had taken London years to realise that the health of the low lying districts could only be secured by continuous discharge by pumping. The saving made by the Syphon was only £500 p.a., less than 3d(1p) per head and he felt it should be a temporary measure. He concluded his report by stressing that when sewage was at one outfall only, it was absolutely necessary for it to be deodorised.[5] Despite these criticisms the General Board made no attempt to demand alterations in Poole's plans as it had done with

1. L.B.Mins.,23.2.1858. 2. H.I., 27.3.1858; L.B.MIns.,7.4.1858.
3. H.I.,20.2.1858. 4. L.B.Mins.,7.7.1858. 5.H.I.,10.7.1858.

Wickstead's Leicester plans in 1852.[1]

Having decided on its plan and having obtained the sanction for the necessary finance the Local Board faced another problem. The works at Belvidere needed an acre of land and this belonged to Archdeacon Wigram, the rector of St. Mary's Southampton. He objected strongly to the Belvidere outfall being used for all the sewerage of the lower part of the town and refused to sell his land. The Board wrote to him asking him to reconsider his decision and not compel the Board to use its powers of compulsory purchase. An enquiry was held in October at which Dangerfield of Cheltenham and Cooper and Wiblin of Southampton gave evidence. The enquiry decided in favour of the Local Board but by then other problems had begun to occupy the Board and the works at Belvidere were suspended.[2]

The Board had received a memorial from the inhabitants of Portswood asking for the powers of the Local Board to be extended to their district. The Solicitor General had confirmed that the Board had the legal right to take over the district and the Sanitary Committee recommended the Board to do this. Despite Cooper's report outlining the major defects of the district the Board was reluctant to act. A public meeting against the introduction of the Board into Portswood was attended by several leading Councillors. Le Feuvre, who had property in the district, said the Board would stop at no expense. It had spent £119,000 and given Southampton very little for it. The meeting agreed that the landlords of the district could solve all its problems.[3]

Another developing area of the town posed a similar problem in 1860. The local press reported the death of a 16 year old girl in October 1860 from typhoid caused, according to the death certificate, by "..defective drainage, stagnant water several inches in depth under the foundations of the house." The inquest jury on this sudden death returned a verdict that " the deceased died by the visitation of God ". The Sanitary Committee urged the Local Board to consider the necessity for draining the low lying districts of Northam.[4] Despite a memorial

1. Elliott, op.cit., p82. 2. L.B.Mins., 6.10.1858, 5.2.1859, 26.10.1859.
3. H.I., 12.3.1859, 20.8.1859, 3.9.1859. 4. L.B.Mins., 3.10.1860; S.Times, 6.10.1860.

from the inhabitants and a deputation to the Board led by Dr. Hearne and Rev. C.W.Wilson, the rector of Northam, the Board accepted the Special and General Committee's report that nothing needed doing. Only 19 of the 500 houses in Northam needed drainage and these were the resonsibility of the owners. The Board threatened to take action against Elliot, the owner of Albert Street, if the water beneath the houses was not removed.[1]

The reluctance of the Board to extend its activities may be partly explained by the problems it was facing with the town sewers. There were frequent complaints of overflowing sewers which had to be dealt with by Poole. The most persistent complaints came from the Oxford Street district. Poole had investigated this problem as early as January 1853. In November 1855 he had suggested that flooding was caused by water in the sewers being too high and that more powerful engines should be used to empty the sewers. Another investigation was carried out by Poole in 1858 and when one of the property owners in the district threatened legal action the Local Board decided that they were not liable.[2] After repeated complaints in the winter of 1859-60 some action was taken by the Board. Extra sewers were laid in the worst affected areas. Despite this effort the problem reappeared in January 1861 when the surveyor declared the flooding was not from the sewers but from the land soaked with water for which the Board was not responsible.[3] Meanwhile in other parts of the town the surveyor dealt with similar problems caused by the sewers not being deep enough.[3] The patchwork repairs carried out by Poole rarely involved expenditure of over £100. Yet the complains of overflowing sewers and lack of drainage continued. It took the shock of cholera in 1865 to galvanise the Board into action.[4]

In February 1865 the Southampton Times commented on the unusually high death rate of the town in 1864. In a leader the editor said that the health of an urban population depended on the efficacy of sanitary regulations and urged the Local Board to remedy the acknowleged

1. S.Times 15.12.1860; L.B.Mins., 12.12.1860.
2. L.B.Mins., 14.1.1853, 9.11.1855, 6.1.1858; H.I. 20.2.1858 .
3. L.B.Mins. 26.10.1859, 1.2.1860, 16.1.1861, 30.8.1860, 19.6.1861
4. L.B.Mins. 1.2.1860, 19.6.1861.

deficiencies of the town's system. Two weeks later in a letter to the Southampton Times, commenting on the 1864 death rate, Dr. Hearne claimed, thousands had died over the past fifteen years because of the town's poor sanitary condition. He was particularly critical of the town's sewerage system. He blamed the poor condition of the town on the fact that the powers of the Local Board had been only partially applied. Some properties were still without a water supply and others lacked both water and sewerage.[1]

After a period of heavy rain in early August the sewer from Blechydene along Western Shore overflowed. Poole was criticised for this. The hatch of the Syphon Chamber which should have been opened every 24 hours had been neglected and had rusted in place.[2] It was not until October when the cholera panic had reached the town that the Board agreed to spend £69 on cleaning out the sewer at Blechydene. By this time Poole had left the town for a rest and he resigned in November. The mayor explained to the Council that Poole's mind had been affected by the defective operation of the drainage system.[3]

When the cholera crisis was over in November 1865 the Local Board turned its attention to the problem of the Western Shore sewer. It was decided to empty the sewer and remedy the defective drainage caused by the diversion of the low level sewers from the pumping station to the Belvidere outlet. As Poole had resigned, the Board asked a local engineer, J.O.Parmeter, to advise the Special and General Committee as a temporary measure.[4] A month later the Board received a memorial from the inhabitants complaining about the condition of the town. The memorialists, who included leading Councillors such as Palk and Le Feuvre, referred to the recent cholera outbreak and stressed the need to perfect the town's drainage. Stebbing supported this point and claimed that if the sewerage was not improved people would leave the town. Coles, a future mayor, said that they must consider deodorizing the sewage. He had seen solid masses of sewage coming from the mouth of the Belvidere sewers as far as the Itchen Bridge. The mayor, S.Emmanuel, said that if this was not removed a serious cholera epidemic was

1. S.Times, 11.2.1865, 25.2.1865. 2. Ibid., 12.8.1865.
3. Ibid.,7.10.1865, 11.11.1865. 4. L.B.Mins.,20.11.1865.

probable.[1] These views were supported by the Southampton Times which concluded its leader on the sanitary requirements of the town with the comment "The sewerage works of the town are now lamentably defective, arising no doubt from the fault in their original construction."[2]

The first positive step taken by the Board was to appoint a new borough surveyor, a move welcomed by the local press in contrast to the doubts they expressed about a new M.O.H.[3] The new surveyor appointed in January 1866 was James Lemon. He had worked on the London sewers, had written articles for the Civil Engineers Journal and was said to have a thorough knowledge of drainage.[4] The first problem he faced arose from the claims for compensation for flooding in Oxford Street. He inspected the area and found that the kitchens had been flooded with sewage several times a week to a depth of one to three feet. Many of the sewers were partially blocked up - the Western Shore sewer being two thirds full of deposit. As he had only one man to help him, Lemon thought of resigning. The sewers were cleaned out and the surface water disconnected from the sewer system and drained into West Bay by gravitation. Although this greatly improved the system Lemon realised much more was needed and produced a report on the town's needs. He claimed in his autobiography that it was pressure from their constituents which forced the Councillors to act. Everyone recognised the problem but the Council wanted the expense kept to a minimum.[5]

Lemon's report was based on the principle of dividing the town into two districts. The high level area should be drained by gravitation and entirely disconnected from the low level area. Pumping should be used to lift the sewage of the low level area so that there should be a constant flow in every sewer and drain. Sewerage should be discharged only on the ebb tide. 521.5 acres were to be drained by gravitation and 361.5 by pumping. The gravitation plan was welcomed by the Board but the idea of pumping was regarded as a waste of money.[6] The local press said that the Special and General Committee did not understand the problems

1. L.B.Mins. 27.12.1865; S.Times, 30.12.1865. 2. S.Times, 6.1.1866. 3. see Chapter IV. 4. S.Times, 13.1.1866. 5. J. Lemon Reminiscences of Public Life in Southampton(Southampton 1911)., I p5-18; S.Times 17.2.1866. 6. Lemon ,op.cit. I p19-20.

involved in the sewerage system and that they should leave it to Lemon. The estimated cost of implementing all of Lemon's plan was £20,000.[1] In March 1867 the Board decided to adopt part of Lemon's plan. 248 acres of the high level district was to be drained by gravitation to a new outlet at the Platform. A tank was to be built to receive the sewerage which would be discharged at low tide. The estimated cost of the works was £7,000. Although some Councillors were reluctant the Board was urged on by the warning that cholera would return. Two Councillors, Le Feuvre and Churton, supported the adoption of all of Lemon's plan and warned that the low level sewers would cause flooding again. The local press condemned the Council's decision as a false economy and said the system needed entirely remodeling and it concluded, "Do it now - for economy, the health of the inhabitants and the credit of the town."[2]

The critics of the Board were proved right. In July a Councillor reported that the basements in Oxford Street had been flooded by sewerage to a depth of 12 inches.[3] Sewerage works at the Platform based on Lemon's 1866 plan continued throughout 1867 and their success or the prospect of their success may explain the absence of further complaints from the inhabitants of Oxford Street for over a year. In January 1869 a deputation from Oxford Street attended a meeting of the Local Board to complain that their basements had been innundated by the discharge of sewage water. Lemon explained that the low level sewers could not hold sewerage and the recent heavy rainfall. The problem could be cured but at considerable expense.[4] The Board referred the problem to the Special and General Committee. The Committee asked Lemon to apply some temporary remedies and when these failed they recommended that the Board carry out a further part of Lemon's 1866 plan at a cost of £2,000.[5] The Board was reluctant to adopt this suggestion and a few months later the Committee itself claimed that the works of the National Guano Company would render Lemon's plan unnecessary.[6] When one of the residents of Oxford Street tried to put pressure on the Local Board by bringing a legal action for compensation before the County Court, the

1. S.Times, 22.9.1866. 2 .Ibid,. 9.3.1867; Lemon, op.cit, I p20. 3. S.Times, 22.7.1867. 4. Ibid.,9.1.1869. 5. Sewerage Mins.,21.1.1869, 22.2.1869. 6. L.B.Mins. 10.3.1869.

decision was given in favour of the Board.[1]

It was action taken by two other residents of Oxford Street which led eventually to the Board taking effective action. Early in 1871 J.Bostock and J.Adams wrote to the Home Secretary complaining of the defective drainage in their area. This complaint was referred to the Local Government Board who sent the original letter to the Local Board with the news that R.Morgan C.E. would hold an inquiry on the problem in Southampton. Morgan was the Chief Inspector of the Local Government Board and was to deal with several inquiries in Southampton and the surrounding area.[2] As a result of this inquiry Bostock was informed that the Local Board had done its best to remedy the problem and if necessary must do more. Lemon recommended a seperate system of sewers for the district, so as to isolate the houses connected with it, by the construction of a large reservoir to hold the sewerage during high water.[3] After further complaints during the summer of 1871 the Local Board decided to adopt Lemon's plan.[4]

In the twenty years between 1856 and 1875 417 patents were registered for the treatment and utilization of sewerage.[5] The promoters of the companies founded, to exploit these patents, were confident that good profits could be made. Several of these companies wrote to the Southampton Local Board and in December 1868 the Board began negotiations with the National Guano Company.[6] In March the Board discussed the Company's works at Leicester, where it was said no nuisance had arisen, and at Leamington where the works were almost complete. It was decided to send a deputation to inspect the works at Leamington. The visit took place in May and the deputation's report was very favourable. The works produced manure at a cost of £1..0..3d(£1.01) per ton and sold it at £3..10..0d(£3.50p). The effluent water was clear

1.L.B.Mins., 25.8.1869. 2. Ibid.,8.3.1871; P.P.1872 Vol.XXVIII p282. First Report of the Local Government Board 1871 - 1872.
3. Lemon op.cit., I p48. 4. Sewerage Mins.,29.4.1871, 10.7.1871, 15.8.1871.
5 .P.P. 1876 [C 1410]Vol.XXXVIII Modes of Treating Town Sewerage,p285.
6.L.B.Mins. 9.12.1868.

to the eye, free from smell and the deputation had no hesitation in tasting it. As they were confident that no nuisance existed and that the works were efficient the deputation recommended that the National Guano Company should be asked to establish similar works in Southampton. The deputation trusted that this would settle finally the sewerage problems of Southampton. Although Lemon, who was a member of the deputation, claimed in his memoirs never to have been convinced of the value of similar schemes, there is no evidence in the deputation's report or the minutes of the Special and General Committee of his expressing any doubts about the scheme.[1]

The agreement between the Local Board and the Company was to last for thirty years. The Company was to build its own works at the Gaol and at Belvidere to treat the whole of the town's sewerage. The works were to be completed within twelve months and a penalty of £5 per day was to be enforced if this was not done. The Local Board was to receive £500 per annum with the first payment due on 25 December 1870.[2] In March the local press reported that the Company had taken a contract with London and was negotiating for further contracts in Berlin and St. Petersburg.[3] Yet in December the Company asked the Local Board for an extension until 25 June 1871. The Board replied by asking the Company when it proposed to start its works. The Local Board's discussion on the Company's request showed that some members had grave doubts about the Company.[4] In May the Company deposited £500 with a Southampton bank and assured the Local Board that it was about to commence the works. They claimed Southampton would benefit by the delay because of the chemical discoveries made since the Leamington works were opened. Again in July the Board was assured the works would soon be in the hands of the contractors.[5]

Yet by October it was clear that the Company was in financial difficulties. At a joint meeting with the Special and General and the

1. Sewerage Mins., 10.12.1869; Lemon, op.cit., I p46. 2. Sewerage Mins. 10.12.1869. 3. S.Times, 26.3.1870. 4. Ibid. 22.10.1870.
5. Sewerage Mins., 12.5.1871; S.Times, 10.6.1871., 8.7.1871.

Sanitary Committees the Company offered £3,000 in place of the agreed £500 p.a. and a yearly rent of £75. The Committees felt this was not enough but were prepared to consider a higher offer. When the Board considered the Committees' report it agreed with their decision. Councillor Payne claimed that the Company had gained much public support and its £5 shares were worth £30 because the Council had chosen the Company for its works.[1] In January 1872 the Company informed the Board it was unable to advance on its offer of £3,000. When the Board discussed the topic in April Councillor Chipperfield, who had been an early opponent of the scheme, urged that the penalties due in the original contract should be enforced. The Board had received £1,115 but the penalties due amounted to £2,395. The Special and General Committee was asked to report on this. At a joint meeting with the Sanitary Committee the idea was rejected. The Company improved its offer to £4,000 in June 1872 and asked for time for completing the works to be extended until 25 December 1872. This was eventually accepted by the Board although the local press felt the penalties should have been enforced as the Company was carrying out extensive works elsewhere.[2]

Despite the time extension the works did not proceed as planned. The Company claimed that recent heavy rains had held up the works and requested a further extension. The Special and General Committee recommended the Board, which had now become the Urban Sanitary Authority, to reject this request. When the U.S.A. considered this report in March 1873 it showed some sympathy for the Company. Councillor Payne said he had bought shares in the Company but sold them for half the price he had paid. The Company had works in Leeds and Hastings which seemed to be working satisfactorily but yielding little profit. The Junior Baliff Purkis said the Company had spent between £10,000 and £15,000 so the works should be a success. It was agreed to delay sanctions until 30 June 1873.[3] In May at a meeting of the U.S.A. the Company was criticised for neglecting Southampton in order to carry out works at Leeds, Bolton and Crossness. It was decided to send a

1. Sewerage Mins., 3.10.1871; S.Times, 2.12.1871.
2. L.B.Mins., 3.1.1872; Sewerage Mins., 9.7.1872; S.Times, 8.6.1872.
3. S.Times, 1.3.1873; Sewerage Mins., 22.1.1873.

deputation to view the works at Crabniton and report "..if there be reasonable grounds for believing that the Company's process will be in operation by 30 June next and if not whether there be any probability of the Company ever performing their engagement with the Corporation and if so when." The vote on this resolution was 8 votes to 7 with no clear party division. As usual with sanitary business the item came towards the end of the U.S.A.'s meeting when ten Councillors had left the meeting. The local press supported the U.S.A.'s decision and blamed the delay over the works on the supiness of the Corporation.[1]

The deputation reported that there was no hope of the works being ready on 30 June. The Company wrote to the Special and General Committee asking for a new agreement with the Corporation. A meeting was arranged in October but postponed for a month because of the illness of the Company's manager W.C.Siller. When the meeting did take place in November the U.S.A. agreed to defer sanctions again to allow the Company to submit new proposals. When the new proposals were considered by the U.S.A. in February 1874 the Special and General Committee recommended that a further extension of twelve months should be granted only if the Company deposited £1,000 with the Corporation to be repaid only if the works were completed on time. The Company rejected this suggestion as it had paid the Corporation £4,750 for sewage. The U.S.A. decided to take legal action against the Company.[2] The case was to be heard at Winchester on 9 July 1874. On 3 July a deputation from the shareholders met the Special and General and the Sanitary Committees. The deputation outlined the financial position of the Company and showed that it was unable to continue with the works. The Committees agreed to waive all rents and penalties and in return the Company surrendered their leases and handed over their works to the Corporation. This agreement was confirmed without opposition at a meeting of the U.S.A. when it was said the works had cost £13,000. The local press regarded this as the best

1. U.S.A.Mins., 21.5.1873; S.Times, 24.5.1873.
2. U.S.A.Mins., 22.10.1873, 26.11.1873, 25.2.1874; Sewerage Mins.,22.9.1873, 9.2.1873. 3. Sewerage Mins., 3.7.1874;S.Times, 18.7.1874.

solution for the town.[1] The works proved of little value to the town None of the manufactured manures paid its contingent costs. The Southampton works appear to have shared the fate of those in Leeds which were described in a Parliamentary report as "..unprofitable machinery which will not improve in value."[2]

The long drawn out negotiations with the National Guano Company dominated the meetings of the Local Board in the early 1870s but not to the exclusion of all else. One of the greatest sanitary improvements of the 1870s, the drainage of Portswood, was accomplished at this time. Lemon described the tything in the 1860s as a "God forsaken place". He said that the people of St. Denys were mostly squatters who did not care what dirt and squalor they lived in so long as they paid no rates.[3] Yet it was pressure from some of the residents which began the process which led to the Local Board tackling the sanitary problems of the tything. An attempt in 1859 to bring Portswood under the control of the Local Board had failed partly because of local opposition and partly because of the Board's reluctance to take on further responsibilities when the town's works were far from complete. On this occasion the inhabitants of Portswood wrote to the Local Government Board and sent a petition to the Home Secretary. This led to the Local Government Board asking the Local Board what they were doing. In December 1870 the Local Board received a memorial from the inhabitants of Portswood against the introduction of the powers of the Local Board into the tything. The Board decided to call a public meeting in Portswood to take the opinions of the inhabitants.[3] The public meeting in January 1871 carried a resolution against the introduction of the Local Board despite the Town Clerk's opinion that the tything was already under the jurisdiction of the Board. Lemon claimed that some Councillors were prepared to go to any lengths to catch votes. Alderman Furber referred to the Board as an intolerable nuisance which would starve the people. Again as in 1859 local opinion was against the Board because of the expense involved.[4]

When the Local Government Board received a report of this public

1. P.P.1876 [C1410] XXXVIII Modes of Treating Town Sewerage , p175
2. Lemon, op.cit., I p6. 3. L.B.Mins., 27.7.1870, 19.10.1870, 7.12.1870, 21.12.1370. 4. Lemon, op.cit., I p43

meeting it decided to send one of its inspectors, R.Morgan, to hold an inquiry into the sanitary state of the tything. Morgan's report condemned the insanitary state of the area and criticised the Corporation's failure in not attempting to improve the area. When Morgan's report was discussed by the Local Board they showed no great eagerness to tackle the improvements he suggested. It was proposed to send a deputation to explain to the Local Government Board that the Corporation had been unable to complete the sewerage works already undertaken and were not desirous of increasing their difficulties by sewering another area. This was narrowly defeated by 11 votes to 10. The final decision was to ask the Special and General Committee to prepare estimates for the works Morgan had suggested.[1]

An estimate of £20,000 was given for the drainage and water supply of the tything according to the plans drawn up by Lemon. He divided Portswood, which had a population of 5,692, into three districts, the high level, Bevois Valley and the low level. The high level,522 acres, was drained by gravitation, the low level, 132 acres, was pumped and the Bevois Valley, 25 acres was drained by gravitation into the sewer at Mount Pleasant. Lemon originally recommended an irrigation process for utilizing the sewerage but this idea was abandoned because no suitable land was available. A system of intermittent filtration was adopted. The sewage passed through two tanks containing charcoal filters before entering a reservoir where the liquid was deodorised and then used to irrigate the meadow at the sewage farm or pumped into the river at low tide. The works were carried out by J.Nichols for £13,050 and met with the approval of the local press and the M.O.H. [2]

Shortly after the successful completion of the Portswood works Lemon resigned his post as borough surveyor. In his "Reminisences" he claimed he had been forced out by a small minority on the Council. His resignation followed criticism of his extensive private practice at a Council meeting and when his resignation was considered Le Feuvre said that the whole town's works had been neglected because Lemon had been busy elsewhere. As Lemon had submitted plans for the drainage of

1. Lemon, op. cit., I p44; L.B.Mins., 26.7.1871.
2. Lemon, op.cit., I p45-46; S.Times 9.6.1877; A.R.M.O.H.1878.

Winchester, Basingstoke and Newbury shortly before his resignation this criticism was not without foundation. Lemon was appointed as consulting engineer for the U.S.A. at £150 p.a. His assistant Bennett was appointed borough surveyor at £150 p.a. and he was not allowed to undertake private practice. Bennett was to be assisted by a clerk who had a salary of £75 p.a. As Lemon had been paid £500 p.a. the new arrangements saved the borough over £100 a year. Bennett a young man in 1878 was to prove an excellent choice and continued to serve as surveyor for the remainder of the century.[1]

The failure of the Native Guano Company did not deter others from offering similar schemes to the Council during the 1870s but their offers were declined. Yet the problem of the disposal of Southampton's sewage remained. In November 1875 Lemon inspected the Belvidere sewer which had been damaged by vibration from passing trains. The railway company denied responsibility for this damage and it was almost two years before the company reached an agreement with the U.S.A. on repairing the sewer.[2] Even before this dispute was settled the U.S.A faced a more serious complaint from Bull, the builder, whose premises were near the sewer outlet. Lemon dredged the mud near the outlet but the nuisance persisted and Bull threatened legal action. Lemon recommended extending the outlet with iron pipes on piles to abate the nuisance. When Bull complained again in February 1878 he was informed that steps were being taken. In June 1879, after Bull had served a writ on the Town Clerk, Bennett produced new estimates for works at Belvidere and Bull agreed to drop his action. Bull threatened legal action again in January 1880 but was persuaded to wait. Bull's own company was given the contract for the works in May 1880 but it was not until November 1881 that the works were begun.[3]

While Southampton had been forced to take action over its own sewerage by the threat of legal action by Bull the Corporation used the same means to persuade the Shirley Board to improve its sewerage system.

1. Lemon, op.cit., I p106; S.Times, 22.3.1878, 4.5.1878.
2. Lemon, op.cit., I p96-97; Sewerage Mins., 25.6.1877.
3. Sewerage Mins., 26.6.1876, 14.8.1877, 9.10.1877, 25.6.1879, 13.1.1880.

In 1878 the Shirley Board decided to improve its sewerage system and applied to the Local Government Board for its sanction to borrow £2,000. The Town Clerk of Southampton requested the Local Government Board to delay their sanction until the U.S.A. had checked Shirley's plans.[1] Shirley's sewers discharged into a tank at Four Posts, from which the sewage was carried in a 12 inch iron pipe across the mudlands for 860 yards and discharged 400 feet inland from the low water mark.[2] The new scheme was for larger pipes for the sewage outlet at Four Posts. The local press thought that Shirley's sewage should be purified and the outfall carried to the low water mark. This would remedy "..the inconvenience - to use no harsher term - now occassioned by Shirley sewage being thrown upon the mudlands."[3]

In January 1879 the Southampton U.S.A. informed the Shirley Board that they thought Shirley's sewage should be filtered and that they would make their views known to the Local Government Board. Dr.Sampson of the Shirley Board denied that the sewage on the mudlands came from Shirley but Lemon's report for the Shirley Board showed major faults in the sewage pipes.[4] Despite this the Shirley Board continued to deny responsibility for the sewage on the mudlands. They pointed out that the Shirley outfall was from a population of 3,000 whereas the Platform outfall was for 30,000. Lemon produced a plan for filtering Shirley's sewage using the existing tank and a new one of similar size. The Local Government Board in response to Southampton's complaint informed the Shirley Board that it should not repair the present outfall because it had been badly constructed. They advised the Board to clarify the sewage and discharge it into the tideway. G.Parsons, the chairman of the Shirley Board, went to London to put Shirley's case but was informed by J.F.Rotton, the Assistant Secretary to the Local Government Board, that repairs were useless. It was decided to hold another local inquiry.[5]

In May Southampton complained to the Shirley Board about their delay in dealing with the outfall problem. Lemon's plan for the

1. U.S.A.Mins.,26.5.1880, 9.11.1881.

2. Lemon op.cit., I p122. 3. S.Times, 28.9.1878. 4. Ibid,.8.2.1879, 4.1.1879.

5. Sewerage Mins., 25.3.1879; S.Times 8.3.1879, 5.4.1879.

clarification of sewage was presented to the Board in June.[1] When no action had been taken by August the Special and General Committee asked the Town Clerk to write to the Local Government Board informing them of Shirley's inaction and asking them to urge Shirley to act.[2] The Shirley Board wrote to the Government Board denying Southampton's charges. They claimed that the smell came from decaying seaweed. The Shirley outfall had been built in 1868 after an inquiry under Morgan and complaints had only begun a year ago.[3] A further complication for the Shirley Board was the question of the Freemantle district. Public meetings and inquiries into the sanitary state of Freemantle had been held in 1879 and the Shirley Board decided to await the decision on the future of Freemantle before tackling the outfall question. The final government report recommended that Shirley and Freemantle should be combined under one board.[4]

The Local Government Board forwarded Southampton's complaint over Shirley's inaction to the Shirley Board. Dr.Sampson of the Shirley Board said that the complaint was most unjustifiable considering the way Southampton was dealing with its own sewerage. He concluded that it was unfair to put pressure on Shirley to carry out a system "..which the wisest heads in the country were in doubt about."A letter was sent to the Local Government Board defending Shirley's system and again denying responsibility for the nuisance. This letter was sent by the Government Board to Southampton for comment.[5] Eventually the Government Board decided to hold an inquiry into the proposed amalgamation of Shirley and Freemantle and the sewage outfall question. The inquiry was held under R.Morgan on 30 July 1880. The borough surveyor Bennett put Southampton's case. He claimed that, "..foetid matter was floating about, the water greatly discoloured and there was a very offensive smell." When challenged about Southampton's sewage he admitted that at the Platform the excreta of some 20,000 people was carried into the water and that a filtration process was only used in respect of the 7,000 people of Portswood. However the Harbour Master Burbidge supported Bennett and

1. S.Times, 10.5.1879, 7.6.1879. 2. Sewerage Mins., 5.8.1879.
3. S.Times, 6.9.1879, 27.9.1879. 4. Ibid.,4.10.1879, 22.11.1879.
5. Ibid.,10.1.1880, 7.2.1880.

said that for the last twelve years Shirley sewage had not left the mudlands. Dr. Osborn gave evidence that there was a large quantity of sewage and a very offensive smell at the outlet and that this was very injurious to health.[1] When the Local Government Board's report was published in October 1880 it said that the Shirley Board should remedy the nuisance at the outfall with "..as little delay as possible." The Shirley Board decided to wait until the amalgamation with Freemantle had taken place. Lemon commented that the ability of the Board to do nothing was marvellous.[2]

In June 1881 the Southampton U.S.A. decided to take out an injunction to force the Shirley Board to abate the nuisance . The broken pipes oozed sewage and the repairs promised three years earlier had not been carried out. The local press thought the action unfortunate but unavoidable."The offensive exhalations which come from the Western Shore in the summer season are absolutely unbearable and must be pernicious to health."[3] The Shirley Board denied responsibility for the nuisance but promised to carry out the recommendations of its engineer. The leaking pipes were repaired and Southampton was asked to drop its injunction. In December 1881 the Shirley Board agreed to carry out all the works necessary to abate the nuisance. The Board set up a committee to study the problem in February and after considering the system used in Taunton sent a deputation to examine the Hertford system in August. A special report from an expert, Mellish, was commisioned in September. His report published in November 1882 recommended that the sewage should be deodorised and clarified. The best method was chemical deodorisation and precipitation without filtration if the sewage was discharged directly into the sea. The market value of the manure at 15/-(75p) a ton would be £275 p.a. and the cost of the works about £11,000.[4]

While the Southampton U.S.A. tried to put pressure on the Shirley Board the Southampton surveyor put forward plans to remedy the town's sewerage faults. In January 1883 the U.S.A. discussed the nuisance at the sewage outfall at the Platform. It was said to be a source of

1. Lemon, op.cit., I p121; S.Times, 31.7.1880. 2. Lemon, op.cit., I p123.3. S.Times, 11.6.1881. 4. Ibid., 19.8.1882, 4.11.1882.

continual complaints from yacht owners and a probable source of an epidemic caused by the poisonous fumes of the sewage. Bennett's solution was to build a 900 ft. extension of iron pipes to discharge sewage 11 ft. below the low water mark. The tide would then carry the sewage away. The estimate was £2,450 and the plan was passed without opposition.[1] This scheme led the Shirley Board to reconsider their plans. The Local Goverment Board gave Shirley permission to carry out a similar scheme if Southampton went ahead with their extension. Rather than see Shirley continue to pump untreated sewage into Southampton water the U.S.A. dropped their plan.[2] The extensive sewerage works undertaken by Bennett in the 1880s led the Shirley Board to consider linking their system with that of Southampton. An inspector from the Local Government Board considered the scheme in December 1888 and a loan for the scheme was sanctioned in February 1889. The works were completed in June 1890. The sewerage of Shirley and Freemantle was taken into tanks at Four Posts. The solid sewage was pumped into the Southampton system to be dealt with by the destructor at Chapel while the purified effluent was drained into the river.[3]

During these long drawn disputes, with the Shirley Board and Bull, the editor of the Southampton Times commented on the hoped for end to the inconvenience of the sewerage system."The attainment of such a result must of necessity depend on the application of some effectual process of precipitation. When the scientists have provided us with this and the government requires its adoption we may be safe. But there seems little chance of immunity otherwise."[4] This lack of a sense of urgency over the town's sewage problems can be seen in the borough surveyor's report on the drainage of the town in January 1880. Bennett felt that the drainage question could wait; all that was needed was to do the essentials to prevent litigation and flooding. He advised the Council to await the progress of science and to inspect works in other towns. On a recent visit to Wrexham he had inspected Shone's sewage ejector which was used to lift sewage. This machine Bennett thought could be used by Southampton on the low lying sewers to force the sewage to higher

1. S.Times, 27.1.83. 2. Ibid., 29.12.1883. 3. Ibid., 29.12.1888, 9.2.1889, 28.6.1890. 4. Ibid., 1.5.1890.

levels.[1]

The report said the sewers were in good working order and many of them were comparatively new. The problems were the disposal of sewage and the alleged nuisance at the outlets and the flooding of parts of the town at heavy rainfall. This last problem could be solved by separating the rainfall from the main sewers by a system of storm water drainage. If this water were collected into tanks it could be used to flush the main sewers. This system of storm water drains had been used in the Blechynden district in 1878 and no further complaints of flooding had been received, despite the excessive rainfall of 1879. [2] The problem at the outlets could not be so easily or cheaply solved. At Belvidere the outlet discharged into a natural creek in front of Bull's works but because of a strong eddy the sewage could not escape into the main tide. The solution Bennett suggested was to extend the pipes for 400 ft. into the main tidal way at an estimated cost of £1,200. The outfall at the Town Quay was considered by Bennett to be very objectionable and more injurious to the town than that at Belvidere. He recommended that the sewage should be chemically treated before being discharged. He did not recommend any large works of a permanent nature because he felt science would provide a better solution soon.[3]

Throughout the remainder of the century Bennett continued to produce reports on Southampton's sewerage system, which reflected the progress of science and the developments in other towns In February 1884 he outlined a scheme for the drainage of the low lying districts of the borough which made use of Shone's ejectors. The area under consideration covered 540 acres and had a population of 38,500. The sewerage of this area was discharged at Belvidere at the rate of 2,000,000 gallons per day, which increased to 5,000,000 with 0.25 ins of rain. He recommended building a new sewer to divert the sewerage of district A (see map) from low lying sewers in district B. Shone's ejectors were to be used to lift the sewerage of districts C and B, to be discharged at Belvidere [4]

1. W.Bennett, The Drainage of the Borough 1880(Southampton 1880) p4.
2. Ibid., p8. 3. Ibid., p11. 4. W. Bennett, Report on the Drainage of low lying districts of Southampton. (Southapton 1884) p4-9.

Later in 1884 Bennett brought out another report which introduced the idea of a refuse destructor for Southampton. He contacted 15 towns which used destructors and each sent a report on the value of the destructor to their town. These reports showed a variety of uses to which the destructor could be put and the expenses of building and running a destructor. Salford's destructor cost £2,287 and £3 per week to run. Uses to which the products of the destructor could be put included paving and building. The heat from the destructor could be used to generate steam which could drive sewage machinery. Bennett recommended Fryer's destructor, one cell of which could destroy 7 tons of refuse a day. As Southampton produced 35 tons a day a six cell destructor was needed and this would cost about £2,000. [1]

At Birmingham the destructor was used to dispose of part of the town's sewage and Bennett was asked to consider this aspect of its work in devising a destructor scheme for Southampton. His scheme was to destroy ash bin contents and garbage and dispose of sewage sludge deposited. These works were completed by 1886 at a cost of £3,723 for the destructor and £3,000 for the sewage disposal section. The annual expense of the works was £221..4..0d(£221.20p) of which £182 was for wages. Reservoirs were constructed at the Platform and filters used to drain off the effluent, which was discharged at low tide. The sewage sludge was burnt at first, but it was discovered that if it was mixed with road sweepings it could be sold as manure at 2/6d(12.5p) per yard. This produced an annual return of £600 and the clinker from the burnt refuse £300.[2] The destructor also provided the power for the pneumatic ejectors and for the electric lighting of the nearby streets. Compressed air was supplied for £200 to the ejectors of Shirley.[3]

Yet despite the success of the destructor problems persisted at the Platform. In a special report the M.O.H. Wellesly Harris criticised the treatment system at the outlet. The sewage was pumped or gravitated into tanks where it was mixed with a chemical precipitant, 10 grains of

1. W.Bennett, House Refuse Destructors , (Southampton 1884) p6-10.
2. W.Bennett, The New Sanitary Works of Southampton (Southampton 1889)
3. W.Bennett, Description of Southampton's Sewage Precipitation Works(Southamton 1892).

ferrozone per gallon of sewerage. After settling in the tank the effluent was discharged by a floating arm on to the mud flat 200 ft. from the Platform. Harris claimed that the ferrozone was not properly dissolved and so the process was useless. "The effluent is a dark stinking liquid having a marked odour of sulphurated hydrogen - increased to almost an intolerable nuisance by the action of the sun in summer on the pool and mud flat at low tide." The remedy Harris suggested was the proper admixture of the precipitant, and the more frequent removal of sludge from the tank and the extension of the outfall to deep water.[1]

When the Sanitary Insitute held its Congress in Southampton in 1899 a report was published on the sanitary works of the town. In the 1890s Bennett had completed his works for the town at a cost of over £120,000 All the town's sewage was brought to one common outfall and chemically treated. The sludge was pressed and almost 1000 tons per month was bought by farmers at 2/-(10p) per one horse cart load. Despite this apparent success the report said the greatest sanitary trouble of the day was the cheap and efficient disposal of sewage. It suggested that the Portswood works might contain the answer. The population of the area was 10,000 and it produced little trade or manufacturing refuse. Chemical treatment was costly and sludge could not always be sold. The sewage farm land was not enough for permanent land filtration. In 1898 Bennett had constructed bacteria beds of the clinker from the destructor at Portswood. The sewage was led directly into these beds and the effluent went directly into the river. The scheme according to the report involved no trouble, no labour, no expense and the result was satisfactory. The scheme had been used successfully at Southwold.

The problems Southampton faced in dealing with its drainage and sewage disposal were not uncommon in Victorian towns. Under the influence of Chadwick and his General Board of Health engineers, many towns were convinced that a profit could be made from sewerage. Ranger in Southampton had talked of an income for the town of over £5000 a year from the town's sewerage. Yet the introduction of guano in 1847 led to the collapse of the market for the more expensive and less manageable

1. M.O.H.Report, Nov.1893, S.R.O. SC/H1/14.

human and animal sewage. The efforts of the many patent companies like the National Guano Company kept this hope alive well into the 1870s. In 1870 a government report on the A.B.C.Process, used by the National Guano Company, showed that it did not purify the effluent and the manure obtained was of very low market value which would not repay the cost of manufacture. These results were confirmed in 1876 when another report said that none of the manufactured manures paid their contingent costs.[1] Yet as late as 1874 Southampton was still hoping for a profit from the National Guano Company.

Access to the sea was an important factor in the development of a town's sewerage system. The General Board recommended the use of water closets but this advice was ignored by the majority of inland towns. Liverpool and Southampton followed the advice of the Board and took steps towards the general adoption of water closets in the 1850s whereas Birmingham in 1872 seriously considered the idea of penalising the owners of W.Cs.[2] Leicester, like Southampton, found its early sewers to be badly constructed with little fall. The town's deodorising plant failed and the river into which the sewage drained became badly polluted. A pail closet system was adopted by the town partly to reduce the demands on the sewerage system and partly because some of the town Council believed the poor could not use a W.C. properly. Over 7000 pail closets were used and this created a problem of disposal of the night soil. The system led to many complaints and was never a satisfactory solution to the town's sewerage problem. It was only with the completion of a sewage farm and the replacement of pail closets, with water closets in 1895, that an adequate system was provided.[3] Leeds used a box system similar to the pail closet system to help reduce pollution of the river into which the town's sewers drained. As the collection of boxes proved very expensive Leeds like Southampton sent deputations to many other cities to study their systems. The National Guano Company was asked to provide a purification works. The works cost the Company

1. P.P.1870 [C181] XL 499, Royal Commission on the Prevention of Pollution of Rivers p527; P.P.1876 XXXVIII Modes of Treating Town Sewerage p 143,309. 2. E.P. Hennock, Fit and Proper Persons, p108. 3. Victoria County History, Leicestershire, IV p278-79.

£57,541 and although the sewage was purified to some extent the Company could not run the works at a profit. The Council took over the works which proved of little value.[1]

As Southampton disposed of much of its sewage into the sea it did not have to conform to the requirements of the 1876 River Pollution Act. It was this Act which led to so many inland towns following the example of Leicester and Birmingham and adopting pail closet systems. In Bradford the scarcity of water was another factor. By 1900 less than 25% of the population had W.Cs.[2] Manchester adopted the pail system in the 1870s and these were still in general use in 1902.[3] In Nottingham the Sanitary committee recommended W.Cs. in 1854 but it was not until the1890s that the Council began to carry out this recommendation.[4] The pail closet system was one of the factors responsible for the high infant mortality rate in many inland towns.[5] The Local Government Board like the General Board encouraged the use of W.Cs. When an earth closet system was suggested by the Shirley Board as a way of alleviating the nuisance at Four Posts the Local Government Board made it clear it would not sanction the plan and the idea was dropped. By 1880 the Southampton Urban Sanitary Authority had provide an adequate system of drainage for all the districts under its control. The problem, as Bennett pointed out in his 1880 report, was sewage disposal. The experts in this field seemed more divided than in any other area of sanitary reform. From the days of Chadwick onwards the local authorities were encouraged to hope that scientists would turn sewage from a nuisance into a source of profit. Over 400 manure patents were registered in the twenty years after 1855 but none fulfilled the hopes of its inventor.[6] The members of the Council recognised the problem but lacked the expertise to judge the sewerage plans presented to them. Scientists could provide no simple

1. J.Toft, Public Health in Leeds c1815-1880, M.A.Thesis (Manchester 1966). p228-40. 2. B.Thompson,"Infant Mortality in Nineteenth Century Bradford",J.Woods & J.Woodward eds., Urban Disease in Nineteenth Century England,(1984) p140. 5. M.&C.Pooley,"Health, society and environment in Victorian Manchester", Ibid., p173. 6. R.A.Church, Economic and Social Change in a Midland Town, Victorian Nottinham 1815-1900,(1966) p345

solution and the Local Government Board gave little guidance. In the circumstances it was not suprising that the U.S.A. delayed taking action and Bennett and the local press were prepared to wait for a scientific breakthrough.

Ranger provided Southampton with its first sewerage system for the whole town but the expense of his work alarmed the Council and might well have led to his dismisal had he not resigned in 1854.[1] Not only was the system expensive it was also inefficient. Flooding could be prevented only by constant pumping to keep the sewers in the low lying districts of the town clear. The conflict over the drainage system in the 1850s concentrated on ways of avoiding the expense of pumping. The syphon chamber was an attempt to raise the sewerage from low lying sewers without pumping but it was not successful. Lemon solved the town's drainage problem by relaying parts of Ranger's system and improving the pumping system. The cholera epidemic of 1865-6 made it easier for Lemon to persuade the Council to tackle the problem than it had been for his predecessor Poole.

Once the flooding problem was solved in the 1870s sewerage was an obvious problem only to those, like Bull, who lived or worked near the outfalls. The local press showed no great interest in the problem and the Council was reluctant to spend money on schemes whose returns were uncertain. The sewerage of the town found no champion on the Council who could match the efforts of Lemon and Nichols in securing the Otterbourne water supply. The M.O.H. Osborn paid the question little attention. The borough surveyors Lemon and Bennett were capable men but they too, showed little sense of urgency. Perhaps Lemon was too busy with his private work and Bennett too young to command the support an ambitious sewerage scheme would have needed. The real problem in the 1870s was that after the failure of the Native Guano Company there was no obvious solution to the disposal of sewerage available. Towns like Nottingham, Bradford and Manchester had systems much inferior to that used in Southampton. As the century drew to a close the finance available to local authorities increased rapidly. Not only did the rateable value of towns increase but the loans sanctioned by the Local Government Board

1. see Chapter II .

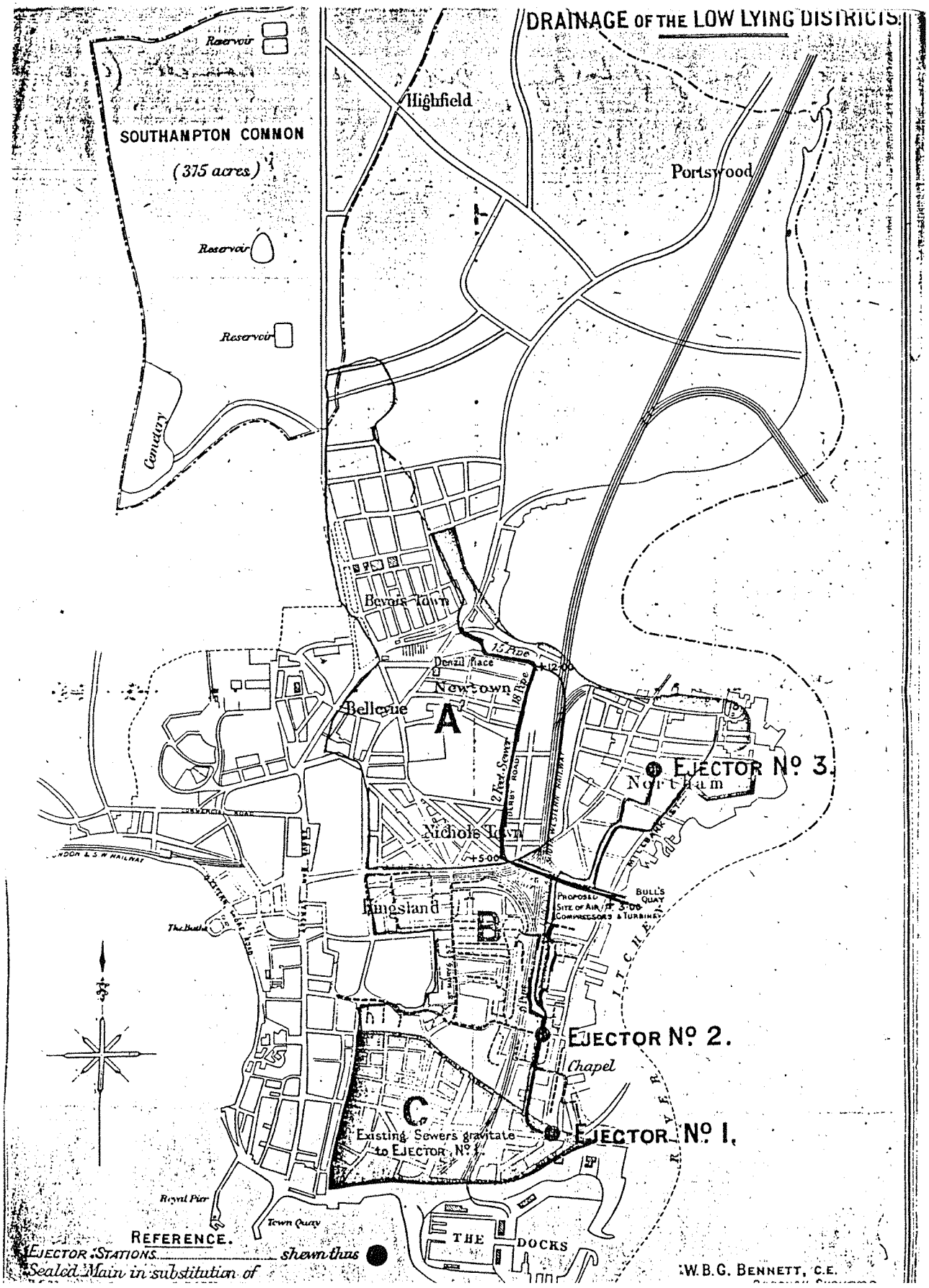
grew even more rapidly. In 1871 the loans sanctioned amounted to £267,562. In 1890 the sum was £2,827,296 and in 1900 £10,829,747. As these loans increased, so too did government grants. In 1874-75 £1,681,399 was given by the government. Twenty years later this sum had risen to £8,996,775 and by 1900 23.1% of local authority income came from government grants.[1]

When Bennett found a system based on a destructor he had no hesitation in recommending it to the Council. By the 1890s the Council had become accustomed to raising and spending money on a scale which would have been unthinkable in the 1850s. It was this experience together with the encouragement of government grants which enabled the town's works to advance to a successful conclusion in the 1890s. The development of an efficient drainage and sewerage disposal system was esential if the major public health hazards of summer diarrhoea and other intestinal diseases were to be removed. The dramatic fall in the Infant Mortality Rate in the early twentieth century was not unconnected with the end of the pail closet system.[2] When the works were completed in 1899 they met with universal approval from the engineers attending the Sanitary Congress in Southampton. Mawbey of Leicester said that with Lemon, Morgan and Bennett as borough surveyors no town in England had been better advised in the municipal engineering department.[3] Southampton sanitary authorities had solved the town's problems of drainage and sewage disposal efficiently, reasonably cheaply and by nineteenth century standards quickly.

1. P.P. 1901 [C746], Vol.XXV 30th Annual Report of the Local Government BoardReport, p.cxiii,clxxxvii; P.P.1909 XXVIII Local Government Board Report, p.civ.

2. see Chapter VI 3. S.Times, 2.9.1899.

W. Bennett Drainage of Low Lying Districts (1884)



CHAPTER VI.

THE TREATMENT OF DISEASE 1848 - 1894.

In the early nineteenth century the most popular theory of the causation of disease was the miasmatic or pythogenic theory. Edwin Chadwick in his 1842 Report concluded that diseases were caused, aggravated or propagated by "..atmospheric impurities, produced by decomposing animal and vegetable substances, by damp and filth, and close and overcrowded dwellings..".He remained a firm believer in this theory until his death in 1890.[1] John Simon in his report to the General Board of Health as its medical officer in 1858 blamed the high death rate among the poor on ".. the impure atmosphere which commonly surrounds the patient." In the same report Simon described Dr.Snow's views as of interest, but not proven.[2] Snow's work during the 1849 cholera epidemic in London had convinced him that the disease was transmitted through infected water. In 1855 he republished his 1849 pamphlet "On the Mode of the Communication of Cholera" and included his classic study on the Broad Street pump. Dr. Budd in Bristol had reached similar conclusions in 1849 but both Budd and Snow had their work condemned by the Lancet and the Royal College of Physicians.[3]

The germ theory of disease did not become popular until late in the nineteenth century. Louis Pasteur(1822-1895) put foward his germ theory in 1878, although the existence of germs had been acknowledged since the work of Leuwenhoek in the seventeenth century. Pasteur's work led to the development of a rabies vaccine in 1885. The major breakthrough which led to the widespread acceptance of the germ theory in the early twentieth century was the achievement of Robert Koch(1843-1920), the founder of the science of bacteriology. In 1882 he isolated the tubercule bacillus and in 1884 the causative organism of cholera and

1. C.E.A.Winslow, The Conquest of Epidemic Disease , (Wisconsin 1980)
2. P.P.1857-58 (2415) Vol.XXIII, Papers Relative to the Sanitary State of The People of England, pvii. 3. F.B.Smith, The People's Health(1979), p234

amoebic dysentry. Further work in the last two decades of the nineteenth century led to the isolation of the specific etiological agents of twenty diseases. Yet this work did not go unchallenged. Max von Pettenkoffer(1818-1901), a leading German scientist and the founder of experimental hygiene continued to support a modified version of the miasma theory. He attempted to refute Koch's theory by swallowing a glass of water containing the virulent cholera bacilli and, by surviving, claimed to have proved them harmless. Even Pasteur's idea of germs as the cause of disease was opposed at an international medical conference as late as 1881.[1] When the Royal College of Physicians gave advice to local authorities on the measures to be taken to prevent an outbreak of cholera in 1893 they concentrated on house ventilation, nutrition and regular exercise. No mention was made of boiling water or the care needed in handling a patient.[2] In 1894 when Creighton published his major work, The History of Epidemics, he did not support Snow's theory on cholera and in writing about typhoid gave as its major cause a miasma rising from the soil.[3]

Not only were the causes of disease uncertain in the nineteenth century but the diagnoses of the medical men were questionable. It was not until 1869 that typhus and typhoid were separated in the Registrar General's statistics. The references to diarrhoea, English cholera, Asiatic cholera and dysentry, and the often conflicting diagnoses given by doctors during the cholera epidemics, make some of the statistics of doubtful value.[4] Diphtheria was not diagnosed in England until 1857 and was sometimes confused with scarlet fever.[5] In his 1879 Report the Registrar General commented on the improvement in the definition of the cause of death. He claimed that in the period 1851-1860 18 deaths per 1000 were ill defined but by 1879 this figure had dropped to 4 per 1000.[6] It is against this background of conflict

1. H.McDougal, Medicine through Time(Edinburgh 1976), p11. 2. Smith, op.cit., p233.3. C.Creighton, History of Epidemics (Cambridge 1894), p222, 854. 4. P.P.1868-9 [4218] Vol XXXII Royal Commision on the Operation of the Sanitary Laws, p237; Creighton, op.cit., p792. 5. G.M.Howl, Man Environment and Disease in Britain, (1972), p189.
6. 42nd Report of the Registrar General 1879.

among experts and lack of certainty in diagnosis that the work of the local authorities in Southampton in the field of public health must be judged.

The annual reports of the Medical Officers of Health give some indication of the level of medical expertise available to the authorities. Cooper's report on the sanitary condition of the town, which he produced in March 1851 shortly after he took over his post, is the only full report of his which has survived. Cooper had been trained in Edinburgh where the miasma theory was not widely accepted and the high death rate among the poor was ascribed to poverty, which led to lack of nourishment. It may have been his Edinburgh training which led him to comment "No doubt but want and poverty and intemperence are the great parents of disease..".However he went on to claim that disease could be alleviated by tackling sanitary problems and in particular providing "better air".[1] In line with Chadwick's thinking Cooper as M.O.H. concentrated on dealing with nuisances and several of his nuisance reports have survived. These reports show a concern over "noxious effluvia" which was typical of those who accepted the miasma theory.

None of the annual reports of Cooper's successor, Dr.MacCormack, has survived but several of his annual and quarterly reports were given good coverage in the local press. His quarterly report in February 1867 stressed the need for disinfectants, cleanliness and ventilation if cholera was not to return. Proper disinfecting of beds was needed because "..miasma is retained by such articles as furniture, beds, curtains etc." This belief in the miasma theory was repeated later in the year when he warned of the danger of cholera returning "..there still exist the peculiar influences, atmospheric and terrestial which may at any moment cause it to spring up." MacCormack's last annual report published in February 1871 was quoted verbatim in a full column of the local press. He commented on the considerable diminuition in epidemic and contagious diseases, which he referred to as "..the true test of the sanitary condition of the town." The chief problem he felt

1. F.Cooper, Report on the Sanitary Condition of Southampton (Southampton 1851), p35.

in the town was the lack of disinfecting apparatus for bedding,".. without which it is useless to expect to halt epidemics among the poor."[1]

In 1875 Dr.Osborn, who had replaced MacCormack in 1872, presented his report for 1874 and from this date a complete series of annual reports exists. According to Osborn smallpox had not become an epidemic in 1874 as it had done in 1871 because he had been able to isolate patients inthe town's recently acquired isolation hospital at West Quay. Well water contaminated by sewage was blamed for the fever cases in Portswood. The wells were closed and town water supplied to the area. Osborn's support for the miasma theory can be seen in his explanation for the high mortality in the first quarter of 1875 which he gave as "some atmospheric cause." Although he made reference again to an atmospheric influence on the scarlatina epidemic of 1876 he included in his discussion of enteric fever a reference to a germ transmitted through water or milk. In his 1879 report on scarlatina he referred to the disease being spread by germs on clothes. Unclean feeding bottles were suggested as a cause of infant diarrhoea in 1880. Each year Osborn attempted to give the causes of the major diseases in his report. In 1882 he said that not all fevers and blood poisoning had external causes such as "noxious effluvia" and suggested that unwholesome food played a part. The means by which disease could be spread was discussed in his 1884 report. He said, that typhoid could be spread through excreta and diphtheria through clothes. Yet a year later the source of typhoid was traced to a defective W.C. "..causing escape of noxious effluvia at times" and when he failed to find the origin of some smallpox cases he put it down to an "atmospheric tendency." This combination of the germ and the miasma theories appeared again in his 1888 report when he traced the cause of scarlet fever cases to germs transmitted on clothes and put down a diphtheria case to noxious effluvia from a defective drain.[2]

With the advent of A.Wellesley Harris as M.O.H. in 1890 all references to "atmospheric influences" and "effluvia" disappear from the annual reports.His first report commented on the high number of zymotic

1. S.Times, 9.2.1867, 24.8.1867, 11.2.1871.
2. Osborn, A.R.M.O.H. 1874-1888.

and phthisis deaths in the poor and more crowded parts of the borough. He said these deaths proved the "deleterious effects of overcrowding and insanitary surroundings." This was a theme to which he returned in several subsequent reports and reflected the growing national conviction that further advances in public health would necessarily involve housing. His reports on smallpox stressed not only isolation as Osborn had done but revaccination which he suggested should be carried out every seven years in ports.[1] He showed a sound grasp of developments in medical science. He gave the means of spreading phthisis as spitting and claimed that the decline in deaths from diarrhoea among infants was due to the enforcement of bye laws on cleanliness in the milk trade.[2] He commented on the frequent use of the steam disinfector and continually urged the local authority to provide a better isolation hospital where all infectious diseases could be treated.

The Officers of Health regarded themselves as the medical experts and were the most regular source of advice and information for the local authority. Yet as the representative of a divided body of experts still struggling to establish their professional status, the M.O.H. in the nineteenth century was not accorded the deference given to his twentieth century successor. Thus the suggestions of Cooper for a public mortuary, a public abattoir and a model lodging house were repeated by each of his nineteenth century successors and all three were achieved only in the twentieth century. In times of crisis, as in the years when cholera threatened or in the 1871 smallpox epidemic, the local authorities were bombarded with information, advice and opinion in the national and local press. As elected Councillors they had to take their decisions in the light of local opinion as well as the reports of their officials. To do too little might lead to interference from outside but, with the departure of Chadwick, the General Board like its successor the Local Government Board proved to be a toothless tiger. The real penalty for inactivity was not only the disastrous epidemics of 1865-66 and 1871 but the national noteriety they led to and the effect this had on the town's reputation and trade.[3] Yet when the Sanitary Committee took

1. A.W.Harris, A.R.M.O.H. 1892. 2. A. W.Harris, A.R.M.O.H. 1893,1894.
3. S.Times, 4.8.1866; H.A.,22.9.1849.

action as it did during the cholera crisis of 1866 it faced severe criticism when the crisis was over for the expenditure involved.[1]

The Sanitary Committee of the Local Board was regarded as primarily responsible for the health of the town and it was this Committee which supervised the work of the M.O.H. When the Local Board was formed in 1850 the Sanitary Committee consisted of eight members, but this was soon increased to ten, the same number as on all regular committees of the Board. The attendance at the Committee's meetings was rarely above 50% and the average attendance in the early years was only three or four. The frequency of the Committee's meetings reflected the popular view of the town's health. In the mid 1850s and early 1860s the Committee met only about six times a year, but in 1853, when a cholera epidemic was expected, 17 meetings were held and a similar number in 1865. The major epidemics of 1866 and 1871 led to the calling of 36 and 38 meetings respectively.

The early meetings of the Committee from 1850 to the late summer of 1853 concentrated on the removal of nuisances and the regulation of slaughter houses.[1] In September 1853 the mayor called a special meeting of the Local Board to consider the new bye laws necessary to improve the sanitary condition of the town in view of the danger of cholera which had appeared in other parts of the country. The editor of the Hampshire Independent commented that two thirds of the Board had to be present to consider bye laws and as this number had not been achieved recently, he urged the members to make a special effort.[2] When the Board met Le Feuvre claimed that the town's miasma was little better than in 1849, the year of the last cholera epidemic, and he blamed Ranger. The town's sewer works were discussed but when a recommendation from the General Board was mentioned one of the town's Aldermen said he had no more confidence in the General Board of Health than he had in an old washerwoman.[3]

During the remainder of 1853, although the cholera figures for Newcastle were given, the local press concentrated on the local elections and reported the Board's work on sewering the town. In September 1854 press reports of cholera in London and Liverpool and new

1. Sanitary Mins., 1850-1871. 2. H.I,. 17.9.1853. 3. Ibid,. 24.9.1853.

methods of treatment for cholera appeared. In late October a case of cholera in Southampton was reported but the patient recovered.[1] Although the press gave their work little coverage the Sanitary Committee worked hard, meeting eleven times in the last four months of 1853. In September 1853 an emergency meeting was held with the Board of Guardians, the medical gentlemen of the town and five of the town's clergy to consider preventative measures against cholera, such as "washing, cleansing and lime washing", suggested by the town's Medical Society. The town was divided up into 32 districts, visitors for each district chosen and house to house inspection planned. Further action was taken against nuisances and Ranger's advice sought on the problems of Northam.[2] In September 1854 three medical gentlemen attended the Committee's meeting and advice was given on lime washing and purifying premises should cholera appear. Cooper was paid £13 for the hire of flys. Although there were some cholera deaths, the expected epidemic, which affected many other parts of the country in 1853-4, did not occur in Southampton.[3] Four of the 1854 cholera deaths in the town were emigrants from London.[4] The pattern of events of 1853-54 was to be repeated in 1865-66. The absence of press comment may well have been a deliberate attempt to avoid creating alarm. This was the case in Southampton in 1866 and in Hamburg in 1893.[5] The extra money paid to Cooper for transport costs reflects his increased activity during the crisis.

Cholera was a major factor in the development of public health in England in the nineteenth century. The Times in 1848 described it as "the best of all sanitary reformers." It appeared in England for the first time in 1831 and approximately 32,000 died in England and Wales in the epidemic which followed. The second wave came in 1848-9 when 62,000 died. It was not the numbers of those who died, which gave cholera its impact, as similar numbers had died in the typhus epidemics of the 1840s. It was the suddeness of the cholera deaths and the high percentage of deaths, between 40 and 60, among its victims which made

1. H.I., 2.9.1854, 28.10.1854. 2. Sanitary Mins., 27.9.1853, 1.10.1853, 21.12.1853. 3 .Ibid., 28.9.1854, 29.11.1854. 4 .H.A,. 26.8.1854. 5. R.Evans, Death in Hamburg (1987) p489.

cholera a panic-inspiring disease. Southampton had escaped almost unscathed in the 1831-1832 epidemic, but had suffered severely in the second epidemic when 249 had died. When the third wave in 1853-1854, which carried off 20,000 nationally, made little impact on Southampton, the authorities must have felt that the Local Board, brought into existence largely because of the 1849 epidemic, had carried out its work successfully. The comments of Sir Benjamin Hall after his inspection of the town's sanitary works appeared to confirm this.[1]

With the passing of the third wave of cholera the national enthusiasm for public health began to wane. Few new Local Boards were established and in some towns the Local Boards did not retain their M.O.H.[2] Southampton shared this national mood. The number of meetings of the Sanitary Committee declined and at many of these meetings only two or three of the ten members appeared. It took the parliamentary criticisms of the choice of Netley as the site of the Army Hospital to stimulate the Committee to meet more frequently in 1857 and 1858 to defend the reputation of the town as a healthy area. When this question was settled the Committee's activity declined. Yet the health of the town during this period was far from satisfactory. The Registrar General gave the annual mortality rate for Southampton for the years 1851-1860 as 24 as against 23 per 1000 for the preceeding decade.[3] The Registrar General's report for 1864 confirmed the high mortality in the town. The death rate nationally in the autumn quarter of 1864 had been higher than usual and in Southampton the number of deaths was well above the average for the quarter in the preceeding five years. The local press in reporting these figures urged the authorities to take action to remedy any sanitary deficiencies in the town.[4]

The response of the Local Board was not immediate. When Cooper asked for the assistance of an inspector of nuisances because of the

1. H.I,. 28.10.1854. 2. C.F.Brockington, The Medical Officers of Health 1848-1855. (1957) p14. 3. A.P.Stewart & E.Jenkins, The mMedical and Legal Aspects of Sanitary Reform, (1866, M.Flinn, Ed. Leicester 1969), Table IV. 4. S.Times, 11.2.1865.

increased amount of disease in the town he met with strong opposition. Palk, the chairman of the Sanitary Committee, supported Cooper and said the high death rate was due to atmospheric causes prevailing in many large towns. Against this others argued that the town was in a better state than it had been for some time. As a compromise a temporary appointment was made. In the same issue of the paper which reported the Local Board's meeting a letter appeared from Dr. Edwin Hearne. He was one of the most successful and best known of the town's medical men. As early as 1847 he had supported the use of chloroform in childbirth. He was a frequent contributor to the correspondence columns of the local press and was later to become a town Councillor and J.P.[1] His letter claimed that the town's high death rate was due to the lack of effort by the Local Board. Many properties were without a water supply and others were badly sewered. He concluded his letter "In thickly populated parts of the town, streets blocked up at one end or both ends, thus precluding ventilation, are fertile sources of disease."[2]

In April 1865 the Local Board agreed to appoint an inspector of scavenging and watering the streets at £1..4..0d(£1.20p) per week. He was to work under the supervision of Cooper. Palk pointed out that Cooper had made 7000 visits over nuisances so needed a practical man as an assistant.[3] A month later the Southampton Times carried a leader which criticised the dilatory manner in which public works were carried out. The poor state of the roads and the inadequate scavenging of the town were stressed. The Sanitary Committee, perhaps in response to earlier publicity, had begun to take more action over nuisances and houses with inadequate drainage.[4] As a result of this renewed effort a case came before the magistrates which gives some indication of the sanitary conditions in part of the town. A landlord, J.H.P.Balne, was summoned for refusing to comply with a removal of nuisance order from the M.O.H. Balne claimed he had taken measures to abate the nuisance. He had placed covers on the seats of the privies and whitewashed the walls and he denied the existence of offensive smells. The inhabitants had signed a petition stating that they were perfectly satisfied. Cooper

1. F.B.Smith, op.cit., p19. 2. S.Times, 25.2.1865. 3. Ibid., 8.4. 1865, 13.5.1865. 4. Sanitary Mins., 10.3.1865, 21.3.1865, 8.5.1865.

said the only satisfactory solution was for the properties to be drained into the sewer which was only 30 ft. away. The privy in one house was only a stick's length from the kitchen and there was a very offensive cesspool, at the end of the yard. In his defence Balne claimed that the closets were all cleaned out four months ago and there had been no deaths in the houses which were about 30 years old. He was fined £2 for each of his ten properties. Palk said that doctors in every town claimed that at least ten deaths in the annual death rate per thousand were unnecessary and it was to prevent this that Balne had been summoned.[1]

In July 1865 the spread of cholera in Alexandria was reported and in September adverts for cholera cures appeared in the local press. The Local Board was criticised by the local press for delaying new paving works, but it had begun to tackle the problems of defective sewerage, the nuisance at the cement works and the problem of the cattle plague.[2] It was The Times in London which first made public the outbreak of cholera in Southampton, as it had done in 1849. The paper criticised the local authorities for their negligence. In a leader the mud nuisance in the upper part of Southampton Water at low tide was described as a "hot bed of pestilence".[3] On the day following this report the Sanitary Committee received a letter from Dr.J.Simon of the Privy Council Medical Department asking for details of the cholera and diarrhoea cases in the town and the precautions taken. The Committee replied that there was no more diarrhoea than usual and only one case of spasmodic cholera, James Rose. It added that Rose had "a weak and sickly constitution and had been unwell for some time past.[4]

The local press reacted strongly to the criticism of the town in The Times. The reports were blamed on chattering correspondents, a loquacious Officer of Health and a "few medical men out to make a name for themselves." It was admitted that there had been some cases of English cholera. Summer or English cholera was the name given to a form of vomiting and diarrhoea common in the warmer months of the year and a major cause of infant deaths.[5] Since vomiting and diarrhoea were also

1. S.Times, 3.6.1865. 2. Ibid.,12.8.1865; Sanitary Mins.,9.8.1865, 11.8.1865, 19.8.1865. 3. Times, 11.7.1849, 27.9.1865.
4. Sanitary Mins. 28.9.1865. 5. Evans, op.cit,.p197.

part of Asiatic cholera, diagnosis was not always accurate as Stebbing was to admit and the Registrar General to imply when the cholera epidemics were investigated. The Southampton Times praised the work of the Local Board and commented that "Few communities have taxed themselves to the same extent in order to secure the advantages of the sanitary arrangements we possess."[1] Despite the confidence of the press the Sanitary Committee had already begun to take action to combat a cholera outbreak. The town had been divided up into 39 districts each under the supervision of a member of the Board. Five hundred weight of chloride of lime, twenty gallons of solution of chloride of lime and twenty gallons chloride of zinc were ordered. On 5 October the Committee decided to have a list of instructions on the prevention of cholera drawn up and circulated in the town. Later the same day the Committee met some of the town's doctors and several of them reported cases of Asiatic cholera. The Committee accepted that there was cholera in the town and asked the doctors to send in daily returns. Professor Parkes of Netley, who had been asked by the Privy Council to enquire into the sanitary condition of the town, was present. Parkes was professor of hygiene at the Netley Military Hospital and was a frequent adviser to the Privy Council.[2] Yet two days later the local press complained about the damage done to the town by the cholera scare and claimed that the panic was over.[3]

Despite the complacency of the press the Sanitary Committee continued to meet daily and the Southampton Medical Society discussed methods of dealing with cholera. Dr. Budd of Clifton said that all drains and cesspools should be disinfected as cholera was mainly if not exclusively propagated by noxious emanations from such places. The cholera cure adverts, which had appeared regularly since mid August, continued to claim that one dose taken in time made cholera impossible.[4] On 13 October the Committee decided to take over a house for cholera patients next to the old Debtors Ward House. Dr. Broster was appointed as medical superintendant of the cholera house and was to be paid £1..1..0d(£1.05p) per day if his services were needed. Medicines

1. S.Times, 7.10.1865. 2. Sanitary Mins.,3.10.1865, 5.10.1865; D.N.B.
3. S.Times, 7.10.1865. 4. Ibid,.19.8.1865, 7.10.1865.

were made available by prescription from chemists or from the Poor House Dispensary for parish patients.[1] In face of such activity the press could ignore no longer the existence of cholera in the town. The Southampton Times admitted the presence of cholera but praised the efforts of the Sanitary Committee in removing nuisances almost as soon as they were discovered. The editor pointed out that all the cases had been in the lower part of the town among the poorer part of the population. He assured his readers that "..with proper precautions, no apprehensions need be entertained as to an increased prevalence of the disease." The paper reported a talk given by a Dr. Chapman of London to the local Medical Society in which he claimed that cholera was neither infectious nor contagious and could be cured by modifying the temperature of the spinal region, the suggested method being ice bags down the centre of the back.[2]

The epidemic had passed its peak when these reports were published. It claimed its final victims, including Francis Cooper the M.O.H., in the last week of October and on 8 November 1865 after a week without any reported cases of cholera or diarrhoea Professor Parkes informed the Privy Council that the disease was at an end. Parkes asked the Sanitary Committee for the amount of water supplied daily per head of population and an analysis of the town's water.[3] This concern over water supplies had been voiced by a Dr.Longstaff in a discussion on cholera in Freemantle. He said that cholera was spread by drinking impure water impregnated with ordure filtered from dead wells to live wells.[4] The Committee closed the cholera house, dispensed with the services of the nurse and paid Dr.Broster £5..5..0d(£5.25p) for his work.[5] There had been 16 deaths from cholera or diarrhoea in September and 25 in October 1865.

In the November elections for aldermen the Conservative majority voted out Edwin Palk,a Liberal. Palk ,a chemist, had been a member of the Council for 18 years, a regular member of the Sanitary Committee since its formation in 1850 and for most of this period its acting

1. Sanitary Mins., 13.10.1865.
2. S.Times, 14.10.1865.
3. Sanitary Mins., 8.11.1865.
4. S.Times, 4.11.1865.
5. Sanitary Mins., 8.11.1865.

chairman. He had been in charge of the Committee when it had dealt successfully with the 1853-4 cholera crisis. The extent of the loss to the town of Palk's services may be judged by a letter he wrote to the local press in December 1865. He gave the total cost to the town of the 1849 epidemic as £8,000 with £1,031..12..6d(£1031.62p) in casual relief and £380 in annual relief for widows and orphans. The success of 1853 he attributed to house to house visitations and the use of disinfectants. In 1865 forty men had been employed to lime wash and disinfect all known plague spots. Thirty three of the thirty nine districts of the town had been reported on and the remaining six were being visited. He urged the town to supply the Officer of Health with enough aid to remove all nuisances and by rigid supervision prevent any new causes of disease. He concluded his letter by quoting Dr. Letheby's report on cholera in London in which he said that the strongholds of the disease were the "..crowded and ill conditioned quarters of the poor" and that discharges from the body was a means of propagation of the disease. These facts, Palk claimed, proved that visitations and the use of disinfectants were essential.[1]

By the end of 1865 Southampton had lost the services of not only Palk and Cooper but Poole, the borough surveyor, who had resigned because of ill health.[2] Poole was replaced quickly and no doubt was expressed about the value of his post. The local press thought that the town's sanitary problems arose chiefly from its defective sewage system. Lemon's work with Bazalgette on the London sewage system was mentioned as a strong point in his favour in the debate on his appointment as borough surveyor and a salary of £350 suggested.[3] In contrast the replacement of Cooper met with strong opposition and a salary proposed as low as £75 reflected the lack of importance attached to the post. Even Stebbing a strong advocate of the necessity for an Officer of Health considered £100 p.a. an adequate salary. Stebbing in a long speech said that chclera was carried in infected water and on clothes. He quoted the example of the Broad Street pump and said that a M.O.H. was needed to check the town's water, compile statistics and investigate

1. S.Times, 2.12.1865. 2. see Chapter V
3. S.Times, 6.1.1866; L.B.Mins.,10.1.1866.

unhealthy areas. Yet he denied that the 1865 epidemic in the town was Asiatic cholera. Another Councillor denied the necessity for a M.O.H. and said that if the town had not had a M.O.H. the 1865 cholera would not have been reported. He claimed that all medical men were alarmists. Dr. MacCormack was appointed as a fulltime M.O.H. with a salary of £150 p.a. in February 1866 and a month later Powell was appointed as Inspector of Nuisances at £100.p.a.

Rumours that cholera would reappear in the town in the summer were circulating in February 1866 but were dismissed by the Council as "founded in myth".[1] In April Dr. MacCormack submitted to the Sanitary Committee a report on the sanitary condition of the town. The report was regarded by the Committee as very satisfactory but at the end of the month the Privy Council asked for a report from the Committee on precautions being taken for dealing with another cholera epidemic.[2] Details about the treatment of arrivals in the port suffering from cholera were requested. The Committee asked MacCormack to inspect part of the local prison as a possible reception centre for cholera patients and Lemon was given the task of checking and disinfecting gratings and supervising the limewashing of courts. A deputation from the Council met John Simon to discuss cholera precautions. It was suggested that the town could buy a hut or marquee if necessary for cholera patients but the Local Board decided to apply to the Admirality for a hulk. The Committee ordered four gallon jars of Condys Deodorising Fluid.[2]

In May the local press reported 31 cholera deaths among emigrants in Liverpool but assured its readers that although a large number of emigrants passed through Southampton there had been no cholera cases. The town was said to be in a very healthy state and all the necessary precautions had been taken, the only problem was the non-arrival of the hulk from the Admiralty. In the same paper yet another letter from Dr. Hearne appeared. He said that cholera was non-contagious and that he had written a pamphlet against quarantine. A month later the press commented on the excellent state of the town's public health and said that the principal medium of contagion was atmospheric. A week later

1. S.Times, 24.2.1866.
2. Sanitary Mins.,6.4.1866, 27.4.1866, 30.4.1866, 14.5.1866.

adverts for cholera cures appeared again.[1] The Sanitary Committee did not share the press complacency. Stebbing contacted the town's M.Ps. Moffatt and Gurney and used them to help persuade the Admiralty to send a hulk to Southampton. The Admiralty was reluctant to do this and claimed that to fit up a ship would cost between £1,500 and £3,000. Stebbing asked for the "Aeolus" which needed no extra fittings and argued that a cholera death on a hulk unlike one on shore would not place the port under quarantine. The Committee considered buying huts for cholera patients but at £300 each they were thought to be too expensive. Stebbing urged the Admirality to send the "Aeolus" because English cholera had become infectious, possibly as a result of atmospheric changes, and this made isolation essential. At the same time a house for cholera patients was rented at West Quay at £50 p.a.[2]

In mid-July Dr. Hearne warned the town that as the choleraic atmosphere was increasing cholera would appear soon. It could be counteracted by thorough cleanliness and a diet free from decomposition and he assured his readers that cholera was a most curable disease. A joint meeting of the Guardians, the Sanitary Committee and some of the town's doctors considered the town's cholera problem. It was decided that all cases should be reported to the M.O.H., disinfectants were to be provided for the use of occupants of cholera case houses, a committee member was to visit each district of the town and extra help was provided for Lemon and MacCormack. On 18 July the Committee decided to meet every day at 10.00 a.m. As there had been so many cases, some fatal within a few hours, it was decided to revive the measures used in 1849. Three or four medical assistants, nurses and additional inspectors were to be engaged. Free cab hire for doctors, medicine, ice bags and beef tea were to be provided. The clothing and bedding from cholera cases was to be deodorised or burnt. Dr. MacCormack reported that there had been 43 cases and 16 deaths in the week ending 13 July. He had visited some of the courts and alleys of the town and noted a deficiency of water supply, which led to a horrible effluvia resulting from the inability to

1. S.Times, 19.5.1866, 23.6.1866, 30.6.1866.
2. Sanitary Mins., 13.6.1866, 19.6.1866.

flush sewers and defective trapping. Cholera cases had occured in almost every quarter of the town and there was an excessive prevalence of diarrhoea which if not checked turned into cholera. The precautions he suggested were the use of disinfectants, speedy internments and the destruction of bedding.[1]

In late July the press admitted that cholera was in the town but claimed it could be cured by the medicine given out freely by the authorities at the first symptom of diarrhoea. The cholera was not as severe as elsewhere nor as virulent as in 1849, it was claimed. Deaths were confined to the poorest parts of the town which lacked well ventilated thoroughfares. The public were assured that the Sanitary Committee was doing everything necessary and that there was little to fear. In another letter Dr. Hearne supported this view. Of the 70 to 80 patients he saw daily there had been only three deaths and these were aged, diseased or very young. He stressed the need for absolute cleanliness but admitted that this was difficult in the more populous localities because of deficiencies in drainage and water supply. He added that as the disease had appeared simultaneously in several parts of the town "...all evidence of personal importation is altogether wanting".[2] At this time the Committee was at its most active. A house to house visitation was carried out by three doctors. All cholera cases were moved from the workhouse to the hospital at Anspach House because of new building at the workhouse. At a meeting with 18 of the town's doctors the Committee was informed that there had been 819 cases of cholera and diarrhoea with 68 deaths between 7 July and 24 July. All the doctors promised to send in daily returns of cases. The deficiency in water supply in the town was said to be due to excessive use of water closets. Water from the low lying districts was sent to Professor Parkes for analysis. Twelve doctors were paid £1..1..0d(£1.05p) a day to inspect the town. An Order in Council gave the Local Board the powers granted to the Board of Guardians by the 1855 Disease Prevention Act. A cholera medicine was to be supplied freely at the dispensaries. The "Aeolus" was brought nearer the town, the surgeon aboard Dr. Higginson

1. Sanitary Mins., 18.7.1866. 2. S. Times, 28.7.1866.

paid £2..2..0d(£2.10p) a day and given the assistance of a nurse.[1]

By the beginning of August the epidemic was declining. The services of two nurses at Anspach House and five of the town doctors were dispensed with and all free fly hire for doctors stopped. A leader in the Southampton Times commented that the sanitary condition of the places where cholera appeared showed that "..we have the means of prevention to a very great extent in our own power." Several letters on the epidemic were published. Dr.Hearne wrote that the cholera had been incomparably milder than that of 1848 but added that glaring sanitary defects were being remedied now by the authorities which "..no preaching or teaching could previously influence." Another letter claimed that there had been no cholera epidemic just the usual summer diarrhoea. The panic had been caused by "..the vultures of pharmacy...croaking cholera." A letter from Dr.MacCormack gave the results of the analysis of the town's water by Dr.Parkes. The samples taken from the Mansbridge Waterworks and from French Street were found to be very good pure chalk water. Three weeks later the paper declared the plague gone and the trade and reputation of the town to be recovering rapidly from the affects of the "..unfair and interested attacks that were made upon our sanitary condition". This was a reference to the reports in the Times in July and to the comments made by local medical men like Dr.Hearne.[2]

In mid August Stebbing explained the work of the Committee to the Town Council. They had tried to keep expenses down but had taken the best available scientific advice and their efforts had prevented the spread of the disease. It had almost been confined to those in a humble state of life and he was sure the rich would not grudge the money spent to help the poor. This report was greeted with enthusiasm by the Council and the courage of the Committee in visiting the sick praised. When MacCormack presented his quarterly report to the Council in November 1866 he enclosed a letter from Dr.Farr of the Registrar General's Office praising his excellent practical report and congratulating him on the measures taken to combat cholera.[3] In January 1867 the committee produced a report of its work during the cholera crisis. This report

1. Sanitary Mins., 20.7.1866, 1.8.1866. 2. S.Times, 4.8.1866.
3. Ibid, 18.8.1866, 25.8.1866, 24.11.1866.

was given much prominence in the local press and when it was presented to the Local Board it was decided it should be printed in full. The report reflected the view, held by the Council and the local press, that the town had been unfairly criticised over the cholera epidemic. The number of fatal cases was higher elsewhere. There had been 100 cholera deaths in Southampton, 137 in Portsmouth, 98 in the Isle of Wight and many more in London. The report praised the work of MacCormack and Powell. The dispensary in St Mary's Street had given out 7807 doses of cholera medicine without charge between mid July and mid August. Free medicine had also been supplied at the Audit House, the cholera hospital and the town dispensary.[1]

In July 1869 Stebbing was asked to give evidence before the Royal Sanitary Commission. He described the way the town had dealt with the cholera crisis of 1865-6. Basic precautions against the spread of cholera had been shown to the town's inspectors. They were told not to drink out of the same cups as cholera patients, to destroy their clothes and avoid their vomit and to use carbolic acid or Condy's fluid. These precautions were taught to the poor by the inspectors and by the doctors and Councillors on their house to house visits. By visiting and mixing with the sick the members of the Sanitary Committee hoped to overcome the people's fear of cholera. Stebbing had suggested that members should take turns in sleeping at the hospital. The aim was to prevent people from being deterred from coming to Southampton. The people of the town were convinced that cholera was not contagious. When asked by the Commission whether this was the opinion of the medical men Stebbing replied that it was difficult to get an opinion but they probably agreed. When asked, he was unable to give the number of diarrhoea cases, but admitted that half the diarrhoea cases were probably cholera. He concluded his evidence with a plea for special legislation for sea ports to help cover the cost of cholera precautions."It is not right ....that any particular port should be burthened with the cost of keeping cholera ... out of the kingdom."[1]

1. S.Times,18.8.1866, 25.8.1866, 24.11.1866. 2. H.A., 2.2.1867.
3. P.P. 1868-1869 [C4218] XXXII, Royal Commision on the Operation of the Sanitary Laws In England and Wales, p327-321.

The expense to the town had been heavy and when the bills incurred during the epidemic were discussed by the Council, a heated debate ensued. The thirteen extra doctors from the town employed by the Council had cost £873..18..0d(£873.90p). The special sanitary expenses were given as £1,350 which included the money given to the doctors. The four P.L.M.Os. share of this latter sum was £423 and this was objected to in view of their total annual salary of £465 which they received from the town. It was pointed out that in Portsmouth five P.L.M.Os. cared for a town of 100,000 inhabitants for an annual salary of £42 each. The M.O.H. was offered £25 for his extra work during the epidemic. MacCormack felt this was inadequate and put in a claim for £57..15..0d(£57.75) for his extra services. This reaction angered several Councillors whon felt MacCormack was insolent and should resign. Eventually a compromise was reached and MacCormack accepted £40. The Council tried to find someone to blame for the epidemic and the panic which resulted. Stebbing said he had tried to keep things quiet and repeatedly asked reporters to suppress anything calculated to cause alarm, but cholera had been publicised by the chemists. He defended the town water supply by pointing out that the first victims had drunk impure water contaminated with sewage, but this water was not town water. The total cost of the epidemic was estimated at £2,000.[1]

Stebbing's comment on the first victims was a reference to Parkes investigation of the Southampton epidemic which was published in Simon's 1866 Report. Parkes had traced the origin of the disease to seamen from the "Poonah". Infected water had been taken aboard at Gibraltar and several of the seamen were ill when they landed at Southampton. The excreta from these men was pumped through the town's sewers and by means of an open conduit into the sea. The disease was spread by the effluvia given off by the open conduit. Parkes claimed cholera could be spread through the air as well as through water. The conduit was enclosed and carbolic acid used and cholera cases declined. At the beginning of his report Simon had admitted that the treatment of cholera was "an almost hopeless task for the practitioner". Like Simon Parkes could give no

1. S.Times, 16.2.1867, 6.4.1867; Sanitary Mins.,30.9.1867.

advice on the treatment of cholera.[1] An effective treatment for cholera was not developed until after 1900. Parkes was wrong in suggesting that cholera was airborne but the closing up of the conduit may well have halted the spread of cholera by flies. The use of carbolic acid was effective in destroying the cholera vibrio, as Koch discovered in 1884. Thus the insistance on hygiene by the inspectors did help check cholera.[2]

In his quarterly report in February 1867 MacCormack warned that unless the paving, drainage and ventilation of the town's courts and alleys were improved then cholera would return in the summer. Three problems, overcrowding, ventilation of sewers and a disinfecting system for bedding were the major problems he felt should be tackled.[3] The cholera warning was repeated in MacCormack's August report although the town's death rate was one of the lowest in the country and the quarter had seen a complete absence of zymotic diseases. Cholera did not reappear in 1867 and the following year saw a decline in the activity of the Sanitary Committee. Only nine meetings were called and two of these were void because only two members arrived for one and none for the other meeting. The utilization of sewage was the topic which dominated the meetings of the Committee in 1869.[4] The M.O.H. reports during this period continued to show an average death rate below the national average and a decline in zymotic diseases.[5]

In 1870 the Lords of the Admiralty decided to carry out the Contagious Diseases Act in Southampton. The town was neither a naval station like Portsmouth nor a garrison town like Winchester and was at the time the only civilian town under the Act. The Admiralty chose a house in Terminus Terrace to examine local prostitutes. The women would be removed to the lock hospital in Portsmouth if necessary until a similar hospital could be built in Southampton. The Local Board objected to use of the house in Terminus Terrace and asked the

1. J.Simon, Ninth Report to the Privy Council 1866p253.
2. Dr.A.Roberts," Cholera in Britain", Nursing Times 10.10.1984.
3. S.Times, 9.2.1867. 4.Sanitary Mins., 1868-69.
5. S.Times, 22.2.1868, 15.8.1868, 11.2.1871.

Admirality to find a less prominent situation. The Admiralty agreed to the Sanitary Committee's suggestion of a house near the Gaol. Three months later at the first full meeting of the Committee a memorial was received from the house owners and occupiers complaining about the examination station. The memorialists objected to the women congregating in their neighbourhood and to their using disgusting language. The C ommittee wrote to the Admiralty urging them to erect a hospital as soon as possible in order to remove complaints. The Admiralty replied that they could not build a hospital immediately nor could they erect an examination room on the site of the proposed hospital. This dispute had dominated the Committee meetings during 1870 but with the outbreak of the smallpox epidemic in 1871 the issue disappeared from the Committee's minutes.[1]

A local branch of the National Anti Contagious Diseases Act Association was formed in Southampton with the Rev.Wigram as chairman. At one of their meetings one of the speakers objected to the Act because it prevented "the operation of a disease which God had given to set his brand on the sin which caused it."[2] It was the secretary of this local group Rev.Kell, a Unitarian minister,and his wife who gave evidence to the 1871 Royal Commission on the Act. They both claimed that the Act had led to an increase in prostitution especially among the 12 to 14 year old girls. The reason they gave for this increase was that men thought the Act reduced the chances of disease. They said there was strong opposition to the Act in the town and that 37 of the 40 local clergy opposed it.[3] Although the Act remained in force until 1886 the local authorities in Southampton made no further reference to the problem.

Smallpox was the only disease in the nineteenth century which was contained and checked by medical discoveries. A permissive Vaccination Act was passed in 1840 and a compulsory Vaccination Act in 1853. All children had to be vaccinated within three months of their birth. The Act did not prevent smallpox epidemics,partly because of the poor quality of the vaccine used, partly because it was not realised that infant vaccination gave only temporary protection and partly because

1. Sanitary Mins., 4.3.1870 - 5.1.1871. 2. S.Times, 28.1.1871.
3. P.P. 1871 XIX I Royal Commision on Contagious Diseases Act, p690-700.

anti -vaccination propaganda led to an increasing percentage of the population avoiding vaccination. The epidemic which broke out in Southampton was part of a world pandemic, which started in France in 1869. It arrived in Liverpool and London in late 1870 and before it faded in the spring of 1873 it had caused 44,079 deaths in England and Wales with 10,287 of them in London. Less than a third of the unvaccinated cases survived where as the survival rate among the vaccinated was 85%. The effect of the epidemic and the efficiency with which the Boards of Guardians administered the 1871 Vaccination Act were reflected in the percentage of infants vaccinated in England and Wales in 1872 which reached 93.9%.[1]

The 1871 epidemic provoked a burst of Committee activity similar to that of 1866 with thirty five meetings being held in the space of eight months. The first smallpox cases were reported to the Committee in February and it was suggested that a house to house visitation should be carried out to ensure that everyone was vaccinated. A letter was sent to the Privy Council asking whether it was the duty of the Local Board or the Board of Guardians to see that a general system of vaccination was carried out throughout the borough. The Committee was informed that it was the duty of the Guardians. Even though the death rate in the town rose to 47 per 1,000 in April 1871 the Guardians declined to sanction the expense of vaccination throughout the town. The mayor asked the Guardians to supply two public vaccinators and handbills were issued urging vaccination. Vaccinators were sent to every street where a smallpox case was reported.[2]

The widespread nature of the epidemic brought the question of hospital accommodation before the Local Board. The town's voluntary hospital, the Royal South Hants.,like almost all voluntary hospitals in the nineteenth century did not admit infectious cases. In April the Guardians informed the Committee that the wards in the workhouse were full and some of the patients were not paupers. The Guardians said it was the duty of the Local Board to provide hospital accommodation.[3]

1. W.Frazer, A History of Enlish Public Health, 1834-1939(1950), p170.
2. Sanitary Mins.,17.4.1871. 3. Ibid.,. 28.4.1871.

The question had been discussed by the Board in early April when a deputation from Newtown protested against the use of two houses in Fanshawe Street as a hospital. They claimed that the site was ill chosen as it was near two schools and the suggestion had created great fear and excitement in the area. The mayor claimed that he had been told by a gentleman from the government that it was absolutely necessary for Southampton to have an isolation hospital. The comment was attacked by J.T.Tucker who said that nearly all the extravagant rates in the town were occasioned by interference from the metropolis. The Board decided to use tents purchased from the War Office.[1] Nevertheless, at the mayor's suggestion, the houses in Fanshawe Street were taken over and furnished as a hospital, which would provide 12 beds for non pauper patients.[2]

A medical inspector from the Privy Council, Dr.Bloxall visited the town in early May. He discussed the sanitary state of the town and the precautions taken against smallpox with the acting M.O.H., Dr.Osborn. Dr.Bloxall accompanied by Dr.Aldridge, a member of the Sanitary Committee, inspected the Fanshawe Street hospital and expressed his approval of the accommodation but recommended that the town should have a permanent hospital for the reception and isolation of contagious and infectious diseases. This view was strengthened when the tents, which had been suggested as an alternative to a hospital, arrived. They came together with a bill for £72..2..8d(£72.13p). The mayor warned that they would cause problems as both the patients and doctors would be reluctant to use them. A special meeting of the Local Board decided to errect one of the tents in the Cattle Market and ask the medical men of the town to meet the Committee there. The practioners did not support their use and the War Office agreed to accept the return of the tents providing they had not been used for smallpox patients. Osborn congratulated the Committee on its decision to return the tents.

Meanwhile public notices were issued reminding the inhabitants of the penalties incurred by smallpox sufferers exposing themselves in public places. All adults were advised to be revaccinated. There were

1. Sanitary Mins.,28.4.1871. 2. S.Times, 6.4.1871.
3. Sanitary Mins.,28.4.1871

1,220 smallpox cases and 17 deaths in the week ending 20th May 1871. The number of cases quoted, together with the public notices, are a reminder that only a tiny fraction of the smallpox cases received hospital treatment. The cost per patient per week including nursing at the Fanshawe Street hospital was 6/6d(33p) much lower than the 10/6(53p) charged by Portsmouth's first isolation hospital in 1883.[1] The Committee realised a permanent hospital was needed. The Fanshawe Street temporary hospital was too small and very unpopular. Lemon was asked to report on possible sites and the Committee met with the managing committee of the Royal South Hants Infirmary with a view to taking over some land near the hospital but this idea was rejected by the hospital managers. The Admiralty too refused to sell any of its land for a hospital.[2]

By late June 1871 the smallpox epidemic had passed its peak and in July the staff at the hospital was reduced. There were several small outbreaks of the disease later in the century and these were carefully considered in the M.O.H. annual reports. In 1874 the health of the town was described as satisfactory despite its trade links with the Channel Islands, which were infected with smallpox. Five cases appeared in the town but were isolated in the new hospital at West Quay and the disease did not spread. Osborn suggested that had the hospital been available in 1871 the disease might have been less prevalent. Again in 1877 the Hospital proved its value, according to Osborn, when five seamen arrived in port from London suffering from smallpox. They were moved into the hospital and the disease did not spread into the town and all five were cured. In mentioning this incident in his annual report Osborn took the opportunity to recommend re-vaccination because of the prevalence of the disease in London.[3] Several cases of smallpox were treated in the hospital in 1878. All but one of these cases were connected with shipping. When two crew members who had been paid off in Southampton died of smallpox Osborn obtained a crew list and checked all those who lived in the borough to ensure that the disease had not spread into the

1. K.Carpenter, Public Health in Portsmouth,1873-1900, (B.Ed.Thesis,Portsmouth 1979) p62. 2. Sanitary Mins., 4.8.1871.
3. A.R.M.O.H. 1877.

town. The non-shipping case had worked with his father and brother, who had been employed reconstructing the roof of the hospital. Osborn assumed that the disease had been carried on the clothes of the father or brother from the hospital.[1]

Not all the smallpox cases could be traced to seamen. In 1885 there was a minor outbreak in the Blue Anchor Lane area of the town. Twenty five cases were reported and three people died. Those who died were two unvaccinated infants and a vagrant from Portsmouth. Several cases came from outside the town or had been working in the hopfields at Alton but in some cases Osborn was unable to trace the origin of the disease. He stressed again the need for re-vaccination. There were several outbreaks of the disease in the early 1890s and the origin of some of the cases was traced to the West Quay hospital itself. Two of the fifteen cases in 1890 and six of the thirty seven in 1892 were thought to be related to the hospital. The last widespread outbreak of the disease in the nineteenth century came in 1893 when there were 135 cases. Again seamen were among the victims, although Harris made special mention of tramps spreading the disease. All but one case, the patient being too ill to move, were isolated. The reluctance of some families to allow smallpox victims to enter the hospital was overcome by placing two inspectors outside the house to warn all passers by. Hundreds of re-vaccinations were carried out to check the epidemic. The eight victims who died during the epidemic were all unvaccinated.[2]

As the threat of the 1871 smallpox epidemic faded the Sanitary Committee were warned by the Privy Council of the danger of cholera from the Baltic coming into Southampton. The Committee decided to apply for a hospital ship for cholera patients and Dr. McCormack, who had returned from his two months leave, was asked to inspect ships from infected ports. The Privy Council informed the Committee that an inspector would visit the town to advise them. This led the Committee to send out letters to all the doctors and clergy of the town asking them to inform the Committee of any nuisances. Hand bills were printed asking the public to do the same.[3] The inspector met the Committee and advised

1. A.R.M.O.H. 1878. 2. A.R.M.O.H.1893.
3. Sanitary Mins., 28.8.1871.

them on measures to take concerning cholera. As the Admiralty had no vessel available as a hospital ship, the Committee decided to buy Anspach House and build a permanent hospital on the site. When their offer of £250 was rejected alternatives were sought. Alderman Ransom offered a ship but this proved unsuitable and an attempt to hire a vessel from the Royal Mail Steam Packet Company failed. This forced the Committee to increase their offer and eventually Anspach House was purchased for £350 in late September 1871. As only two cases of smallpox were in the temporary hospital and the threatened cholera epidemic failed to materialise the hospital issue lost its urgency and the Committee did not meet again until the end of December 1871.[1]

Discussions on the hospital continued during 1872. Lemon prepared some preliminary plans in March and was asked for detailed plans and tenders. By June Anspach House had been pulled down and the site cleared for the new hospital. Lemon's estimate for the building was £7,000 and the Committee urged the Local Board to adopt it without delay perhaps prompted by the presence of cholera in some of the ports which traded with Southampton.[2] The Board referred back Lemon's plans. The Committee altered the plans and so brought the estimate down to £4,500. But this too was rejected. Temporary wooden huts were built on the site to accomodate twelve patients for £300 and the tenancy of the houses in Fanshawe Street renewed until 1874.[3] The Committee persisted with its plans for a permanent hospital and thanks to their efforts and the work of Alderman Payne the hospital was established in 1873.[4]

With the passing of the last panic-inspiring epidemic in 1871 and the establishment of the hospital in 1873 the role of the Sanitary Committee in the town's public health becomes less prominent. The major public health works, the development of a new water supply and the improvement of the sewerage system, were complex engineering achievementsand as such became the province of the Special and General Works Committee. The Sanitary Committee concentrated on supervising its officials and in particular the Officer of Health. McCormack was in some ways one of the casualities of the 1871 epidemic. He was blamed for

1. Sanitary Mins., 22.9.1871. 2. Ibid., 9.8.1872.
3. Ibid., 14.2.1873. 4. A.R.M.O.H. 1874.

failing to purchase a disinfecting apparatus in time to deal with the demands of the epidemic and widely criticised for his absence for two months with the militia at the height of the epidemic.[1] This criticism may have encouraged him in his decision to leave the town in December 1871. His successor Dr.Osborn produced annual reports which contained more detail than those of his predecessors and provide the best available picture of the health of the town.

The 1874 annual report paid particular attention to the seven zymotic diseases, smallpox, measles, scarlet fever, diphtheria, whooping cough, fever and diarrhoea. It was these diseases which were taken as a measure of a town's public health works.[2] Osborn attempted to trace the cause of these diseases and describe the measures taken to prevent their spread. The Registrar General's Report for 1874 described the returns of deaths as "..that impartial inexorable inspector", which would show the efficiency of all health departments. By this measure Southampton compared favourably with the rest of the country with a death rate of 19.2 against the national figure of 22.3. This was not an exceptional result. The Registrar General's tables for fifty towns over the four year period 1871-74 gave a mean for all the districts of 23.5 and Southampton 22.3.[3] The major diseases in the town were diarrhoea and whooping cough whereas in other parts of the country scarlet fever and measles were prevalent. Osborn's main suggestion for sanitary improvement was the ventilation of the streets, courts and alleys. He urged the Council to purchase houses in a dilapidated condition to make open spaces in narrow streets.

The practice of house-to-house visitation did not become a regular feature of public health administration nationally until after the 1872 Public Health Act was passed.[4] Yet Southampton had used this method with great success in the cholera and smallpox epidemics. It was used again in 1875 when scarlet fever was prevalent. Osborn and Cox the Inspector of Nuisances visited every house in the area affected and warned parents of children with scarlet fever against sending their

1. S.Times, 24.6.1871. 2. Frazer, op.cit., p163.
3. Registrar General's Annual Report 1874, p vii, p xvii.
4. A.Wohl, Endangered Lives, (1983), p311.

other children to school. Teachers were told not to allow such children to attend. The inspectors took disinfectants to every house affected where rooms, beds and bedding were treated. The houses had to be cleaned, whitewashed and the paper removed from the walls. Schools were inspected and similar precautions were taken. Lack of cleansing in schools was thought by Osborn to be a cause of the disease and overcrowding another. Although the disease was widespread there were only 21 deaths and this Osborn attributed not only to his measures but to the disease being a "modified type".[1] This latter factor has been generally recognised as an important element in the decline in deaths from scarlet fever in the last quarter of the nineteenth century.[2]

Despite the success of the authorities in dealing with scarlet fever in 1875 it was this same disease which raised the town's death rate from 19.83 in 1875 to 21.96 in 1876. The number of victims of the disease was 122 of whom 114 were under 10 years old. Osborn explained the great increase in deaths by reference to "some atmospheric influence". All the precautions adopted against the disease the previous year were repeated. The infectious nature of the disease was such that only the greatest care or perfect isolation would arrest its progress. Osborn had begun to realise how difficult this was as he showed some understanding of the concept of a carrier. He said the disease was frequently conveyed from house to house "in the clothing of persons who although perfectly healthy yet have cases of fever in their places of abode." A further problem was that children sent home from school because they or a member of their family had scarlet fever continued to play or mix with other children in their neighbourhood.[3] Portsmouth suffered more severely from a similar epidemic in 1876 with 457 victims from a population of 124,867.[4] When an outbreak of scarlet fever in Bevois Town Board School occurred in 1878, Osborn advised its closure and this was done. The school was thoroughly disinfected and no fresh cases appeared when it was reopened.

1. A.R.M.O.H. 1875. 2. R.Hodgkinson, Science and Public Health (Bletchley 1973), p48. 3. A.R.M.O.H. 1878.
4. Portsmouth A.R.M.O.H. 1900.

After a year in which zymotic diseases were at their least fatal, 1880 showed a marked increase with zymotic deaths rising from 71 to 188. The increase was due to a measles epidemic and a rise in deaths from diarrhoea. House to house visitations and disinfection of schools with sulphurous acid gas were carried out and other precautions taken similar to those adopted in the 1876 scarlet fever epidemic. The deaths from measles were often complicated with bronchitis because the patients were exposed to cold in the early or convalescent stage of the disease. Osborn warned that when diarrhoea was prevalent care was needed in the diet of infants. "I would mention that feeding bottles used for infants require the most careful cleansing when the temperature favours putrefaction." The weather was one factor over which the M.O.H. had no control. Part of the increase in mortality in 1880 was due to an increase in deaths from bronchitis and inflammation of the lungs in the first quarter of the year. This was caused according to Osborn ".. by continuance of the cold and dense fogs such as I never before remember to have seen in Southampton."[1] The rise in bronchitis was part of a national rise which the press also attributed to the weather.[2] All M.O.H. annual reports make mention of the weather but Southampton's lack the detailed meterological charts and graphs of mortality which appear in the Portsmouth reports of the 1870s and 1880s.

In his report for 1881 Osborn described some of the problems he faced in dealing with scarlet fever which had been more prevalent than in 1880. He pointed out that in the absence of notification of infectious diseases he and his inspectors had been forced to enquire after cases. He found that many families preferred to keep the illness a secret and this made it impossible for him to ascertain the proportion of deaths to cases. The desire for secrecy may be a reflection of the fear and dislike of hospitals.[3] Osborn investigated milk supplies for possible contamination in an effort to trace the source of the disease. A whooping cough epidemic cost 43 lives all of children under 5 years of age. This annual report gives much more space than usual to housing conditions and the work of the Council in improving them.[4]

1. A.R.M.O.H. 1880. 2. S.Times, 29.5.1880.
3. Portsmouth A.R.M.O.H. 1861. 4. A.R.M.O.H. 1881.

The health of the town continued to improve in 1882 with zymotic deaths down to 87. This gave Osborn the opportunity to discuss his work in trying to track down the causes of disease. He claimed that not all fever or blood poisoning had external causes such as noxious effluvia from drains. He mentioned unwholesome food and exposure to wet and cold as a cause of blood poisoning and other diseases. He added that abuse of intoxicating liquors might render one more liable to disease especially when exposed to sewage exhalations.[1] Another measles epidemic and an increase in deaths from bronchitis led to a rise in the death rate in 1883 to 20.89. Osborn mentioned again the problem caused by the absence of registration of infectious diseases. Only 34 towns had adopted a system of notification by 1883, including Portsmouth, but it was not generally done until 1889 when Southampton adopted the idea. The usual precautions were taken and isolation recommended although many people thought measles was not infectious. The Local Government Board issued an order in July on precautionary measures against cholera. All courts and alleys in the borough were to be limewashed, including W.Cs. and , cab stands and public urinals were to be washed down daily, gullies cleansed more frequently and disinfectants used freely. Fourteen courts and alleys were limewashed and 87 notices served for limewashing private Courts and Places throughout the town. This led to a great sanitary improvement according to Osborn.[2]

Cholera did not appear in 1883 and the following year proved to be one of the town's healthiest in the nineteenth century. The towns death rate fell to 16.95 when the urban mortality rate quoted by the Registrar General was 20.9. Diarrhoea was the only zymotic disease which showed an increase. This was reflected in the Registrar General's report where it was attributed to the high summer temperatures. Again cholera precautions similar to those of 1883 were ordered by the Local Government Board. The M.O.H. followed the Board's advice and also made a great effort to have ashes and house refuse removed more regularly from the courts and alleys. As usual Osborn tried to trace the cause of each zymotic disease. He thought typhoid unlike smallpox and scarlet fever was not infectious but "may be communicated from one person to another

1. A.R.M.O.H. 1882. 2. A.R.M.O.H. 1883.

through the medium of excreta". This was correct although the disease was usually spread through contaminated food and drink. Whooping cough and measles both complicated by bronchitis helped raise the town's death rate in 1885 to 18.96 but this, according to Osborn, compared most favourably with other towns. The cholera precautions were repeated again.[1]

For the remainder of Osborn's period of office the health of the town was most satisfactory with no major fatal epidemics. The widespread outbreak of scarlatina in 1886 resulted in only 16 deaths, which Osborn said showed the disease to be of a mild type. The increase in infant deaths from diarrhoea in August 1887 was noted. Most of those who died were bottle fed. Osborn commented that great cleanliness in hot weather was most essential in preventing decomposition of milk, as milk was a powerful absorbent of noxious or infectious matter. Prejudice against bottle feeding was common in the late ninteenth centuary partly because it was associated with working mothers and so, in Victorian eyes, with child neglect.[2] Yet milk was the most widely adulterated food in Victorian England. A survey in 1882 found 20% of samples analysed adulterated.[3] The decline in deaths in 1888 from diarrhoea Osborn attributed to the continuous rainfall during the summer, which had left the drains flushed and had carried away the impurities in the atmosphere.[4] In his last report Osborn noted the great decline in typhoid during his years in office from 26 deaths in 1873 to 5 in 1889 and referred to MacCormack's reports which showed an even higher death rate. He felt that the decline was due to the improved sanitary state of the town. Yet he insisted that much remained to be done, in particular in housing, and he urged the Corporation to demolish some of the properties in the lower part of the town. He added his almost annual plea for a public abattoir and new lodging houses.[5]

The annual report for 1890 was on a larger scale then ever before. This was partly because the town had a new M.O.H. Dr.Wellesley Harris and partly because of recent public health legislation such as the 1890

1. A.R.M.O.H. 1885. 2. Creighton, op.cit., Vol.II p790.
3. Wohl, op.cit., p21. 4. A.R.M.O.H. 1888.
5. A.R.M.O.H. 1889.

Housing of the Working Classes Act which had increased the workload of the M.O.H.'s department. Among the new statistics produced by Harris was the percentage of deaths in each of six age groups. This showed that 20.5% of the annual mortality was among infants under one year of age and a further 13.5% among the 1 to 5 years old age group. Other statistics showed that, for the period 1881-1890, Southampton's annual death rate was 18.2 which placed the town 14th among 18 large towns, of which Manchester, with 27.1, was the worst and Reading, with 15.9, the best. The town had adopted the Infectious Diseases Notification Act in March 1889 and this had come into force just before Harris took over his office in March 1890. During the period under review, 187 cases had been reported, scarlet fever 70, typhoid 48 and diphtheria 38, being the largest groups. One case of diphtheria Harris claimed showed the dangers of drinking water from shallow wells in large towns. The well was the family's sole supply and analysis showed it to be contaminated with sewage. The origin of other cases could not be traced and Harris suggested the insanitary condition of the houses as the cause. The fact that diphtheria, like scarlet fever, was a droplet infection spread by personal contact was not discovered until the twentieth century. Much of the report was given over to living conditions. The Common Lodging Houses were criticised far more strongly than ever Osborn had done, the insanitary areas of the town described and the need to use the new Housing Act recommended.[1]

The census of 1891 gave the population of Southampton as 64,899 not 66,347 as had been estimated by Harris in his 1890 report. He explained that the estimate had been based on the annual population increase between 1871 and 1881 but the 1881-91 increase had not been in the same ratio. This rendered not only Harris' figures for 1890, but all of Osborn's for the 1880s inaccurate. The tables published by Harris in his last report in 1901 carry the corrected figures.[2] Harris claimed that people had moved from the town to Portswood and Shirley. In commenting on infant mortality Harris mentioned the deliterious effects of working mothers and the need to check milk supplies. It was in this 1891 report that the first identified criticisms of the West Quay hospital appear.

1. A.R.M.O.H. 1890. 2. see Table 5.

Two cases of smallpox had occurred among people living near the hospital. Harris said there was much room for improvement in the Hospital. It could not cope with more than one disease at a time and a better situation was needed. Again much prominence was given to housing. The fact that the majority of zymotic deaths were in the more crowded parts of the town was taken as proof of the dangers of overcrowding. Not suprisingly the report concluded with the comment that a total reorganisation of the medical department was needed as its work had more than doubled in the past two years "by reason of the many new duties which fresh acts have imposed".[1]

The increased range of the Medical Officer's duties and the higher standards set by Harris were well illustrated in his report for 1892. An influenza epidemic beginning in the autumn of 1891 and lasting through the spring of 1892 greatly increased the town's death rate. Although only 41 people died, the epidemic induced or aggravated pulmonary diseases, leading to a great increase in these according to Harris. The smallpox cases, which Harris traced to the West Quay hospital, led to further criticism of the hospital and suggestions for a new isolation hospital. Another necessity, according to Harris, was a steam disinfector. He thought that the apparatus in use was unreliable for disinfecting the clothes of smallpox victims. These together with their bedding had been burnt and the owners compensated. A new disinfector would give greater security and save money. For the first time the report contained a section on dairies. There were 215 in the borough and only 89 of these were registered. Harris had inspected all 215 and thought they should all be registered. The Sanitary Authorities should make bye laws to control the dairies and the selling of milk. He emphasised the importance of cleaning and milk vessels.[2]

The last major cholera epidemic of the nineteenth century appeared in Hamburg and Le Havre in 1892. As Southampton had frequent contact with both these towns extra precautions had to be taken. The hospital ship "Morglay" was made ready to take cholera cases. A medical officer was stationed at Netley to board ships from cholera ports before they

1. A.R.M.O.H. 1891. 2. A.R.M.O.H. 1892.

entered Southampton docks. The ships were carefully examined and the Master and stewards interrogated as to illness aboard. The crew and passengers were all inspected by the M.O. Passengers were allowed to land after their names and addresses had been taken. They were visited for five days after their arrival. In September 1892 176 ships and over 8,000 passengers were inspected in this way. Harris said he had received great co-operation from all the ship owners and their agents except one. Unfortunately this was the South Western Steam Packet Company whose ships were in most frequent contact with the infected French ports of Cherbourg and Le Havre. The fear cholera inspired was illustrated by the two extra nurses engaged in London for the "Morglay". When they heard they were to nurse cholera patients they returned to London. Miss Barrard, the Superintendant of the West Quay Hospital, and another nurse volunteered to take their places.[1] These precautions continued in 1893 when cholera was widespread in France and Germany. One cholera case did arrive in Southampton from the Black Sea but the patient was immediately transferred to the "Morglay" and discharged cured after fourteen days. With such effective precautions and the sanitary improvements since 1866 it is not suprising that England avoided a cholera epidemic in 1893. There were only 287 cases and 135 deaths in the country.[2]

Cholera was not the only problem facing Harris in 1893. The smallpox epidemic has already been described. There were serious outbreaks of measles, typhoid and scarlet fever. With four zymotic diseases in the town and a fifth, cholera, expected the inadequacy of the West Quay hospital was obvious. At its height there were 61 smallpox cases in the town. The hospital could take 20 patients in 1890 but this accommodation had been increased by the erection of a temporary iron building with 12 beds and use was made of one of the Corporation cottages at Mansbridge. The main source of extra accommodation was the hospital ship which at one stage had 42 cases on board. This solved the smallpox isolation problem but left the majority of patients suffering from the other zymotic diseases to be isolated in their own homes. Some

1. S.R.O., Cholera Precautions Report 1892, SC/H1/14.
2. Frazer, op.cit., p168.

of the scarlet fever cases were isolated in the acting M.O.H.'s house and a measles case from an American liner in a house rented by the Corporation. All these arrangements had been very expensive for the town. The smallpox epidemic had cost £2,584..1..0d(£2.584.05p), the use of the Medical Officer's house £80, and the hospital ship £60 a month.

It was this expense and the increasing dissatisfaction with the West Quay hospital which led to a demand for a new isolation hospital for the town. As early as February 1893 it was clear that it could not cope with the smalllpox epidemic. It was described by one Councillor as being utterly inadequate and in the wrong part of town. The local press supported this criticism and said a much better hospital would have to be built.[1] The Local Government Board shared this view of the West Quay hospital. In July 1893 it refused to sanction the expenditure of £100 for additional buildings there as the structure was unsuitable for hospital purposes.[2] The case for the new hospital was put to the Council in June 1893 by Thomas Walton, described by Lemon as one of the ablest and most honest of Councillors. He argued that the cost of temporary accommodation was excessive as the recent epidemics had shown. The Local Government Board recommended a town to have one hospital bed for every 1,000 inhabitants, which would mean 60 to 70 beds in Southampton's case. The proposed hospital was to be made up of three separate pavillions each with twelve beds. The separate pavillions would mean that more than one disease could be treated at the same time. The total cost of the new hospital would be £10,000 plus the cost of the land. The annual expenditure would be £450 against the present cost of £700.[3] Despite the widespread support for the new hospital it was not opened until February 1900.

In December 1893 Harris had submitted a report to the Council on dilapidated and unhealthy houses in the town. This concern with housing was reflected in his 1894 annual report. He made reference to over 14,000 people living in overcrowded tenements and mentioned overcrowding as one of the factors influencing the death rate. His report concluded with a lengthy account of the way the Council was going to implement the

1. S.Times, 11.2.1893. 2. Council Mins.,26.7.1893.
3. S.Times, 17.6.1893.

1890 Housing of the Working Classes Act. The remainder of the report showed the improvement in the town's health after the problems of 1893. The death rate of 16.63 was the lowest yet recorded for the town. The bye laws on cleanliness in the milk trade had been strictly enforced, which may have accounted for the decline in deaths from diarrhoea from 54 in 1893 to 13 in 1894. Only 281 cases of infectious diseases were notified. In all cases the houses were disinfected free of charge and bedding treated in the town's recently acquired steam disinfector. The benefits of the inspection of milk samples was shown by the marked decline in adulteration. In 1884 when inspection was first used 38.7% of the samples were adulterated but by 1894 only 9% were at fault. The achievement of Southampton's sanitary authorities was illustrated by a table giving the death rates in 40 towns over the period 1885-1894. Southampton, with 18.2, had the seventh lowest death rate with Reading at 16.16 the lowest. The average infant mortality rate for the period in Southampton was 119 which was bettered only by Reading with 109. The major killers over this period were bronchitis, pneumonia, pleurisy, phthisis and heart disease. All these were illnesses on which nineteenth century sanitary improvements made little impact.[1]

When Ranger held his inquiry in January 1850 the Board of Guardians provided the health care for the poor of the town. They employed four Poor Law Medical Officers who visited the sick poor in their homes and hospital accommodation was available in the infirmary ward of the workhouse for those who could not be cared for at home. The death rate in 1848 was given as 1 in 46 or 21.7 per 1,000 and the infant mortality rate as 1 in 5 or 200 per 1,000 for a population estimated at 37,415.[2] By January 1895 resonsibility for the health of the town had been taken over by the Town Council, first as the Local Board of Health and then as the Urban Sanitary Authority. A medical department had been established under the supervision of a full time well qualified M.O.H., who also acted as the Port M.O.H., with an establishment of a clerk and three qualified inspectors of nuisances. The M.O.H. could call upon the services of the borough analyst when contaminated food or water had to

1. A.R.M.O.H. ,1894. 2. W.Ranger, Report on the Sanitary Condition of Southampton (Southampton 1850), p34

be examined. The town's death rate was 16.6 and the infant mortality rate 119 for an estimated population of 70,000.[1] 1894 was a particularly good year but the average figures for the years 1890-94, death rate 19 and infant mortality 135 confirm the improvement. The national figures for this period were 18.8 and 148.8. R.Lambert claims that these figures which show only a gradual improvement in the death rate in the nineteenth century conceal a great achievement because the improvement was made despite the increased overcrowding in the towns.[2] This was true for Southampton where the number of acres per person fell from 0.03 to 0.02 in the second half of the century.

The town had a hospital at West Quay and a hospital ship which could provide accommodation during an epidemic. By 1894 the need for improved hospital facilities had been recognised and plans were being made for a new hospital in Shirley. Chadwick and the early sanitary reformers had hoped that a good water supply and an efficient sewerage system would solve all the health problems of the time. Southampton's authorities provided both of these essentials for the town. These facilities and the vigilant work of the M.O.H. and his inspectors in reducing nuisances led to a decline in reported deaths from zymotic diseases. The figures given in table 6 of Osborn's 1874 report show that the zymotic death rate was 5.0 or that zymotic diseases accounted for over twenty per cent of the deaths in the period 1861-1870. Table VI in his 1889 report shows the steady decline in deaths from these diseases. The decline was in water borne diseases such as cholera, diarrhoea and typhoid for which the authorities could take some credit. Other elements in the decline resulted from the decline in the virulence of scarlet fever and the increased use of isolation and re-vaccination against smallpox for which the authorities deserved some credit.

Southampton's achievement must be set against the knowledge and attitudes of the time. Simon in his 1866 report on cholera admitted that the treatment of cholera was " an almost hopeless task for the practitioner". He warned that cholera derived all its epidemic destructiveness from filth.[3] Like all zymotic diseases cholera found

1. A.R.M.O.H. 1900.2. Lambert, op.cit., p602.

3. J.Simon, op.cit., p36

most of its victims in the poorer parts of the town. Cooper in his 1851 report had pointed out the contrasting death rates in the wards of the town. This socio-economic link with health continued throughout the century and recent studies show it is still apparent in the late twentieth century.[1] The distinction between typhus and typhoid was not made in mortality returns until 1869, which makes it difficult to trace the decline of these individual diseases in the second half of the nineteenth century. The figures available suggest that typhus made little impact on Southampton. This may be because few Irish immigrants settled in the town. The 1891 census gave the number of Irish as 662 in contrast with Portsmouth which had 3,844. Luckin has suggested a similar explanation for the decline in London in the late nineteenth century.[2]

The criticism of the West Quay hospital in the 1890s was well deserved. Yet 1200 of the 1600 sanitary authorities in the country had failed to provide any hospital accommodation by 1891.[3] The initiative for the hospital had come in 1872 from Alderman Payne but the drive for a new hospital in the 1890s came from the M.O.H. Harris. This reflected a change in the approach to Public Health in Southampton. In the great health crises of the nineteenth century the fight against epidemics had been led by Laishley in 1849, Stebbing in 1866 and Payne in 1871 with the help of their fellow Councillors. When another crisis was avoided in 1893 the local press complimented not the Sanitary committee but the sanitary department led by its Medical Officer on its success in checking cholera and smallpox in the town. Public Health had become a matter for the professionals.

1. M.Whitehead, The Health Divide: Inequalities in Health in the 1980s, (1987). 2. W.Luckin, "Evaluating the Sanitary Revolution: Typhus and Typhoid in London, 1851-1900."R..Woods & J.H.Woodward,(Eds), Urban Disease and Mortality in Nineteenth Century England,(1984),p115.
4. B.Abel Smith, The Hospitals, (1964)p129.

TABLE V.

Causes of Death in Southampton for Seventeen Years.

Causes.	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
Small Pox.	...	...	...	1	...	3	...	...	...	...	1	...	3	...	...	...	...
Measles	25	3	2	15	17	27	7	75	2	1	93	2	44	...	14	16	30
Scarlatina	...	3	25	122	21	23	10	4	21	7	6	7	6	16	23	7	3
Diphtheria	4	3	1	1	6	1	2	3	1	4	4	5	5	5	3	10	6
Croup (not Spasmodic)	16	10	6	9	14	9	8	5	7	6	5	13	7	14	11	13	18
Whooping Cough	34	26	20	25	40	25	9	20	43	25	18	5	60	11	27	28	13
Continued Fevers. Typhus	2	4	2	...	4	...	1	1	...	...	...	...	...	...	...	...	...
Enteric or Typhoid	26	19	12	7	6	10	5	13	8	9	9	7	7	12	8	7	5
Other or Doubtful	9	12	6	11	3	2	5	6	5	7	4	9	2	2	3	...	3
Diarrhœa and Dysentry	33	33	51	43	33	47	20	59	39	34	33	42	19	25	57	26	25
Cholera	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatic Fever	...	...	2	2	4	1	1	...	3	1	1	5	9	2	2	3	5
Erysipelas	6	5	6	4	5	...	4	2	1	9	5	6	3	2	1	3	4
Pyæmia	...	...	3	2	1	1	3	...	1	2	...	4	2	3	...	2	1
Puerperal Fever	3	...	1	3	1	3	1	1	6	4	1	2	1	1	1	1	...
Ague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...
Phthisis	128	113	166	172	134	123	123	114	129	111	109	112	107	132	114	107	89
Bronchitis, Pneumonia, and Pleurisy	143	172	192	149	203	204	215	208	161	173	204	121	176	207	177	164	149
Heart Disease	63	64	88	50	53	51	61	65	63	59	68	45	77	91	74	70	80
Injuries	43	29	42	15	48	40	27	36	30	27	55	38	47	32	53	35	36
Other Diseases	544	580	494	621	542	664	585	649	629	632	667	629	615	598	646	602	614
Totals	1082	1076	1119	1252	1135	1234	1087	1261	1149	1111	1283	1052	1190	1153	1214	1094	1081

TABLE VI.

Showing the estimated Populations, Births, Birth-rates, Deaths, Death-rates, and Percentage of Zymotic Diseases to Total Deaths, also Mortality of Infants under One Year to 1,000 Births in the Borough of Southampton, from 1873 to 1889.

Years.	Estimated Populations.	Total Births.	Birth-rate per 1,000 of Persons Living.	Total Deaths.	Death-rate per 1,000 of Persons living.	Percentage of Zymotic Diseases to Total Deaths.	Mortality of Infants under one year to 1,000 Births.
1873	55,000	1735	31·54	1082	19·67	14·6	190
1874	55,821	1833	32·83	1076	19·27	10·9	157
1875	56,404	1850	32·79	1119	19·83	11·7	168
1876	57,000	1943	34·08	1252	21·96	19·0	146
1877	57,640	1947	33·77	1135	19·69	13·1	124
1878	58,303	2000	34·30	1234	21·16	11·9	131
1879	58,964	1989	33·73	1087	18·45	6·5	107
1880	59,602	1962	32·91	1261	21·16	14·9	166
(*Census*) 1881	59,916	2019	33·69	1149	19·17	11·0	119
1882	60,697	1948	32·09	1111	18·30	9·1	131
1883	61,391	2122	34·56	1283	20·89	13·8	137
1884	62,051	1966	31·68	1052	16·96	8·1	114
1885	62,737	1914	30·50	1190	18·96	13·2	146
1886	63,445	1926	30·35	1153	18·17	7·5	140
1887	64,156	1979	30·84	1214	18·92	12·1	145
1888	64,895	1996	30·75	1094	16·85	10·0	126
1889	65,615	1966	29·96	1081	16·47	9·8	117

TABLE 5.

SHOWING POPULATION, BIRTH RATES, DEATH RATES, ZYMOTIC DEATH RATES, INFANTILE MORTALITY, AND MARRIAGE RATES IN SOUTHAMPTON AND ENGLAND AND WALES FOR TWENTY YEARS, 1881—1900.

Year.	Population	Births			Deaths			Zymotic Deaths			Infantile Mortality. Deaths under 1 year per 1,000 Births Registered.		Marriages.		
		Total Births	Birth Rate	Birth Rate England and Wales	Total Deaths	Death Rate	Death Rate England and Wales	Total Zymotic Deaths	Zymotic Death Rate	Zymotic Death Rate England and Wales	Southampton	England and Wales	Total Marriages	Marriage Rate	Marriage Rate England and Wales
1881	60,051	2,019	33·6	33·9	1,149	18·7	18·9	119	1·98	2·32	119	130	—	—	—
1882	60,578	1,948	32·1	33·7	1,111	18·0	19·6	87	1·31	2·73	131	141	—	—	—
1883	61,105	2,122	34·7	33·2	1,283	2·16	19·5	168	2·79	2·20	137	137	—	—	—
1884	61,633	1,967	31·9	33·5	1,052	16·7	19·6	75	1·21	2·04	114	147	—	—	—
1885	62,160	1,914	30·8	32·5	1,190	18·9	19·0	146	2·34	2·19	146	138	—	—	—
1886	62,668	1,926	30·7	32·4	1,153	18·0	19·3	71	1·13	2·36	140	150	481	15·3	14·1
1887	63,215	1,979	31·3	31·4	1,214	18·7	18·8	135	2·13	2·29	145	145	520	16·4	14·2
1888	63,742	1,996	31·3	30·5	1,094	16·9	17·9	94	1·47	2·10	126	144	551	17·3	14·2
1889	64,270	1,966	30·6	30·6	1,081	16·3	17·8	85	1·32	1·77	117	144	514	16·0	14·7
1890	64,797	1,848	28·5	29·7	1,168	17·5	19·2	82	1·26	2·03	129	151	520	16·0	15·1
1891	65,325	2,045	31·3	31·4	1,191	18·0	20·2	47	0·72	1·83	123	149	588	17·8	15·5
1892	66,650	1,911	28·6	30·5	1,466	21·5	19·0	79	1·15	1·90	148	148	589	17·7	15·2
1893	68,200	2,015	29·5	30·8	1,370	19·5	19·2	157	2·32	2·52	157	159	648	19·0	14·7
1894	70,000	2,113	30·2	29·6	1,161	16·0	16·6	81	1·14	1·88	119	137	617	17·6	15·0
1895	71,750	2,180	30·4	30·3	1,395	18·7	18·7	111	1·53	2·21	155	161	675	18·8	15·0
1896	94,150	2,859	30·4	29·7	1,657	17·2	17·1	192	2·04	2·17	146	148	838	17·8	15·8
1897	96,500	2,937	30·4	29·7	1,711	17·3	17·4	217	2·24	2·15	156	156	848	17·6	16·0
1898	98,950	2,945	29·8	29·4	1,756	17·3	17·6	267	2·63	2·22	153	161	791	16·0	16·2
1899	101,350	2,995	29·6	29·3	1,992	19·1	18·3	207	2·88	2·21	178	163	896	17·7	16·5
1900	103,500	2,929	28·3	28·9	1,881	17·6	18·3	168	1·51	2·00	152	154	846	16·3	16·9
Average 20 years		2,230	30·7	31·0	1,353	18·1	18·6	133	1·75	2·18	139	148	661	17·1	15·2

NOTE.—The Zymotic Deaths and Death Rates include only the seven principal Zymotic Diseases, viz.:—Whooping Cough, Measles, Diarrhœa, Diphtheria, Scarlet Fever, Typhoid Fever, and Small Pox.

The following Tables—Nos. 6, 6 A, 6 B, and 6 C—are prepared in accordance with the instructions of the Local Government Board.

TABLE 6.

Year.	Population estimated to Middle of each year.	Births.		Deaths under One Year of Age.		Deaths at all Ages. Total.		Deaths in Public Institutions.	Deaths of Non-residents registered in District.	Deaths at all Ages Nett.	
		Number.	Rate.*	Number.	Rate per 1,000 Births registered.	Number.	Rate.*			Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12
1890	64,797	1,848	28·5	239	129	1,168	18·2	131	31	1,137	17·5
1891	65,325	2,045	31·3	252	123	1,191	18·2	200	18	1,173	18·0
1892	66,650	1,911	28·6	283	148	1,466	22·0	192	31	1,435	21·5
1893	68,200	2,015	29·5	317	157	1,370	20·1	205	37	1,333	19·5
1894	70,000	2,113	30·2	253	119	1,161	16·6	175	42	1,119	16·0
1895	71,750	2,180	30·4	339	155	1,395	19·4	229	54	1,341	18·7
1896	94,150	2,859	30·4	420	146	1,657	17·6	203	42	1,615	17·2
1897	96,500	2,937	30·4	457	156	1,711	17·3	194	37	1,674	17·3
1898	98,950	2,945	29·8	452	153	1,756	17·7	248	49	1,707	17·3
1899	101,350	2,995	29·6	534	178	1,992	19·6	258	58	1,934	19·1
Averages for years 1896-1899	97,737	2,934	30·1	466	158	1,779	18·1	226	46	1,732	17·7
1900	103,500	2,925	28·3	448	152	1,181	18·2	286	61	1,820	17·6

* Rates calculated per 1000 of estimated population.

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 11 are the number in Column 7, corrected by the subtraction of the number in Column 10.

CHAPTER VII.

HOUSING and PUBLIC HEALTH.

When Edwin Chadwick published his 1842 Report he claimed that the major sanitary problems of the labouring classes were poor water supply, poor sewerage systems and poor housing.[1] Not suprisingly his carefully selected inspectors concentrated on these areas in their reports on the towns which requested an inquiry under the General Board of Health. This trend was reflected in independent studies undertaken by men such as Cooper in Southampton and Wickstead in Leicester.[2] Chadwick's 1842 Report was followed by another on the Health of Towns in 1844 and as the reports of his inspectors were published and given extensive coverage in the local press the living conditions of the poor in Victorian England must have been known to all classes. Yet both locally and nationally it was the problems of water supply and sewerage which were tackled first. With one exception the housing question was neglected. Despite the efforts made by a few authorities, under the 1868 Torrens Act and the 1875 Cross Act, little progress was made nationally until the 1890s, when local authorities began slowly to take action under the 1890 Housing of the Working Classes Act.

The one area of housing in which the local and central authorities took an immediate interest was the Common Lodging House. Two Acts of Parliament were passed in 1851 giving local authorities the power to register, supervise and inspect common lodging houses and the power to run their own lodging houses.[3] Huddersfield was the only English town to take advantage of the second Act before 1875.[4] Despite repeated promptings from its Medical Officers from as early as 1874, Southampton

1. E.Chadwick, The Sanitary Condition of the Labouring Classes, (1842).
2. F.Cooper, Report on the Sanitary Condition of Southampton, (Southampton,1851); G.Wickstead, Preliminary Inquiry into the Sanitary Condition of Leicester, (Leicester,1849).
3. Lord Ashley's Common Lodging Houses Act; Labouring Classes Lodging Houses Act 1851.
4. E.Gauldie, Cruel Habitations(1974),p243.

did not decide to build a municipal common lodging house until 1894 and it was not completed until 1899.[1]

The town had undertaken the task of supervising the common lodging houses as part of its powers as a Local Board of Health. The Sanitary Committee had listed this as one of the duties of the M.O.H. as early as October 1850.[2] In his 1851 Report Cooper gave a detailed account of the lodging houses of the town. There were 15 registered lodging houses in the town containing 178 beds and 356 inhabitants although the number was ususally 250. He gave some examples of the living conditions. In one house, a bedroom with a cubic capacity of 835 cubic feet, contained three double beds. In another house four people slept in a room 5ft.10ins. by 7ft. 2ins. by 9ft. 10ins.(height) giving only 95 cubic feet for each of them. Yet neither of these houses was included in Cooper's list of three which he wanted withdrawn from the register. He went on to suggest health regulations for lodging houses including 250 cubic feet of space for each person. He reminded the Local Board that illness was paid for by the parish. Yet there is no evidence to show that Cooper's recommendations were followed.[3]

Southampton was not unique in facing problems with its common lodging houses. These places were often the permanent homes of the near destitute and were associated with gross overcrowding and promiscuity. In Leeds in 1851 within a quarter of a mile of the parish church there were 222 lodging houses housing 2,500 people with 4.5 persons to a room and 2.5 to a bed.[4] London and Birmingham faced similar problems. Himmelfarb refers to London's common lodging houses as an example of Malthus' "check to population". Mayhew described the crowded rooms emitting "..so rank and foul a stench" that he was sickened by "a moment's inhalation of the fetid atmosphere".[5] Cooper found the same situation in Southampton when he commented on one lodging house that "...the stench was insupportable and was enough to produce disease

1. A.R.M.O.H., 1874; J.Lemon, Reminiscences, (Southampton, 1911), II. p181.
2. Council Mins., 10.10.1850. 3. Cooper, op.cit., p32
4. J.Burnett, A Social History of Housing, (1936), p62.
5. G.Himmelfarb, "The Culture of Poverty", H.J.Dyos & M.Wolff, (Eds.), The Victorian City, (1973), p725.

amongst the inhabitants." He compared other dwellings with the Black Hole of Calcutta.[1] It was the link between the Common Lodging Houses and their inhabitants and disease which made them of particular interest to the local authorities. Tramps and travellers who frequented these houses were regarded, with some justification, as "sources of disease and consequent drain on the rates".[2]

In 1850 Southampton's Common Lodging Houses catered for less than one per cent of the town's population. The more notorious of these houses were in Simnel Street. Only two of the houses in the street had more than twenty inhabitants, No.19 with twenty six having the greatest number. The 1851 census gives the occupations of these residents as hawkers, travellers, seamen and casual labourers and their origins as far afield as Russia, Barbados and America in the case of seamen but many of the labourers came from Hampshire. There were 668 seamen living in Southampton at the time. [3] The census returns also show that a large number of houses in Simnel Street which were not listed as lodging houses had lodgers or visitors, usually only two or three. As these houses were not registered they remained outside local authority control in the 1850s. A common lodging house had been defined in the 1851 Act as any public lodging house in which persons are lodged for hire for a single night or less than one week at the time or in which any room is let for hire to be occupied by more than one family at one time. As a Local Board of Health Southampton had taken over the supervision of the Common Lodging Houses in 1850 but it was not until the cholera scare of 1853 that the Board decided to draw up regulations for these houses. The houses were to be cleansed and limewashed twice a year and the floors, washed every week. Accommodation for washing and a supply of water for the lodgers was to be provided by the lodging house keeper. The number of lodgers, each having 250 cubic feet of space, was to be limited by the Officer of Health. The sexes were to sleep apart unless married. [4]

As in other aspects of public health and housing it was one thing to make regulations but to enforce them was another. When Cooper

1. Cooper, op.cit., p 3, 36. 2. W.Ranger, Report on the Sanitary Condition of Southampton, (Southampton, 1850) p 107; Cooper, op.cit., p4
3. 1851 Census. 4. L.B.Mins., 20.9.1853.

questioned some of the slum dwellers in St. Michael's parish he was met with the response - "Where can we go?" It was this problem of alternative accommodation which made the Medical Officers reluctant to use to the full the early Nuisance Removal Acts and the Torrens Acts. [1] The problem in Southampton was further complicated by the poor quality of the original Common Lodging Houses. Dr. Wiblin in his evidence to Ranger said of Simnel Street - "...Nothing else than a pulling down can cure the internal defects of such a place." He went on to recommend in the interest of humanity and the sanitary welfare of the town that a model lodging house should be built in St.Michael's parish, a suggestion also made in Cooper's Report.[2] Yet in the reports of Dr.MacCormack which have survived he refers to the lodging houses as remarkably clean and healthy. His eagerness to see all houses let out in lodgings brought under the same regulations as Common Lodging Houses would seem to indicate that he thought the regulations were of great benefit.[3] In view of the comments of both his predecessor and his successor on the same houses, it appears that MacCormack had either lower standards or relied too much on the reports of his unqualified inspector.

Dr.Osborn, MacCormack's successor, described the houses as being in a very unsatisfactory condition because of their age and decay. Yet his regular inspection showed the houses to have "..a far more cleanly appearance than some of the habitations above the pauper class." As proof of their sanitary state he claimed that only two or three cases of sickness and death had been reported in the past two years.[4] Despite these early compliments Osborn throughout the remainder of his period of office stressed the dilapidated condition of these lodging houses and urged the construction of a model lodging house with all the necessary sanitary arrangements. Osborn's reports show that the houses were cleansed and white washed twice each year according to the bye laws. Few cases of infectious diseases were reported from these houses. This immunity of the inhabitants was ascribed by Osborn to the cleanly state

1. Wohl, op.cit., p319. 2. H.A., 12.1.1850; Cooper, op.cit. ,p25
3. S.Times, 9.2.1867, 24.8.1867, 15.8.1868. 4. A.R.M.O.H. 1874.

of the houses.[1] The number of Common Lodging Houses did vary during this period. Cooper mentioned 15 in 1850 but in 1884 there were only nine. In 1888 Osborn closed one of the lodging houses because the keeper had left the town and the house and bedding were in a very dirty state. In the same year two houses in Simnel Street having been put in a good state of repair were registered as one Common Lodging House which maintained the number in the town at twelve.[2]

When Wellesley Harris issued his first M.O.H. report in 1891 he was very critical of the Common Lodging Houses. He agreed with Osborn that the houses were ill adapted for their purpose and that it was impossible to improve them structually but he went further in criticising the failure of the lodging house keepers to observe the town bye laws. Passages were unswept, windows seldom opened, fire places and ventilators blocked, linen and blankets perfectly filthy - "the general uncleanliness giving a sickening odour on entering from the fresh air." There was some overcrowding with adults of both sexes and not of the same family occupying one room with no partitions between the beds. By strictly enforcing the bye laws and with daily visits from the chief inspector Corben the houses were said to have improved. [3] Despite these efforts Harris' Report for 1891 revealed dreadful conditions in the majority of the town's lodging houses. There were thirteen in the Borough with provision for letting 286 beds an increase of only 108, or 62%, over the 1851 figure although the town's population had risen from 35,305 in 1851 to 65,501 in 1891, an increase of 85%. The worst features were that the houses were very dirty, the bed linen filthy, lighting and ventilation poor and undue mixing of the sexes. Nine of the houses failed to provide any accommodation for the personal ablutions of their customers. Harris concluded that the building of a Common Lodging House for all travellers was the most necessary improvement in Southampton.[4]

As a result of this report a sub-committee of the Sanitary Committee visited all the town's Common Lodging Houses and decided that the majority were totally unfit for their purpose. It was agreed to deal with the worst and leave the rest until better accommodation was

1. A.R.M.O.H. 1878; A.R.M.O.H. 1874-1889. 2. A.R.M.O.H. 1884, 1887 and 1888. 3. A.R.M.O.H. 1890. 4. A.R.M.O.H. 1891.

available. Three houses, two in Blue Anchor Lane and one in Simnel Street, were closed. The 1892 Report again condemned the houses as unsuitable, the owners and keepers as undesirable persons and the houses as a source of continual danger both physically and morally. The only solution was for the Health Authority to erect a model lodging house. Harris continued to keep a close check on the lodging houses. In 1893 when there was smallpox in the town the twelve houses received 3,713 visits, the object being to reduce the risk of tramps spreading the disease.[1] In his special report on dilapidated houses in the town Harris urged the Council to build a Common Lodging House.[2] This request was repeated in his 1894 Report which gave the number of visits to the town's 13 houses as 636 and commented in a phrase familiar from Osborn that the houses "..were as clean as their structure will allow."[3] A special committee of the Council had been set up in October to consider the slum areas and the question of a Municipal Lodging House. In April 1895 the town's scheme was approved by the Local Government Board and the house was eventually opened in 1899.[4]

It is difficult to form a proper assessement of the housing conditions of those members of the urban working class who did not frequent the Common Lodging Houses. Town workers were not a homogenous class and their accommodation often varied with their wages. In 1897 in St.George's,London, nearly half the working class lived in single rooms and earned less than 19/-(95p) a week, whereas in Battersea two thirds of the families lived in two or three rooms and earned 25/-(£1.25p) a week.[5] One of the best known descriptions of working class housing was published in 1832 by Dr. James Phillips Kay on the Manchester cotton workers.

"The houses, in such situations, are uncleanly, ill provided with furniture; an air of discomfort, if not of squalor and loathsome wretchedness pervades them;they are often dilapidated, badly drained, damp: and the habits of their tenants are gross - they are ill fed, ill clothed and uneconomical - at once spendthrift and destitute - denying

1. A.R.M.O.H. 1892, 1893. 2. A.Wellesley Harris, Report on Dilapidated and Unhealthy Houses 1893, p77. 3. A.R.M.O.H. 1894.
4. S.Times, 13.10.1894, 27.4.1895. 5. Burnett, op cit.,p 67.

themselves the comforts of life in order that they may wallow in the unrestrained licence of animal appetites."
Kay's report was based on some of the worst areas in Manchester and his view was not shared by all contemporary commentators on housing conditions. Engels and Cobbett talk of "three or four rooms", good houses and good furniture.[1] Chadwick and his inspectors were concerned only with bad housing and its connection with public health. For them bad housing meant overcrowding, lack of water supply and poor sanitation. Like other reformers of the time they concentrated on the worst examples in order to promote their case.

At national level among politicians housing was not regarded as the most pressing of sanitary problems. In 1841 three Housing Bills, banning back to back houses and cellar dwellings, were introduced into Parliament but all failed. [2] Although overcrowding was mentioned in the 1855 Nuisance Removal Act the first major legislation to improve housing was the 1868 Torrens Act. The Act was partly the product of the cholera epidemic 1865-1866 which made public health an important political issue. The Act gave the local authority, on the recommendation of the M.O.H. or four householders, the power to close a house not in good repair or repair it at the owner's expense.[3] The 1875 Cross Act made it possible for local authorities to undertake slum clearance schemes. The Act was not a great success because the high compensation paid to slum property owners made authorities reluctant to use the Act and few of those who did made an effort to rehouse those displaced by their schemes. [4] By the 1880's housing had become a major social and political issue. This was partly the result of increasing medical knowledge which showed the epidemiological links between overcrowding and disease and partly the result of books like A.Mearns, The Bitter Cry of Outcast London. Mearns' book published in 1883 with its descriptions of "courts reeking with poisonous and maloderous gasses arising from the accumulation of sewage and refuse..", showed that for many little had changed since Chadwick's reports of the 1840s or even Kay's of the

1. Burnett, op.cit., p55-57. 2. Ibid.,p93. 3.W. Frazer, A History of English Public Health, 1834-1939. (1950), p102.
4. A.Wohl, Endangered Lives (1983), p317.

1830s.[1]

As a result of the interest aroused in the subject a Royal Commission on the Housing of the Working Class was set up under the chairmanship of Sir Charles Dilke in 1884. When the Commission's report was published in 1885 it gave a great deal of evidence of the relationship between wages and rents. In Clerkenwell labourers earned 16/-(80p) a week and artisans 25/-(£1.25) and paid between 15 and 20 per cent of their income in rent. Sir E.W.Watkin M.P.pointed out that the worker who could pay 4/- or 6/-(20p-30p) a week had no difficulty in finding accommodation. It was the very lowest class who needed provision.[2] In 1890 came the most effective housing reform of the nineteenth century,the Housing of the Working Classes Act. The Act encouraged local authorities to present schemes for not only clearing slums but erecting municipal lodging houses and model dwellings. It was this Act which was used by Southampton to introduce municipal housing. Although several towns made use of the Act, only about 1% of houses built between 1890 and 1914 were municipal dwellings. By 1914 less than half of 1% of the total housing stock in Britain was municipally owned.[3] Southampton had built 26 tenements in flats, 69 cottage tenements and a municipal lodging house in this period.[4] Thus the Corporation had provided accommodation for 688 of its 120,000 inhabitants, barely a ½%.[5]

Southampton played little part in the development of the national housing picture. The town was not involved in the Royal Commission on Large Towns in 1844 and was mentioned only in passing in the evidence given to the Royal Commission on the Housing of the Working Classes, 1884-85. Almost all the early nineteenth-century surveys of housing

1.A.Mearns, quoted in B.I.Coleman, (Ed.), The Idea of the City in Nineteenth Century Britain,(1973),p173. 2. P.P.,1884-1885, Report of the Royal Commission on the Housing of the Working Classes, Vol.XXX. p58. 3. Merrett, op.cit.,p26. 4.P.P. Local Government Board 1909, Statistical Memoranda,Cd.4671,p22. 5. M.Doughty, Dilapidated Housing and Housing Policy in Southampton, 1890-1914,(Southampton 1986),p xxvi.

conditions, such as those of Engels and Kay, were based on Northern industrial towns. Dickens' fictional Coketown was an amalgam of Preston, Oldham and Manchester.[1] Yet Southampton faced many of the problems associated with urban development in the nineteenth century. The town proper, that is excluding the tything of Portswood, had a population of 7,629 in 1801 and this had grown to 34,098 by 1851. The intercensal growth rate for the town proper during this period outpaced the national urban growth rate :-

	National %	Southampton Town Proper %
1801-1811	23.7	21.3
1811-1821	29.1	39.5
1821-1831	28.0	44.6
1831-1841	25.0	45.1
1841-1851	25.9	25.8

The town's growth rate between 1821 and 1841 almost matched that of Manchester which between 1821 and 1841 grew by 47%.[2] The town increased by a further 27.3% by 1861 but after this, the growth rate declined to 10.7 in 1871, 9.9 in 1881 and 4.1 in 1891. The number of persons per house nationally in 1851 was 5.4 and in 1871 5.3.[3] The corresponding figures for Southampton proper were 6.2 and 6.0. Within the town in 1871 the figures ranged form 5.6 persons per house in the wealthy ward of All Saints to 6.8 in the poor working-class ward of St.Michael's.[4] Nationally housing developed to meet the increased demand. By 1911 the average number of persons per house had fallen to 5.05. A similar decline took place in Southampton. By 1891 the corresponding figure for the town proper was 5.38.[5] Nowhere in the second half of the nineteenth century did Southampton experience the London overcrowding indicated by the 1851 and 1881 figures of 9.5 and 9.7 for Holborn and the East End of 7.2 and 7.9.[6]

It was the 1849 cholera epidemic and the subsequent Ranger inquiry which first focused attention on the living conditions of the poor in nineteenth-century Southampton. At a public meeting in August 1849 the

1. Wohl, op.cit., p286. 2. Burnett, op.cit., p57. 3. Frazer, op.cit., p120.
4. 1851 Census, 1871 Census. 5. A.R.M.O.H.1891 p6.
6. Burnett, op.cit., p144.

Poor Law Medical Officers were asked to account for the high cholera death rate among the poor. Cooper said this was because the people were ill fed, ill lodged and ill clothed with their houses ill ventilated. Mackay, a fellow P.L.M.O.,supported Cooper and referred to the unwholesome places in which the poor were compelled to live. Cooper went on to talk about the living conditions of the poor especially "the confined air." He quoted one example of seven people living in a room of only 200 cu.ft.This confined air and impurity caused by dung heaps did not cause cholera but it was greatly aggravated by them. He concluded that "...it was the ill fed, ill clothed and not having a penny in their pockets, with their lives depraved- those would have their lives cut short whatever the cause of the disease might be." [1]

When it was announced that Ranger would visit the town in January the news was welcomed by the Hampshire Advertiser. In a leader it commented that Ranger would visit the miserable hovels in Kingsland near the gas works and " the flooded masses of tenements near Northam and other places where the working man and his family imbibe malaria at every breath." [2] Reverend T.L.Shapcott, the vicar of St.Michael's, was another to welcome the inquiry and the prospect of the town coming under the Health of Towns Act. He said some privies in the parish were used by 150 persons, 40 to 50 boys and girls frequented them and disgusting scenes took place. The lodging houses of the parish were a frightful source of disease and demoralisation. The local Improvements Board had collected £20,000 but had done nothing for St. Michael's. The vestry passed a motion that "St.Michael's had been neglected and must come under a power that would do them justice."[3] When the Ranger Inquiry met, it confirmed the earlier press reports on the sanitary state of the town. The Advertiser claimed that, "In no other parts of the country are there in a given space such a multitude of courts presenting the most repulsive features." In two streets people were living seven to a room. In Cook Street, described by Dr. Wiblin as the unhealthiest in the town, the houses were built of rubbish with scarcely a brick to be detected, yet occupiers were paying 2/6d to 3/6d (13p-18p) a week for two wretched rooms. [4]

1. H.A.,18.8.1849. 2. Ibid.,22.12.1849. 3. Ibid.,29.12.1849.
4. Ibid.,12.1.1850, 19.1.1850.

One of the key witnesses at the Ranger inquiry was Cooper, soon to be the town's first M.O.H. In his evidence to the inquiry and in his first M.O.H. report he showed the link between disease and living conditions. He pointed out that the mortality rate in St. Mary's, 25.2 per 1000, was 46% higher than in All Saints, 17 per 1000. St. Michael's parish had a sickness rate 500% that of Holy Rhood. In his report he wrote, "No doubt but want and poverty and intemperance are the great parents of much disease; but at the same time, this disease is fearfully aggravated and in numberless instances, generated by locality."[1] In his evidence to Ranger he made the link between ill health and poverty even more clear. "There are numerous diseases which canot be treated by the parochial surgeon satisfactorily or beneficially, from the paucity of means in the numerous dwellings situate in the various courts, passages etc; he has no warm baths, no clean bedding, no proper diet, no pure air to give his patients."[2] In identifying poverty as a major cause of poor housing and subsequently of ill health Cooper was in advance of popular opinion. Even among his fellow M.O.H. overcrowding was not generally seen as a poverty problem until 1890.[3]

After the cholera epidemic, the Ranger Inquiry and the reports of Cooper and Ranger it is difficult to see how anyone in Southampton could have been unaware of the living conditions of the poor. Yet housing as a topic disappeared from the pages of the local press and little mention of it was made in the minutes of the Local Board throughout the 1850s. The Board concentrated on the problems of the town's water supply and sewerage. Even in these areas its work appears to have been selective. In the summer of 1859 when an improvement scheme for St. Michael's ward was being discussed its Councillor Davis claimed that of the £119,360 spent by the Board on improvements only £315 had been spent on his ward.[1] Yet St. Michael's contained some of the worst areas in the town as shown in Ranger's report. The Board came in for further criticism over the death of a yong girl from typhoid in a newly built street in Northam. Defective drainage causing stagnant water to accumulate under

1. Cooper, op.cit., p35. 2. Ranger, op.cit., p31. 3. A. Wolh, "Unfit for Human Habitation", Dyos & Wolff, op.cit., p615. 4. H.I., 20.8.1859.

the floor of the house was blamed for the disease. The Board was blamed for not exercising its powers to control house building.[1]

It was the model dwellings movement which first attempted to raise the standard of working class housing. The aim of the movement was to provide a service but also to make a profit, usually of 5%. By 1910 over 100,000 rooms had been provided in London by the movement and in some ways it may be regarded as paving the way for municipal housing.[2] In a speech at Romsey in January 1861 W,F.Cowper, M.P. declared that the dwellings of the poor were a matter of vital interest affecting both the moral and physical welfare of the labouring poor - an evil too long overlooked. He announced that an association would be set up in Southampton to affect public good and yield a profit. Among the promoters of the company were several prominent Southampton Councillors including some past mayors, Bowman, W.J.Le Feuvre, Coles, Mayes, Ransom and Rolles Driver. In 1866 the Southampton Improved Dwellings for the Industrial CLasses Company announced the completion of ten substantial six roomed houses and one block of flats constructed on principles adopted in London and Scotland.[3] Despite their efforts the model dwellings movements did not solve the housing problems of the majority of the working class. The rents charged in the Peabody dwelings in London were from 5/6d(28p) upwards, a sum only the more skilled of the working class could afford. No one would build for the poorest classes because they could not afford to pay an economic rent. Booth and Rowntree at the close of the century estimated that 30% of the population lived in poverty. Rowntree had defined poverty as being unable to maintain a "state of bare physical efficiency." In 1914 approximately one third of the regularly employed adult male work force earned less than the 25/-(£1.25p) a week widely regarded as necessary to rise above poverty and to maintain minimum bodily efficiency.[4] Dr. Treble estimates that because of lower wages and higher prices the proportion of the population living in poverty in the mid-nineteenth century was probably above 30%.[5]

1. S.Times, 6.10.1860. 2. Wohl, op.cit., p371-2.
3. S.Times, 19.1.1861, 11.2.1865. 4. Wohl, op.cit., p45.
5. J.Treble, Urban Poverty in Britain 1830-1914, (1979), p188.

One of the leading supporters of the model dwellings movement was the Earl of Derby. In a speech in Liverpool he appealed for an increase in voluntary action to solve the housing problems of the poor. He claimed that there were 10 per 1,000 deaths too many in towns. The causes of this excess mortality were overcrowding, drunkeness, immorality and among a certain class a want of sufficiency of wholesome food. Decent lodgings he claimed would do more for temperance than all the School Boards and teetotal gatherings. He estimated that 25,000 houses were occupied by families in single rooms and at six persons per house this would amount to 150,000 people, about one third of Liverpool's population. An investment in housing would yield a 5% return and be good for pocket and conscience. The problem had to be solved by private enterprise. If this failed it would be no light matter for local government to provide houses for the poor at less than cost price. This would sanction a principle which it would not be easy to limit. If the poor had a right to free lodging why not free food? [1] This was a question a society brought up on Samuel Smiles' ideal of self help found difficult to answer.

It was the cholera epidemic of 1865-66 and the 1866 Sanitary Act which brought housing conditions to the attention of local authorities yet again. In London, as in Southampton, medical officers had carried out house to house visitations during the epidemic. Dr.Fowler,a London P.L.M.O., commented on the scandalous conditions these visitations had revealed with house after house inhabited by 20 to 30 people sharing one privy and without a water supply. Sooner or later a way must be found for providing better constructed houses for the poor. But there was no need for these conditions to exist as the new Sanitary Act gave the local authorities the power to compel landlords to act and he added that if the authorities failed to act it would be unpardonable.[1] In his first quaterly report for 1867 MacCormack mentioned overcrowding as one of the three major sanitary problems of Southampton. He suggested that the 1866 Act should be used to check overcrowding.[2]

It was almost six months later that MacCormack's suggestion was discussed by the Local Board. His ideas were supported by Le Feuvre. The

1. Coleman(Ed.),op.cit.,p156-9, 1. Times, 21.9.1866. 2.see Chapter IV.

only opposition came from a Councillor who asked where would the poor go? The Council would have to find places for them. Two thirds of the population might be turned out of the town. He was told that MacCormack would exercise the 1866 powers properly. The fears for the poor in Southampton were echoed elsewhere. The M.O.H. for Hackney claimed that if he carried out the overcrowding clauses of the 1866 Act he would compel 10,000 people to sleep in the street.[1] This attitude was common among London M.O.H. One summed up their attitude :"Until tenements are built in proportion to those demolished at low rents it is not humane to press on with large schemes." [2] When the new regulations were applied in Southampton ten occupiers were served with notices. MacCormack said he was pleased at the small proportions of houses needing notices. He was certain the new regulations would lead to a diminuition of epidemics and contagious diseases. [3]

The increased sanitary legislation of the 1870s and in particular the 1875 Artisans Dwellings Act made Housing a regular feature of M.O.H. annual reports. In 1875 Osborn listed, among nuisances removed by notices, 96 houses in a defective state. The houses were said to have damp rooms and to be in need of cleansing and whitewashing. Three houses were listed as overcrowded and six having been found unfit for human habitation were closed under bye law 40 of the Local Board.[4] Thus only 105 of the town's total of over 8,000 houses were acted against. In the light of the investigations of the 1880s and 1890s and the conditions they revealed this seems to confirm the view that the M.O.H. did not enforce the laws rigorously. Throughout the remainder of his period of office Osborn continued to list in his annual reports only a handful of houses unfit for human habitation and a similar number of cases of overcrowding, the largest number being reported in 1883 when seven houses were closed and ten cases of overcrowding checked. The number of houses served with notices fluctuated more widely from 73 in 1878 to 231 in 1884. In his last report he adopted a vigorous tone. He condemned back to back housing and said that despite the sanitary improvements made, much remained to be done in improving the narow streets in the

1. Burnett, op.cit., p146. 2. Wohl, op.cit., p319-20. 3. S.Times, 15.8.1868. 5. A.R.M.O.H. 1875.

lower part of the town. He criticised, in particular, Goater's Court, High Street."Some of the houses in this court, the property of the Corporation have been pulled down, and the sooner the others are demolished the better."[1]

Throughout the 1870s and 1880s the Council and the local press paid little attention to the topic of housing. It is rarely mentioned in the minutes of the Urban Sanitary Authority before 1890. Only on two occassions was the topic brought to the attention of the Council. Early in 1881 the mayor, J.H.Cooksey, the borough surveyor and the M.O.H. carried out an inspection of the courts and alleys of the borough. Cooksey produced a report for the Corporation and urged the Sanitary and Special and General Works Committees to take prompt steps to remove all existing defects and to place the courts and alleys in a satisfactory sanitary condition. The report did not attempt to describe living conditions or overcrowding in the courts. It concentrated on paving and water closets. In the 116 courts inspected only 15 tenements were considered unfit for human habitation but over 100 W.Cs. were found to be dangerous, dilapidated or with cisterns in bad repair. Almost half the courts, 50, had defective paving and 41 were without ash pit accommodation. The majority of courts had only one W.C. between two tenements but some were quite good. Mason's Close was described as "..clean and in a very good state", with each of the seven houses in the court having its own W.C. at the back. Silk Shop Yard, Simnel Street was much less satisfactory. The six tenements there shared a large flushing privy which was divided into two compartments,"..but the inmates of which are visible to each other." Cooksey recommended that there should be three W.Cs., unless some of the houses were closed as they were lodging houses in "a most dilapidated state."[1] Bennett, the borough surveyor, did take action over the report and extra W.Cs. and new paving were provided for many of the courts.

Despite Cooksey's report much remained to be done in the town. At a meeting of the Council in April 1882 Councillor Payne described a visit

1.A.R.M.O.H. 1889 ,p14. 2.J.H.Cooksey, Report on the Condition of Courts and Alleys of the Borough, (Southampton 1881)

to the workhouse and the courts and squares of the town. He had heard the workhouse described as a perfect hell but in reality it was heaven on earth compared with the wretchedness and misery of the courts and squares. York Square had eight houses and sixty inhabitants but no real sanitary provision. It was a marvel how any number of human beings could exist in such a deplorable state. Like so many other sanitary reformers he linked sanitary improvements with moral benefits. Sanitary reform would do more than temperance lectures to cut drinking. This was Payne's first visit to the courts of his town and he claimed that until he saw them he could never have believed that such spots were allowed to exist in the midst of a civilised and he supposed Christian town. He reminded the Council that by law if the owners failed to provide services then it was the Council's duty to provide them. He warned that unless action was taken smallpox would result. This would not be, as the clergy would claim, a visitation from God but the result of criminal neglect. Bennett reported on the work done since Cooksey's report. Thirty extra W.Cs. had been provided and 25 ashbins erected. Thirty eight courts had been repaved and twelve flushing privies converted into good W.Cs. The owners of the courts were continuing with the works. He reported later that he had written to 33 court owners requiring eleven additional W.Cs. and twenty one courts to be paved. Eleven owners had promised to carry this out, and he would carry out the remainder and charge the owners. [1]

It is difficult to understand how Payne, a prominent St.Mary's Councillor for many years and future mayor, could be so ignorant of living conditions in his own town. Councillors as well as officials like the M.O.H. had taken part in house to house visitations during the great epidemics of 1849, 1865-1866 and 1871. Yet the structure of Victorian towns made it unlikely that those who had not taken part in these visitations would ever visit the poor working class areas. M.J.Daunton has described the form of working class districts in mid Victorian towns as "cellular and promiscuous" with residents living in self contained little worlds of enclosed courts and alleys, entered by openings less than four feet wide.[2] It was this enclosed world, lacking the through

1. S.Times, 22.4.1882, 13.5.1882. 2. M.J.Daunton in D.Fraser & A.Sutcliffe (Eds), The Pursuit of Urban History, (1983), p214.

ventilation which medical men were convinced was essential for healthy living, that was to be replaced by open streets in late Victorian cities.

Housing had become the most debated social question by the 1880s.[1] This was partly the results of articles such as Mearns' Bitter Cry of Outcast London and the subsequent Royal Commission. The change from sewerage and water supply to housing as the central issue of Public Health also reflected the evolution of the political left. It was Labour councillors who began to bring these issues to the public's attention in the late 1880s.[2] Some Medical Officers had seen the importance of overcrowding much earlier. In 1858 one London M.O.H. described it as the most important problem in public health and by the end of the century many other M.O.H. were expressing similar views.[3] To many the causes of overcrowding were economic. In 1883 The Times wrote "the housing of the great mass of workers....is a question, we say, of wages." This view was supported by M.O.H. In 1905 Foot, the M.O.H. for Bethnal Green, wrote "poverty and the inability of paying rent is the cause of 98% of all cases [overcrowding]".[4] This view was not shared by all. Many believed that poverty and the consequent overcrowding were the fault of the poor. The high level of drunkeness among the poor was seen as proof of this. To some the poor were seen almost as a different species. John Simon commented on the moral consequences of dense living conditions : "it almost necessarily involves such negation of all delicacy, such unclean confusion of bodies and bodily functions, such mutual exposure of animal and sexual nakedness, as is rather bestial than human."[5] Charles Booth described one group of irregular employed men as being poor from "shiftlessness, helplessness, idleness or drink". Other commentators in the late nineteenth century were even more damming. Although roughly one sixth of working class income was spent on drink, the work of Booth, Rowntree and the M.O.H. made the public realise that this was not the sole cause of poverty and consequently of overcrowding.

Little of the national concern regarding overcrowding and living conditions was reflected in the activities of the Southampton Council or

1. Burnett, op.cit., p176
2. B.I.Coleman, op.cit., p11:
4. Dyos & Wolff, op.cit., p612.
5. Wohl, op.cit., p325.
6. Burnett, op.cit., p144.

the pages of the local press. Cooksey and Payne's efforts to bring the condition of the courts and alleys to the attention of the town produced the responses familiar since the days of Chadwick and Ranger. The courts were supplied with additional W.Cs. and better paving. Overcrowding and the state of the buildings were ignored. The reports of the elderly M.O.H. Osborn showed no dramatic change in his department's attitude during the 1880s. Even in his last and most outspoken report of 1889 the emphasis is on channelling the roads in the lower part of the town and through ventilation.[1] It was the arrival of a new young M.O.H. eager to implement the new legislation on the Housing of the Working Classes and, perhaps more importantly, the advent of a new political voice which forced the topic of overcrowding and housing onto the agenda of the Council in the 1890s. The Dock Strike of 1890 caused great hardship among the families in the St.Michael's area of the town where many of the dockers and casual labourers lived. After the strike was over Bicker Caarten, who advised and supported the dockers, stood as a Labour candidate for the St. James Ward where many dockers lived. He was not supported by the Southampton Times, the most radical of the local press, which urged the voters of St.James' to support the sitting Liberal Candidate, Walton, who would represent labour views. When Walton won the election comfortably the paper condemned Labour candidates and claimed the cause of reform was best advanced by Liberals and Radicals working together.[2] Despite further election set backs in the 1890s Bicker Caarten did become a Councillor, as a member of the Independent Labour Party, in the early twentieth century.

Although the paper did not support him politically the Southampton Times did publish Bicker Caarten's letter under the heading "The Exceeding Bitter Cry of Outcast Southampton" and it was this letter which provoked so much discussion on housing in the town. He described how he spent three weeks canvassing in the St.James' ward - " the small close dirty and evil smelling streets generally blocked at one end and sometimes at both, the maze of little courts and passages leading out of

1. A.R.M.O.H.1889, p14. 2. S.Times, 1.11.1890, 8.11.1890.

them, with their wretched tumble down houses, closely packed with human beings with no provision for decency or cleanliness dismal wretched squalid and hideous beyond words to express; and then the tribes of children hungry dirty barefooted and wild utterly neglected growing up to swell the ranks of crime and pauperism." He asked what was the use of spending money on waterworks and allowing these fever dens to exist to spread disease through the town ? He stressed the drunkeness and immorality of the district and asked how could Christians allow it to exist? He concluded his letter by urging others to visit the courts and resolve to put them right.[1]

The outspoken nature of Bicker Caarten's letter did not provoke a great response immediately. The following week only two letters commented on his. Both were concerned not with disputing his account of conditions in the ward but in challenging his criticisms of the clergy and mission workers for not making more efforts there. One correspondent claimed Bicker Caarten was to blame for the hardship of the poor because he had encouraged the Dock Strike. Bicker Caarten replied to these criticisms by saying that he had not intended to criticise the clergy simply, to say that more efforts were needed. Church and State must work together. Pressure must be put on the Council to reconstruct the area and preachers to the wealthy must tell them that their duty to their fellowmen is "..not discharged by paying them the lowest wages that their necessities compel them to accept." A letter from a member of the Cross Street mission supported Bicker Caarten's description of the area and added, "It does not matter whether Liberals or Conservatives are in power money is lavishly spent for improvements in main thoroughfares and the reception of Royal Princes, yet within a stone's throw of High Street and East Street, we have these horrible degraded localities..". The following week for the first time the issue received editorial comment. The housing question had been discussed at a Council meeting and mention had been made of Bicker Caarten's letter. The editor referred to the Council discussion and said that the misery of the poor was largely due to the wretched character of their dwellings and urged the town to have a

1. S.Times, 8.11.1890

clearance of slums everywhere. [1]

Five weeks after the original letter on the subject Councillor Gayton, a Liberal, had a lengthy letter published in which he outlined his views. He said he intended to propose that the M.O.H. and borough surveyor be asked to draw up a report on the dilapidated houses in the borough. Municipal government must ameliorate the condition of our poorer brethern - the bitter wail of outcast Southampton was a reality. He blamed the misery of the poor on the wretched hovels in which a large number of them had to draw out their existence. He said he was ashamed so little had been done and described the poor as "..huddled together like lower creations, whole families residing in one room with disease and even a corpse in some abodes for days together". He hoped that the Council would use its new powers "to sweep away the dens in our midst and provide model dwellings for the poor". £60,000 had been spent on a new water supply and £30 - 40,0000 had been suggested for a new town hall. Gayton said that before this was done proper habitations for the poor should be provided even at a cost of £50,000. It was a Christian duty. He concluded by saying thet public houses in slum areas should be closed down. This last point had the supoort of the towns Chief Sanitary Inspector J.Corben. At a temperance meeting he claimed the wretchedness and squalor of the poor were very largely the result of intemperance and the sanitary authorities were powerless unless the public cooperated. People should be educated in sanitary knowledge and hygiene lessons given in school.[2]

The following week the Southampton Times published the first of a series of articles on the town's slums. The article appeared on the last page of the paper but was one and a quarter columns in length. The major cause of misery and squalor was overcrowding. In parts of the town such as Simnel Street the people were described as packed as tightly as herrings in a barrel. The lodging houses were described as full of tramps, Italians and rag pickers with a family in every room and 70 to 80 in one house. This description, if accurate, would suggest that conditions had worsened in the second half of the century as the 1851 and 1881 census give the lodging houses a much smaller population. The small

1. S.Times, 15.11.1890, 22.11.1890, 29.11.1890. 2. Ibid., 13.12.1890

tenements in the courts were little better than the lodging houses, each room contained a family and there was only one W.C. for the court. In one room the reporter found a man, his wife and five or six children and a dead baby. A small room next to the roof hardly high enough to, stand was let with a bed, table and chair at three shillings (15p) a week to a family of four.

In subsequent articles the work of slum missions among the children was praised. It was hoped that education would overcome the great curses of the poor, drink and thriftlessness. Several correspondents suggested that public houses in the slums should be closed down to remove temptation from the poor. It was also pointed out that as the town's shipping trade increased so would the demand for accommodation by those wanting to live near their work. Something had to be done before this would affect the rich, "in sad retribution for long and cruel neglect".[1]

The Southampton Times continued its campaign in the new year warning its readers that the Council would only act if the public directed them to. The danger of disease spreading to the better off and the moral contamination of the honest poor by criminals was mentioned. In the last of the articles the question of responsibility for the slums was discussed. The sanitary authorities, the builders and property owners and slum dwellers were all to blame. In some tenements door latches were sold and ballusters used for fuel, with such tenants landlords soon tired of repairing property. Yet not all the poor were villains - good homes would help them to resist drink. The Sanitary Authority did not enforce its own bye laws in slum areas. Ash bins were to be provided for every house but few were seen in the slums. The Authority's Power to condemn houses had not been used in the slums. The article also mentioned the need to build model dwellings in brick and stone. This provoked a letter the following week asking how the poor could afford 6/- (30p) for rent each week out of only 18/- (90p).[2]

At a Council meeting in January 1891 Gayton introduced his promised motion on dilapidated housing. Like other reformers he linked public health and morality with overcrowding, "the wretched houses ...were not

1. S.Times, 27.12. 1890. 2. Ibid., 3.1.1891, 10.1.1891, 17.1.1891.

morality never bloomed or saw the light." The motion met with some opposition. It was suggested that the matter should be referred to the Sanitary Committee as since Harris had become M.O.H. five Acts of Parliament had strengthened the Council's powers. Harris had already closed some houses. Nichols said the Sanitary Committee was dealing with the problem. It was the want of sanitary conveniences that made the places so bad. He went on to criticise the slum dwellers claiming that if they were put into good houses they would demolish them. They burned or turned into money whatever they could remove from the house. Despite all the press publicity the debate was attended by only 23 of the 40 Councillors, several having left before the motion was proposed. Gayton's motion was carried by 12 votes to 11. The Southampton Times welcomed Gayton's success as the first step towards slum improvement.[1]

Neither the Hampshire Advertiser nor the Independent paid much attention to the Southampton Times campaign on housing and after January 1891 the topic faded from the press. It was left to the M.O.H. to keep the subject before the Council. His first report, which appeared in late January 1891, contained a much larger and more detailed section on housing than had ever appeared in earlier reports. This reflected both the 1890 Act and the more vigorous approach of Harris. He had closed some houses but large areas were dangerous and injurious to health. The percentage of mortality in St.Mary's was double that of some of the other wards. He included examples of the living conditions and customs of the poor. He concluded by suggesting plans for model dwellings for the working class.[2]

In his concern with overcrowding Harris was reflecting popular medical opinion. In December 1890 Sir T.Crawford, President of the Sanitary Institute, had described overcrowding as the most important of all causes contributing to the origin and spread of preventible disease. Even earlier in 1881 the President of the M.O.H. Association had declared that,"Overcrowding by itself will stunt the human race."[3] In 1891 the first technical definition of overcrowding was given as more than two adults in one room. Two children under 10 years of age were classed as the equivalent of one adult. This definition replaced the bye law ruling

1. S.Times, 17.1.1891. 2. A.R.M.O.H. 1890. 3. Wohl, op.cit., p283-6.

of one adult needing 300 cu. ft. By this new definition it has been estimated that 11.2% of the population of England and Wales, three and a half million people, were living in overcrowded rooms.[1]

The Council's acceptance of Gayton's proposal meant that Harris began his inspection of the slum areas of the town in 1891. Although the inspection was to take longer than expected, partly because of the illness of the surveyor, and the final report was not presented until the end of 1893, the results of Harris' work were reflected in his annual report for 1891. Again he lists cases of overcrowding with families of six and even nine living in one room. His descriptions of some of the houses showed that for some, little had changed since the days of Cooper and Ranger. Sixteen people occupied a three roomed house, which contained only one bed. Harris visited 1,050 dwelling houses and found almost all of them particularly damp because of defective wooden spouting. Damp courses were frequently absent, as was ground floor ventilation. Harris thought that the occupants were responsible for the insanitary condition of their homes and suggested that bye laws should be introduced to make tenants responsible for the "cleanly condition of the premises in which they reside."[2]

When Harris' next report was published in 1893 it contained few references to housing but among the items in need of urgent attention he listed his report on delapidated housing, "to be laid before you shortly".[3] The report was delayed at the printers for nine months and was finally published in December 1893 almost three years after the Council agreed to the survey. This delay and the absence of press comment on housing may indicate the lack of urgency felt by the Council and the town on this matter despite the brief press campaign in 1890. Sir Arthur Newsholme, M.O.H. for Brighton and later Chief M.O.H. to the Local Government Board, faced similar delays with improvement schemes in Brighton. A scheme suggested by his predecessor in 1879 was not carried out until the 1890s and then on a much reduced scale. [3]

Harris' report on Dilapidated and Unhealthy Houses contained a

1. Burnett, op.cit., p144 - 5. 2. A.R.M.O.H. 1891. 3. A.R.M.O.H. 1892.
3. A.Newsholme, Fifty Years in Public Health. (1935), p162.

detailed description of the worst housing areas in the town and a number of schemes for improving them. In his introduction he pointed out that as housing accommodation for the poor was scarce and as new shipping lines and extensive dock works were beginning in the town it was impossible to deal with large areas at one time. After a brief outline of the conditions in the courts he concluded: "The present arrangement in some courts is degrading to the morality of the inhabitants and annoying to passers by."He listed the back to back houses and the lack of sanitary conveniences and water supply in the courts. He then listed the pernicious effects of living in these districts. Phthisis and anaemia were frequently started by living in confined spaces. As the houses were secluded from passers by, misery, drunkeness and vice were rife. The fact that the inhabitants of the courts depended on one tap meant water frequently served many turns because of the trouble of fetching a fresh supply. Thus personal and house uncleanliness were the rule not the exception. The water closets in the court were shared and often used by tramps. This resulted in the condition of the closets being far from good, which, according to Harris did much to lower female morality.[1]

The report considered only 659 of the 17,838 houses in the town proper. Of the houses considered 41 were back to back,a type common in the North of England but condemned by sanitary reformers because of their lack of through ventilation. They were banned by several towns before 1870 and received a national ban in 1909.[2] The 659 houses in the report had a population of 2,599, which gave an average of 3.9 persons per house, a figure below the national average. It was the figure of 441.4 persons per acre in these houses which Harris used to prove his point about overcrowding. The figures for the entire borough were 32.4 and for Portswood only 14.5 persons per acre. Harris did not recommend the whole demolition of the houses reported on but left it to the Council to decide how to deal with the problems he had portrayed. He thought that it was impossible to remedy the problem by one single

1. A.W.Harris, Report on Dilapidated and Unhealthy Houses 1893. S.R.O.,SC/H1/14. 2. Wohl, op.cit., p295.

action. This would involve enormous expense and the town would be unable to house the displaced tenants. He concluded his report by listing a few courts which needed attention first and could be remodelled cheaply and many of which belonged to the Corporation.[1]

Shortly after Harris published his report the local press reproduced parts of an article on Southampton which had appeared in the Lancet. The article praised the town for its efforts in preventing the importation of disease but criticised the poor drainage of the lower parts of the town and the lack of a public abattoir and a model lodging house. The town's common lodging houses were said to be of the worst type and the slums "of an exceptionaly wretched character." The dwellings and streets of half the poulation were described as badly drained. As the town was growing in prosperity the Lancet said it should improve its drainage.[2]

The Council considered Harris' report in late January 1894 and referred it to a joint committee. The only editorial comment from the Southampton Times was brief. It supported Harris' idea of dealing with slum property in small stages. For nine months nothing further was heard of the report. In September the press reported the death of Ellen Wren aged 49 at 22 Simnel Street. She had died in a loft barely five feet high in filth and squalor suffocated through lying on her face in a rubbish heap when drunk. It was said that she lived on scraps from the table of the lodging house keeper and died like a dog, nude and filthy. The Southampton Times commented that private enterprise and philanthropy were not sufficient to provide adequate lodging houses. "Does not the duty rest with the municipality of providing what is necessary in the interests of public health and the common decencies of life?" The same issue of the paper carried a letter from Bicker Caarten on overcrowding and the danger to health. He urged the Council to use its vacant land near the docks to build houses at low rents for those displaced by slum clearance. He concluded by asking: "Is the town run for the interest of the landlord or the people? If for the people, elect a new Council." Bicker Caarten put himself foward as an I.L.P. candidate in the Newtown

1. Harris, op.cit. 2. S.Times, 13.1.1894, 27.1.1894.

ward in November 1894 but was defeated again.[1]

The house in which Ellen Wren died was a lodging house but not a common lodging house and so did not come under the authority of the Council. The Southampton Times felt this was not good enough. There should be some right to interfere in private houses to protect the health of the community and the sacredness of human life. Municipal lodging houses erected on an extensive scale would help remedy many evils. The editor concluded by asking whether it was lack of power or willingness which prevented action? The people must demand one and supply the other. Three weeks later the Council discussed the unhealthy areas of the town. Walton said that nothing had been done since Harris' report was considered in January. He suggested that a special committee be set up and a small area of 70 houses tackled. He had visited the Common Lodging Houses of Glasgow. These houses were a source of profit for the Council. A similar house in Southampton would not only benefit the working class but also check the spread of disease. Gayton supported Walton. The Council had changed since his 1892 resolution had been passed with difficulty. A searchlight had been cast on the slums of the town and he hoped the Council saw their way out of Darkest Southampton. His resolution was passed without opposition. In April 1895 the first stage of the slum clearance plan, the Simnel Street Improvement, was approved by the Local Government Board. No detals of the redevelopment were specified and the only reference to finance was to the Council's estimate of the cost of acquiring the land at £13,556.25p. The scheme would provide accommodation for 850 people and be in three stages. Lemon assured the Council it would stop overcrowding.[2]

Harris in his 1894 annual report returned to the question of housing. Although he calculated that the the average number of persons per house was 4.83 he claimed that 14,687 of the town's population lived in overcrowded tenements. In his discussion of the town's mortality rate of 17.25, he listed four factors as having an influence; class of inhabitants, occupation, crowding on space, poverty. The death rate

1. S.Times, 15.9.1894, 3.11.1894.
2. Ibid., 13.10.1894, 27.4.1895; M.Doughty, Dilapidated Housing and Housing Policy in Southampton, 1890 - 1914, (Southampton 1986), pxix.

tables for the wards gave the town ward 17.8 and the St.James ward 18.8 whereas Nichols Town, with a larger population, had a rate of only 11.4. The 111 deaths from phthisis came for the most part from the poorest and most crowded districts of the borough. Yet the ward figures did not show a strong correlation between the death rate and houses per acre or persons per acre. The Town Ward, St. Mary's and Nichols Town had similar populations, areas and houses, but whereas the first two had a death rate of 19.2 and 18.9 Nichols Town averaged only 13.5 between 1891 and 1894. In the last section of his report Harris commented on the new housing schemes. He concentrated not on the health but the moral aspects of the slums. "I feel certain that there never existed a stronger claim for an improvement scheme to abolish the vice, filth and immorality which has reigned triumphant in this district for so long." [1] He advised the Council to build tenement blocks three storeys high with eight rooms and two W.Cs. on each floor. The rooms would form four two roomed flats. He suggested rents of 2/- (10p) for one room, 3/6 (18p) for two rooms and 5/6 (28p) for three rooms. Thus one block would give the Council £80 per year. In discussing Municipal Common Lodging Houses he stressed the need to provide furnished accommodation as the poorest had not the means of providing for themselves.

Lemon later gave an account of the difficulies the Council met in tackling slum clearance. When the scheme was first discussed it was thought it would cost about £14,000. But the claims for compensation from the property owners amounted to £41,238..10..8d (£41,238.53). After arbitration the amount agreed was £24,750..6..0 (£24,750.30p). The total cost for clearing the site was £30,058..7..10d (£30,058.39). The excessive cost was due, according to Lemon, to the faulty method of valuing dilapidated property. He claimed "...a fictitious price is put upon old property and this is the reason why Local Authorities do not clear away slums. In most cases they are robbed." The building of the houses also proved more expensive than the estimates. The first part of the scheme begun in February 1899 to rehouse 84 persons and build six shops estimated at £7,000 cost £8,625. The 1890 Act had lead to some improvements but the local authorities were hampered by the restrictions

1. A.R.M.O.H. 1894, p69.

of the Act and the greed of vested interest. New housing alone would not solve the problem. Tramways by withdrawing the working classes from the interior of the towns to the more open purer air of the suburbs would solve the question of improved dwellings. Like so many others Lemon felt the poor needed more than better housing. "The lower the social scale and the greater the weakness of education, the more callous and indifferent human beings become to cleanliness and comfort; improvidence, the curse of drink,crime and vice are to be ameliorated only by education and example." [1]

Housing was the last of the major public health problems, listed by Chadwick in the 1840s, to be tackled by reformers and was least of their successes in the nineteenth century. The basic reason for this was the cost. Although it has been estimated that the average real wages of the working class rose by 80% between 1850 and 1900 rent, unlike other prices, also rose.[2] Both Rowntree and Booth estimated that over a quarter of the population of the areas they studied lived in poverty. [3] With some of these families earning less than 18/- (90p) per week it was clear that they would not be able to afford an economic rent. Newsholme said that the only solution to overcrowding was to increase wages so that the poor could pay a fair rent. [4] The high cost involved for local authorities when they did begin to provide municipal housing in the 1890s makes their earlier reluctance understandable. Southampton's new water supply had cost £60,000 in the 1880s. The cost of clearing the site under the town's first improvement scheme was £30,058 and this scheme would deal with only 850 of the 67.000 people in the town. Based on Rowntree's estimate of primary poverty in York of 9.9% of the population, Southampton might be expected to provide for a further 6,000 people before the overcrowding problem was solved.

It is easy to find examples of high correlations between mortality and overcrowding in Victorian towns but this is too simple an explantion.The key variable was poverty. Poverty in nineteenth century

1. J.Lemon, Reminiscences of Public Life in Southampton (Southampton 1911), Vol.II p159 - 64, p282. 2.B.Mitchell & P.Deane, Abstract of British Historical Statistics (1962). 3.Treble ,op.cit., p186. 4. Dyos & Wolff, op.cit., p615.

Southampton meant living in overcrowded houses, with little food clothing or furniture and often without basic sanitary amenities such as a good water supply, W.Cs. and refuse disposal. Harris was right in stressing the influence of overcrowding on phthisis. Overcrowding made it difficult for the healthy to escape the coughing of the sick. It was the ease with which disease spread in overcrowded houses that made them a public health problem. The lack of facilities, a tap for the whole court and shared W.Cs., made it difficult to maintain a reasonable standard of hygiene. Corben was right in pointing out the need for this especially in educating the working class. Manchester in the 1890s had begun the process which was to lead to a national system of health visitors who would perform this function and so help reduce the infant mortality rate. Volunteers had worked as visitors among the poor in Southampton in the 1890s but the town's first health visitor was not appointed until 1908. Even in the suggestions Harris made for model tenements for the poor his plans indicate only two W.Cs. for four families.[1]

As early as 1850 Cooper had identified poverty as the chief cause of poor housing and subsequently of ill health. Yet is was not poverty alone which was responsible for poor housing conditions in many parts of Southampton. The Cooksey Survey and the Harris Report indicate that the Local Authority had not carried out its duties in certain areas of the town. Rev.Shapcott complained of neglect of his parish in 1849 by the Boards. It is unlikely, had he seen the conditions in his parish in the 1890s, he would have been greatly impressed by the work of the Sanitary Authorities. These authorities rarely took the initiative in public health reform. It needed a major disaster like the cholera epidemics or an outstanding politician like Lemon to galvanise the Council into action. The topic of housing found no such champion before 1890. It was the work of Bicker Caarten, Walton and Gayton at local level and Mearns and Booth at national level that produced the first attempts at housing reform by the municipal authorities in Southampton. In its reluctance to tackle the problem of housing the town reflected the attitude of the great majority of nineteenth century local authorities.

1. A.R.M.O.H. 1894.

CHAPTER VIII

PUBLIC HEALTH and the FINANCES of the CORPORATION

Southampton was one of the 178 municipal boroughs set up under the 1835 Municipal Corporations Act. The Act outlined a form of local representative government but the sphere of such self government was restricted within narrow limits. The new corporations could control police, light their area, make bye laws, suppress nuisances and levy local rates. There was little central control over the activities of the corporations. Treasury sanction was required for raising loans and the Privy Council could disallow bye laws.[1] As in many other towns Southampton Corporation did not seek to extend its powers immediately. The town relied on local improvement acts introduced in the eighteenth century to provide the water supply and drainage which the rapidly expanding town needed. The powers of the Waterworks Commissioners were extended by the 1836 Waterworks Act and they concentrated their efforts on supplying the town with water from the well on the Common, which was to prove an expensive failure. The problems of drainage and sewerage were tackled by the Improvement Commissioners whose powers had been increased by the 1844 Improvement Act.[2]

The 1835 Act did not produce a radical change in either the politics or the personnel of the Town Council. The first elections returned 22 Conservatives, 7 Liberals and 1 Independent, D.Brooks the first mayor under the new act. The last mayor under the old dispensation, W.J. Le Feuvre, was to remain a prominent and influential figure in the Council for almost thirty years.[3] The Tories continued to dominate the Council for the next twelve years. During this period the Liberals attacked the Council for its failure to encourage improvements in the town and for its wasteful use of the town's finances. They had illuminated the Bargate but failed to fill up the old

1. K.B.Smellie, A History of Local Government, (1968) p31.
2. A.T.Patterson, A History of Southampton, 1700-1914, (Southampton, 1971), II p50-58. 3. Ibid., p24.

canal which was insanitary and dangerous.[1] The 1844 Improvement Act gave the Improvement Commissioners the power to borrow £20,000. It was agreed with the Council that sewerage would take priority over street improvements and £10,000 was set aside for this purpose. The outcome of the Act was disappointing. £20,000 was too little for the work needed and the Board proved dilatory and extravagant according to Patterson and by 1847 almost all the money was gone.[2]

The problems of the Tory party at national level were reflected in local politics and partly account for the Liberal victories in the 1847 municipal elections which gave the party control of the Council. The first aim of the new Council was to introduce economies into town government. A Revision Committee was established to examine the work of the town boards. The Waterworks Board appeared to be the most successful financially, in that the rates it collected provided a surplus over expenditure, but its major project, the well on the Common, had failed to provide the town with an adequate water supply. The Committee report showed that the legal expenses for the borough over the past ten years had been enormous. Almost a quarter of the capital raised by the Improvement Commissioners had been paid in legal fees. In nine years the Council's legal and Parliamentary expenses had amounted to £102,202..11..1d (£102,202.55) and the Town Clerk's charges in 1845 and 1846 had been £2,741..5..7 (£2,741.28p) and £2,777..6..9d (£2,777.34p) respectively. The Committee recommended that he should be paid a fixed annual sum in addition to his salary to cover his legal charges.[3] The Improvement Commissioners were found by the Revision Committee to be the worst managed of all the town's boards. It had used up all its capital and its expenditure exceeded its income. The drainage of the town was far from complete and "..there is no prospect whatever of these works being further extended."[4] The Improvement Commissioners had collected a rate of 1/6d(7.5p) since 1845 and the Waterworks Board had received an average rate of just over 8d(3.5p) per year over the same period.

The cholera epidemic of 1849 and the Ranger Inquiry led to the

1. P.Morris, Southampton in the Early Dock and Railway Age,1830-1860, (M.A.Thesis, Southampton 1957) p155 2. Patterson, op.cit., p60.
3. Ibid., p81-2 4. Morris, op.cit., p162.

establishment of a Local Board of Health in 1850 as has been described in Chapter I. One of the first tasks the Board set itself was to discover the liabilities of the Waterworks and Improvement Commissioners and ask their rate collectors to close the rates, that is to collect all outstanding rates. The Waterworks Commissioners had borrowed £23,000 in 1836 and the Improvement Commissioners £24,500 under the 1844 Improvement Act.[1] The greater part of this debt was secured by bonds on which only the interest was paid. In the Local Board's first rate estimate of £4,606 in December 1850 £994..2..6d (£944.13p) was to pay the interest on these bonds.[2] It was not until 1878 that the Council agreed to borrow £41,000 to pay off these bonds.[3]

The Local Board's first rate was set at 1/6d (7.5p) which would raise £5,380..11..8d (£5,380.58p) but one fifth of this total was deducted for void and excused properties. The latter were properties whose owners were considered too poor to be able to pay rates. This deduction for void and excused properties remained a regular feature of Corporation accounting although the percentage was reduced from 20% to 7½% by the 1880s. Rates were to be levied twice a year in February and August and were retrospective. Two rate collectors were appointed. Bungey was responsible for the rates of the St.Mary's district and Royall for the rest of the town.[4] They were to be paid a salary,not a percentage of their collections. Two months later a check of the accounts of the Improvement Board showed £366 defalcations in Bungey's books which he was unable to explain and he was suspended. In May Lucas, the other collector for the old Improvement Board, admitted a deficiency of £657..7..8d (£657.38p) in his accounts.[5] He was declared bankrupt a few months later. The efficient collection of rates was to prove a major problem for the new Board and no other appointment caused so many problems as that of collector. Yet the men appointed were men of some substance since they had to provide a personal bond and had usually worked as collectors for other bodies. To avoid the possibility of loss to the Board it was decided that each collector should provide a

1. S.Times, 13.7.1867. 2. Finance Mins. 18.12.1850.
3. L.B.Mins., 20.3.1878 4. Ibid., 10.1.1851.
5. Ibid., 23.3.1851; H.A., 3.5.1851.

personal bond of £300 which would be claimed by the Board if his accounts were deficient. The collectors secured this bond from an Assurance Company in return for an annual premium for which they were responsible.

Bungey was replaced by Pierce. At the end of April 1851 Royall's accounts showed he had collected £4,847..7..8d (£4,847.38p) but paid in only £4,699..8..4d (£4699.42p). As he claimed £150 in salary and expenses his accounts were approved. The Board discussed the need for more efficient collectors in June 1851 when Pierce, who should have collected £3,000 paid in only £252. Royall's monthly account for June was given as £1,573 and Pierce's for July as £459.[1] In August 1852 the Board considered the collection of its first three rates for 15 February 1851, 15 August 1851 and 15 February 1852. District 1 consisted of St. Lawrence, Holy Rhood, St.Michael and St.John, 2,680 ratings and District 2 St. Mary's 3,770 ratings. In Royall's District 1 the total arrears was £2,597..0..9d(£2,597.03p) and Pierce's District 2, £2,281..2..11d (£2,281.15p).[2] As the Board was £7,000 overdrawn it was decided that the rates must be collected more efficiently. Stebbing suggested to the Council that the collectors were not dishonest but overworked and that three collectors should be appointed.[3] The three new collecting districts were :- 1. All Saints and St. Lawrence, 1,808 ratings
2. Holy Rhood, St.Michael, St.John and part of St.Mary's, 2,182 ratings
3. The rest of St.Mary's, 2,471 ratings. The collectors' salaries were fixed at £100 and Joseph Royall appointed as the third collector.[4]

J.Royall's career as a collector lasted less than six months. He resigned in January 1853 although his accounts were never criticised. He was replaced by J.Miller. Pierce was threatened with dismissal in May because he failed to follow the Board's instructions and hand in names on time but he was allowed to continue with a further guarantee. Royall wrote to the Board in May that his ill health and infirmities would prevent his holding "..so arduous and harassing a situation much longer."[5] He was eventually replaced in September 1853 by J.Badcock, a former Poor Law collector and neighbour of Cooper, the M.O.H.,in

1. L.B.Mins., 27.6.1851. 23.7.1851. 2. Ibid., 3.8.1852.
3. H.A., 3.8.1852. 4. L.B.Mins., 3.8.1852. 5.Ibid., 10.5.1853.

Gloucester Square, who was to prove one of the most efficient of the Board's collectors. Pierce was dismissed in December 1853 for employing an assistant despite a warning. He was replaced by H.Miller, a collector for the Polytechnic Institute.[1]

For almost two years the three collectors satisfied the Board with correct returns which averaged over £100 per week each. Then in September 1855 J.Miller's collection was almost £70 short and for this he was admonished by the mayor and warned that any such future irregularity would cause instant dismissal. He was again in arrears in May 1856 and in November he reported a robbery at his home of money belonging to the Board. He was suspended and when his books were checked they showed a deficiency of £94..8..6d (£94.43p). As the police could find no evidence of robbery the Board applied to Miller's guarantee society for £100 to cover their loss and Miller was dismissed.[3] Badcock and H.Miller divided Miller's district between them. For the following seven years Miller's and Badcock's collections were regularly approved by the Board. In May 1863 Miller was urged to greater exertions because he had allowed arrears to reach unacceptable levels but he continued without further criticism until his death after a long illness a year later. Tabois was chosen from seven applicants to replace Miller. In December 1866 Tabois resigned as he had been appointed Superintendent of Highgate Cemetery and was replaced by I.Russel.[4]

In May 1869 J.Badcock applied for an increase in salary. He had to pay £12 per annum for office accommodation in Hanover Buildings and £20 per annum for an assistant. The Finance Committee advised the Board to give Badcock a £20 increase.[5] When Portswood was brought under the control of the Board in 1872 a new collector Pinniger was appointed for the district with a commission of 7½%. In 1874 Pinniger was placed on an annual salary of £40.[6] Badcock resigned in 1876 and C.S.Payne was appointed with a salary of £185. Payne was soon in trouble. In November 1876 he was urged to use more energy and in September 1877 he promised again to try harder . Payne's books were checked in December 1878

1. L.B.Mins., 22.9.1853 ; H.A., 31.12.1853.
2. L.B.Mins., 25.11.1856, 25.1.1857. 3. Ibid., 11.5.1864, 19.12.1866.
4. Finance Mins., 13.5.1869.

because of arrears. Payne asked to be excused on grounds of ill health and sent a doctor's certificate which said Payne had been ill for the last four months and was too ill to leave his bed. Payne's books were given to I.Russell.[1] In March Payne claimed to be completely fit and returned to work. He was given a smaller district and it was decided that the collectors should be paid 1.33% of their collections, which would give Payne £115 and Russell £240. Russell found his new district too large and Pinniger took over part of it. When Payne's collection proved unsatisfactory in 1882 he was dismissed and a check on his books showed a deficiency of £383..8..8d(£383.43p). In June the same year Pinniger resigned and two new collectors were appointed at 1.33% commission and with a bond of £500. The new collectors were J.Bundey and G.Gouk. In the summer of 1887 Gouk was ill and his collection fell into arrears. He resumed his duties in the autumn but his health failed again the following year and he resigned in August. Jarvis was chosen from 13 applicants. The three collectors, Russell, Bundey and Jarvis appear to have performed their duties well for the remainder of the century. It had taken over thiry years to esablish an efficient system of rate collection and to find the personnel capable of running it.[2]

The efficiency and honesty of the collectors were not the only problems which faced the Finance Committee of the Local Board. In the second half of the nineteenth century the Corporation's powers were extended. By the 1882 Municipal Corporation Act it was given powers to regulate roads and streets, drainage and sewerage, public health including lunatic asylums and infectious diseases hospitals, baths, parks and pleasure gardens, supply gas and water, maintain and control markets, libraries, museums, fire brigades and police. The 1890 Housing of the Working Classes Act gave corporations the chance to extend their powers still further.[3] This great increase in areas of activity was reflected in rates levied. Goschen's Report in 1871 showed that in England and Wales rates had doubled since 1840 from £8,000,000 to

1.Finance Mins.,3.1.1879, 30.1.1879.
2.Ibid.,18.5.1882,1.6.1882, 8.8.1887, 2.8.1888, 20.9.1888.
3.Smellie,op.cit.,p32.

£16,000,000. Six and a half million of this had come in urban districts where one quarter had been spent on the poor rate, five eighths on town improvements and one eighth on the police.[1] The average rate including both poor and municipal was 3/6(17.5p) in 1885, 4/2(21p) in 1895 and 6/9(33p) in 1914. In the largest towns the rates were 25% to 45% higer than the national average. Along with the rates the rateable value of the country rose. In 1840 the national rateable value was £60,000,000. By 1870 it was £110,000,000 and £150,000,000 in the 1890s. Again the rateable value in towns rose faster than in the country. Between 1875 and 1900 the population of England and Wales grew by 37%; the rateable value by 61% and the rate revenue by 141%.[2] Municipal expenditure increased dramatically in the last two decades of the century. The total debt including all services nationally increased from £173,208,000 in 1884 - 1885 to £435,545,000 in 1905 - 1906. Thus debt had increased by 151%, the yield from the rates by 118% and the rateable value by 37%[3]. Between 1874 and 1894 the rateable value of Southampton increased by 67.5% and the product of the rates by 52.3%.[4]

Complaints about rates were frequent even before the Local Bourd was established. In April 1849 it was claimed that high rates were driving people away from Southampton. One of the major objections to the introduction of the Local Board was that it would lead to a rate of five or six shillings (25 - 30p). Even after Ranger's report it was claimed that the expenses of carrying out his recommendations would lead to depreciation of 12 to 15% in house property.[5] Yet when the Board produced its first rate in 1851 it was only 1/6(7.5p). The Water and Improvement rates for 1849 had totaled 2/4(12p) and the Boards hoped to increase this by 10d(4p) in 1850[6]. Although the Local Board's rate was only for six months it was hardly excessive by mid nineteenth century standards. Yet a year later the Hampshire Advertiser attacked the heavy

1. K. B. Smellie, op. cit., p54.

2. P. J. Waller, Town, City and Nation: England 1850-1914, (Oxford 1983). p257

3. Ibid., p307. 4. See Table 1 5. H.A., 7.4.1849, 1.9.1849.

6. W. Ranger, Report on the Sanitary Condition of Southampton, (Southampton, 1851) p50

taxation and wild expenditure of the Council. At a noisy public meeting the Town Clerk. Deacon listed the towns expenses - a new poor house £20,000, baths £5,000, a market £10,000, arboretum (public parks) £30,000, quays £5,000 and a gaol £28.000. It was alongside expenses such as these that the costs of water supply and sewerage systems had to be set.[1]

A major problem for the Board was the shortfall between the estimated yield of a rate and the amount collected even after allowing a percentage for void and excused properties. Of the first five rates levied by the Board only £9,650 ..5..6 (£9,650.27p) of the estimated £10,565 had been received by 1853.[2] Nor did the situation improve as the Board and its collectors gained experience. The estimated rate for the five years 1855-59 was £36,232..0..7d(£36,232.03p) but only £31,726..0..5d(£31,726.02p) had been received by September 1860.[3] This problem was made worse by the failure of the Board's experts to provide accurate estimates of the costs of the works they recommended. Ranger had estimated the cost of the town's water supply in 1850 as £30,000, but by 1854 £28,082 had been expended and a further estimated £16,284 was needed to complete the works. The debt of the Board, including that of the old Commissioners, was £132,020..7..7d(£132,020.38p) and a further £38,295..14..1d(£38295.70p) was needed to complete works in progress. It was suggested that the Board stop all new works because so many works were in progress the Board could not give them all the necessary attention. This idea was rejected and the new rate 2/3(11p) was the highest yet set.[4]

The major critics of the Local Board finances in 1854 were two leading Conservatives - Captain Breton, who had been a Councillor for almost thirty years, and Colonel, later Major General, Bullock, who had an influential but brief career in municipal politics. The expenses of the Board were attacked in the All Saints ward during the 1854 municipal elections. Yet the Conservatives failed to contest the ward. The Liberal Hampshire Independent remarked that the elections had passed without a "particle of the bustle and excitement usually visible on 1 November."

1 H.A., 21.2.1852. 2. Ibid., 31.12.1853.
3. S.Times., 1.9.1860. 4. H.A., 31.121853, 29.7.1854, 15.7.1854.

The editor declared that this was proof the town was satisfied with the Council's work. Yet the Local Board had spent over £24,000 in the financial year to February 1855, almost double the average annual expenditure of previous years.[1]

An attempt was made to improve the Board's system of rate collection in 1855. Unlike the Poor Rate the Board's rate was collected retrospectively and it was considered that this led to inefficiency and unnecessary delays. It was proposed that the Board should change to prospective rates after February 1855. This would involve a double rate, retrospective and prospective, in August 1855. Although the idea was accepted by the Board and welcomed by the press it was decided to postpone it because of the heavy national taxation and the depressed state of business in the town. At the Council meeting it was pointed out that the majority of ratepayers in St. Mary's were rated at £12 per annum and with all the other rates and a double rate they would have to pay £6 in the year - a month's wage for many of them. The ward was a Liberal stronghold. The problems of rate paying and collecting were seen in March 1855 when several Councillors, including senior Liberals like Alderman Williams and Councillor Cooksey, were summonsed for rate arrears.[2] The decision to abandon the double rate led to the resignation of six of the ten members of the Finance Committee.[3]

This action by the more active members of the Committee reflected the dire state of the Board's finances without the double rate. Yet the town continued to expect improvements. In June 1855 a memorial was sent from St.Michael's ward to the General Board asking for street improvements and if this was not possible then that the ward should be excused from rates on the £18,000 debt for improvements in other parts of the town. The General Board, as usual, simply sent the memorial to the Local Board for comment. The Local Board's reply was to give a financial statement of the Board's position as an explanation for its failure to act. It had borrowed £108,361 and spent £87,761..4..3d (£87,761.21p) to date on works which would need a further £21,417..2..10d (£21,417.14p). The chief items of expenditure had been

1. H.A., 10.2.1855. 2. Ibid., 17.2.1855, 24.3.1855.
3. L.B.Mins., 22.3.1855.

£48,675 for waterworks and £30,000 for sewerage.[1] In the first five years of its existence the Board collected in £74,983, that is almost £15,000 a year according to the Hampshire Independent. That the public was not happy with the collecting system was shown at two public meetings in March 1856 when access was demanded to the rate books and objections were made to actions against those not paying Rate 10 when so much was outstanding on Rate 9. It was claimed that the collectors showed favouritism. The books gave £221..19..3d(£221.96p) as the amount of recoverable rates due on Rate 9. Three quarters of this sum was due on a number of small ratings in St.Mary's ward yet all those summonsed for arrears on Rate 10 were gentlemen from All Saints. The total borrowing powers of the Local Board was £120,000 or one year's rateable value of the town. Southampton had already borrowed £108,361 and to this had to be added the inherited debts form the Improvement and Waterworks Commissioners which brought the total debt to £158,617..13..5d (£158,617.67p).[1]

Faced with such a parlous financial situation the Local Board had to introduce prospective rating and the double rate it entailed to put its finances on a sound basis. The Rate to August 1856 was set to raise £9,550 and the prospective rate to February 1857, £10,035. The double rate amounted to 4/1(20p) but only half the Council took part in the division which gave approval to the rate by 14 votes to 6. At the inevitable public protest meeting, chaired by the Liberal mayor Andrews, the double rate was supported by the former leading Conservative Councillor Stebbing as a final effort to put the town's finances in order although he criticised the Board as extravagant and careless. The editor of the Hampshire Independent, T.Falvey later a Liberal Councillor, said that although he had always opposed the Public Health Act, debts must be paid and the double rates should be used. Other speakers criticised the Board for unnecessary expenditure and jobbery. A motion against the double rate was carried by a large show of hands.[2] When a similar motion was put before the Local Board it was defeated by 20

1. H.I., 1.3.1856, 8.3.1856, 22.3.1856. 2. Ibid.2.8.1856.

votes to 6. [1]

Despite the double rate and the high rates of 2/4(12p) in February and 2/-(10p) in August 1857 the Board refused to develop the New Street improvement at a cost of £5,000 as it was felt £120,000 already expended by the Board was enough for the town. The Board's caution was understandable after the problems of 1855, yet its income rose steadily in the late 1850s without any further steep increase in rates. This was due to the gradual rise in the rateable value in the town. This had been taking place since 1837 but the rise was not uniform. The town's R.V. in 1837 had been £107,388 and this had risen to £141,224 in 1847 and to £159,358 in 1857. But there had been a decline in value in the three western parishes of St.Michael's, Holy Rhood and St. John of £396, £1,784, and £330 respectively. The rise in value had been in the two wards with room for expansion, St.Mary's and All Saints. [2] The Board's rate for the remainder of the 1850s was constant at 2/-(10p). By 1860 the Board's finances had improved sufficiently for the rate to be reduced to 1/10(9p) with the town's R.V. at £137,727. By the end of the year it appeared that the Board had a substantial surplus of over £4,000 in hand and it was suggested that no rate should be set for February 1861. The Finance Committee could not support this but did recommend a reduction in the rate to 10d(4p). [3] When the Board considered this issue it was reminded of its financial state in 1855 when its cheques were not presented because banks would not honour them. It was agreed to accept the Finance Committee's recommended reduction. The Board had borrowed £127,261 by 1861 - almost its limit- yet the Rate 22 for February 1861 was the lowest for several years at 1/6(8p) .[4]

The rate remained below 2/-(10p) throughout the 1860s with the exception of the year of the cholera crisis 1866 when the August rate was 2/3(11p). The debt of the Board however continued to grow. In June 1864 its total debt was £164,768..13..2d(£164,768.66). By August 1868 the Board had borrowed £168,276 of which £42,946 had been repaid leaving a debt of £125,330 plus the £45,000 permanent debt inherited from the old Boards. In 1872 Portswood came under the authority of the Local

1. L.B.Mins, 6.8.1856. 2. H.I., 2.8.1856. 3. Finance Mins.,22.11.1860. 4. L.B.Mins.,5.12.1860; S.Times, 8.12.1860.

Board and a separate rate was set for the tything which had a rateable value of £18,630..4..6(£18,630.23).The Board and the Town Council did not undertake any ambitious schemes in the 1870s. The suggestion that the town purchase the local Gas Board was rejected and the Audit House repaired rather than a new town hall built, much to the regret of Lemon who felt Southampton had failed to keep up with the more progressive towns of late Victorian England.[1] In August 1876 the U.S.A. changed its rate fixing system from twice yearly to once yearly to be collected in two installments. The rate was fixed from 1st September to 31st August. The following year the Financial Committee recommended the authority to borrow £41,467..18..5(£41,467.92p) for new works and £41,800 to pay off the Bonds Of the Improvement and Waterworks Commissioners[2]. It was decided not to pay off the Bonds but when the recommendation was repeated in December 1879 it was accepted.[3]

The 1880s witnessed a great increase in the Board's expenditure and an attempt to reorganise its finances. In 1882 the U.S.A. applied to the Local Government Board for its sanction to borrow £9,000 for paving works. The Local Government Board held an inquiry in March 1882, which was informed that since 1850 the town had borrowed £302,140..12.2d (£302,140.61p) and repaid £130,464..10..11d (£130,464.54p)[4] The Financial Committee recommended the consolidation of all the Board's loans. The Southampton Corporation Act of 1885 gave the town the right to issue redeemable stock not exceeding £300,000 to pay off all debts amounting to £201,833..14..4d(3202,833.79p) and £60,000 for the new Waterworks. Other items included the expenses of obtaining the Act and issuing of the stocks.[5] Between 1882 and 1885 the town had paid off £108,341 of its debt but the past ten years had witnessed great borrowing:£18,000 for water mains, £29,000 for paving and £14,000 for sewers. In 1886 a further £60,000 was needed for waterworks and £7,000 for the destructor. The Authority owed £132,000 in 1882 and this had risen to £239,000 in 1886[6]. By 1889 the outstanding balance on sanitary loans was £262,941..4..7 (262,941.23p). The Authority had

1. L.B.Mins.,5.5.1875; Lemon, op.cit.I p111. 2.S.Times,10.2.1877.
3. Finance Mins.,14.12.1879; S.Times,20.12.1879. 4.S.Times25.3.1882.
5. Ibid.,24.12.1885. 6. Ibid.,30.10.1886.

overspent by £981 in 1888 -1889 mainly by keeping the Mansbridge waterworks open. The expected income for 1889-1890 was £35,580..17..0 from rates, rents and manure sales[1]. In 1894 rate comparisons with 20 other towns were given in the local press. Wolverhampton topped the list with a total rate including municipal, sanitary, school and poor rates of 7/4(32p). Southampton was well down the list with 5/9½(28p). The twentieth place was taken by Gloucester with 3/7[18p).[2]

The total debt of the borough, reached £301,927 in March 1891, an increase of £11,531 over the total in 1889. When the last rate for the old borough was drawn up in July 1894 the rateable value of the properties on which it was assessed was £279,939..1..2(3279,939.06) and the yield from a rate of 3/6(18p) was expected to be £48,171. The indebtedness of the U.S.A. was £270,325..3..11(£270,325.19p) [3]. The Council was still not satisfied with its financial administration. A special sub committee was set up to consider all the expenditure of the Borough. When it reported, both the Borough Treasurer Jellicoe and the Clerk of Accounts Burnett agreed to resign with a pension. In future all financial matters were to come under a new department, the Borough Accountant's, and this system came into operation in January 1895.[4] The system proved a disappointment. The extension of the borough in 1895 increased Conservative support in the town and the party dominated the Council for the remainder of the century. The new Council was eager to follow a more ambitious policy similar to that of London. The tramways were purchased and the demolition of slums begun. By 1898 the Council was £400,000 in debt and a great increase in the rate was needed. The Borough Accountant was sacked and the town's finances again reorganised.[5]

One of the problems faced in comparing Southampton with other nineteen century towns is the wide variety of methods used for rate assessment. The rates themselves are difficult to compare because of the varied patterns of specific rates which different authorities levied under different headings - improvement, highways, water, drainage and so

1. S.Times,20.7.1889, 27.7.1889. 2. Ibid.,3.3.1894.
3. Finance Mins.,19.7.1894 p279. 4. Ibid, 5.10.1894 p639.
5. Patterson, op.cit.,III p143.

on. In 1886 Bristol had six different rating authorities. Yet it is clear that rate expenditure increased nationally in the second half of the nineteenth century rising from £16,500,000 in 1868 to £28,000,0000 in 1890 to £56,000,000 in 1905.[1] Table III shows that spending in Southampton followed this national trend. Increased grants from the Exchequer to Local Authorities encouraged this rise. Government grants which had totalled £1,000,000 in the 1870s had reached £12,000,000 by the end of Victoria's reign. [2] Asa Briggs suggests that most Victorian cities had brief spells of "economy" when ratepayer pressures were strong enough to prevent the start of large scale building projects.[3] This pattern is not quite so apparent in Southampton. The town did spend quite lavishly in the early 1850s. The Council had been inspired by cholera, the Ranger Report and Ranger's badly underestimated schemes to undertake ambitious sewerage, waterworks and street improvements. These efforts produced the problems of 1855 which led to the double rate of 1856 and the more cautious approach of the Council in the late 1850s. The 1866 cholera and the arrival of Lemon led to increased expenditure and higher rates in the late 1860s [Table II]. The 1870s and early 1880s were not prosperous for the town and neither Tory nor Liberal dominated Councils were eager to undertake major new projects.

Birmingham began its public health work with a badly underestimated sewerage scheme in 1853. Yet the "Economists" on the Council managed to reduce the borough rate and wipe out the deficit by 1859. The town went on in the second half of the century to introduce ambitious improvement schemes which left a debt of £10,000,000 by 1900.[4] Leeds too was prepared to increase its debt which in 1867 stood at £801,150 by purchasing the gas works in 1870.[5] Southampton was much more cautious. Even by 1895 the total debt of the sanitary Authority was only £321,219..14..5 (£321,219.72p) Yet the town had provided a good water supply and drainage system and its death rate compared favourably with

1. A.Briggs, Victorian Cities (1963) ,p40. 2. Ibid.,p42
3. Ibid.,p41. 4. Ibid.,p211,237.
5. D.Fraser, "Areas of Urban Politics" H.Dyos & M Wolff, (Eds.) The Victorian city (1973) p778

other towns. Lemon's list of the town's assets in 1894 [Table V] shows the town's sound financial state. The flotation of Corporation stock in 1885 following the example of Liverpool in 1880 improved the town's finances.[1] The Liberals dominated local politics from 1847 to 1895. They reflected the views of the small shop keepers of St. Mary's ward and later the skilled working class. They understood the need for a good water supply and the influence of drainage and sewerage on Public Health. The purchase of gas works and tramways and the building of splendid town halls had little attraction for the majority of the Liberal voters of Southampton.

1. Briggs, op. cit., p42.

TABLE I

Borough Expenditure 1837-1849 [1]

	The Borough Rate	Expenditure
1837-1838		£1,400
1838-1839		£2,655
1839-1840	7d.(3p)	£2,544
1840-1841	8½d(4p)	£3,091
1841-1842	5½d(2p)	£2,004
1842-1843	8½d(4p)	£3,091
1843-1844	7½d(3½p)	£2,744
1844-1845	8d (3½p)	£2,937
1845-1846	8d (3½p)	£2,925
!846-1847	9½d(4p)	£3,480
1847-1848	9d (4p)	£3,390

TABLE Ia

Rates 1841-1849 [2]

	Total	Poor & Borough	Water	Paving, Light & General
1841	4/4(22p)	2/10(14p)	6d(2½p)	1/-(5p)
1842	4/6(22½p)	2/8(13p)	6d(2½p)	1/4(7p)
1843	5/-(25p)	3/2(16p)	6d(2½p)	1/4(7p)
1844				
1845	5/-(25p)	2/11(14½p)	7d(3p)	1/6(7½p)
1846	5/2(26p)	3/- (15p)	8d(3p)	1/6(7½p)
1847	5/3(26½)	3/- (15p)	8d(3p)	1/6(7½p)
1848	6/2(31p)	3/10(19p)	10d(4½p)	1/6(7½p)
1849	5/3(26½p)	3/1 (15½)	8d(3p)	1/6(7½p)

1. A.T.Patterson, (Ed), A Selection from the Southampton Corperation Journals, 1815-1835, and Borough Council Mins.,1835-1847.(Southampton 1965 Appendix B. 2. Ranger, op.cit., p48-49.

TABLE II

The Public Health Finances of the Borough 1851-1895

	Rateable Value	Sanitary rate	Estimated Product of Rate		
1851	£118,325	2/4(12p)	£7,689		
1852		2/10(14½p)	£7,916		
1853	£115,932	3/1(15½p)	£9,066		
1854		4/3(21p)	£17,113		
1855	£121,925	4/2(21p)	£19,490		
1856		6/6(32½p)	£30,690		
1857		4/1(20½p)	£20,280		
1858		4/-(20p)	£21,010		
1859		4/-(20p)	£21,770		
1860[1]		2/8(13p)	£15,150		
1861	£134,159	2/11(14½p)	£16,012		
1862	£136,767	3/6(17½p)	£19,282		
1863	£137,471	3/9(18½p)	£21,852		
1864	£146,133	3/5(17p)	£20,642		
1865	£149,911	3/4(16½p)	£20,722		
1866	£154,008	4/1(20½p)	£26,892		
1867	£156,781	3/10(19p)	£25,192		
1868	£163,508	3/8(18p)	£25,215		
1869	£165,186	3/9(18½p)	£26,179		
1870	£166,736	3/8(18p)	£25,520	Portswood	
1871	£165,100	3/8(18p)	£26,152	R.V.	Rate
1872	£165,260	3/10(19p)	£27,830	£18,630	5d(2p)
1873	£166,391	4/1(20½p)	£29,622	£18,890	6d(2½p)
1874	£167,069	3/10(19p)	£31,146	£18,956	6d(2½p)
1875	£188,035	3/11(19½p)	£30,689	£19,236	1/5(7p)
1876	£182,806	3/8(18p)	£30,138	£19,693	1/10(9p)
1877	£192,953	3/6(17½p)	£29,864	£20,118	2/8(13p)
1878	£193,944	3/-(15p)	£28,848	£20,954	3/1(15p)

1. Revised Rate.

TABLE I continued

	Rateable Value	Sanitary Rate	Estimated Product of Rate	Portswood R.V.	Rate
1879	£195,372	3/3(16p)	£31,854	£20,703	3/1(15p)
1880	£223,234 [1]	3/4(17p)			
1881	£209,079	3/2(16p)	£30,721	£22,548	3/4(16½p)
1882	£208,043	3/2(16p)	£30,967	£24,057	3/4(16½p)
1883	£210,939	3/2(16p)	£31,196	£27,147	2/10(14p)
1884	£214,859	3/2(16p)	£31,545	£27,902	2/10(14p)
1885	£217,374	3/-(15p)	£30,232	£28,923	2/5(12p)
1886	£221,682	3/3(16½p)	£33,572	£29,972	3/2(16p)
1887	£217,540	3/7(18p)	£36,848	£30,978	3/8(18p)
1888	£222,499	3/3(16½p)	£34,963	£33,281	3/-(15)
1889	£225,588	3/3(16½p)	£35,580	£34,810	3/1(15½p)
1890	£226,366	3/6(17½p)	£38,178	£36,000	3/4(16½p)
1891	£226,150	3/9(18½p)	£40,389	£36,417	3/7(17p)
1892	£228,228	3/7(18p)	£39,379	£36,754	3/7(17p)
1893	£268,772 [1]	4/-(20p)	£51,328		
1894	£279,939 [1]	3/6(17½p)	£48,171		

Rateable Value and Product of Rates are given to the nearest £

Source: Finance Committee Mins., 1851-1894.

1. Including Portswood.

TABLE III

Local Board of Health Accounts [1]

Total Expenditure

1854	£ 31,473..10..6	(£31,473.57)
1859	£ 22,600..13..8	(£22,600.68)
1865	£ 26,694..19..11	(£26,694)
1870	£ 32,890.. 3..11	(£32,890.20)
1879	£ 39,042.. 4..6	(£39,042.22)
1890	£ 57,164...7..5	(£57,164.37)
1895	£143,435..13..8	(£143,435.68)

1. S.R.O., SC/AH1/1

Estimate of the Value of Corporation Property in 1894.

The following are particulars of the property belonging at the date of the Memorial to the Corporation acting by the Council.

(a) As the Municipal Authority, or as an Authority under any General or Local Act for Purposes other than Sanitary Purposes.

DESCRIPTION.	SITUATION.	EXTENT.	VALUE.	INCOME.	AUTHORITY FOR ACQUISITION.	NATURE OF TENURE.
		A. R. P.	£ s. d.	£ s. d.		
Capitalised value of Fines and Quit Rents in respect of Property comprised in 40 years' Leaseholds renewable by custom every 14 years (average annual income for 14 years, £1,184) at 25 years' purchase	Southampton		29,600 0 0	1,184 0 0	By Crown and other grants and charters and by immemorial possession ..	Freehold

DESCRIPTION.	SITUATION.	EXTENT.	VALUE.	INCOME.	AUTHORITY FOR ACQUISITION.	NATURE OF TENURE.
		A. R. P.	£ s. d.	£ s. d.		
Capitalised value of "Marsh Leaseholds" (£1,162 per annum at 25 years' purchase) added to value of reversionary interest calculated upon an estimated net rental of £4,500 per annum, due at the expiration of 32 years	Southampton		47,950 0 0	1,162 0 0	These were waste Lands called "The Marsh," and the same are now regulated by Statutes 7 and 8 Vict., and 28 and 29 Vict.	
Ditto, Land unlet, estimated annual value £300, at 20 years' purchase ..	Ditto		6,000 0 0		Ditto	Freehold
Public Parks (taken at actual cost) ..	Ditto	75 0 0	35,000 0 0		Ditto	Ditto
Cemetery (exclusive of value of land) ..	Ditto	23 0 0	11,500 0 0		Southampton Cemetery Acts, 1843 and 1844	Ditto
Public Baths (taken at cost)	Ditto		14,000 0 0		Baths and Washhouses Act ..	Ditto

DESCRIPTION.	SITUATION.	EXTENT.	VALUE.	INCOME.	AUTHORITY FOR ACQUISITION.	NATURE OF TENURE.
		A. R. P.	£ s. d.	£ s. d.		
Free Libraries (taken at cost)	Southampton		6,400 0 0		Free Libraries Acts	Freehold
Municipal Buildings (estimated value)..	Ditto		6,534 0 0		These are very old Buildings, and the sites whereof have been in the possession of the Corporation for upwards of 500 years ..	Ditto
Guildhall and Police Station, ditto ..	Ditto		5,500 0 0			Ditto
Freehold House Property in hand, net annual income £270, at 16 years' purchase	Ditto		4,320 0 0	270 0 0	Grants and charters	Ditto
Capitalised value of Harbour Dues, commuted at £1,000 per ann., at 25 years' purchase	Ditto		25,000 0 0		Southampton Harbour Acts	
Southampton Common, estimated at £500 per acre ..	Ditto	348 0 0	174,000 0 0		Part of the Common Lands which have been in possession from time immemorial	Ditto
		Total ..	£365,804 0 0			

(b) As the Urban Sanitary Authority, or as an Authority under any Local Act for Sanitary Purposes.

DESCRIPTION.	SITUATION.	EXTENT.	VALUE.	INCOME.	AUTHORITY FOR ACQUISITION.	NATURE OF TENURE.
		A. R. P.	£ s. d.	£ s. d.		
Floating Hospital and Steam Ambulance	Southampton Water		6,150 0 0		Order of Local Government Board	
Infectious Diseases Hospital	West Quay, Southampton		3,000 0 0		Public Health Act	
Mortuary	Town Quay, Southampton		500 0 0		Ditto	Freehold
Sewage Farm, including Engine and Machinery.. ..	Southampton		3,500 0 0		Ditto	Ditto
Cattle Market ..	Ditto		6,000 0 0		Southampton Marsh and Markets Act, 1865	Ditto
Stables, Land, and Wharves	Ditto		5,010 0 0		Public Health Act ..	Ditto
Refuse Destructor ..	Ditto		4,167 0 0		Ditto	

DESCRIPTION.	SITUATION.	EXTENT.	VALUE.	INCOME.	AUTHORITY FOR ACQUISITION.	NATURE OF TENURE.
		A. R. P.	£ s. d.	£ s. d.		
Fixed and Movable Plant	Southampton		5,109 0 0		Public Health Act	
Gravel Pit and Land	Bitterne Park		3,000 0 0		Ditto	Freehold
Fire Brigade Stations, Engines, Plant, etc.	Southampton		1,500 0 0		Ditto	
Waterworks Land, Buildings, Mains, Machinery, Reservoirs, and Plant, comprising the Waterwork sundertaking of the Corporation	Otterbourne, Mansbridge & Southampton		143,500 0 0		Southampton Corporation Act, 1885	
		Total ..	£181,436 0 0			

Total estimated value of Property (a)	£365,804	0 0
Ditto ditto (b)	£181,436	0 0
Total ..	£547,240	0 0

Lemon, op.cit., p264-267

STATEMENT of the DEBT of the URBAN SANITARY AUTHORITY, 31st AUGUST, 1895.

General District Fund.	*Stock.* £ s. d.	*Mortgages.* £ s. d.	*Balance.* £ s. d.
WATER DEPARTMENT.			
New Water Works, Otterbourne ..	78,326 16 11		78,326 16 11
Renewal of Loans	44,401 3 3		44,401 3 3
Well on Common, Sanitary Supply	240 0 0		240 0 0
New Mains and Extensions, Well Borings, Meters, and Stopcocks	18,421 5 6		18,421 5 6
New Mains..		2,409 16 8	2,409 16 8
SEWERAGE WORKS.			
New Works	7,558 19 11	10,703 12 0	18,262 11 11
Renewal of Loans	21,641 19 4		21,641 19 4
Eastern District Drainage ..	41,017 0 0		41,017 0 0
STREET IMPROVEMENTS.			
New Works	18,721 15 5	5,237 18 1	23,959 13 6
Renewal of Loans	40,618 18 5		40,618 18 5
LIGHTING.			
New Works	202 1 7	180 3 1	382 4 8
Renewal of Loans	765 0 2		765 0 2
SEWAGE DISPOSAL.			
New Works	2,554 6 0		2,554 6 0
REFUSE DESTRUCTORS.			
New Wharves, Carts, Cart Sheds, Tramways, Trollies, Mortar Mill, &c.	5,859 5 6		5,859 5 6
FIRE BRIGADE.			
Steam Fire ENGINE, Appliances, and Alterations at Station ..	869 2 3		869 2 3
Renewal of Loans	57 14 5		57 14 5
NEW STABLES, HORSES AND HARNESS	2,943 9 4		2,943 9 4
IMPROVEMENTS TO BRIDGES ..	571 4 8		571 4 8
HOSPITAL (Renewal of Loan) ..	1,138 13 0		1,138 13 0
DISINFECTOR	407 0 0		407 0 0
FLOATING HOSPITAL	5,583 0 0		5,583 0 0
CATTLE MARKET	429 12 4	1,112 6 5	1,541 18 9
STEAM AMBULANCE	660 0 0		660 0 0
CONVENIENCES	1,038 19 0		1,038 19 0
GWYNNE'S PUMP		96 15 6	96 15 6
MORTUARY	177 11 2		177 11 2
PRIVATE IMPROVEMENT WORKS ..	2,477 2 9	1,146 19 1	3,624 1 10
Renewal of Loan	562 2 8		562 2 8
GRAVEL PIT, BITTERNE ..	3,045 0 0		3,045 0 0
Balance unapplied 31st August, 1895	43 0 0		43 0 0
	£300,332 3 7	20,887 10 10	321,219 14 5

Lemon, op.cit., p106

CONCLUSION

The early sanitary reformers in the nineteenth century had to face a problem which was new to European history. For the first time central and local authorities had to tackle excesssive overcrowding on a national scale. This "congregation" as Midwinter calls it was the product of three factors, the demographic explosion, urbanisation and the factory system.[1] The enquiry undertaken for the Poor Law Commissioners by Smith, Arnott and Kay showed something of the conditions which resulted from excessive overcrowding and the link between health and the poor rate. They stressed the need to "avert the charges on the poor rates which are caused by nuisances, by which contagion is generated and persons reduced to destitution."[2] Chadwick's reports in the 1840s gave graphic descriptions of the living conditions of the poor in the towns, yet despite the shock they produced few towns took action. This problem of excessive overcrowding is usually associated with the "Coketowns" of Northern England, yet as has been shown Southampton experienced a growth rate which was greater than the national average and between 1821 and 1841, almost equal to that of Manchester. The population of the town, excluding Portswood, was 7,629 in 1801 and in 1891 55,463. The number of acres per person had decreased from 0.18 in 1801 to 0.02 in 1891.[3]

The Municipal Corporation Act of 1835 had reformed local government by introducing a uniform electoral system and gave the local authorities the power to take over the provision of services for the towns. Most local authorities proved reluctant to take on new responsibilities. Southampton was no exception. By 1848 the only new function the Council exercised was the control of the police force which they had been obliged to undertake by the 1835 Act. The provision of services for the town was left in the hands of the Improvement and Waterworks Commissioners whom, it has been shown, had achieved little by 1849.[4] Leicester and Liverpool had both taken steps to improve their towns by

1. E.C.Midwinter, Victorian Social Reform 1964, p3. 2. M.Flinn, Public Health Reform in Britain 1963, p26. 3. Appendix I. 4. Chapter I.

appointing Medical Officers of Health in 1847 but no other provincial town followed their example. It was this reluctance on the part of local authorities to undertake new responsibilities that convinced sanitary reformers like Chadwick that central government action was needed.

In 1847 the Liberals gained control of the Southampton Council for the first time since the 1835 Act. This success was partly a reflection of the problems the Tory party was facing at national level and partly of the changing nature of the town. The new Council's first act was to set up a Revision Committee to examine the town's expenditure and suggest ways to reduce it. Not surprisingly the Council showed little interest in the passing of the 1848 Public Health Act. It was the defeated Tories who led the agitation in the town for the introduction of the Act. This was unusual as in most mid-Victorian towns the Public Health movement was dominated by Liberals, as in Leicester. Some Southampton Tories, like Le Feuvre, Breton and Keele, saw a Local Board of Health as a way to limit the power of the new Liberal Council but others like Stebbing and Engledue showed a genuine concern for the welfare of the poor.[1] The impact of cholera in the summer of 1849 made it difficult for the Council to avoid taking action and a local Improvement Act was under consideration when the petition to the General Board of Health led to the Ranger Inquiry in January 1850. When the Council leaders realised that by coming under the 1848 Act they would gain all the powers of a local Improvement Act at a fraction of the cost and without the loss of any of their privileges they abandoned all opposition and decided to adopt the Act. It was not just Ranger's skill which convinced the Council to take action. The petition to the General Board had been signed by over 700 of the town's 6,000 ratepayers and their opinions could not be ignored by an elected Council. The damage done by the cholera epidemic to the town's trade and reputation in 1849 made action imperative. Margaret Pelling has argued that cholera was a distraction rather than an impetus to reform in the nineteenth century.[2] Southampton's experience does not support this view. A town which

1. see Chapter I.
2. M. Pelling, Cholera, Fever and English Medicine 1825-65, (1978), p6.

depended on its reputation as a resort for visitors and on its growing trade could not risk another cholera panic or a prolonged period of quarantine for the port. With or without Ranger Southampton was bound to act.

The structure of the town's Public Health administration and services were established in the 1850s under the guidance of Ranger but with little direct help from the General Board in London. In line with Chadwick's ideas the Local Board concentrated on water supply, sewerage and nuisances. Southampton's expenditure on Public Health works in the early 1850s was matched by few other towns as has been shown in Chapter II. Elliott has suggested that Leicester became a model Local Board because of the calibre of its Councillors. The Council included some of the wealthiest men in the town who saw beyond the need to keep the rates down. As Liberal Non-Conformists, Elliott claims, these men may have had a better sense of priorities.[1] Southampton's Council was dominated by Andrews, Laishley and Lankester, all of them very wealthy businessmen but only one of them, Lankester, was a leading Non-Conformist. Public Health in Southampton was not in the early 1850s a party issue. W.J.Le Feuvre, a Conservative, had been a keen supporter of bringing in the Local Board and J.R.Stebbing, another Conservative, was a consistent defender of the town's Public Health works. The Local Board spent lavishly on water supply and sewerage schemes. In the year 1854-55 £31,473.57p was paid out and in 1856 the sanitary rate was 32.5p. This was the year of the double rate which caused so much agitation in the town.[2] With this kind of expenditure Southampton can not be fitted into Macdonagh's generalisation that most local authorities were "mean, heartless, slothful and cowardly."[3]

Despite the Council's great efforts to provide the town with efficient Public Health services, Southampton showed no regret at the demise of Chadwick's General Board in 1854. This may have been because Ranger, the General Board's engineer, had failed to provide the town

1. M.Elliott, The Leicester Board of Health 1849-1872, (M.Phil.Thesis, Nottingham,1971.), p182. 2. see Chapter VIII.
3. O.Macdonagh, Early Victorian Government 1830-1870, (1977), p133.

with a water supply and sewerage system as cheaply or as efficiently as he had estimated in his original report. It may also be that the town shared in the general reaction to Chadwick's centralisation reflected in the Times famous leader on being bullied into health.[1] The great achievement claimed by Southampton's Local Board in the 1850s was the prevention of the 1853-4 cholera epidemic entering the town. Yet this apart the health of the town in the 1850s gave little cause for satisfaction. The town's average death rate rose from 23 per 1,000 in 1841-50 to 24.4 in 1851-60 while Portsmouth, which had rejected Rawlinson's report in 1850, saw its death rate fall from 25 to 22.7 over the same period.[2] Southampton had not wasted its money. The water supply and sewerage system of the town had improved greatly during the 1850s, but this did not produce the immediate results the reformers had hoped. This was an experience shared by many Victorian towns in the 1850s and 1860s. It took some time for sanitarians to realise that improved sanitation alone could not solve the increasing problems of the expanding urban centres. Not surprisingly with such apparent lack of achievement, the changing national mood and the departure from the Council of leading sanitarians Andrews and Lankester, who died in the late 1850s, and Laishley, who moved to London, interest in sanitary affairs faded.

The most controversial of Chadwick's suggestions to the local boards was the appointment of a Medical Officer of Health. The reluctance of not only Southampton, but so many other towns to make this appointment, was not just an indication of their desire to save money but also the low esteem in which the medical men were held in the first half of the nineteenth century. Only physicians and a few distinguished surgeons could claim the title gentlemen; the large remainder of medical men were tradesmen.[2] Before 1858 the title doctor was reserved for medical graduates, principally from Oxford and Cambridge. Cooper, who qualified as a surgeon in Edinburgh, was ridiculed in the local press when he claimed the title doctor in the 1840s. It was the 1858 Medical Act, originally designed to protect the

1. Appendix II. 2. F.Cartwright, A Socal History of Medicine, (1978), p50.

public from unqualified practitioners, which created the General Medical Council and transformed the medical trade into the medical profession.[1] Yet this transformation took time. The increase in scientific knowledge resulting from the work of Pasteur and Koch and the availability of new medical qualifications, such as the Diploma in Public Health, gave the profession a recognised expertise and with it a status and authority late in the century which it lacked in 1850. These developments in the medical profession were reflected in the changing relationship between the Council and its medical officers from 1850 to 1901. As a Poor Law Medical Officer Cooper was treated with scant respect by the relieving officer and when he protested he received neither support nor sympathy from the Board of Guardians. When he became Southampton's first M.O.H. in 1850 his views were listened to, but largely ignored and his requests for a salary increase fell for almost a decade on deaf ears. His successor, appointed in 1866, was offered Cooper's original salary of £150 p.a. for a full time post. Not suprisingly the Lancet in March 1866 strongly criticised the Council for paying a professional gentleman a clerk's salary. Yet despite the low salary there were several applications for the post. The successful candidate, MacCormack, had a brief, and according to Lemon, stormy career as M.O.H. before moving to a more highly paid post in London.[2] Although he was never given a permanent contract Dr.Osborn, MacCormack's successor, proved to be the town's longest serving M.O.H. in the nineteenth century. Even at the age of 78 the Council was prepared to offer him a further three year contract. This may reflect Osborn's ability, unlike his predecessors, to avoid conflict with his employers. It is significant that it is only in his last report, when he had decided to retire, that his criticisms of the town's services were made with the vigour they deserved.

Dr.Wellesley Harris, who became the M.O.H. in 1890, was,unlike his predecessors, very much a product of the late nineteenth century. Cooper, MacCormack and Osborn had all gained their medical qualifications before 1858. Harris was born in 1860. He had trained at

1. F.Cartwright, op.cit., p57. 2. see Chapter IV

Charing Cross Hospital, was a M.R.C.S., an L.S.A. and held the Diploma in Public Health. Yet when his appointment was discussed it was suggested that his salary be £200 p.a. and he was eventually appointed at £300, £50 less than his predecessor Osborn. Despite this inauspicious start, with the arrival of Harris the whole spirit of the M.O.H.'s department changed. His first annual report presented a vivid and damning picture of the town's health and was given wide press coverage. He quickly reorganised his department. The old inefficient Inspectors of Nuisances were dismissed to be replaced by qualified men each with the new Certificate of the Sanitary Institute. By 1895 the Chief Inspector of Nuisances had a salary of £150 p.a. the same as the M.O.H. a generation earlier. In a period of falling prices this salary must reflect a change in attitude among the Councillors. By the end of the century the M.O.H.'s salary had risen to £500 p.a. This was a considerable sum for a town of Southampton's size and compared favourably with salaries available elsewhere. Within the hierarchy of the town's officials the M.O.H. had overtaken the borough surveyor by the end of the century and his salary was moving closer to that of the Town Clerk, the pre eminent official in Victorian local government.[1]

The low esteem in which both medical science and the medical profession were held for much of the nineteenth century has been well documented. The major reason for this lack of prestige was their failure to make any real impact on many of the problems of urban living. Not only were doctors unable to determine the cause of disease; they were frequently unable to diagnose correctly and the treatment they offered was rarely effective. Yet the Medical Officers of Health in Southampton played a major part in the improvement in the town's health in the second half of the century. The General Board of Health was dominated by convinced miasmatists and it was their views which influenced the work of the first local boards. In this respect Suothampton was no exception. The Sanitary Committee expected Cooper to investigate all reported nuisances and it is clear from the committee minutes and Cooper's own comments that this formed the major part of his work as M.O.H. Yet his efforts were often frustrated by the

1. E.P.Hennock, Fit and Proper Persons, (1973), p232.

weakness of the legislation he was trying to enforce. It was almost impossible to obtain a verdict against a business which could claim it had taken the "best practicable means" possible to remedy an industrial nuisance. The nuisance caused by the Northam cement factory continued to pollute the area twenty years after Cooper's death despite his frequent attempts to check it. MacCormack worked hard with the Sanitary Committee to educate the town in simple hygiene to help counteract the 1866 cholera epidemic and Parkes' advice on the source of contagion contributed to the decline of the epidemic.[1]

The 1860s had witnessed a move away from the almost universal acceptance of the miasmatic theory. In Osborn's annual reports it is possible to trace the growing acceptance of the germ theory at local level and the changes in health care this involved. The disinfector which MacCormack had considered using in 1870 became an essential and much used item of equipment under Osborn. The importance of isolation of cases of infectious diseases gained support and with it the need for an isolation hospital for the town. That a hospital was built showed the change in Council opinion from the 1840s when the idea of a "pest house" was condemned and Andrews had said it would encourage the poor to pretend to be ill in order to enter the house for free meals. Although Osborn's reports were rarely given wide coverage in the local press they were printed and available to every member of the Council and in this way his work did much to educate public opinion on the correct approach to health care. With the advent of Wellesley Harris the medical department acquired a much more capable publicist. His reports were quoted at length in the local press and his comments at Council meetings were mentioned frequently. This change was not simply one of personality but reflected a change in the national mood. Enid Gauldie has pointed out that the middle classes were prepared to support the demands for improvement in the living conditions of the working class in the 1890s.[2] The ease with which Harris' views were spread is in marked contrast to the press attitude earlier in the century. Stebbing admitted in 1869 that he had tried to stop reports of cholera appearing in the local press. His success may be judged

1. see Chapter IV. 2. E.Gauldie, Cruel Habitations, (1974), p296.

by the fact that the first reports of cholera in Southampton in 1866 appeared in the Times as they had done in 1849. In 1867 and 1868 MacCormack's reports, which showed a great improvement in the town's health, were printed in full in the local press but his far less favourable reports in the late 1860s passed without press comment.

By the end of the nineteenth century, as Wohl has pointed out, sanitary reformers had much to reflect on with satisfaction. Water supplies, sewerage, street cleaning, personal hygiene, diet, milk supplies and isolation facilities had all improved. These improvements together with advances in medical science led to better national health. The death rate fell from 20.5 in 1861 to 16.9 in 1901.[1] Southampton shared in all these advances. The town's death rate fell from 24.45 in the years 1851-60 to 18.74 for the period 1891-95. By the early 1890s Otterbourne was providing the town with a modern water supply. In this the town was keeping pace with major towns like Birmingham (1892), Liverpool (1892) and Manchester (1894) which completed their works by 1894. Without an abundant water supply an efficient sewerage system was impossible. Unlike many inland towns Southampton had concentrated from the 1850s on a sewerage system based on water closets. As the century drew to a close it became clear that this was the most hygienic method of sewerage disposal. A Local Government Report in 1909 compared the infant deaths from diarrhoea and the enteric fever rates in Leicester and Nottingham between 1889 and 1908 to show the effects of Leicester's decision to introduce water closets throughout the town in the 1890s. The report concluded that it was clear that Nottingham's death rate would drop if all the town used water closets.[2]

Southampton's two major Public Health works of the second half of the nineteenth century, the Otterbourne waterworks and the town's sewerage system, were very much local achievements. Wohl has claimed that the Local Government Board's greatest contribution to Public Health was, "..setting an example, offering general advice and serving as a clearing house for accumulated engineering and sanitary

1. A.Wohl, Endangered Lives, (1983), p329.
2. Local Government Report 1909, Vol.XXIX, p241.

information."[1] As has been shown, Southampton's water works owed little to General Board advice. They were planned by local engineers and checked by experts chosen by the Council. When asked for advice the Local Government Board was not always helpful. The Southampton authorities found it more useful to contact other towns directly for advice on waste water schemes and salaries of officials. The destructor, which finally helped solve the complex problem of sewage disposal which had taken up so much of the Council's time and effort, was brought to the town after a visit by the borough surveyor to towns where it was already in use.

The development of these major capital works led to great changes in the organisation of Southampton Council. The evolution of the Medical Officer's Department from the employment of one part time M.O.H. with the occasional assistance of an Inspector of Nuisances who was also Superintendant of the town's police force, to the team of full time professionally qualified experts led by Harris in the 1890s has been described. Similar developments were necessary in the borough surveyor's department to ensure the smooth running of the water and sewerage works. Above all the Council had to take on financial responsibility for the construction and servicing of the works of the town and the running of its departments. In 1848 the borough rate was 9d (4p) and the Council's expenditure was £3,390 for the year. In 1894 the sanitary rate was 3/6d (17p) and the total expenditure of the Urban Sanitary Authority for 1895 was £143,435..13..8d (£143,435.68p). This increase in expenditure was all the more remarkable when set against the fall in prices from 100 in 1848 to 81 in 1895.[2] Although this aspect of the Council's work, the collection and handling of large sums of money, was often unsatisfactory and even by 1900 not all the problems of accounting had been solved, the Council had become accustomed to dealing with large sums of money as a direct result of its involvement in Public Health.

Southampton tackled the basic problems of sewerage and water supply more quickly and more successfully than most Victorian towns. Yet

1. Wohl, op.cit., p163. 2. B.Mitchell & P.Deane, Abstract of British Historical Statistics, (C.U.P.1962), p343-344.

it was slow to face the problem of housing. The work of Mearns and the Royal Commission on Housing in 1884 made housing a burning issue in many towns in the 1880s, in particular, in Liverpool. An outbreak of fever in 1882 resulted in a press attack on Liverpool's housing in a series of articles entitled "Squalid Liverpool". Liverpool went on to become the leading town in the field of municipal housing, possibly because its housing problems were the worst in the country. The national concern with housing in the 1880s did not reach Southampton until after 1890 when Bicker Caarten and the Southampton Times made the town aware of the housing conditions of the poor in St.Michael's parish. Even after this campaign the Council was slow to act. Harris' report was not ready until late in 1893 and final approval of the town's scheme was not given until June 1895. The Model Lodging House was completed in 1899 but the artizans dwellings were not finished until 1906. The reason for the delay helps explain the general nineteenth-century reluctance to tackle the housing problem. The Council found that rehousing could not be provided profitably and this meant that all rehousing would have to be provided by the Council itself. The standard of construction required by the Local Government Board meant that economic rents for the dwellings would be beyond the resources of those displaced by the clearance schemes.[1]

However reluctantly by the late 1890s Southampton was committed to providing another service for its inhabitants. In the 1909 Local Government Board Report it is listed as one of the six provincial boroughs providing housing. The Report shows that in 1907 Southampton Council housed 556 persons, Plymouth 1,401 and Sheffield 1,620. Liverpool the acknowledged leader in this field housed 7,566.[2] Yet Southampton's commitment in this area remained limited to the first stage of Harris' 1893 scheme which was completed in 1906. Although some further building was considered nothing was done before 1914 and it was only in the 1930s that a real effort was made to deal with the housing problems of the town.[3] Southampton's reluctance to deal with the

1. M.Doughty, Dilapidated Housing and Housing Policy in Southampton, (Southampton,1986), pxxvii. 2. Local Government Report 1909 (Cmd4671), p22. 3. M.Doughty, op.cit., pxxx.

housing question was typical of the reaction of many Victorian towns. Housing involved the investment of massive financial resources to provide subsidised accommodation for the working class. Few middle class Victorians were prepared to accept the need to subsidise the housing of the poor.

The success of the Public Health movement and the advance of medical science in the 1890s were seen as the reasons for the dramatic improvement in the nation's health in the last quarter of the nineteenth century. The death rate fell from 23 per 1,000 in 1855 to 18 per 1,000 in 1895. This view has been challenged by McKeown who has pointed out that death rates began to fall in many areas before sanitary improvements were introduced and in diseases, such as phthisis, for which no satisfactory medical treatment was available before the twentieth century. McKeown regards improvements in nutrition, resulting from a steady rise in real wages and the increased importation of cheap meat, as the key factor in the falling death rate. According to McKeown only the decline in deaths from typhoid, typhus, cholera, diarrhoea and dysentry can be claimed as the success of the sanitarians. He estimated that the decline in these diseases accounted for a quarter of the fall in the death rate in the second half of the nineteenth century.[1] Southampton's experience in the last quarter of the century provides some support for McKeown's view. The percentage of deaths from zymotic diseases fell from 14.6% in 1873 to 7.9% in 1895 while the death rate from phthisis fell from 11.8% to 7.8% over the same period.[2] Yet the study of the work of the health authorities in Southampton in the second half of the nineteenth century makes it difficult to accept McKeown's narrow definition of the work of the sanitarians.

The early public health reformers saw sanitation as a cure for all the problems of the nineteenth century towns. They knew little of either the causes or the spread of disease. Public Health was judged by its success in dealing with the major infectious diseases - cholera, typhus,

1. T. McKeown & R.G.Record, "Reasons for the Decline of Mortality in England and Wales during the Nineteenth Century", M.Flinn & T.Smout (Eds.), Essays in Social History, (1974) p246.
2. see Chapter VI,

typhoid, dysentry and smallpox. It was not until the twentieth century that it was realised that sanitation helped only for intestinal diseases, not for contagion. Cholera, typhoid and dysentry were diseases of the intestine transmitted by contaminated water, food or directly by the patient or flies. Sanitation could do little to help with smallpox, diphtheria and scarlet fever which were transmitted by droplets from the mouth or in the case of scarlet fever and diphtheria by infected milk.[1] Yet as has been shown the water supply and the sewerage system were not the only achievements of Southampton's Public Health reformers. During the major cholera and smallpox epidemics the Sanitary Committee, the Medical Officer of Health and his inspectors concentrated on educating the townspeople on how to deal with the sick. These lessons in hygiene were continued by the voluntary workers who visited the working class areas of the town as was done in many other Victorian towns.[2] The value of the isolation hospital built in 1873 was stressed repeatedly by Osborn, with some justification, as the chief reason for the containment of smallpox and other infectious diseases in the 1870s and 1880s. The measures taken to isolate patients in their own homes and the methods used by the Medical Officer's department to disinfect schools and houses where infectious diseases were found has been described in Chapter VI. All these activities were part of the achievement of Southampton's Public Health workers. By the 1890s Harris had convinced the Town Council of the necessity for a new isolation hospital capable of dealing with several infectious diseases at the same time.

One of the major weaknesses of the Public Health movement in the nineteenth century was its failure to establish a strong political base. Chadwick and cholera created some interest in the movement, but the 1848 Public Health Act and much of the sanitary legislation which followed was essentially permissive and its results were disappointing. The Health of Towns Association established in many towns in the 1840s made no impact in Southampton and had disappeared nationally by 1859.[3] The

1. W.M.Frazer, A History of Public Health, 1834-1939 (1950), p160.
2. J.Adams, Southampton Almanack 1898, p24.
3. R.Lambert, Sir John Simon, 1816-1904, (1963), p300.

influence of Sir John Simon and the threat of cholera led to the more ambitious 1866 Sanitary Act which was followed by a great increase in local authority activity. Borrowing for sanitary works nationally increased from £356,192 in 1861 to £1,212,890 in 1871. Southampton followed this trend and Lemon began his drainage scheme for the lower part of the town.[1] The Royal Commission of 1869-71 recommended the combining of the 1847 Poor Law Board and the 1858 Medical Department of the Privy Council in a new body, the Local Government Board. The new Board was dominated by Poor Law ideas and Simon resigned in 1876 because of the lack of scope for the medical section of the Board. Without Simon the cause of social reform lacked clear direction. There were many supporters of reform within and outside Parliament but they were divided about the function a central health agency should perform.[2]

Frazer has argued that the nation's attitude was changing in the 1870s. Laissez faire was on the way out. The change can be traced through the 1867 Second Reform Act to the 1870 Elementary Education Act and the 1875 Public Health Act. Disraeli said, "The health of the people is really the foundation upon which all their powers as a state depend." Public Health by the mid 1870s was no longer a matter for cranks but was politically respectable.[3] Yet the President of the Local Government Board who introduced the 1875 Public Health Act was not in Disraeli's cabinet. It was not until the formation of the Ministry of Health in the twentieth century that Public Health secured a powerful voice at the highest level. This lack of a strong central authority may explain the slow and rather haphazard development of Public Health at local level. Cooper realised the weakness of his position and tried to have the M.O.H. made a government post but his suggestion was ignored. Although the Local Government Board had to sanction all loans for sanitary work Southampton's plans were rarely questioned and complaints to the Government Board were simply referred back to the Local Board. Public Health was very much in the hands of the local authorities.

Many historians regard the death rate as the only real index of the success of the Public health reformers. Judged by this standard the

1. R.Lambert, op.cit., p398; see Chapter V.
2. Gauldie, op.cit., p139. 3. Frazer, op.cit., p115-117.

early reformers had achieved little by 1875. The national death rate for the years 1838-47 was 22.2 and in the 1860s reached 22.5 to fall only to 22 in the period 1870-75. Southampton's performance was better but only slightly. The town's death rate in the early 1840s had been 20.5, in the 1860s 22.6 and in 1875 19.8. Yet as R.Lambert has pointed out these stable death rates conceal a considerable achievement. The sanitary pioneers had held in check "..the powerful forces against health which a swiftly growing population and rapid urban agglomeration naturally generated."[1] Apart from this achievement the early reformers in many towns like Southampton had established an efficient system of sanitary administration. The experience and expertise gained in this system especially by the M.O.H. laid the foundations for the expansion of the Public Health movement in the later decades of the century. After 1875 the death rate began to fall decisively nationally and Southampton followed this trend with a rate of 17.6, 0.7 below the national average in 1900.

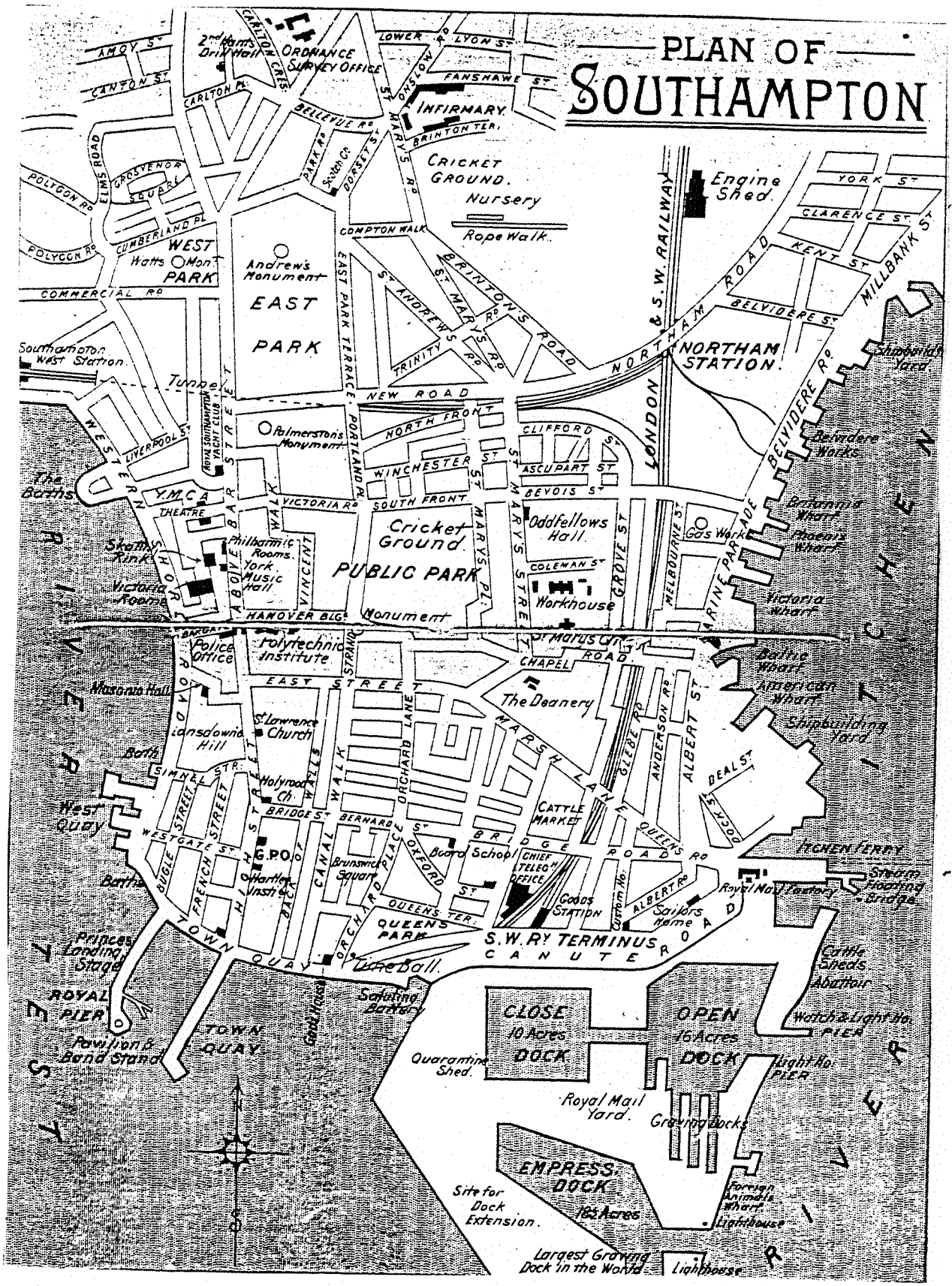
Southampton in 1895, despite all its problems, was a very much better place to live in than in 1848. The death rate had fallen and the whole town had an efficient sewerage and water supply system. Moves were underway to establish a model lodging house and the first area for slum clearance had been chosen. The Corporation had a well qualified sanitary staff. The town had no hesitation in accepting government help in paying part of the salaries of its officials. In this Southampton was ahead of many other towns. Only twenty two of the sixty four county boroughs in 1900 had accepted this help. Without this aid it was unlikely that a town could provide the adequate staff which would make preventive medicine possible.[2] The town adopted the permissive legislation of the period 1848-71 before the compulsory measures of the latter part of the century. The town was seldom in conflict with the government departments entrusted with Public Health. The General Board of Health, the Privy Council and the Local Government Board sanctioned the town's loans and occasionally offered advice. The town chose its own officials, prepared its own plans and carried them through. The town owed much to the

1. R.Lambert, op.cit.,p 2. P.J.Waller, Town, City and Nation: England 1850-1914, (Oxford,1983), p283.

efforts of individual Councillors, who realised the importance of Public Health to the town's reputation, first as a place for visitors and later as a port. Andrews and Laishley in the 1840s, Palk and Stebbing in the 1850s and 1860s served the town well. As the work of the Local Board developed, the town built up a capable body of officials and by the 1890s the Council could draw on the skills of experts like Harris, Bennett and Matthews. Unlike Liverpool, Southampton did not witness the formation of an influential Labour movement in the 1890s which could put pressure on the Council. Bicker Caarten, who did much to publicise the housing problem, failed to win a Council seat before 1900. This may reflect the lack of large scale industry in the town and the trade union influence this would have provided.

Southampton Council throughout the second half of the nineteenth century was cautious in money matters. Unlike so many Victorian towns it did not spend large sums of money on public buildings such as a town hall. Nor did it buy up the gas works or the tramways. It concentrated on what was seen as essential. A permanent hospital was provided first at West Quay and when this proved inadequate a new and much larger one was planned in Shirley. With a good water supply, a sound drainage system, an efficient refuse disposal, a municipal hospital, a mortuary, the beginnings of a municipal housing programme, Southampton was ready to move on to tackle the health problems revealed by Rowntree and Booth. Their surveys had shown the root cause of these problems was poverty, a finding anticipated in Southampton in 1851 by Cooper.

Southampton 1895



J. Adam, Southampton Almanack (Southampton 1898)

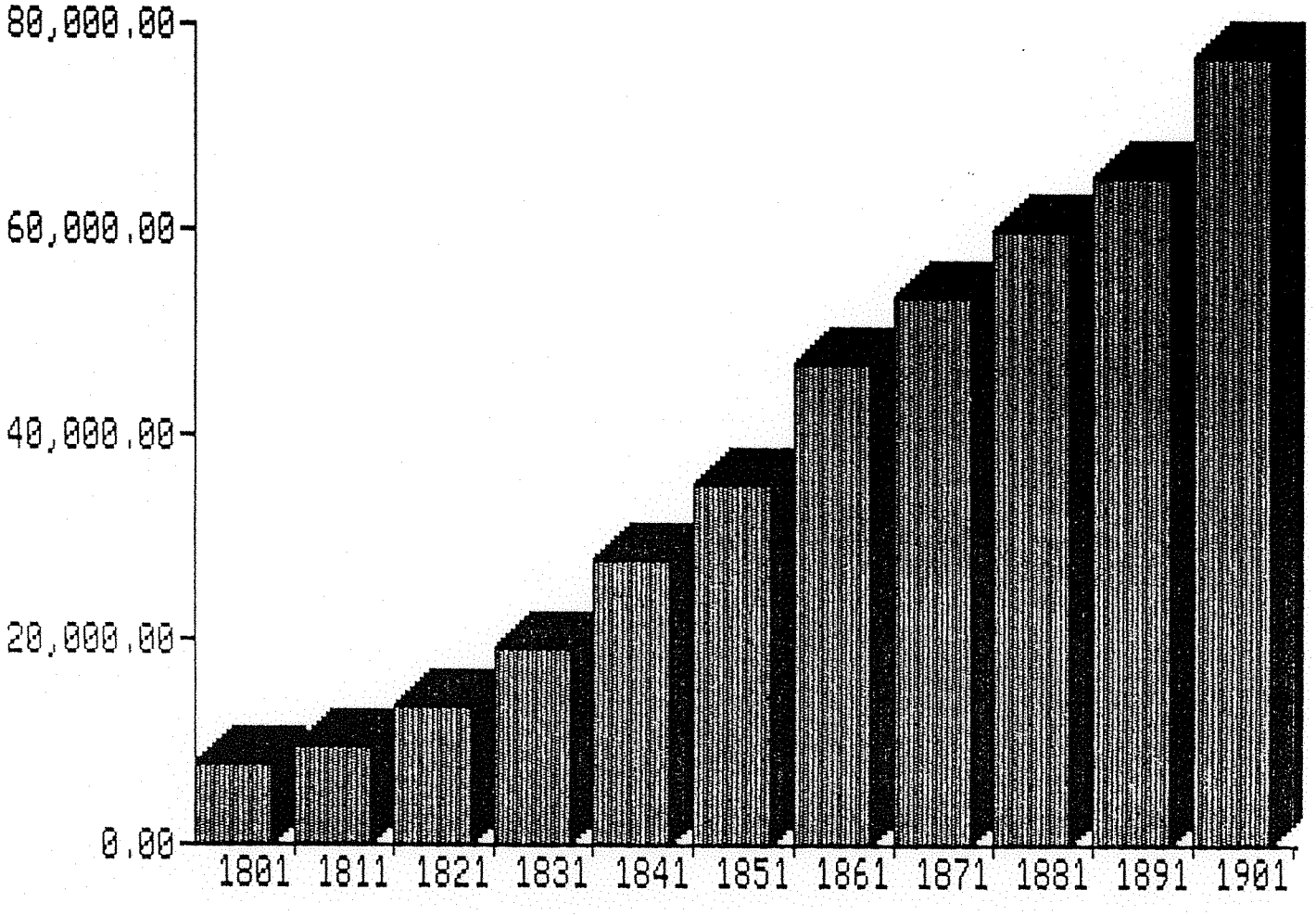
TABLE VIII.

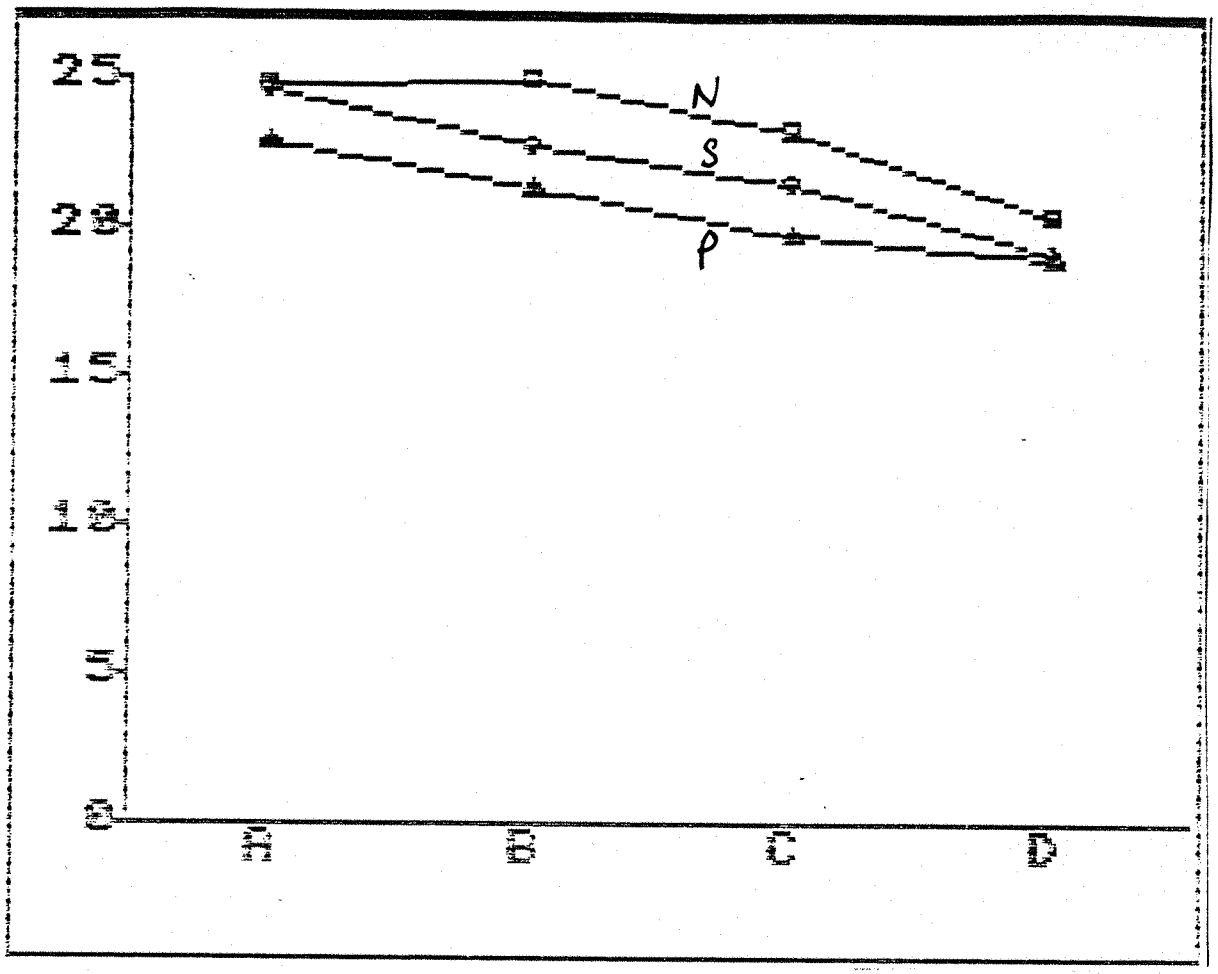
COMPARATIVE MORTALITY OF SOUTHAMPTON AND 59 TOWNS.*

BOROUGH.	Estimated Population, middle of 1897.	Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mortality. Deaths under 1 year per 1,000 Births Registered.	Average Death Rate— 10 years. 1888 to 1897.
Ashton-under-Lyne	44,700	26·6	20·9	3·3	228	22·4
Barrow-in-Furness	55,570	28·2	14·5	1 69	154	15·2
Bath	52,600	19·18	16·36	1 20	128	18·47
Birkenhead	111,001	31·68	18·39	2·63	164	19·52
Birmingham ..	505,772	33·2	21·1	3·8	214	20·1
Blackburn	131,330	27·5	19·2	2·0	208	21·9
Bolton	121,433	32·8	21·13	4·16	183	21·4
Bootle	52,000	33·6	20·3	4·19	199	20·03
Bradford	231,260	24·55	17·39	2·24	179	19·45
Brighton	121,401	24·6	15·0	1·54	124	17·4
Bristol	232,242	28·05	17·17	1·85	145	18·7
Burnley	100,000	31·5	20·6	2·0	223	21·0
Burton-on-Trent	50,850	28·10	14·71	1·78	133	16·83
Bury	60,100	25·29	18·75	2·89	176	22·01
Cardiff	170,063	31·0	14·9	2·1	150	18·7
Coventry	61,234	31·6	16·8	1·8	157	17·5
Croydon	121,170	25·03	13·38	1·6	139	14·97
Derby	103,291	27·2	16·0	1·6	167	17·01
Dover	35,551	27·4	15·4	1·20	135	16·9
Dudley	47,955	36·01	17·87	2·14	165	—
Exeter	38,000	23·84	18·32	2·47	161	19·3
Gateshead	101,070	35·8	18·6	2·2	173	19·4
Great Yarmouth ..	50,911	29·20	18·97	3·33	184	†19·07
Grimsby	58,450	32·42	17·84	3·76	221	*17·95
Halifax	95,747	22·42	16·39	1·37	140	19·11
Hanley	59,510	35·5	20·2	3·0	202	19·9
Huddersfield ..	101,454	23·39	16·48	1·47	132	18·10
Leeds	409,472	31·6	19·9	2·8	190	20·8
Lincoln	44,097	28·2	17·5	1·79	168	17·5
Liverpool	644,129	34·58	23·46	4·68	201	24·9
Manchester ..	536,426	33·00	22·35	3·97	194	23·6
Merthyr Tydvil ..	70,768	34·4	22·4	4·5	446	22·0
Newcastle-on-Tyne	217,555	31·2	18·7	1·6	177	21·1
Newport, Mon. ..	69,652	31·2	15·5	2·5	164	18·5
Northampton ..	66,500	26·3	15·6	2·4	184	16·2
Norwich	110,154	30·54	18·75	2·22	196	§18·59
Nottingham	232,935	28·9	18·8	2·8	206	18·1
Oldham	145,845	26·1	19·2	2·5	183	21·8
Plymouth	97,658	28·3	19·1	2·20	188	20·6
Portsmouth	182,585	24·7	16·2	2·53	168	18·04
Preston	115,103	31·8	24·3	5·63	263	—
Reading	68,094	26·62	14·22	2·10	148	15·13
Rhondda	119,138	34·6	16·4	3·03	240	19·1
Rochdale	74,115	25·6	17·8	1·80	139	18·90
St. Helens	82,910	38·51	21·05	4·24	181	21·91
Sheffield	351,848	34·4	21·2	3·5	197	21·4
Southampton .. .	**100,886**	**29·11**	**16·59**	**2·15**	**155**	**17·8**
Southport	48,445	20·70	16·55	1·11	181	17·16
South Shields ..	95,798	33·6	16·2	1·1	154	19·2
Stockport	80,000	30·9	—	4·8	214	23·5
Sunderland	142,107	34·52	19·54	2 64	168	21 60
Swansea	98,250	29·9	16·0	1·29	139	19·9
Tynemouth	51,148	29·5	18·4	2·24	166	†19·35
Walthamstow ..	70,000	32·08	11·88	2·8	133	13·8
Warrington	61,700	36·7	19·5	2·8	175	21·8
West Bromwich ..	63,000	36·0	19·7	3·4	175	19·9
Wigan	61,043	37·16	20·99	3·11	175	22·69
Willesden	90,525	31·7	14·6	2·9	153	13·8
Wolverhampton ..	87,287	35·1	21·8	4·6	219	21·25
Worcester	44,505	28·5	19·8	2·5	160	19·9

† For Eight Years. § For Ten Years. * For Ten Years from 1887 to 1897.

Population of Southampton and Portswood 1801-1901 (excluding Shirley and Freemantle)





Crude Death Rates 1841-1881

Based on Decennial Averages of Registrar General.

A= 1841-1851
B= 1851-1861
C= 1861-1871
D= 1871-1881

N = England and Wales
S = Southampton
P = Portsmouth

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