THE LAZARET ON CHETNEY HILL

by

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Chetney Hill is an island of twenty-nine acres situated (50° 24' N., 0° 43' E.) among desolate marshland near the mouth of the Medway, four miles NNW. of Sittingbourne (Fig. 1). Although at one time occupied by tenant farmers it is at present uninhabited and used solely as pasturage. During much of its history Chetney Hill lay comparatively inaccessible and disregarded, but in the first years of the nineteenth century it was the site for a unique and costly enterprise in British preventive medicine. On this island substantial buildings intended as a permanent land lazaret fit to rank with the great Continental establishments, were erected only to be abandoned before completion and the materials sold for a fraction of the building cost.

The arguments advanced for the building of a permanent land lazaret, the choice of Chetney Hill for its site, the circumstances leading to its construction, the building itself and its ultimate fate, are the principal subjects of this article. For a fuller appreciation, the development of quarantine, especially in Britain, is first briefly outlined.

The development of quarantine

Man’s reaction to an epidemic is basically one of fear tempered by contemporary aetiological views. In European and Mediterranean cultures natural catastrophes were formerly conceived as divinely inspired and to be countered by methods which would appease their instigator. Sometimes these means were made known, as with the plagues of Egypt; sometimes they could only be inferred, as with the smiting of the Philistines and the decimation of the men of Bethshemesh. That such disasters were often allegedly prophesied tended to strengthen this general belief. Flight and concealment were resorted to more as a natural result of terror and a reluctance to be identified, in Divine eyes, with the stricken, than as a logical preventive measure. From these fundamental convictions the opinion evolved that although epidemics were supernaturally inspired their spread in the community was subject to more natural laws. The instructions given by the Lord to Moses and Aaron are often quoted in this context, and the classic description of the Athenian Plague can be used either to support or refute this thesis depending upon interpretation.¹ By the Christian era two principal but poorly demarcated schools of thought existed; the first, more traditionally established, considered the seeds of much disease to lie in external nature and to be disseminated by polluted air;² the second conceived epidemic disease as generated in man himself and contracted by ‘contagion’, i.e. by contact with an infected person or his effects.³ Although these two tenets are not mutually exclusive (in fact since the contagionists allow air as a vector they are in part complementary), nevertheless a fundamental difference of

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Fig. 1
Map of the Medway, showing location of the island of Chetney Hill
Aerial Survey Map of Chetney Hill, showing foundation footings of a considerable building running north-west to south-east
opinion existed and had become clearly established by the first centuries of the Christian era.4 These two views became more nearly reconciled in the Saler-nitan, Pre-Renaissance5 and Renaissance periods,6 but the gulf between them broadened during the later years of endemicity of plague in Britain,7 and ultimately widened into the great contagionist-anticontagionist controversy of the late eighteenth and early nineteenth centuries. Throughout the period the developments and modifications of these two theories were considerable but cannot be dealt with in any detail here.8

The logical sequel to the acceptance of the contagionist view is to avoid contact with the sick and their belongings. Flight, the most primitive expedient, becomes rational as well as emotional. Official action was directed at isolating a group once the disease was recognized within it,9 and, as an immediate corollary, non-infected communities adopted a noli me tangere attitude to the infected world outside.10 Thus the establishment of a cordon sanitaire was logical, with the inevitable modification that suspected persons and goods should not be permanently excluded but should be isolated and observed for a limited period during which time the disease, if carried, must manifest itself, or the infection, if present, be dissipated. This modification soon became a general system, and forty days adopted as the isolation period because of its quasi-magical and religious significance. Quarantine, as this system was understandably called, was enforced against plague from at least as early as the fourteenth century, initially by the republics of Venice and Genoa whose maritime trade with the plague centres of Asia Minor was considerable and arose from their close commercial association with the first three Crusades, and subsequently by most of the principal European states.11

Plague was no stranger to Britain before the Black Death, but throughout the succeeding three hundred years it was endemic in many of the cities, especially the ports, of both England and Scotland. Orders aimed at limiting its further importation and spread were made by Royal Proclamation, by municipal officers in towns, or, in the country by Justices of the Peace, but all under the sanction of the King in Council. In England specific ‘plague-orders’ were first proclaimed in 151812 and periodically thereafter whenever plague mortalities appreciably increased.13 During the London outbreak of 1603 which was serious enough to curtail James I’s Coronation celebrations and postpone the traditional Royal Progress through the City until the following March, the gist of these orders was consolidated in an Order in Council of 30 July 160314 and given the support of the legislature in the following year.15 Subsequently quarantine legislation became increasingly adopted as a measure against further importation of plague.16

In 1636 organized medical opinion officially supported this policy when the College of Physicians enunciated two of the fundamentals of quarantine; firstly, the issuing of ‘certificates of health’; and secondly, separate isolation, for specified periods, of persons either patently infected or ‘exposed’, and airing of ‘suspected’ merchandise.17 The efficacy of these recommendations was soon put to the test. Plague again reached the Netherlands in the spring of 1664 and an

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Order in Council which repeated one of the previous year based on these directives, was issued on 27 June, requiring, '... steps to be taken to prevent the infection from being brought into this country, either by passengers or merchandise and all ships to be placed in quarantine, according to former orders, until the Farmers of the Customs gave their Certificate'. How strictly these orders were enforced is not accurately recorded, but, as the story goes, the first cases of plague occurred in December 1664, in a house in Long-Acre where goods originally from the Levant but imported from Holland were opened and aired without apparently having been subjected to any form of quarantine. Certainly the Plague of 1665 was in retrospect considered to be due to lax quarantine enforcement rather than to an incorrect policy. The net result was that in the emergencies of the first quarter of the eighteenth century administrators rigorously enforced the regulations and only initially eschewed the death penalty, which was later adopted, in order to get convictions.

In August 1709, during a plague epidemic in the Baltic Hanseatic ports, the first set of the eighteenth-century Orders in Council relating to quarantine were issued and inaugurated what was to prove an almost continuous quarantine policy for England. These Orders were repeated in each of the following six months, were backed by Royal Proclamation because '... these Orders have been disobeyed', and by Act of Parliament on 22 December of the same year. They required the quarantining of ships and their complements if from the Baltic or any other 'infected place', at certain specified sites near the large ports, and were enforced by the Customs with the support of the troops. Notwithstanding the urgency of the Proclamations, the number of the Orders and the comparative thoroughness of their enforcement, and the support of the legislature, the quarantine regulations of this period were, by their short duration and intermittent character, and in the absence of efficient administrative machinery, essentially a continuation of seventeenth-century practice. The opinions of the London physician Richard Mead were to form a new basis for a sounder and more consistent policy; the necessary legislative and administrative reforms came later. Mead's ideas are fundamental to an understanding of the development of eighteenth-century British quarantine, and to the events leading to the Chetney Hill lazaret.

In 1720, despite elaborate precautions, substantial plague outbreaks occurred in Marseilles and some of the French ports of the Atlantic seaboard. Plague had not occurred in serious proportions in Britain since 1665, and the Government asked Mead to advise them on how best its re-entry could be prevented. Mead was a contagionist in nearly direct succession to Fracastorius; to him plague could be spread in three ways, viz., '... from Diseased Persons, Goods transported from Infected Places, and a corrupted State of the Air'. In the first, '... the whole mass of the animal Fluids is highly corrupted and putrified ... and the Effluvia or Fumes from Liquors so affected may taint the ambient Air ... and from these therefore the Air will be impregnated with Pestiferous Atoms which ... are taken into the body, I suppose, by the Breath and by the Skin'. Mead conceived the second method of spread as the substance of animal
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corruption, ‘... lodged and preserved in soft porous Bodies which are kept close together... [rather] as Perfumes hold their scent, if wrapt up in proper coverings’. The third is essentially an effort by Mead to reconcile his strongly held contagionist views, accepting air as a vector, with the more fundamental opinions of the classical miasmatists. This rationalization seemed to him reasonable and could explain the well-known seasonal incidence of plague. In this context Mead wrote:

However in this case [of spread] the malady does not usually spread far, the contagious particles being soon dispersed and lost. But when in a corrupt disposition of the air the contagious particles meet with the subtile parts generated by that corruption, by uniting with them they become much more active and powerful, and likewise of a more durable nature... in general a hot air is more disposed to spread contagion than a cold one, as no one can doubt who considers how much all kinds of effluvia are further diffused in a warm air.

Holding these tenets Mead’s recommendations were entirely logical. Firstly, quarantine in lazarets:

near to our several ports, built in convenient places, on little islands, if it can so be, for the reception both of men and goods, which arrive from Places suspected of infection. [Secondly] if there has been any contagious distemper in the ship the sound men should leave their clothes which should be sunk in the Sea... and stay in the lazaretto thirty or forty days. The sick... should be kept in houses remote from the sound and... after they are well... should be removed to the houses of these sound, and should continue there thirty or forty days. [Thirdly]... if there has been no sickness in the ship, I see no reason why the men should perform quarantine... instead their clothes should be aired in the lazaretto, as Goods, for one week. [Fourthly] Goods apt to retain infection such as Cotton, Hemp... hair and skins, [should be put in a separate lazaret], and exposed as much as may be, to the fresh air for forty days. [Fifthly, if a ship disembarked from a port during a plague epidemic]... it will be the securest method to sink all the Goods and even the ship sometimes. [Sixthly] Clandestine Importing of Goods [should] be punished with the utmost rigour; from which wicked Practice I should always apprehend more danger of bringing the disease than by any other way whatsoever.

And lastly, the establishment of a Council of Health in place of the Privy Council as the executive power for quarantine.

Although Mead’s book met with immediate success and passed unchanged through seven editions within a year and through two more within the author’s lifetime, his proposals were not universally popular and were opposed by anti-contagionists on commercial as well as doctrinaire grounds,25 and by vested trade interests.26 Nevertheless they were accepted by the Government and formed the basis of two Acts;27 the first repealed and improved on 9 Anne, c. 2 (1710), the second strengthened legislation against smuggling. Largely because of administrative difficulties this legislation was only enforced in time of emergency,28 and from March 1723 until May 1728, from June 1731 until June 1733, and again from June 1735 until March 1753, the sole quarantine law in force in Britain was 9 Anne, c. 2 (1710) which required implementation by Proclamation.29 The principles of quarantine as envisaged by Mead had been officially accepted; the problems of method, means and enforcement, were the main subjects of the considerable subsequent legislation throughout the rest of the century.

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The steps to Chetney Hill

In England and Scotland during the fifteenth and sixteenth centuries, local measures were frequently taken at ports against ships arriving from places where plague was known to be present, or on board which a case of plague had occurred, but they never amounted to a continuous policy. The existing buildings, apart from the occasional plague hospital or leper-house, were temporary, and used to protect goods and house attendants. Nor was there much development in the seventeenth century. The 1636 Directives of the College of Physicians recommended segregation and airing of goods, ‘according to the custom of Italy’, the full implementation of which would require some form of lazaret. That they were implemented at least in part on occasions between 1636 and 1665 can be inferred from the Second Article of the 1665 Directives of the College of Physicians, which starts, ‘As to the provisions already made by authority upon occasions, of prohibiting persons coming from infected places. . . .’ From the correspondence between the Privy Council, the Lord Mayor of London, and the Farmers of the Customs, of October 1663, it seems certain that the first ‘occasion’ was the autumn of 1663, and the second, June 1664. The ‘provisions already made by authority’, named Moll Haven, ‘in a creek which would receive an hundred vessels’, as the quarantine site, and that with ships from an infected port, ‘all the apparel, goods, household stuff, bedding, etc. [would be] aired . . . upon shore’, passengers and crew remaining on board ship. It is not recorded what buildings, if any, were constructed to conform with these Orders, but they must have been of the nature of temporary sheds. Subsequent to 1666 these emergency Orders were withdrawn, the previous arrangements continuing whereby foul Bill ships from the Mediterranean were required to quarantine at Smyrna or Alexandria while those with clean Bills could be admitted to Britain unless specifically prohibited by Order in Council.

Moll Haven was not long in favour; ‘Stangate Creek on the south shore of the Medway, opposite the Isle of Grain, Sharpfleet Creek, and the lower-end of the Hope’, being first appointed as a quarantine site by an Order in Council of 16 September 1709. In certain respects this region was ideal, being situated close to the main riverway and yet remote from habitation, but although unused for commerce Stangate Creek was leased to the free fishermen of the Hundred of Middleton for oyster beds which only that year had been restocked. So great was the number of ships performing quarantine during the 1709–12 emergency (nearly 150 in the first six months of 1712 alone), and so stringent the statutory regulations prohibiting fishing in the Creek, that financial compensation for the loss of the oyster trade was successfully petitioned. During this period quarantine of persons was on board ship; merchandise was aired in specially erected sheds at Hoo Fort. No segregation of plague victims was necessary since probably no cases occurred. In the 1721–3 emergency, when Mead’s recommendations had been largely adopted, a more comprehensive policy was pursued. Mead had suggested the construction of land lazarets near ports, and although this was acknowledged in the
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immediate legislation their construction was not seriously debated, a compromise being reached whereby crews and passengers were confined on board their own ships; the enumerated goods were aired on hired vessels. Similar expedients were supported in the subsequent emergencies of the next twenty years.

In the summer of 1743 plague reached serious epidemic proportions in Messina and presented the most serious threat to Britain since 1721–3, and all Thames-bound ships were ordered to Stangate Creek. Any hopes that the Customs would now demand permanent lazarets were soon dispelled. On 27 September they advised the Treasury of the necessity of erecting '... sheds or lazarets for the opening or airing of goods after quarantine performed, and also proper Houses and Centinen Boxes for the persons attending the opening, airing and re-packing ...', to an estimate of only £1,672 11s. 0d. Authorization was by Order in Council on the 29th, and the Customs received the requisite Treasury warrant on 5 October. These buildings were temporary, most airing of merchandise continued on importing ships and hired craft. Clearly the previous expedients were still considered adequate.

The quarantine period was reduced in February 1744, discontinued in March 1746, but renewed in the following year, and by now it was abundantly clear that in the face of contagionist opinion and expanding commerce, current legislation and its method of enforcement were inadequate and 'inconvenient and expensive to the Merchant'. Fresh plague epidemics in the Ottoman trading ports, and the proposed alteration in the Levant Company's charter, finally determined the Government on legislative reform, and since Mead's opinions were still unchallenged the construction of a permanent land lazaret was reconsidered. On 8 January 1752, the Admiralty ordered certain officers to '... proceed to Stangate Creek ... and examine whether there is a piece of ground for building of lazarets', and five days later the Navy Board reported that the officers '... had found a proper place at the upper end of Stangate Creek'. This information was relayed to Parliament on 26 February where it was considered by a Committee to which the Assistant to the Master Shipwright, and the Master Attendant of H.M. Dock, both of Deptford, had been co-opted. On 5 March the Committee reported, deprecating the '... present manner of performing quarantine by airing goods on board Hoys and Vessels', and resolving '... that Chetney Hill ... is the proper place for a lazaret, ... and plans and estimates [of a lazaret] to be prepared and laid before the House'. This is the first specific reference to Chetney Hill as a lazaret site.

The Quarantine Act of the following year literally adopted most of the clauses of the previous Acts of 1720, 1728 and 1733, but made certain fundamental improvements. Most relevant were, that its continuance was left indefinite, power to expropriate lands was now vested in Parliament rather than with the King alone as hitherto, and that if plague were to occur on any ship to the north of Cape Finisterre that ship was to proceed, if possible, to New Grimsby, between Tresco and Bryer in the Scilly Isles. This latter requirement was soon amended, St. Helen’s Pool being substituted for New Grimsby.
on the grounds that it was more remote, being situated between the uninhabited islands of St. Helen’s Tean and North Withell, had a plentiful water supply, and could accommodate three or four large ships.\footnote{smuggling.} Also by the same Act the Master of a vessel performing quarantine had to produce a Bill of Health from the British Consul at the port of embarkation. A further Act of 1753 stipulated, ‘That no goods or merchandise without a clean Bill of Health and coming from the Levant, shall be landed at any part of Great Britain, Ireland, . . . etc., unless previously aired in the Lazarets of Malta, Ancona, Venice, Messina, Leghorn, Genoa or Marseilles’.\footnote{Obliging ships with foul Bills to quarantine in enumerated foreign lazarets was intended only as a temporary measure pending the construction of the Chetney Hill lazaret.} For this continuous quarantine policy to have been meaningful in the light of contemporary medical opinion, ships from an infected port must be recognized. One method was to require a certificate issued by a reliable and responsible person at the port of embarkation. Such certificates, or Bills of Health, had been used on the Continent since at least as early as the sixteenth century, and by the Levant Company for its own convenience at least as early as the seventeenth. When the Crown broke the Levant Company’s monopoly in the early sixteen-sixties and made the Mediterranean trade competitive, the Privy Council were apprehensive that the system might collapse, and incorporated Bills in their Orders of 1664. In their simplest form Bills were of two types; a ‘clean Bill’ if the ship was from a non-infected port, and a ‘foul Bill’ if from a port where plague was allegedly present. They were usually issued by the local Consuls of the country to which the ship belonged. They were, however, rarely so simple; for example, at Marseilles in the early nineteenth century four types were distinguished, viz., patentes nette, touchée, soupçonnée and brute, while at the same period Britain recognized three types, viz., clean, foul and suspected. During much of the eighteenth century only clean and foul were current.\footnote{To be effective the Acts of 1753 required accurate Bills and a minimum of smuggling. Neither of these obtained,\footnote{yet plague was not imported during the century, a fact which strengthened the hand of the contagionist school in the controversies of the next hundred years.} At the time of the passing of the above Acts Britain was engaged in a vast world-wide trade and colonial rivalry with France. Official hostilities commenced in 1756 and for the next two years Britain and her allies were hard-pressed both in Europe and abroad. This was not the appropriate time to debate lazaret construction, nor was the subject pressenting since most of the enumerated Mediterranean lazaret ports were still open to British shipping. But Pitt grasped the fundamental weakness of a position where for effective quarantine reliance had to be placed on foreign establishments. In 1757, during an extensive plague outbreak in Lisbon, he requested a memorandum on quarantine and lazarets in general from Dr. Alexander Russell, which he received on 28 March 1758. The danger past, events turned in Britain’s favour and the project was shelved until the end of war in 1763, and on 20 March 1764, plans and estimates of a lazaret were completed and presented to the House on 9 April and again the
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following January.\textsuperscript{57} Their details are unknown.\textsuperscript{68} The same year the first substantial sum, £5,000 from the Sinking Fund, was voted ‘towards building a lazaret’, the site being unspecified,\textsuperscript{69} and in 1772 a further Act strengthened the power given under Section 6 of 26 Geo. II, c. 6 (1753) to purchase land.\textsuperscript{60} The way was now clear but work was not started for another thirty years, the floating lazarets which had been in use since 1755 continuing their function.

The reasons for this lack of urgency are complex. Undoubtedly the disappearing threat of plague epidemics which had been a feature of the European scene in the earlier part of the century, and the mounting cost of the Customs service, both contributed. But the principal reason lay in the nature of the floating lazarets themselves. At this time they were hulks of two by forty-four gun ships,\textsuperscript{61} considered fit for no other purpose,\textsuperscript{62} and converted, so that ‘from their being roofed and tiled they have a singular and amphibious appearance’.\textsuperscript{63} Owing to the presence of deck-houses built to protect the merchandise being aired they were compared by more than one writer to Noah’s Arks.\textsuperscript{64} The sides of these deck-houses were open, ‘like a brew-house’, for ventilation which could be varied by the use of shutters; the floors were open gratings. Stability at moorings was achieved by heavy shingle ballast. The hulks were manned by crews of from twelve to sixteen hands including the Master and Quarantine Guardians.\textsuperscript{65} Although initially provided as temporary expedients they were temptingly adequate in their function; and economical, being easily converted and commissioned when required. Except among medical men there was no great pressure for their replacement.

In the seventeen-nineties two events effectively ended the existing system. The first was a new threat from an unsuspected source. Yellow fever reached serious proportions in New York and Philadelphia on several occasions between 1793 and 1798, and the Government feared that it could be imported by raw cotton, a notoriously ‘susceptible’ commodity, shipments of which from North America had greatly increased since the start of the war with Republican France. In consequence an Act of 1798 empowered the King in Council to extend quarantine regulations to infectious diseases other than plague.\textsuperscript{66} The second, and more significant factor, was the war with France. The military and political sequels to Napoleon’s Italian campaign of 1796–7 had placed the entire British quarantine system in jeopardy. By the summer of 1797, Genoa, Leghorn, Venice and Ancona were in French hands; of the lazaret ports enumerated in 26 Geo. II, c. 18 (1753) only Messina and Malta were open to British shipping.\textsuperscript{67} Already the Levant Company’s trade was seriously affected ‘due to increased French action in the Mediterranean’,\textsuperscript{68} and in July 1799, ‘... in order to remove as far as was thought prudent and advisable, the restraints of the Turkey trade...’,\textsuperscript{69} an Act provided that the clause requiring foul Bill ships to quarantine in the Mediterranean could be waived by Order in Council.\textsuperscript{70}

By ensuring that more ships including some with foul Bills would now quarantine at Stangate Creek, these two statutes placed a heavy burden on the existing administration. At first the Privy Council, still the executive body, dealt with this fresh situation by well-tried expedients. Although 39 Geo. III,
c. 99 (1799) did not receive Royal Assent until 12 July, its successful passage through Parliament had been anticipated by the Levant Company which had, from at least as early as June, instructed their foul Bill ships to proceed directly to Britain without previous quarantine. The Privy Council and Customs were informed of this decision, and on 30 June the latter sought Treasury permission to petition the Admiralty for two converted hulks; these would double the existing quarantine accommodation at Stangate Creek. On 8 August the Privy Council directed that the expected ships from Turkey should be put '... under the strictest rules of quarantine according to the present regulations, and care taken to station them as far as possible from any other ship performing quarantine, and to prevent all communication whatever', and on the 14th issued the necessary Order to augment the establishment at Stangate Creek with

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\text{... two or three old Men of War that will serve as hulks to be fitted up as Lazarets ... and one of smaller dimensions to be fitted up as an Hospital for the reception of the sick if any such should be found on board [as well as] ... an able medical person ... to examine into the health of the crews and other persons on board the ships arriving from the Levant ... in like manner as is practised in the best regulated Foreign Lazarets.}\]

Making these ad hoc decisions placed a heavy responsibility on the Quarantine Committee of the Privy Council. In a private letter of 17 August, the Chairman, Lord Liverpool, wrote to the Secretary:

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\text{I will not go on with this business unless there is some attendance at the Council board besides myself. You know that if some measure is not taken there never is anyone during the summer but myself; and this business is of too much delicacy and responsibility to be transacted by one person only.}\]

On Liverpool's insistence an advisory committee was convened on 25 September with wide terms of reference, one of which was to consider, 'whether if they shall be of the opinion that a hospital or Pesthouse on shore will hereafter be found more convenient and more secure [than hulks] for the purposes before mentioned, and [if so] they are to cause to be prepared a plan of the same'. Due to circumstances which Mead could hardly have foreseen his recommendations were finally to be implemented.

Selecting the ideal site presented more problems than previously. Stangate Creek had been considered ideal when first proposed in 1709 but recently doubts had been expressed. The war had brought increased commercial and naval activity to the area, and in addition there were hulks; prison hulks, prisoner-of-war ships, and tide-breakers, the two former packed with men, the latter, at Sheerness, occupied by sixty or seventy families. Stangate Creek was in fact, '... a place of considerable resort and in this respect not so well adapted for a business of this nature [quarantine]. ...'. Nevertheless, the advisory committee had no adequate alternative, and recommended Stangate's continuance as a quarantine station, and Chetney Hill as the site for the lazaret. They reported to the Privy Council in February 1800, and the latter's decisions were relayed to the House on the 28th. From now events moved swiftly. On 24 June, plans and estimates of a lazaret, prepared by James Wyatt, Surveyor of H.M. Board of Works, were laid before the House, which, the following day,
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voted £65,000 from the Consolidated Fund, 'for erecting a lazaret on Chetney Hill', the expenses to be met by levying certain specified duties on all ships performing quarantine in Britain. The Bill received Royal Assent on 28 July, and became effective on 1 October. On 31 December the duties were extended to include ships bound for Guernsey, Jersey, Alderney, Sark and Man. Building the lazaret now commenced.

The Lazaret's design

The design of the buildings themselves is not known and the lazaret is no longer extant. Wyatt's plans as submitted to the Commons were lodged with the sessional papers of 1800 which were destroyed in the fire at the Houses of Parliament in 1834; relevant papers which might have been lodged with the Commissioners of the Customs would have been lost in the London Custom House fire of 1814. However some evidence can be adduced of the lazaret's size and structure.

The most influential medical members of the advisory committee of 1799 were unquestionably Patrick Russell and Gilbert Blane. Both were doctrinaire contagionists. Russell, in addition, was the author of one of the most comprehensive and authoritative series of books on quarantine and contagion which had then appeared, and in these he had clearly stated his views on the necessity for quarantine, and the superiority of land to floating lazarets, with a plan of an ideal one '... which ... must be accommodated to circumstances of commerce, as well as to the various dispositions of the ground on which they are erected; but the general plan may be nearly the same for all'. It is patent from his writings that the great Marseilles lazaret, of which he had personal experience, formed the model for his description, as it had done for his brother in the memorandum submitted to Pitt in 1758. Since Russell's views were broadly similar to those of another contemporary authority, John Howard, whose influence was considerable, it seems certain that to be accepted Wyatt's plans must have met Russell's basic specifications. The other committee members were likely to oppose these on the grounds of expense and expediency rather than on principle and design.

Essentially Russell envisaged a lazaret as a large walled enclosure, the walls '... being not so much intended for the prevention of persons making their escape, as of the clandestine conveyance of goods or small parcels'. Much of the intramural area was to be divided into separate compartments for airing goods, those with foul Bills being strictly segregated. The enclosure should also contain a fresh water supply, three infirmaries for '... infected ... dubious ... and those convalescent from the plague', the last named being supplied with a fumigating chamber and a bath; separate buildings for passengers depending upon their Bill; a house for the superintendent; and a laundry, a tavern, a porter's lodge and a parloir. In common with Continental practice the main areas would be for airing goods. Outside the walls, close to the quay, should be a powder magazine and a pratique house, the latter '... for the reception of captains of ships, when they come to present their patents and letters, and to
be examined’. The main lazaret building should have three gates, ‘one . . . towards the land and two’ towards the water’, the latter two having, respectively, quays for the reception and delivery of goods before and after quarantine. The passengers’ accommodation was to be in two separate buildings, both being provided with a vaulted room for fumigation, and with a bath. Each department should have its separate entry, and other convenience, . . . but as the number of passengers from the Levant is inconsiderable, and the Continent is seldom in quarantine the buildings appointed for the near immolation of inmates as practised, for example, at Venice or Syra. Of the latter ‘where the exactions are monstrous’; another eye-witness had seen, ‘. . . a person come out of his imprisonment having had his garments devoured by rats, and his person disfigured by vermin’.85 Such conditions were not intended at Chetney Hill.

Except to describe and recommend the passenger accommodation at the Marseilles lazaret, Russell elaborates no further. Although familiar with Howard’s experiences he had not first-hand knowledge of the incarceration and near immolation of inmates as practised, for example, at Venice or Syra. Of the former Howard had written:

I was shown to the lodgings in the lazaret which was a very dirty room full of vermin, and without a table, chair or bed. . . . I hoped for better lodgings. . . . The apartment now appointed me, consisting of an upper and a lower room, was no less disagreeable and offensive than the former. I preferred lying in the lower room upon a brick floor where I was almost surrounded by water;86 and of the latter ‘where the exactions are monstrous’; another eye-witness had seen, ‘. . . a person come out of his imprisonment having had his garments devoured by rats, and his person disfigured by vermin’.86 Such conditions were not intended at Chetney Hill.

How close the ultimate buildings approached Russell’s conception cannot be established since seemingly no prints or pictures have survived. Scrutiny of the trades represented on Wyatt’s accounts, and the amounts paid to them between 1801 and 1806, gives some indication of the material constitution of the buildings and, since ‘finishing trades’ are represented, parts of the buildings must have been nearly completed (see Appendix). Also, available maps suggest their size and shape. The Ordnance Map of 1819–20 is to a one-inch scale, and although it shows three buildings, one substantial in the centre and two others in the north-west, consistent with Russell’s proposals, no accurate picture can be formed. The six-inch Map of 1864–5 shows none of these; only two small buildings, one about seventy-five by twenty feet, and the other about twenty feet square, on the south-east side being visible. The six-inch Maps of 1896 and 1906 show only the larger of these which by then had lost a projecting block. These may well be farm buildings.87 The 1947 Aerial Survey Map of Chetney Hill (Fig. 2) shows foundation footings of what was certainly a considerable building running north-west to south-east. The lines suggest a rectangular construction with a number of regular compartments set off from the main corridor, again consistent with Russell’s proposals, but they give no idea of the number or composition of additional storeys. Some small fragments of the walls are still extant and are locally believed to be remains of a former ‘college’. Whether the architecture followed the baroque conceptions of the period so obvious in the Continental lazarets particularly at Spezia, Marseilles, and the San Leopoldo at Leghorn, must be speculation.
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Construction and Fate

Work on the lazaret started in 1801 and the first payment, £20,000, was made on 10 November, and from then until 12 April 1806, Wyatt received £95,000, £30,000 of which had been voted by Parliament in April 1804. Wyatt may not have enjoyed the complete confidence of his employers; an accountant, George Saunders, was appointed by the Treasury to scrutinize his accounts. These showed only minor irregularities amounting to an estimated £1,359 11s. 8d., this sum being subsequently debited from Wyatt’s bill. On 3 May 1810, Parliament voted an additional £21,000 to discharge its outstanding liabilities, at the same time reappointing Saunders as scrutineer. This time Wyatt’s accounts were in order and the final settlement made. Subsequently a further £55,000 was advanced by the Customs. Incredibly, after so much trouble and expense, the buildings were never completed and were probably never in active use in the quarantine service. The reasons for their abandonment are now discussed.

Administration of the quarantine service was becoming increasingly expensive. At the port of London in 1797 total quarantine expenses were £558; ten years later they were £12,000, and with some fluctuation reached a peak of £36,000 in 1815. Although the duties levied under 39 & 40 Geo. III, c. 80 (1800) were for the purpose of reimbursing the Exchequer for sums paid to the lazaret project (the expenses of the quarantine service were defrayed from customs duties), and were sufficient for the purpose, the Government had no wish to incur the considerable expense of completing and administering the buildings if there was any doubt as to their necessity and permanency. Such doubts existed. Disused Men-of-War were more economical and a less permanent administrative burden, and because of the war were readily available and in fact likely to be in abundance at war’s end. And there were further considerations. Although the resurgence in the Levant trade, increased plague in the Ottoman trading ports, and the political economy of the period, had induced the Government forcefully to reaffirm its contagionist policies in two Acts of 1805 and 1806, policies which were upheld by all but one of the medical witnesses called at a special committee in 1811, this show of unanimity (the medical witnesses called in 1811 were a biased group) disguised the growing distaste in which international quarantine was held. The administrative difficulties and the consequence of the system on commerce and travel is obvious; that on communication can be assessed from the following contemporary description.

In a lazaret on the Austrian frontier . . . I saw the correspondence of the East with England . . . opened, examined, fumigated, resealed and dispatched. In some lazarets . . . [the letters] are cut across with a sharp instrument and dipped into vinegar and water, so that the writing is rendered frequently illegible.

Also, as well as the increased commercial activity in the area to which the attention of the Privy Council had already been drawn (see above), Chetney Hill was far from being the ‘healthy site’ which Mead had recommended, being
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described as ‘the most unhealthy spot in England’,98 and ‘... found to be too unhealthy a situation to be occupied even by a lazaret’.99 But the principal reason lay in the nature of the site itself. Chetney Hill is, in reality, a marsh island, and during the construction of the lazaret it became apparent that no firm foundation could be obtained. Seemingly the land had been incompetently surveyed. As the Committee of 1824 tactfully phrased it, ‘It was, however, discovered before the completion of the building that the situation had been injudiciously selected, and the intended Institution was in consequence abandoned and the materials disposed of by order of the Government’.100 Some interested parties were more forthright, ‘... the ground was found to be so marshy that they could not get a foundation or attempt to erect a superstructure upon it’.101 The Government’s apparent circumspection and abandonment of the site and the intended lazaret were more than faulty. The materials were worth was purchased by one, Henry Peto, the contractor commissioned to rebuild the London Custom House after its destruction by fire in 1814.102

The new Custom House was completed in 1817, but in 1825 the centre part subsided due to faulty construction in the pile foundations and roof. In dismantling this part of the building additional unsuitable second-hand timber and other materials were found which, but for the collapse, would have lain undiscovered until they themselves gave rise to trouble. The abortive lazaret had finally settled its account.

The rest of the lazaret buildings were dismantled; the exact date cannot be established but must have been between 1819 when the Ordnance Map showed the remains, and 1824 when the Select Committee sat.103 Since then the island has reverted to pasturage; foundation lines with remnants of ruined walls, and eight graves of ‘strangers’ in the parish of Iwade,104 are all that now remain of this unique and costly episode in British preventive medicine.

ACKNOWLEDGEMENTS

I would like to express my thanks to the Staffs of the House of Lords Record Office, the State Paper Room of the British Museum, the Public Record Office, and the Royal Society of Medicine. Also to the following individuals: Dr. Felix Hull, Kent County Archivist, and Mr. T. Armstrong, Town Clerk of the Borough of Dartford, for the facts deriving from the Ordnance Survey Maps; Mr. R. C. Jarvis, Librarian, H.M. Customs and Excise, for the details relating to the rebuilding of the Custom House in 1817; Dr. William Urry, Keeper of Manuscripts, Chapter Library, Canterbury, for the information contained in the tithe map of Iwade, 1842, and the facts reproduced in Bibliographical Note No. 104; Mr. M. Crouch, Deputy County Librarian, Kent, for photographs of Chetney Hill; and Dr. J. O. Murray for a copy of his unpublished paper referenced in Bibliographical Note No. 69. Finally, this paper could not have been written without the assistance of Miss F. R. E. Davies, Kent County Librarian, and Mr. John Evans, Honorary Editor, Archaeologia Cantiana, both of whom went to quite inordinate lengths to supply me with relevant facts and details. Mr. Evans also supplied the map from which Fig. 2 is taken.
The Lazaret on Chetney Hill

APPENDIX*

Final Account of Transactions of James Wyatt, Esq., as Surveyor of H.M. Works between 5th January 1800 and 6th January 1812

The Declaration of the final Account of James Wyatt, Esq., late Surveyor of H.M. Works, of money received and expended by him for Works done at the Houses of Parliament, the Speakers House, the Prisons of the Kings Bench, Fleet and Marshalsea, the Journal Office at the House of Commons, the buildings of Somerset Place, the Lazarettos at Chetney Hill, and the Secretary of State's Office for the War Department in Parliament Street, and also two accounts for works done at the Houses of the Commissioners for victualling, and at the Tax Office, between 5 January 1800 and 6 January 1812.

Chetney Hill

<table>
<thead>
<tr>
<th>Period</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th January 1801-5th January 1802</td>
<td>£20,000</td>
</tr>
<tr>
<td>&quot; 1802- &quot; 1803</td>
<td>£10,000</td>
</tr>
<tr>
<td>&quot; 1803- &quot; 1804</td>
<td>£20,000</td>
</tr>
<tr>
<td>&quot; 1804- &quot; 1805</td>
<td>£15,000</td>
</tr>
<tr>
<td>&quot; 1805- &quot; 1806</td>
<td>£20,000</td>
</tr>
<tr>
<td>&quot; 1806-5th July 1806</td>
<td>£10,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£95,000</strong></td>
</tr>
</tbody>
</table>

The Accountant is surcharged with the following sums being the amount of disallowances made by George Saunders, Esq., Architect, on the bills of sundry artificers and labourers...; which disallowances are particularised and prepared... by George Saunders, Esq., and transmitted to the Treasury.

On the Bill of Geo. Hutchinson, Painter
On the Accountants claim for commission at £5 per cent, on the amount of Artificers Bills

£1,258 13 6d
£100 18 2

*Particularisation of Charges for Lazarettoes at Chetney Hill*

<table>
<thead>
<tr>
<th>Name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executors of Samual Wyatt, Carpenter</td>
<td>26,450 0 0</td>
</tr>
<tr>
<td>Thomas Baker (Carpenter)</td>
<td>16,000 0 0</td>
</tr>
<tr>
<td>Richard Martyr (Carpenter)</td>
<td>14,000 0 0</td>
</tr>
<tr>
<td>Jeffry Wyatt (Carpenter)</td>
<td>4,000 0 0</td>
</tr>
<tr>
<td>Samuel and William Nicholson (Bricklayers)</td>
<td>11,300 0 0</td>
</tr>
<tr>
<td>Assignees of Richard Westmacott (Mason)</td>
<td>4,605 0 0</td>
</tr>
<tr>
<td>George Hutchinson (Painter)</td>
<td>3,950 0 0</td>
</tr>
<tr>
<td>Charles Wyatt (Coppersmith)</td>
<td>1,975 10 0</td>
</tr>
<tr>
<td>James Mackell (Smith)</td>
<td>960 0 0</td>
</tr>
<tr>
<td>Assignees of John Francis Humber</td>
<td>277 0 0</td>
</tr>
<tr>
<td>Thomas Ould (Slater)</td>
<td>360 0 0</td>
</tr>
<tr>
<td>Thomas Lowe (Cooper)</td>
<td>2 9 4</td>
</tr>
<tr>
<td>John Wyles (Wheelwright)</td>
<td>2 0 0</td>
</tr>
<tr>
<td>John Clifford (Smith)</td>
<td>2 7 7</td>
</tr>
<tr>
<td>John Batten (Upholsterer)</td>
<td>717 0 0</td>
</tr>
<tr>
<td>Henry South (Masterman)</td>
<td>215 11 8</td>
</tr>
<tr>
<td>Mary Elwood (Coal merchant)</td>
<td>667 11 6</td>
</tr>
<tr>
<td><strong>Total (Artificers and Labourers)</strong></td>
<td><strong>85,485 10 1</strong></td>
</tr>
</tbody>
</table>
### P. Froggatt

John Sale (Clerk of Works)  
Expenses of the Accountant in a journey to Chetney Hill to survey the spot, previous to the commencement of the work  
Accountants Commission (£5%) less overcharging  
Fees on the sum of £95,000 issued to Accountant on the account of the Lazarettoes at Chetney Hill  
At the Exchequer  
At the Treasury  
Stamps and Messengers  
Duty 6d. per £ on the sum of £20,000 (part of the above sum of £95,000) issued on 10th February, 1803  

<table>
<thead>
<tr>
<th>Description</th>
<th>£</th>
<th>s.</th>
<th>d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenses</td>
<td>963</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Accountants Commission</td>
<td>50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fees on the sum</td>
<td>5,326</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>At the Exchequer</td>
<td>2,376</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>At the Treasury</td>
<td>50</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Stamps and Messengers</td>
<td>2</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Duty 6d. per £ on the sum</td>
<td>500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td><strong>94,754</strong></td>
<td><strong>9</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

*P.R.O. A.O.1/2499/434

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### NOTES AND BIBLIOGRAPHY

#### ABBREVIATIONS

J.H.C. Journals of the House of Commons.  
P.R.O. Public Records Office.

4. The contagionist view was held by Gregory of Tours, who wrote of the Marseilles plague of A.D. 587–8, ‘A Spanish ship unhappily brought the fomites that kindled the disease’. (Quoted in **MacArthur**, W. P.: The occurrence of the rat in early Europe and the Plague of the Philistines, *Trans. roy. Soc. trop. Med. Hyg.*, 1952, 46, 209–12.) The anticontagionist opinion was expressed by Procopius writing in the sixth century A.D., ‘And those who were attending the sick . . . everyone pitied them, not because they were threatened by the pestilence in going near it (for neither physicians or other persons were found to contract this malady through contact with the sick or dead . . .), but because of the great hardships they were undergoing.’ (Quoted in **Crawfurd**, R., *Plague and Pestilence in Literature and Art*, Oxford, Clarendon Press, 1914, p. 76.)
The Lazaret on Chetney Hill


6. Fracastorius’ views are representative (see Major, R. H., op. cit., pp. 7–9).


8. The part played by extra-terrestrial influences in instigating epidemics was accepted over most of the period; the actual theories of community spread were the points at issue.

9. Also congregations of persons were discouraged: ‘Licence to His Majesties’ servants Lawrence Fletcher, William Shakespeare, Richard Burbage . . . to exercise the art of playing comedies, tragedies, histories, interludes, morals, pastorals, stage plays and such like, in all towns and the universities when the infection of the plague shall decease’. (Dendy, F. W., Extracts from the Privy Seal Dockets relating chiefly to the North of England, May, 1603, Arch. Adiana, 1903, 24, 189.)

10. These tenets were not exclusive to Christendom. See, Sehsuvarogli, B. N., Turkiye karantina tarihine giris, Istanbul Univ. Tip Fac. Mec., 1957, 20, 418–43.

11. For the purposes of this article William Collingridge’s definition is adopted, viz., ‘enforced detention and segregation of vessels arriving at a port, together with all persons and things on board, believed to be infected with the poison of certain epidemic diseases, for specified periods’. (Collingridge, W., Quarantine, Lancet, 1897, I, 715, 787, 863.) Quarantine regulations were not exclusive to maritime countries.


13. As ascertained by the Bills of Mortality which were primarily concerned with plague deaths. Other causes of death were not identified until 1607. (Wilson, F. P., op. cit., p. 196.)


15. 2 James I, c. 31 (1604). This was not repealed until 7 Will. IV and 1 Vict., c. 91 (1837), but had been obsolete for many years.


17. Directives of the College of Physicians, 1636. ‘It is likewise necessary that neither men nor goods may come from any suspected places beyond the sea, or on the land, without a certificate of health, or else either be sent suddenly away, or to be put in the Pest-house, or such like place, for forty days, according to the custom of Italy’; and specifies two places for ‘entertainment . . . one for the sound and the other for the infected’. (Russell, P., op. cit., pp. 318, 486 footnotes.)

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21. 9 Anne c. 2 (1710).
22. These sites were specified in an Order of 31 January 1712. (Calendar of Treasury Books, 1712, vol. xxvi (pt. 2), p. 143.)
24. This and subsequent information about Mead, from Mead, R., A Discourse on the Plague, 9th edn., London, A. Millar and J. Brindley, 1744, pt I, chap. 2; pt II, chap. i.
25. Pye, G., A Discourse of the Plague wherein Dr. Mead's Notions were Considered and Refuted, London, 1721.
27. 7 Geo. I, c. 3 (1721); 8 Geo. I, c. 18 (1722).
28. 8 Geo. I, c. 8 (1722).
29. 1 Geo. II, c.13 (1728); 6 Geo. II, c. 34 (1733); 26 Geo II, c. 6 (1753).
30. In Scotland there was a Plague hospital on the island of Inchkeith, before 1475. (Creighton, C., A History of Epidemics in Britain, Cambridge, University Press, 1891, vol. i, pp. 235, 360–1.)
32. Collingridge, W., op. cit., p. 716.
35. Ibid., p. 217.
37. Ibid., Evidence of Dr. James Johnson.
38. 7 Geo. I, c. 3 (1721).
42. Calender of Treasury Books and Papers, 1742–1745, London, H.M.S.O., p. 317. This estimate was submitted on 28 September 1743.
43. P.R.O., MSS. T11/22, p. 359.
45. Ibid., p. 548.
46. Handlist of Proclamations, Wigan, 1913, under date.
47. J.H.C., 26, 478.
49. Ibid., under dates.
50. J.H.C., 26, 463.
51. Ibid., 26, 478.
52. 26 Geo. II, c. 6 (1753).
54. 26 Geo. II, c. 18 (1753), sect. 12.
55. The Second Report from the Select Committee appointed to consider of the means of improving and maintaining the Foreign Trade of the Country. Command Papers, 1824; Dr. Granville's evidence.
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56. For example of prevalent misuse of Bills, e.g., the giving of foul ones on incorrect information furnished by officials bribed by trade rivals so as to ensure longer quarantine delay, see—Letter from English merchants in Smyrna of 3 July 1786 (reproduced in full in—HOWARD, J., An Account of the Principal Lazarettos in Europe, London, Jobson, Dilly and Codell, 1791, pp. 26–7). Also, Select Committee, 1819, op. cit., John Green’s evidence. This type of abuse was likely to reduce the chance of plague entering Britain. For an idea of the extent of the eighteenth-century clandestine trade, see—First Report from the Committee approved to Enquire into the Illicit Practices used in Defrauding the Revenue (24 December 1783). In—Reports from Committees of the House of Commons, 1803, xi, 228.

58. They were lodged with the sessional papers and were destroyed by fire in 1834.
59. 5 Geo. III, c. 40, sect. 23 (1765).
60. 12 Geo. III, c. 57 (1772).
64. EVANS, J., quoted in Murray, J. O., op. cit., p. 22. Also, Select Committee, 1819, op. cit., John Green’s evidence.
65. Other facts about the floating lazarets from—Select Committee, 1819, op. cit., Evidence of witnesses; and Select Committee, 1824, op. cit., Appendix F.2.
66. 38 Geo. III, c. 33 (1798).
67. TULLY, J. D., History of Plague . . . in the Islands of Malta, Gozo . . . etc., London, Longman, Hurst, etc., 1821, p. 35.
70. 39 Geo. III, c. 99 (1799).
71. Reports from Committees of the House of Commons, x3, 769.
72. P.R.O., P.C.1/44/A160, under dates. 73. Ibid., under dates. 74. Ibid., under dates.
75. Ibid., under date. The Committee comprised (1) One or two of H.M. Physicians in ordinary; (2) Dr. Patrick Russell, formerly physician to the British factory at Aleppo; (3) Drs. Johnston and Blane, Commissioners of Sick and Hurt; (4) One of the Commissioners of H.M. Customs; (5) One or two members of the Quarantine Committee of the Levant Company.
80. 39 and 40 Geo. III, c. 80 (1800). This repealed 26 Geo. II, c. 6; 29 Geo. II, c. 8; 12 Geo. III, c. 57; 28 Geo. III, c. 33; 39 Geo. III, c. 99.
83. Ibid., pp. 438–40.
84. Facts about the lazaret plan from ibid., pp. 405–8.

61
87. The 1842 Tithe and Apportionment of Iwade is blank. The Occupier is William Crayden; the usage is Pasturage.
88. This and subsequent unreferenced details concerning the lazaret, from—Select Committee, 1819, op. cit., Appendix; and—P.R.O., A.O.1/2499/434.
89. J.H.C., 59, 233; and 44 Geo. III, c. 110 (1804).
90. J.H.C., 65, 581. This sum was from the Consolidated Fund.
91. P.R.O., A.O.1/25011/448.
92. Select Committee, 1824, op. cit., Preamble.
93. All consulted sources are consistent that the buildings were never completed, and most that they were never used, but Baker states categorically that ‘this building [the lazaret] was made use of for some years...’ (Baker, S., The Laws Relating to Quarantine, London, Kegan Paul, 1879.) None of the witnesses before the 1819 and 1824 Select Committees, even infer this.
94. Select Committee on Finance, 1803, op. cit., Appendix B.5 and 6; and—Select Committee, 1824, op. cit., Appendices.
95. 45 Geo. III, c. 10 (1805); 46 Geo. III, c. 98 (1806).
96. Hansard, 1825, 2nd series, 12, 1315.
100. Select Committee, 1824, op. cit., Preamble.
101. Ibid., Mr. Levy’s evidence.
102. Ibid., Appendix G.
103. This agrees with Bagshaw’s ‘about thirty years ago’. (Bagshaw, S., History, Gazetteer and Directory of the County of Kent, London, 1847, vol. ii.)
104. The burials of seven men and one woman, listed as 'strangers', are recorded by name in the parish register of Iwade, for Michaelmas 1806–Michaelmas 1807. No deaths occurred in the Stangate Creek lazarets at this time, and drowned persons names are seldom known. These 'strangers' might have been connected with the building.