Preventive measures are always difficult to enforce on a civilian or semi-civilian population such as these cases, which were among the married families.

Clinically there were several cases, about four in number occurring in otherwise infected houses, of what Osler described as *Morbillí sine Morbillis*. These patients presented the usual catarrhal symptoms with pyrexia but no exanthem or only a very slight and indeterminate one.

Towards the end of the epidemic, the cases became more severe, the pyrexia being higher and the rash more confluent; no cases of hemorrhagic cutaneous eruption were observed. Some of the worst ones exhibited hemorrhagic macule on the pharynx, soft palate and fauces surrounded by a red areola; these patients complained of sore throat, whereas the others had not done so.

Another unusual symptom synchronizing with the cutaneous eruption was diarrhoea. This was characterized by watery stools and abdominal discomfort; distension was not marked; blood and mucus were not seen in the feces. The condition was relieved by bismuth. I have not seen this described in any textbook and it was presumably due to an intestinal catarrh and possibly to an eruption similar to that observed in the pharynx. The stomach seems to have been unaffected as there was no sickness or hæmatemesis.

The only complications met with were one case of bronchitis and one of bronchopneumonia, which commenced on the tenth day.

---

**Echoes of the Past.**

**THE WALCHEREN EXPEDITION AND THE REFORM OF THE MEDICAL BOARD, 1809.**

By Lieutenant-Colonel G. A. KEMPThORNE, D.S.O.,

Royal Army Medical Corps (R.P.).

While Sir John Moore was engaging Napoleon's attention in the Peninsula the Austrians were preparing to re-enter the war. It was now decided to maintain the defence of Portugal with 30,000 men and to send a strong expeditionary force to capture Antwerp, destroy the naval base which Napoleon was forming there for the invasion of England, and at the same time create a diversion in favour of our allies. The plan was sound, but its success depended on the promptness, secrecy and vigour with which it was carried out, none of which conditions was fulfilled. The great armament of 40,000 men was assembled in the Downs in July, 1809. The Earl of Chatham commanded the troops, Sir Richard Strachan the fleet. The main body disembarked on the Island of Walcheren on July 30
under unfavourable weather conditions. The division which should have landed at Blakenberghe to destroy the batteries at the southern entrance of the river could not be put on shore owing to the surf. This necessitated the reduction of Flushing before the fleet could enter. The town held out until the 14th. Meanwhile the whole of South Beveland had been occupied, but by August 25, when the troops had been brought up to Fort Bat at the eastern end of that island, the French had collected such a force round Antwerp as to preclude the possibility of a successful attack. A further reason for declining further active operation was the increasing sick list. Fever had appeared ten days earlier, and on the 29th Lord Chatham reported a little under 3,000 in hospital. The scheme was abandoned. On the 30th, seven brigades were sent to reinforce the garrison of Walcheren, taking their sick with them in wagons. The remainder, with the Commander-in-Chief, sailed for England on September 5. Two days later the sick of the whole Army, including those on the way home, were reported as 11,000.

The epidemic of sickness was a factor in stopping the attack on Antwerp, though not apparently the main one. The difficulties of the passage up the river had been underestimated and the weather had upset the time table; success demanded a certain amount of luck, and the luck failed. It was the deciding factor, however, in the final withdrawal of the garrison from Walcheren.
The Inspector of Hospitals, Mr. John Webb, in a report dated September 11, stated that the sickness appeared as a low fever, but subsequently took on a form similar to jail fever. This was especially noticeable among the regiments recently returned from Spain. From other reports we learn that it was a "marsh-fever, continuous, remittent, or intermittent, quotidian, tertian, or quartan, disposing patients to dysentery, pulmonary affections, and visceral obstructions, particularly of the liver and spleen, and followed by prolonged or permanent weakening of the constitution." An officer who suffered from it described it as "unstringing every muscle, penetrating every bone, and searching and enfeebling all the sources of mental and bodily life." He dragged it about with him for years. The origin was ascribed to the nature of the ground over which the Army operated. The islands were mainly reclaimed land, little better than a swamp, and the ditches were filled with putrid vegetable matter, while the quantity of pure water was very limited. The inhabitants are said to have been notoriously unhealthy, the sickly season commencing in the middle of August and terminating with the winter frosts. That the greater part of the Army was infected with malaria cannot be doubted, and had the medical authorities been informed beforehand of the destination of the expedition, they could have warned Lord Castlereagh that he was despatching it at the worst season of the year, for the reputation of the place and the seasonable prevalence were well-known. In a disease of such protean manifestations we may well hesitate to question the diagnosis of the day. But the various clinical descriptions suggest that the term Walcheren fever embraced other febrile affections besides malaria. In Sir John Moore's regiments which took part in the campaign, the seeds of typhus, and it may well be also of trench fever, still persisted. When, moreover, an army bivouacks on swampy ground, which serves both for the supply of drinking water and as a conservancy trenching area, enteric fever is to be expected. This probably played its part in the high mortality.

The original medical staff despatched included Inspector John Webb, Deputy Inspectors Francis Burrowes, J. R. Grant and G. S. Avening, 5 Physicians, 18 Staff Surgeons, 2 Apothecaries, 3 Purveyors, 4 Dispensers, and 30 Hospital Mates. Most of the regiments had 2 surgeons. A party of 50 men of the Royal Veteran Battalion was sent for duty in the general hospitals. Hospital bedding and clothing had been asked for by the Surgeon General for five per cent of the force; in addition the regimental establishments had their own. The "Asia," 480 tons, had been fitted up as a hospital ship and there were two transports for convalescents.

Some 16,000 men remained in Walcheren under command of Sir Eyre Coote. Of these, on September 10, 220 officers and 8,095 men were reported as sick. The troops had gone into close billets at Middleburg, where the two civil hospitals and the commodious store houses of the East India Company were taken up as general hospitals. Flushing was also a hospital centre. The accommodation remaining after the bombardment was
cramped, dirty and overcrowded. At Veere, considered to be the most healthy site on the island, the church was used as a hospital. Demands were sent home for more drugs, medical equipment and doctors. Meanwhile a supply of bark was procured by the purchase of an American ship's cargo. Natives were engaged as sick attendants on a scale of ten per regiment. On September 30 there were present 15 staff and 35 regimental surgeons, with 25 mates. Inspector Webb had been invalided, and, on September 29, Deputy Inspector James McGrigor arrived in his place. He advised that the guns should be removed from four of the men-of-war, and as many patients as possible sent home in charge of the naval surgeons. A return of October 12 showed the total sick as 9,614 and the deaths per week as 218. A little over half the sick were fever cases. By the 22nd 4,000 men had been evacuated, but 6,425 remained in hospital. On October 16, out of 54 medical officers there were 23 fit for duty.

Meanwhile the Government decided to send out a Medical Commission, and nominated the Physician General and Surgeon General as members. The former naïvely confessed that he was unacquainted with the investigation of soldiers' diseases in camp and quarters, the latter seems to have replied that it was a physician's job, and the Inspector of Regimental Hospitals made the same excuse. Messrs. Keate and Knight might have justly urged, as perhaps they did, that their time was fully occupied in finding accommodation for the invalids sent home. At any rate the evasion of the duty by the members of the Board was not well received. The Commission as finally constituted included Sir Gilbert Blane, formerly Surgeon to the Fleet under Lord Rodney, and a sanitarian of great repute, James Borland,1 deputy to the Inspector General, and Dr. Lemprière, an army physician. They advised the evacuation of the island as the only remedy, and by the end of the year this had been gradually accomplished.

During the autumn the returning invalids had been sent to hospitals formed on the East Coast and run on both general and regimental lines. They were landed at Harwich, where the worst cases were admitted to a general hospital, the intermediate ones transported by boat to Ipswich, and the convalescents by wagons to Colchester. At the last place, Inspector W. R. Shrapter was in charge, and with him Sir James Fellowes, an army physician who had been knighted for his researches on fevers in S. Domingo. A number of temporary physicians were employed, among them Dr. Thomas Wright, who published a most learned pamphlet on the Walcheren Expedition and the Medical Board, 1809

---

1 James Borland joined as a surgeon's mate in 1792, at the age of 18, served two campaigns in Flanders and in the expedition to S. Domingo, 1796-98. He was at the Helder in 1799, after which, as D.I.G., he was in medical charge of the Russian troops quartered in the Channel Islands, and saw them through a severe typhus epidemic. He was offered and refused high rank in the Russian Medical Service. On the resumption of the war he was an Inspector of Hospitals at Headquarters in London, volunteered for Walcheren 1807, and was P.M.O. in the Mediterranean 1810-1816, when he was placed on half pay. He was made Honorary Physician to the Duke of Kent. Died 1863.
Fever. He thus described the barracks at Harwich which had been “humanely ordered by the Government to be converted into a hospital.” “On a chearfull hill over Harwich has been constructed a barrack for infantry, etc., the soil forming a natural declivity by which the drains of rain water, of damp, and filth are provided for, should the artificial drains and sewers be obstructed. The houses or huts are of wood and disjunct, with wide intervening ways, every apartment opening to the street without communication with any other, every room ventilated through the ceiling so that the light non-respirable airs must be perpetually borne up while the heavier flow off below, at least during summer, so that if, with due attention to cleanliness and fumigation, contagion could not be obviated, yet the insulated state of each ward would prevent the progress of it.”

The barracks took 400 patients. In describing their appearance he writes: “The pallid looks of the breathing spectres was so ghastly, they exhibited a type of the resurrection, and their unhappy attendants, too few to administer relief to half the number through fatigue, were marked with melancholy little calculated to communicate hope or confidence in the sick.” He mentions that, in the first convoy received, 20 bodies were sent ashore for burial, and 18 men died on their stretchers.

There were, later, hospitals at Deal, Portsmouth and Plymouth. In December the Surgeon General reported having inspected the various sick depots in Kent, where there were 4,000 patients, half in general and half in regimental hospitals. These included Ospringe Barracks and Preston House, near Faversham; the barracks at Ramsgate and Margate, and the Sea Bathing Establishment; Deal general and regimental hospitals; Dover Heights barracks; the Buckinghamshire Hospital, Dover; Shorncliffe Hospital; Hythe barracks and hospital; and the hospitals at Braeburn and Ashford. Beds to the number of 600 were handed over at Haslar. Mr. Keate commented unfavourably on the temporary mates and dispensers provided by his colleague, the Inspector General, many of whom, he stated, could barely write, spell, or read a prescription.

The following return, issued on February 1, 1810, gives the sick wastage of this campaign:

<table>
<thead>
<tr>
<th></th>
<th>Officers</th>
<th>Other ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embarked</td>
<td></td>
<td>1,738</td>
</tr>
<tr>
<td>Killed</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Died</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Died at home</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>Discharged</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Remaining on the strength</td>
<td>1,671</td>
<td>33,973</td>
</tr>
<tr>
<td>Of which are reported sick</td>
<td>217</td>
<td>11,296</td>
</tr>
</tbody>
</table>

The prolonged sojourn of the troops in the unhealthy zone was the result of the hold up of the military operations. The popular idea at the time that Lord Chatham’s procrastination and incompetence was the whole cause of the failure is not borne out by the evidence as judged by Sir John Fortescue. Lord Castlereagh has been justly blamed for his commitment of the Army without adequate consideration of the military problem in
consultation with expert advisers, and for his omission to consult the Medical Board on the probable sick wastage and possibility of lessening it. Had Antwerp been occupied by a coup-de-main as was anticipated, the sick list, though no doubt a heavy one, would have been justified by the result. The original provision made by the Surgeon General for the medical needs of a force proceeding to a destination unknown seems to have been a reasonable one. In the light of modern knowledge, it may be remarked that, whatever the transmitting agents, whether mosquitoes, lice, or contaminated water and food, the Army possessed its own reservoir of infection in the sickly drafts received from the survivors of Coruña.

The regular medical officers as a whole emerged with credit from the Walcheren campaign. Many of the temporary physicians who were sent out also showed great devotion in the performance of their work, but the temporary hospital mates were of poor quality. No one seems to have been much impressed by the conduct of the Medical Board, though they no doubt had to suffer much abuse for the sins of others. It was alleged that they failed to keep in touch with events at the front, and were only roused to action by public opinion, which was shocked at the aspect of the invalids sent home. Their squabbles among themselves were also a matter of notoriety. A report by the Commissioners of Military Inquiry dealing with the affairs of the Medical Department had been presented in 1808, in which various reforms were suggested. Possibly the demand for victims of some sort to expiate the Walcheren disaster brought matters to a head. At any rate, early in 1810, and with scant ceremony, Sir Lucas Pepys, Bart., President of the Royal College of Physicians, Thomas Keate, Master of the College of Surgeons, and Francis Knight, Inspector General, were informed that the Army no longer required their services, and the three, greatly protesting, were placed on half pay.

The appointment of Director General John Weir and two Principal Inspectors, which followed, was a definite epoch in the history of the Medical Service. The establishment of control by individuals, unhampered by private practice, and qualified from personal experience to appreciate the Army's peculiar needs, was a reform long overdue, though the break with the heads of the civil medical profession in London was a misfortune. Of recent years wise legislation and a combination of circumstances have done much to bring together the Army surgeon and his civilian brother. That the separation during the first half of the nineteenth century was no greater was largely due to the tact and professional eminence of the second Director General, Sir James McGrigor, who held that office from 1815 to 1851.

AUTHORITIES.

Parliamentary Papers relating to the Expedition to the Scheldt . . . 1810, fol. 2, No. 104.
FORTESCUE, Sir J. W. "History of the British Army."
McGRIGOR, Sir James. "Reminiscences."