Nothing abnormal was found in the urine and faeces. The Wassermann reaction was negative. There was no evidence of neurasthenia or hysteria.

The case was seen by the Honorary Consultant Physician, Professor W. I. Gerrard, O.B.E., M.R.C.P., M.D., who confirmed the diagnosis as a case of myotonia atrophica.

Treatment was carried out on general lines, tonics, liberal diet, etc. Massage was tried, but it was discontinued as it was found to be of no benefit.

Whilst in hospital the patient’s condition remained unchanged and it was decided eventually to invalid him home.

Comment.—Myotonia atrophica, although a very rare disease, is of particular interest to the Services on account of the age incidence of onset, i.e., 20 to 30 years, and because it is a condition which might easily be overlooked in a recruit.

Unless the soldier happens to report sick, as in this case, for being slow and awkward in his drill, it might be quite possible for him to serve for a considerable period before the disease would be detected, and during that time he might have disciplinary action taken against him on account of bad drill, awkward gait, etc., when in reality it would be no fault of his.

Myotonia atrophica is a disease which is intermediate in type between Thomsen's disease and the muscular dystrophies, but the latter all commence in childhood and are, therefore unlikely to be met with in the adult soldier.

In conclusion the thanks of the writer are due to Major L. M. Rowlette, D.S.O., M.C., for so kindly furnishing a report on the patient after he had been admitted to hospital, and to Colonel C. D. Myles, O.B.E., A.D.M.S. China Command, for permission to forward these notes for publication.

Echoes of the Past.

THE ARMY MEDICAL SERVICES AT HOME AND ABROAD, 1803-1808.

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(Continued from p. 151.)

Ceylon, 1803-1805.

One of the least attractive military stations at this period was the Island of Ceylon where from 1803 to 1805 the troops were engaged in a series of harassing and unprofitable operations.

Since 1796, when the Dutch settlements on the coast were captured, the Company’s troops had occupied Colombo and Trincomalee, but had not penetrated to the centre of the island, which remained under the rule of the King of Kandy. At the Peace of Amiens Ceylon was made a Crown
Colony. In 1803, when Governor North decided on the occupation of the capital, the garrison consisted of the 19th (Green Howards), the 51st (1st K.O.Y.L.I), the Ceylon battalion and one of Malays, with two companies of the H.E.I.C.'s Artillery.

The territory which lay between Kandy and the coast was unexplored; the mountain passes were difficult and dangerous, and the tracks so bad as to preclude even the use of pack animals. Swamps abounding in leeches and mosquitoes had to be traversed. Two columns operating from Colombo and Trincomalee, after fatiguing marches, but with small opposition, occupied the capital, which was found deserted. The troops on arrival all went down with fever, being shortly afterwards withdrawn except for a small detachment of Green Howards and Artillery (300) and a company of Malays.

Meanwhile what was described as a virulent form of jungle fever swept the island. Of the 400 men of the 51st who returned from Kandy to Trincomalee in April, 300 died within the next three months, including their surgeon, T. A. Reeder. In the third week in June the force left in Kandy was isolated, many of the Malays had deserted, all the Europeans were sick, and the deaths were six a day. On the 24th an attack was made on the post, when, after a defence of ten hours, the officer in command capitulated on the understanding that those who were fit should be allowed to march unmolested to the coast. Leaving 150 sick behind, the remainder, 34 British and 350 Malays and gun lascars marched out, the party including apparently the two surgeons, Holloway of the Artillery and Hope of the 19th. They were waylaid; the Malays deserted; Major Davie, the commandant and two others, were carried off captives; a corporal escaped to tell the tale; the rest were massacred. The sick in hospital had been clubbed on the head as soon as the garrison moved out. One of these was spared, being found still in the town when it was recaptured in 1815.

During the succeeding eighteen months the Governor pursued a policy of small raids into Kandyan territory which cost many lives; irritated the natives and effected nothing. As an example of what the columns had to face may be quoted part of the narrative of Capt. Johnson\(^1\), who, through a misconception of orders, led a party of 82 Europeans and 202 Malays and sepoys right into Kandy, and thence, finding himself unsupported, fell back 200 miles on Batticaloa. "At an early stage the doolies had to be abandoned in consequence of the death or desertion of the bearers, the most helpless cases being carried in cloths fixed on bamboos. It was out of the power of the surgeon (Gillespie of the 19th) to be of much assistance to the wounded, the coolie who carried the medicines having deserted, and, as the wounds were undressed, they became in general ill-conditioned, and, at length, so offensive to the patients themselves as scarcely to be borne."

\(^1\) Quoted in Henry Marshall's "General Description of the Island of Ceylon."
Captain Alexander, who was of the party, wrote, "through the dreadful obstructions thrown in the way and the incessant attacks of the enemy it was found impossible to carry on the sick and wounded. These, along with the coolies, fell into the hands of the enemy. Many were taken, their hands and feet bound, their mouths stuffed with grass to prevent their cries, slung upon a bamboo pole, and thus borne off to be butchered like sheep. When the army had occasion to stop, however shortly, numbers secured in this means were rescued by their comrades, when missed in time, by a hasty charge with the bayonet." After incredible difficulties, Johnson brought in his detachment with the loss of 9 Europeans, 60 sepoys and 76 coolies. All had to go to hospital and very few came out except for burial.

The brunt of this campaign was borne by the two British regiments. The 19th died at the rate of 400 per 1,000 in 1803, 200 in 1804, and 83 in 1805. The strain must at times have been unendurable, when we read that on at least two occasions officers withdrew their men from their posts leaving the sick and wounded at the mercy of a savage enemy.

The best account of the Ceylonese Wars has been written by Henry Marshall, a distinguished officer of the Army Medical Department, and Senior Medical Officer at Colombo from 1816 to 1821.

The Mediterranean.

The year 1804 marked the centenary of the British occupation of Gibraltar and the occurrence of a most severe epidemic of yellow fever, which in the course of four months carried off a quarter of the garrison. There was much discussion as to whether the outbreak was "putrid and contagious," as held by Sir James Fellowes and Dr. Pym. The Inspector of Hospitals, Dr. I. M. Nooth, and the majority of his officers, thought not. He reported: "The disease seems by no means infectious, but the whole atmosphere of the Rock is pestiferous." To allay anxiety he personally attended the worst cases, and did all he could to dispel the idea of infection by personal contact. At the same time steps seem to have been taken to remove the troops from the immediate neighbourhood of the town. Camps were formed on the most airy sites available, and the civil population was thinned out by removing a portion of them to tents on the neutral ground. Discharges of artillery and bonfires in the streets were employed to purify the atmosphere, "but the great heat they occasioned and the terror they inspired, turned out to be most detrimental." The deaths between August and January among civilians were 4,864, and among the troops 54 officers, 864 other ranks and 164 women and children.

1 William Pym (1772-1861), Inspector of Hospitals, 1816, wrote the first accurate description of Yellow Fever, 1815; knighted 1830. During the cholera epidemic in England of 1832 he was Chairman of the Central Board of Health.

2 J. Hennen, "Sketches on the Medical Topography of the Mediterranean, 1830." There were further outbreaks in 1813, 1814 and 1828. In the last the garrison of 3,600 had 482 deaths.
Early in 1805 the French, who had occupied part of the Kingdom of Naples, showed a disposition to extend their conquests to Sicily, and a garrison, including some foreign regiments in British employ, was sent there. The following summer, Sir John Stuart, who was in command, landed a force of 5,400 men on the coast of Calabria, the naval forces cooperating. After an unopposed landing, a superior force of the enemy was encountered on the plains of Maida, and very thoroughly beaten, our loss being 45 killed and 282 wounded. The action occurred within ten miles of the landing place and was not followed up. Pack mules were the only form of sick transport available for the removal of the wounded to the ships. A great number of the troops were infected with malaria. The Senior Medical Officer with the force was Thomas Gunning. The following year the force in Sicily was augmented to 19,000 men, when Inspector William Franklin was sent out.

In the spring of 1807, a detachment of troops from the Mediterranean was sent to Egypt under General Frazer, and withdrawn after an inglorious campaign of a few weeks, in the course of which several of the medical officers fell into the enemy’s hands. As in 1800 there was much ophthalmia. The P.M.O. was Ralph Green, Deputy-Inspector of Malta.

**Buenos Ayres.**

The Cape of Good Hope was recaptured by Sir David Baird in January, 1806, soon after which Sir Home Popham, the naval commodore on the station, was allowed to embark a few of the troops on a filibustering expedition to the Rio de la Plata. Buenos Ayres was captured, and later recaptured by the inhabitants, when the British garrison became prisoners of war. In deference to popular clamour, a force of 3,000 men under Sir Samuel Auchmuty was sent from England, and this was followed by 5,000 more under Lieut.-General Whitelocke. Auchmuty arrived in January, 1807, and, finding himself too weak to attempt Buenos Ayres, attacked Monte Video on the other side of the river. This he carried by assault on February 3, a fine piece of work, inscribed on the colours of the regiments engaged. Our losses were by no means small. The Assistant Surgeons followed up their corps in the attack, and two, W. Mountgarratt of the 38th and Wildair of the 87th were hit. Auchmuty’s P.M.O. was Deputy-Inspector G. R. Redmond. It was noted that in almost all the wounds of the lower extremity tetanus supervened, and many wounded died from this cause.

General Whitelocke reached Monte Video in May and took over command; shortly after which he was joined by Brigadier-General Craufurd with 4,000 men. Whitelocke’s Inspector of Hospitals, Theodore Gordon, was P.M.O. of the whole force.

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1 Gabriel Redmond: For his career vide Journal of the Royal Army Medical Corps, Vol. xvii.

2 Theodore Gordon: Joined as a regimental mate, 1791. Was made Principal Inspector 1810, but retired the same year on account of ill-health.
The task set the General was no easy one, but he was weak and incompetent, and made the worst of a bad job. He landed about thirty miles below Buenos Ayres on June 28. The troops, half of whom had been nine months on board ship, and were out of condition, had to carry three days' rations. The Carbineers, who were dismounted, marched in their jack-boots. No administrative instructions seem to have been issued from headquarters, but the landing orders issued by Major Frazer to his own detachment of Royal Artillery are of some interest. "The men will land with one great coat and blanket, each with a flannel waistcoat, brush, comb, razor and shaving brush, rolled in the blanket, and with such proportion of cooked provisions as may be directed. Every man to have shoe straps round his shoes to keep them on in boggy ground, the men's hair to be plaied up behind, not tied in a queue." The available transport consisted of sixty horses with pack saddles; the horses being raw cast most of their loads of reserve rations. No real effort was made to tackle the difficulties of transport and supply. The marches were not long, but there was much marshy ground to be traversed; the men were not properly fed, and arrived at their destination, exhausted, dispirited and without confidence in their leader. At Reduction, twenty miles from the starting point, touch was regained with the ships, and some of the sick and lame were evacuated; but, up to this point, as there was no sick transport, those that fell out must have been left at the mercy of the enemy.

The western suburbs of the town were occupied with little opposition on July 3. On August 5 the force of about 8,000 men was committed to the assault in thirteen separate columns. These were involved in street fighting, losing touch with each other, and having severe casualties. Finally, after 401 had been killed, 649 wounded, and 1,924 captured, the General agreed to evacuate both Buenos Ayres and Monte Video, provided prisoners were released. The expedition went home, Whitelocke was nearly lynched by the London mob, court-martialled, and cashiered.

The army engaged was made up by the concentration of three separate expeditionary forces, and the general medical staff was consequently large, consisting of an inspector of hospitals, Theodore Gordon, 2 deputy inspectors, J. R. Redmond and A. Thompson, 1 purveyor and 2 deputy purveyors, 2 physicians, 6 staff surgeons, 2 apothecaries, and 14 hospital mates. The medical casualties reported were Assistant Surgeon Fergusson (88th) killed, Buxter (87th) dangerously wounded, and four others prisoners.

Lord Cathcart's expedition in September, 1807, which, with the aid of the Navy, captured the Danish fleet and occupied Copenhagen, consisted of 18,000 men. There were no more than 200 casualties, which, with the sick, were sent into hospital at Yarmouth. The general medical staff comprised an inspector, W. R. Shrapter, 2 deputy inspectors, F. Burrows and J. Webb, 3 physicians, 4 staff surgeons, and hospital mates.
The West Indies.

The West Indian Islands still absorbed a great number of troops. The military operations there during the last seven years of the eighteenth century have been calculated as costing the army some 100,000 men, of whom half died, and the remainder were permanently incapacitated by disease. After the rupture of the Peace of Amiens in May, 1803, Saint Lucia, Tobago, and Dutch Guiana were added to the list of unhealthy stations. The deaths from sickness in the Windward and Leeward Islands during the latter half of 1803, when the garrison was about 10,000, amounted to 700. In May, 1804, after the capture of Surinam, the Commander-in-Chief reported that he had 11,000 troops dispersed over the various islands, of whom 2,000 were constantly sick. The situation demanded a considerable medical staff, and it is noticeable that most of the medical officers who rose to distinction at this time had had some early experience there. The conditions of the soldier's life contributed to the mortality. There were no recreations, food was monotonous and badly cooked, rum was cheap. In the barrack huts the hammocks were hung so closely as to touch each other.

Within their limited means the regimental officers seem to have done all in their power to improve their men's circumstances, and advice coming from a medical officer, who had gained their confidence, was usually readily accepted. The devotion of the surgeons to their work was generally recognized. But the various fevers were as yet imperfectly differentiated, the rôle played by flies and mosquitoes in disease production was unsuspected, and progress was therefore slow. Bark was noted to have a definitely favourable influence in certain localities, and was used by most practitioners indiscriminately.

The most distinguished student of tropical diseases at this period was Robert Jackson, for several years surgeon of The Buffs, whose treatise on the Fevers of Jamaica published in 1791 was translated into several languages. He was a pioneer in insisting on the value of cold water in the treatment of what were termed the contagious and endemic fevers, the first being apparently diseases of the enteric group, the second including yellow fever. As an example of the drastic methods of treatment then employed, the letter of a hospital mate to the Medical Board, dated December 6, 1801, seems worth quoting. It should be stated that it was written in malice, but it was published in an official Blue Book, and the details appear to be correct. "The men on admission were conducted to a wash-house containing the warm and cold baths. They were instantly bled to the quantity of from 16 to 20 ounces. They were, on revival from fainting, which generally occurred, plunged into a warm bath in numbers of four to six together and confined in by blankets fastened over the machine till about suffocated. From hence they were dashed into cold baths and confined until apparently lifeless. Immediately after, a strong emetic was administered, they were carried to bed, and a dose of 8 grains..."
of calomel and 6 of James' Powder given as a purge, which occasioned a train of distressing symptoms for the relief of which they were bled again and blistered from head to foot. They were bled a fourth and fifth time in the space of 30 hours, and usually lost from 60 to 70 ounces of blood."

Jackson's eminence as a sanitarian has been already referred to. He was a self-made man and a born fighter, having to contest every step in promotion with the Medical Board, which, at the Physician General's instigation, professed to regard him as a quack. The Board stooped to unworthy efforts in order to discredit him. During a period of half-pay he retaliated with pamphlets attacking their general policy, even driving in his arguments on the back of the Surgeon-General with his gold-headed cane, for which he did six months. He won through in the end, when the Board was reconstituted, and the Duke of York, who strongly appreciated his merits, appointed him Inspector of Hospitals in Jamaica.

The Campaign in Portugal, 1808.

In 1808 the Spanish rose against the French, who had occupied the Peninsula, and appealed for assistance. In August, Sir Arthur Wellesley arrived at the mouth of the Mondego river, where he was joined by troops from Gibraltar, raising the number of his force to about 15,000. The immediate object was the occupation of Lisbon, which was held by the French. The men were landed with three days' bread, cooked meat, haversacks, and canteens. A spare shirt, pair of shoes, comb, razor, and brush were rolled in the great coat. The surgeon's panniers were carried on mules, the only other medical equipment being apparently twenty-four bearers (stretchers), a case of utensils, and a medicine chest, for which the Commissary was ordered to requisition two carts. The troops were dependent for supplies on the ships moving along the coast, which also provided the base hospital. The troubles of the sick in this campaign were aggravated by the scarcity of means of transport and the inefficiency of the Commissariat Officers, but also by the fact that there was no Senior Medical Staff Officer in the field to assist the A.G. staff in co-ordinating the work of the medical personnel. The Staff Surgeons referred to in General Orders seem to have been the senior regimental surgeons present with the brigades, who had also their own work to attend to.

The force advanced from Lavos on August 10, the sick and one assistant surgeon from each brigade being placed on board the transport "Enterprise" in charge of a physician, Dr. Deane. At Leria, which was reached on the 11th, casualties were left in the Portuguese hospital.

On August 17 the British encountered and drove back a detachment of the enemy at Rolica. The numbers engaged on either side did not exceed 5,000, and each had lost about 9.5 per cent of casualties. Most of ours occurred during a gallant, but premature, attack delivered by the 9th (Norfolks) and 29th (1st Worcesters). There were no medical staff officers present, most of the surgical work devolving on George Guthrie, the Surgeon of the 29th,
who was at work for three days continuously. He must thus have had the opportunity of examining wounds inflicted by our shrapnel, then used in battle for the first time. On the 21st, Wellesley took up a position at the village of Vimiero to cover the landing of fresh troops and stores from England. Here, with 1,800 men, he was attacked by Junot's main army from Lisbon, which was disposed of with a British loss of 135 killed, 534 wounded, and 51 missing.

Among those landed was Adam Neale, an army physician. Debarred by the rules of his craft from handling a scalpel, he watched the attack on Ferguson's brigade from a small farm, which became the site of the brigade dressing station. The wounded suffered much from the intense heat. After the action he entered the house. "I found I could be useful," he wrote, "to a great many, who, but for the interference in a duty which
G. A. Kemphorne

was not strictly my own, might have remained for hours in excessive pain. To several, a simple inspection of their wounds, with a few words of consolation or perhaps a little opium, was all that could be done or recommended. Of those brave men the balls had pierced organs essentially connected with life and, in such cases, prudence equally forbids the rash interposition of unavailing art and the useless indulgence of delusive hope.”

There were no medical comforts, but, exploring with the help of a soldier's wife, he found some meal which was made into gruel for the patients. Next morning, forty bullock carts were secured, and Neale was given the duty of transferring the wounded to the ships, which took them to Oporto. The French wounded prisoners were left with some of our surgeons in the church, with a guard for their protection. Though the army pushed on to Torres Vedras, the victory was not followed up. Generals senior to Wellesley had arrived, and Junot's force was permitted to leave the country under the Convention of Cintra. Shortly after the battle, Sir John Moore landed with a strong force, fresh from the abortive Swedish expedition. The men, who had been four months continuously in transports, were found, on landing, to be quite incapable of marching. A general hospital was opened at Torres Vedras, being later moved to Lisbon. Moore became Commander-in-Chief in Portugal and Dr. W. R. Shrapner his Inspector of Hospitals.

Sir John Moore's Campaign.

In accordance with instructions from home to co-operate with the Spanish, Sir John Moore in October, 1808, led the British forces collected round Lisbon in a north-east direction to effect a junction with Sir David Baird who had advanced from Coruña. The nominal strength of the united armies was about 40,000, but there were numbers in hospital with dysentery acquired in the previous campaign. A hospital establishment remained at Lisbon, and depots were formed at Abrantes, Elvas, Almeida and other towns en route. When at Salamanca in the third week of November news was received that the Spanish armies were routed and the French, 100,000 strong, were advancing, Moore decided to cut off his connection with Lisbon. A bold thrust was made at Napoleon's main line of communications, which drew the whole of the French armies down on him and generally upset all their dispositions, upon which he began his famous retreat terminating in the successful action at Coruña on December 16, his own death on the field, and the embarkation of the troops. The sick who remained on the old line of communications to the number of 1,076 were safely evacuated to Lisbon, which continued to be held. If there are any lessons to be learned by the Medical Services from the

1 Neale, "Letters from Portugal and Spain."
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retreat, they have not come down to us. Adam Neale has left a vivid account of the troubles of the sick convoy of which he was the medical officer—the desertion of the native drivers with their bullocks, the deep snow in the passes, the villages filled with Spanish soldiers in all stages of typhus. When at Mayorga it became necessary to dump the wounded prisoners of the convoy, humanity necessitated a guard up to the last possible moment to save them from massacre by the peasantry.

On the day the battle of Coruña was fought, the morning state showed 4,035 men sick, about 14 per cent of the force. These with most of the medical staff officers had already embarked before the attack commenced. Sir John Moore was struck by a cannon ball, which broke his shoulder and lacerated his side at the moment when Sir John Baird, who lost his arm, was being attended by two surgeons. Realizing that his case was hopeless, he ordered the surgeons back to their work.

The troops were embarked at Coruña and Vigo. The transports during their return were scattered by a storm. Most found their way to Portsmouth, others came to land where they could. The men disembarked haggard and unkempt, with ragged clothes and dirty accoutrements just as they had come out of action. "Things common enough in war, which struck a people only used to the daintiness of parade with surprise; and thus the miserable state of Sir John Moore's army became the topic of every letter and the theme of every country newspaper along the coast."1

The total loss during the whole of the operations was estimated at about 4,000, which was no more than a sixth. Of these, 800 found their way back to Portugal. All the regiments landed in a verminous state. The outbreak of typhus which followed was alarming, and spread to most of the southern garrisons. The general hospitals having been closed, the disposal of the sick fell to the Inspector of Regimental Hospitals, who had two able assistants in William Fergusson and James McGrigor, the Deputy Inspectors of the Sussex and Portsmouth Districts. The Guards' surgeons were sent down from London, and every civil practitioner round Portsmouth was employed. The Depot Hospital in the Isle of Wight was full, but most of the beds at Haslar were handed over to the Army. The regimental hospitals were opened in hired buildings, and the remaining sick overflowed into hulks, empty transports, and prison ships in the harbour. As many regiments on landing proceeded by route march to distant parts of England, no doubt much infection was spread.

1Napier, Peninsular War.