TWO BRITISH NAVAL SURGEONS OF THE FRENCH WARS

by

WILLIAM N. BOOG WATSON

AMONG THE exclusive rights held by the London Surgeons in the eighteenth century none was more stubbornly maintained than that which related to the Royal Navy. Every candidate for appointment as surgeon or surgeon's mate had to pass a qualifying examination at Surgeons' Hall before he could be accepted into the service. During those hundred years, British naval craft were continually active in many waters and British squadrons played a notable, and at times a dominant part in five major wars. To satisfy the needs of the navy, thousands of medical men passed through the examination rooms at Surgeons' Hall; yet history is disappointingly silent about them. Their origins, their professional training, the life they led and the work they did on board the country's fighting ships are all too little known, and few personal narratives written by naval surgeons have been published.

Two such chronicles, those of James Ker and Thomas Downey, still in manuscript, have recently come to the writer's notice and they form the basis of this paper. Both provide material of interest to the student of naval medical history and James Ker's journal contains two items deserving particular mention. One is the contemporary pen-and-ink sketch of a naval surgeon and two of his mates in the days before any official uniform had been prescribed for the medical branch of the Royal Navy. The other is Ker's account of his experiences before and during examination at Surgeons' Hall in October 1778, which it is interesting to compare with Peter Cullen's description of that ordeal in 1789 (*Five Naval Journals*, 1951) and with Tobias Smollett's tale of what happened to himself in 1740, which appears in fictional guise in *Roderick Random*.

JAMES KER

James Ker was born in Scotland, probably at Leith in 1750, but the place and year of his birth are uncertain. The first mention of his name occurs in the records of Edinburgh University where he matriculated as a student of medicine in 1766. During the next four years he attended the classes of anatomy (which included surgery) under Alexander Monro *secundus*, chemistry under Joseph Black, the institutes of medicine under William Cullen and the practice of physic under John Gregory. All of these were teachers whose ability was very widely recognized. In 1770 James Ker left the university without taking a degree, as was the custom of medical students at that time, and entered the service of the East India Company, whose Chirurgeon General had the duty of providing surgeons and surgeons' mates for all the Company's ships and stations. For several years Ker served in the East until for family reasons he had to return to Scotland. In June 1775 he established himself as a surgeon in the little town of Auchtermuchty in the county of Fife, where he seems to have been successful in practice. He was not so successful in love. The lady of his choice was removed by unfeeling relatives and taken to Calcutta. Wishing to pursue her, and

by this time heartily tired of country practice, James Ker in 1778 sought again to enter the employment of the East India Company but was unsuccessful. Britain at that time was involved in the American War of Independence (1774–1783) into which France had entered in support of the rebellious American states and there was urgent need of more surgeons for the Royal Navy. Brokenhearted, according to his own statement, James Ker determined to leave Auchtermuchty and go to sea. In this resolve he was encouraged by one of his patients, Captain (later Rear-Admiral) the Hon. Frederick Lewis Maitland, R.N., of Rankeilour, Fife, who went so far as to promise Ker the post of surgeon on his own ship, the *Elizabeth*.

During the next four years James Ker kept a diary for the benefit of a friend who had been a fellow student in Edinburgh and was now a surgeon in Barbados. The heading of the manuscript reads:

To Mr. William Thomson The Friend of my Heart is inscribed this account of my Transactions.

In the beginning of October 1778 Ker journeyed to London in order to undergo the examination for entrance to the Royal Navy. He bore with him a letter from Captain Maitland's wife to Captain Charles Middleton, who was Comptroller of the Navy from 1778 to 1790. What took place is best described in the diarist's own words.

The day of examination was not till a fortnight after. On enquiry I found it was not customary at Surgeons' Hall to pass anyone for surgeon who had not first been a mate* in the Service. Nay, it was almost unprecedented. What was to be done? I remembered to have attended a friend of mine when sick along with one of the examining surgeons. Away I went to this friend's house; most luckily while I was there in comes the very man I wanted-a very bear of a fellow by-the-by. My friend told him I was soon to pass through his hands at the Hall. 'How long,' says he, 'have you been in the Navy?' 'I was formerly in the Indian Service but never was in the Navy'. 'G-d d-- me, how do you expect to pass for surgeon then? Have you attended any of the London lecturers or hospitals?' 'No.' 'Damned foolish conduct of you, by G-d.' I told him of the classes I had attended. 'All damned nonsense. They understand nothing of surgery in Scotland; they have no subjects, and so can only teach comparative anatomy in your country. I told him, during the two courses I had attended Dr. Monro we had subjects enough. 'Very lucky, very lucky,' said he, 'Well, come, we did pass a countryman of yours lately for first mate of a first rate because we saw he understood his business. We see very easily after one or two questions whether a young man knows his profession thoroughly.' I told him I wanted only fair play and that they should not be prejudiced against me on account of the circumstances he had mentioned; that I had been long at sea, had a very extensive practice in the country and performed most of the capital operations in surgery.

'Well, we will do what we can for you.'

All that fortnight before my examination I studied so hard that I think I was almost a couple of pounds lighter. In short, to my great joy I passed on Thursday for surgeon of a third rate. On Monday next I carried a letter to Dr. Hussack** at Greenwich who examined me on Physic

* Surgeon's mate: this term fell into disuse and by the Regulations of 1805 the title Assistant Surgeon was substituted.

** Dr. J. Hussack, Physician to Greenwich Hospital 1765-1790.

¹⁰ October. Delivered my letter from Mrs. Maitland to Captain Middleton, who dispatched my business quickly thus: 'Mr. Ker, I am glad to see you. The clerk shall give you a letter to Surgeons' Hall; get qualified as high as you can, come here again, you shall get a warrant for surgeon's first mate of the *Britannia*, shall be thereafter appointed to the *Elizabeth*. I wish you good day, Sir.'

and gave me a qualification, as I found afterwards, for first rate. He paid a good deal of respect to my education at Edinburgh and observed I had been brought up at the feet of Gamaliel. On 17 October got my warrant of this date for surgeon's first mate of the *Britannia*.

James Ker reached Portsmouth by the night mail coach, went aboard and presented his warrant to the commanding officer of the *Britannia* who dryly commented, 'I see you will not long stay with us. You are intended for preferment.' Two days later Admiral Keppel's fleet, fresh from the battle off Ushant, arrived at Portsmouth and with it Captain Maitland in the *Elizabeth*. During the fight the surgeon of that vessel had had his arm shattered by a splinter while dressing his patients in the cockpit, and an acting surgeon had taken his place. Captain Maitland promptly got rid of the latter officer and on the second of November a warrant came down from London for James Ker's appointment as surgeon to the *Elizabeth*. He had been a surgeon's mate for less than three weeks. Now he was surgeon to a ship of the line of 74 guns, with three surgeon's mates under him.

On 26 November 1778 H.M.S. *Elizabeth* sailed from Portsmouth, one of a squadron bound for the West Indies to reinforce Vice-Admiral John Byron's fleet. She was commanded for the time being by Captain Truscott, for a court-martial was about to be held on the conduct of Admiral Keppel in the engagement off Ushant and this Captain Maitland had to attend. The passage across the Atlantic was uneventful on the whole, although there were moments of alarm and in the later stages the health of the crew gave concern. It is clear, however, that the surgeon was by no means overworked. In describing a typical day James Ker wrote:

We are now at sea and our way of life settled according to custom. I will give you one day's transactions which will serve for to show our general way of life. Until we get into warm weather my time for rising is at seven or half after seven o'clock. Breakfast at eight. At nine I see my patients which takes up half an hour or an hour. From that to eleven generally read or write in my cabin, then take a walk on deck, give the captain an account of the sick. After having stretched my limbs, seen what the admiral is doing and what the fleet, how we steer and how the wind blows, I come down to my cabin again and take up a book till the drum beating The Roast Beef of Old England warns me to dinner, of which I have generally a fore-feeling in my stomach. After dispatching this necessary piece of business and the grog being finished, the remainder of my time till supper is spent variously in reading, writing, card-playing, backgammon, walking or conversation as humour leads. From supper time at 8 o'clock till bed-time is spent in chit-chat over our grog drinking. Early this morning the alarm was given that a French fleet was seen to windward in the south-east quarter. There was nothing but hurry and confusion, 'Down all chests, up all hammocks and clear ship; all hands to quarters.' After all it proved only to be two ships who had run foul of one another and had made signals in the night.

In spite of his broken heart James Ker in port was a gay philanderer whenever he found opportunity. At sea, for want of such opportunity, his fancy would revert to the lady whose hand he had failed to secure and he spent a good deal of time in composing long columns of verse addressed to her. A quotation from one of those effusions will suffice to show his quality as poet.

> Far to the east my Love is gone To India's golden shores, To where the sacred Ganges rolls, And riches Plenty pours. Say, dearest Maid, dost me expect On Hugli's Banks to see?

Or has some other Swain more blest Ere this supplanted Me? In quest of Britain's treacherous foes Our ship pursues her course Far to the West, where Gallic Powers Insult our smaller Force. No Wounds, No Danger do I dread Compared to Loss of thee; These Harms are trifling; slight indeed All other Fears to Me.

James Ker was also something of a draughtsman and he illustrated the pages of his diary agreeably with ink or watercolour sketches of places and ships which he observed.

Carlisle Bay in Barbados was reached on 5 February 1779. On that day Ker wrote in his diary: 'Four or five people very bad of fevers and as many of the scurvy, whom I shall get ashore as soon as possible. It is a great relief to those poor wretches to hear we are so near the land. A few more days and they must have gone overboard, a prey to the sharks.'

On the 12 February the squadron, which had now joined Admiral Byron, came to an anchor in Gros Islet Bay, St. Lucia, and during the following fortnight officers and men spent as much time as possible on shore. Fresh food and fruit were there in plenty. So were mosquitoes and with them came the scourge of the Islands, yellow fever. On 1 March Ker wrote, 'Numbers of our crew fall down daily of remitting bilious fever with a few agues and fluxes. So many are now sick that it is now necessary to remove them ashore.' A tent was therefore constructed of fire-booms* and an old maintopsail and on the next day fifty sick, of whom twenty had scurvy, went ashore to the tent. As the number increased other tents were erected and a hut was built for the surgeon out of sugar canes, which was neither wind- nor water-tight. The *Elizabeth* had a complement of six hundred. When the fever was at its worst 260 men were lying sick ashore, among them James Ker and all his surgeon's mates. Those treated on land who recovered from the fever met the danger of dysentery when they returned to the *Elizabeth*. James Ker attributed this to improper feeding and he wrote 'the convalescents from the shore fall down again on coming aboard, being seized with fluxes, perhaps from their weakened digestive organs not being able sufficiently to subdue the hard, salted meats and other indigestible food of the ship. Had they good fresh beef soup I make no doubt this would not happen. It galls me to see flocks of sheep and bullocks at Frenchmen's plantations whilst our own poor fellows are dying for want of proper restoratives.'

Despite the appalling sick list H.M.S. *Elizabeth* continued to take part in the work of the fleet and as the epidemic decreased those who had survived gradually returned to duty, among them James Ker himself. On the 1 July he recorded that twenty-nine recovered people were brought aboard, that of the twenty men ashore only three were still critically ill and he commented, 'Our ship may now be said to be tolerably healthful but good God how severely have we been handled.' Some time later he wrote a description of the outbreak on the *Elizabeth* which deserves to be quoted at length.

* Fire-booms: long spars swung out from a ship's side to prevent the approach of fire-ships or vessels accidentally on fire.

AN ACCOUNT OF THE PUTRID FEVER OF ST. LUCIA BY JAMES KER—A.D. 1779 HISTORY OF THE SYMPTOMS

This fever generally attacked with coldness and shivering at intervals for about four hours succeeded by great heat and thirst, severe pains of the head, back and loins, sometimes pain over the stomach, nausea and vomiting, pulse quick and full, tongue white and moist, urine of a reddish colour without sediment, belly costive, skin dry, debility. Diarrhoea occurring early in the disease is of service. All these symptoms come on in the space of twenty-four hours at the end of which they generally have some remission. This remission is of short duration and the patient complains of great prostration and despondency. The skin in some becomes yellow on the second day but the yellowness is by no means a general symptom. Some are affected with pains and not infrequently loss of motion in the limbs and giddiness. These symptoms continue till the third day when delirium or coma comes on; the teeth are covered with a black crust, the tongue parched and of a brownish or blackish colour.

Cadaverous; involuntary stools, involuntary passing of urine, death.

When the disease terminated favourably it generally happened by a mitigation of all the symptoms, usually at the time of remission which was generally in the morning after a gentle diaphoresis through the night.

This disease, which in a particular manner affected the crew of the *Elizabeth*, first appeared after our going down to the Cul-de-sac where the boat's crew went about a mile up a small rivulet to water. The banks were covered with impenetrable woods, the mangroves growing into the water so as to render it even more difficult, or impossible, to land. The disease after our coming up to Gros Islet increased rapidly, seizing great numbers, and seemed then evidently to be propagated by contagion. On the first of March, having repeatedly represented to Captain Truscott that the sick ought to be separated and sent ashore, I went with the master and pitched upon an eminence to the windward of the town having only cleared cane-land to windward of it at the bottom of the hill, but to leeward was the swamp which lies to windward of the town. There was no situation all around the bay where we could have been so dry and free from the exhaltions of the swamps.

On the 2nd our tents were erected and the sick fast on shore. At first they recovered very fast but afterwards, the tents getting crowded by the numbers poured in upon us from the ship, the disease increased in malignity and relapses were more frequent. My mates were all taken sick; I held out about eight days longer; during my confinement to bed our sick was attended by mates from the admiral's ship. From their greater number and want of strict discipline they became remiss in the article of cleanliness. The flux began to make its appearance about the end of March and carried off many of the convalescents.

In time the fever having gone through almost all the ship's company began to abate and on July first we had only twenty patients ashore, three of whom only were in a dangerous way.

Parotids occurred in six cases all of which proved mortal. The first that occurred not having been observed for a considerable time was not opened at all. The second was late of being opened for a similar reason, the remaining four were opened immediately on their appearance without waiting for a perfect suppuration. All of them yielded a small quantity of matter—pus mixed with blood.

Petechiae¹ occurred in one case only, which case terminated favourably.

Vibices² occurred in two cases where the patient had been scorbutic at the attack of the fever. Scorbutics having been debilitated before the attack of the fever almost always died.

Relapses were frequent and most commonly fatal.

PROGNOSIS

Whatever tended to reduce the patient's strength previous to the attack of the disease, such as scurvy or other preceding diseases, not only rendered him more liable to be attacked but always greatly increased the danger of the disease itself, those who had committed any debauch being particularly liable and, indeed, seldom failing to be seized with it.

Bad signs were when the heat, thirst and prostration of strength were great in the beginning; towards the end black crust on the teeth and tongue, sleeping with the eyes open, quick undulating pulse, coldness of the extremities, diarrhoea. Yellowness of the skin was generally unfavourable though many recovered who had that appearance.

Good signs were when the tongue continued moist with a full pulse and moist skin; distinct remissions; diarrhoea at the beginning of the disease when gentle was reckoned favourable.

¹ Petechia—a small spot formed by effusion of blood.

² Vibix—a narrow streak formed by effusion of blood.

Mortal signs were coldness of the extremities with cadaverous appearance and involuntary stools; among which, too, were reckoned parotids.

REMOTE CAUSES

Seemed evidently to have been the marsh miasma since all those who went ashore at the watering place were first seized. Afterwards the disease seemed to be kept up by contagion. **PREDISPOSING CAUSES**

Were uniformly such as induced debility e.g. scurvy or other previous disease. Those who committed any debauch seldom failed to catch the disease.

METHOD OF CURE

Vomits of whatever kind commonly eased the natural vomiting. That most generally given was tartar emetic which when exhibited early either altogether carried off the fever or greatly alleviated the symptoms. An opiate was generally given after the operation of the emetic which by promoting a diaphoresis greatly assisted the antimonial in relieving the febrile paroxysm. *Cathartics* were always attended with good effects when given early, but when the disease had made some progress never failed to increase the debility. Their place was supplied by *Clysters*, therefore, when the debility and depression of spirits were great and the disease continued for any long time.

Sudorifics were commonly the antimonials joined with opiates which after previous evacuation by vomit and stool had often very good effects.

Bark was the medicine on which the greatest dependence was put. When a remission appeared that was the time chosen for its exhibition but as the disease was rapid, when no evident remission appeared and the symptoms of debility were urgent it was given without regard to remissions as soon as the proper evacuations had been used in as great a quantity as the patient's stomach could bear, with wine.

Cold baths were of great service to convalescents.

On 4 July 1779 a French fleet under Vice-Admiral the Comte d'Estaing captured the island of Granada. Two days later it was confronted by the British fleet under Vice-Admiral John Byron. The battle which then took place ended in success for the French, Admiral Byron's failure being the result of his attacking with needless precipitation and in needless disorder. James Ker's record of the battle is simply a transcription of the entries in the ship's log. The British losses were 183 killed and 346 wounded, but casualties in the *Elizabeth* were very light and only two men were injured. Fortunately Admiral d'Estaing failed to profit by his advantage and the British fleet resumed its patrolling of West Indian waters.

In the end of July H.M.S. *Elizabeth* visited St. Christopher's where Ker went ashore to visit an old college acquaintance. A few days later symptoms of severe ague appeared and he was unable to rise from his bunk to welcome his patron, Captain Maitland, when the latter at last rejoined his ship. Attacks of the ague persisted, his condition deteriorated and it was decided that he must return to Britain. Ker therefore embarked as a passenger on the *Royal Oak* in Carlisle Bay, Barbados, and so had an opportunity at last to meet his friend William Thomson with whom he spent the day in pursuit of feminine beauty.

On 3 October 1779 the *Royal Oak* sailed from Basse Terre Road, St. Christopher's, for Plymouth with the *Prince of Wales, Nonesuch;* the *Grampus* and *Tortoise* store ships; and thirty-two sail of merchantmen in convoy. Some privateers came out of Statia Roads but seeing so strong a convoy sneaked back again.

To pass the time Ker in his diary wrote a short description of his companions.

We are once more at sea and must look for entertainment in our wooden world. Let me see, then, who we have got along with us. Our first lieutenant, that little sottish-looking man, has turned out a very brisk, able officer and one who does not want either good sense or learning. Unfortunately, when not immediately engaged in the duties of his profession he is but too apt to

yield to the baneful delights of the private bottle. All the rest of the officers are very agreeable, sensible people but my favourite was Mr. Saul, the 3rd lieutenant; with a sufficient stock of learning and knowledge in his profession he was polite, easy and obliging. As an oddity let me point out to you Jamie Raymond, the master, a shrewd old fellow who never failed to visit his bottle as duly as did the sun the world. By frequent repetitions of 'a trifle of what-not' he so bedimmed his eyes and got so top-heavy that we used to con him to bed after his having thrown the knives and forks at us.

Lord McCartney's secretary, a Mr. Lascelles, comes home in the *Royal Oak* a passenger as myself, a red hot Irishman not devoid of sense.

The Doctor* tho' no very young man is a boy when compared to his mates, one of whom is an old man unable to creep along the decks with the rheumatism, his third mate seems again to be father to that other. He is a venerable silver haired old gentleman by name Dr. Macswine and speaks as broad Scotch as the first day he was imported.

Two dangers were encountered on the passage to Britain, one from the elements and one from the enemy. Four weeks out the ships ran into an Atlantic gale. This peril past, the voyagers as they neared their destination heard of events which caused them concern. In June of that year Spain had entered the war as an ally of the American colonies and some weeks later a combined fleet of French and Spanish warships had appeared off Plymouth and captured the *Ardent* within a short distance of the port. There was reason to believe that a landing in force would be attempted. Booms were therefore constructed across the entrance to Portsmouth harbour, a Royal Proclamation was issued commanding that all horses and cattle be driven from the coast and in a state of alarm the inhabitants of the south of England awaited the enemy. It was news of those happenings which reached James Ker and his companions from a passing ship as they approached the English coast. In the end no invasion took place for the French and Spanish fleets were forced to return to Brest, so many of the ships' crews being afflicted with scurvy that it was impossible to work the ships at sea.

James Ker's description of the events is in his best style; it is quoted here in an abridged form.

31 October 11 a.m. This day the wind is come round to N.E. and blown hard. The *Tortoise* has just made the signal of distress. 1 p.m. Sent the pinnace aboard with Lieutenant Durell. 3 p.m. He gives a dismal picture of their condition; they have been working incessantly at the pumps, officers and everyone else on board, these last 24 hours, yet this leak gains on them apace. A putrid fever rages in this ship, of which half the crew are sick. The *Grampus* has likewise made the signal of distress and is incessantly firing guns. A small vessel ran under our stern and told us they had spoke the *Grampus*, that she had five foot of water in her hold, was gaining fast on them and begged we would come under their lee as they expected every minute to go down. She had about a hundred men and a number of invalids on board. Ill-fated men, we could give you no assistance! We left them to their fate! All that dreary night did we hear the reports and saw the flashes of their guns and sometimes even the gleaming of their lights. Morning came and we saw them no more.

We saw none of the other ships, our attention was all turned on our own condition. It blows furiously, the seas run mountains high and are covered with foam. By noon our mainsail blowing in tatters from the yard, the seamen looking at it and afraid to venture up. The lieutenant setting the example up they mount, ashamed, and ply their knives. The remnants of the tattered sail are soon released. About twilight the maintopmast went away with a hideous crash! I am much afraid some of the lower deck guns will break loose. Did you see the tugs they give it would amaze you that anything could hold them. In the night all the pumps broke or were choked below. Terror and despair were about to reign when they got one mended and all the rest set to work again.

* William Pettigrew received his warrant as surgeon in 1762 and was still serving in the Navy in 1803.

Three dreary, dismal days, three dreary, dismal nights did the gale last. On the fourth the gale abated and on 6th we rejoined the *Nonesuch* with four of the convoy. She had spoke a vessel that day from Lisbon with intelligence that Gibraltar is besieged, that the French fleet of 30 sail is joined by nine Spanish line-of-battle ships, that the *Ardent*, 64 gun ship, is taken by the combined fleets off Plymouth, that England is invaded, the devil to pay and no pitch pot. 18th. Saw the British flag flying on Pendennis Castle at Falmouth, so all is not gone yet.

Ker's fears for the *Grampus* were fortunately not fulfilled. The vessel survived the storm and was still in useful service twenty years later.

By the time the *Royal Oak* reached England James Ker's health was restored and he returned to active duty. During the next three years his journeyings took him to Scandinavia, to Orkney and Shetland, to the south coast of Ireland and to Gibraltar and his diary is made up of descriptions such as any intelligent traveller might write but is devoid of interest to the medical historian. On his return to England in November 1782 he went ashore at Spithead and at that point his story breaks off. We know that when peace came in 1783 the number of naval surgeons, which had doubled itself during the war, was drastically reduced; most of those who had joined since the beginning of hostilities left the service and it is probable that James Ker was one of them but no record of his further career on sea or on land has been traced.

THOMAS DOWNEY

Thomas Downey was a Devon man. At his home town, Crediton, the records show that in 1790 he was married by licence to one, Anne Hole, and that in 1811 he was vendor of the Royal Oak Inn and other tenements. He was, indeed, a man of property, well educated, of cultivated tastes and high professional standards. Downey studied medicine in Edinburgh, not at the university but in extramural classes conducted independently by Fellows of the Royal College of Surgeons; thereafter he was in practice for a time in Crediton and then joined the Royal Navy. Towards the end of 1795 Downey sailed for the West Indies as surgeon's mate in the Abergavenny, a large East Indiaman which had been converted into a ship of war. On board was a regiment of dragoons bound for Barbados. Because of persistently adverse weather and a succession of mishaps the passage across the Atlantic took nearly six months, at the end of which time those on board were in an extremely unhealthy state (Gillespie, 1800). A week before Barbados was reached in May 1796 an epidemic of ship-fever broke out which appears to have been typhus. At Barbados most of the dragoons disembarked and the sick from the Abergavenny were admitted to the naval hospital there, to which Downey was appointed assistant. A week later, however, the surgeon on the Abergavenny was stricken with ship-fever and Downey, after receiving a warrant for promotion to the rank of surgeon, returned to the ship to take over surgical charge. Soon afterwards the vessel sailed for Martinique with her crew still very sickly and when that island was reached 108 men out of a company of 350 had to be admitted to the naval hospital at Port Royal and to a temporary hospital which was set up at Gros Islet. Within a few days Downey was himself a patient in the latter hospital.

During his absence from the *Abergavenny* the epidemic of ship-fever subsided to be followed immediately by a worse disaster. Yellow fever appeared in the squadron lying at Port Royal. The principal centre of infection was the careenage* situated

* Careen; to turn a ship over on one side for cleaning, caulking or repairing.

near to a canal, the banks of which were low and swampy. Every vessel which visited the careenage for repairs was severely stricken, while those of the squadron which lay out in the bay were much more lightly affected. When Downey, still a very ill man, returned to the *Abergavenny* he found the crew in the grip of yellow fever and the sick list continued to increase while the vessel was on passage to Mole St. Nicholas in Haiti. When that port was reached Downey, exhausted by overwork, was found to be unfit for further duty in the West Indies and sent back as a passenger to England. He embarked on the *Intrepid*, then going home with a convoy. In the course of a slow, tedious passage of the Florida Channel the ships of the convoy were stricken with yellow fever. The frigate *Daedalus* was particularly severely affected and because of the illness of the surgeon of that ship, who died the next day, Downey, though still very weak, consented to return to duty. He was forthwith transported to the *Daedalus* and continued to act as surgeon until the vessel reached port in England.

Yellow fever of the West Indies was a killing disease with a mortality which might rise to more than 30 per cent in young sailors and soldiers newly arrived in the islands; and in the second half of the eighteenth century it was the greatest scourge afflicting the fighting services. The cause and manner of spread remained unknown and opinions as to its origin were as diverse as they were inaccurate. Miasmata were blamed by some, dirt and putrescence by others; one authority maintained that vellow fever could be caused by damaged coffee left lying on the wharves, another that crises in the disease were governed by the moon. Ideas of treatment were also diverse and often contradictory. Indeed one eighteenth-century writer on the subject has said with frankness; 'What passionate contentions and wild theories has this fever given birth to!' and it is recorded that in 1750 two physicians of Jamaica disputed so hotly as to whether yellow fever was an inflammatory disease that they fought a duel in which both combatants were killed-a result, as the historian observes, which left the question no nearer a decision. A number of medical men of greater or lesser eminence, having had experience of yellow fever in private or Service practice, wrote books or treatises and among the volumes which Downey carried with him and consulted on board ship were three written by authorities on yellow fever; he was also acquainted with the work of a fourth. The authors concerned were Robert Jackson, Colin Chisholm, Benjamin Rush and Benjamin Moseley. Robert Jackson, an M.D. of Leyden and a colourful figure, served in the army in America, the West Indies and Flanders and later was a vigorous reformer of corrupt administration in the army medical board. His career was interrupted by a prison sentence of six months passed on him for striking the Surgeon-General across the shoulders with his gold-headed cane, but promotion was not permanently affected by this and Jackson in the end became Inspector General of Army Hospitals. He met yellow fever early in his career when he was in private practice at Savanna-la-Mar in Jamaica. Jackson held Cinchona bark to be of little value in yellow fever though a sovereign remedy in malaria. He started treatment by bleeding and then went on to reduce the fever by cold affusions. This was achieved by suddenly and repeatedly dashing cold water from a bucket over the head and shoulders of the sufferer (Jackson, 1791).

Colin Chisholm was surgeon to H.M. Ordnance in Granada when a severe outbreak of yellow fever occurred there in 1793, the disease, according to him, having

been brought from the west coast of Africa in a slave ship. In his opinion bleeding was contra-indicated, so was Cinchona bark—'Nature revolts at the very idea of Bark.' In all cases the most effective treatment was the administration of mercury* (Chisholm, 1795).

Benjamin Rush, the Quaker physician known as the Sydenham of America, was an M.D. of Edinburgh and for many years professor of medicine at Philadelphia. During an epidemic of yellow fever in that city in 1793 nearly four thousand people died and Rush himself had the disease, though in a mild form. In treatment he rejected bark, purged his patients with calomel and pinned his faith to early bleeding. Often, indeed, he bled the sufferer three times in the day, for five days, taking as much as a pint a day (Rush, 1794).

Benjamin Moseley settled in practice in Jamaica in 1768 and became Surgeon General of the island, where he saw recurrent outbreaks of yellow fever. He had nothing to say in favour of mercury, advised against bark as likely to cause coma and, like Rush, considered early bleeding to be the most beneficial treatment (Moseley, 1787).

The only opinion held in common by those four authorities was a distrust of Cinchona bark. On other treatments their views were at variance and Downey had difficulty in getting any real help from reading their books. Nevertheless he made a conscientious attempt to compare the therapeutic measures which they recommended, adopting an empirical attitude worthy of praise.

Soon after the *Daedalus* arrived at Portsmouth in November 1796 Downey composed and sent in a detailed account of his experiences to the appropriate officials. Unfortunately it has not been possible to lay hand on this document, which so impressed the authorities at the time that considerable portions of it were quoted by Thomas Trotter, Physician to the Channel Fleet, in the second volume of his classic work, *Medicina Nautica* (1797–1803). At the same time Downey for his own benefit wrote a similar, but not identical, description of the epidemic of yellow fever which has survived in manuscript in private hands and is now in the possession of Miss E. M. Campbell-Hamilton of Edinburgh. The contents in the main consist of clinical descriptions and detailed therapeutic arguments based on the writings of Jackson, Chisholm, Rush and Moseley. These are of little concern today; but the narrative sections of the manuscript are interesting, especially those dealing with events after the *Abergavenny* left Barbados with typhus fever still on board. They have therefore been extracted, put together in sequence and are presented here to the reader.

We sailed (from Barbados) for Martinique in such a sickly state that we had only one midshipman and fourteen seamen capable of duty; to these were added 100 French field negroes and sixty soldiers. I think it was the third day brought us to Martinique where I myself was almost directly taken ill with Typhus and sent to the hospital at Gros Islet with several others; and after a state of illness, relapse and convalescence, in all about six weeks, I returned to the *Abergavenny* in a very weak state.

The Abergavenny sailed immediately for Mole St. Nicholas. During our passage several of the people were seized (with yellow fever). With respect to the treatment of this disease I was much

* Treatment of all kinds of fever with large doses of mercury in the form of boluses of calomel was commonly practised by naval surgeons in the eighteenth century. They called it the 'calomel plan'; their patients knew it as the 'thunderbolt cure' and the boluses as 'thunderbolts' because of the force with which they passed through the human body.

at a loss. The books in my possession were Dr. Jackson's Treatment, Dr. Chisholm and that of Dr. Rush. The first of these it seems had placed his chief dependence on cold bathing; the second on the use of calomel and the last on evacuations by bleeding and purging. As for the first, I considered that till this practice shall have established its efficiency and custom rendered it more general, many difficulties will arise against its being carried in execution, particularly on board of ship. The plan recommended by Dr. Chisholm was very rational and promised success and Dr. Rush's ideas of the nature of the disease, strengthened by Dr. Moseley, led me to approve the mode of treatment. Among those seized was the master, who giving an imperfect account of the time when he was seized. I was induced after much hesitation to bleed him on what was really the fourth day of his illness. This of course gave him no relief and he died on the sixth after haemorrhage and symptoms of putrescence had taken place. My attendance on the sick after coming on board, being up two nights and the greater part of the third with the master, reduced me to such a state of weakness that my stomach would not for many days retain anything but water. Of course I was no longer able to attend to duty. While I continued thus two or three men more were taken ill. I saw them at intervals when I had strength to be supported to their cots, but they were not under my direction. I believe five or six died while I remained on board. My weakness increasing and suspecting an affection of the liver I petitioned Captain Smith to be discharged for a passage to England and in compliance received an order to go on board the Intrepid, then going home with a convoy. On board this ship I found several people ill, the symptoms the same as those I had remarked on board the Abergavenny and the event in most cases fatal.

We at length sailed for England and had been out about a month when I was desired by Captain Carpenter to go on board the *Daedalus* if my strength would permit. There I found the surgeon and two others in a state past recovery. I was informed that 24 besides had already died since leaving Port Royal. Calomel had been used as the chief medicine, but what was on board having been expended they had for several days depended on a small and precious supply from the different ships of war. It was a great part of my employment to apply to the different men-of-war for what portion of calomel they could spare and then to the merchant ships. Many of them gave us part of their little store but the quantity received even from the men-of-war was very small. The want of calomel induced me to represent the situation of the ship's company by a letter, which I followed by another some time after, imparting the stock of medicines to be no more than sufficient for a few days and stating the danger of a voyage back where we might expect the remainder of the ship's company to be attacked without a possibility of giving them relief.

Fortunately the worst of Downey's fears were not realized. By the time the ships touched at Halifax, Nova Scotia, the epidemic of yellow fever had subsided and when Portsmouth was reached a medical man visiting the squadron reported of the *Daedalus* that the surviving ship's company was very healthy, except for some obstinate sores, a result of scurvy.

When Downey left the *Daedalus* at Portsmouth in 1796 he joined the frigate *Ethalion* and he was on board that ship when she struck a rock and was lost on the night of 24 December 1799, her crew being picked up by a passing vessel. Downey during the next few years saw service in Indian waters, in the Eastern Mediterranean and was present at the battle of Trafalgar, but details of his appointments cannot be traced. He was surgeon to the naval hospital at Gibraltar in the spring of 1810 and in March of that year obtained the degree of M.D. from St. Andrews University. In 1811 Downey was transferred to the receiving ship *Enterprise* and five years later he died. His widow continued to live at Crediton until her death in 1851.

When Thomas Downey in March 1810 became an M.D. of St. Andrews University he did so *in absentia* by certificate. Degrees by certificate were granted by many universities in Europe and America. In Britain the main sources were St. Andrews University and King's and Marischal Colleges in Aberdeen and a large number of men in colonial practice and in the Services took advantage of them. The certificates

which accompanied applications for the degree of M.D. were usually signed by former teachers of the applicants or by doctors with whom an apprenticeship had been served and they purported to show just cause for the granting of a degree. The signatories were expected to be men of repute and if they were conscientious and experienced teachers their recommendation was often, no doubt, justified. In any case the universities liked the system, which benefited them financially. At St. Andrews the fee paid by the candidate was shared by the university library, the professor of medicine and the archbeadle. By the end of the eighteenth century the average number of M.D. degrees thus granted at St. Andrews had risen to twenty a year and only one in twelve was refused. The practice was open to abuse and exploitation; in 1830 it earned the severest condemnation from the Royal Commission on Universities, and the University of St. Andrews prudently forestalled the Commission's denunciation by abolishing the system in 1826 (Votiva Tabella, 1911). Downey's certificate was signed by two respected Fellows of the Royal College of Surgeons of Edinburgh, William Farguharson and James Hamilton junior, the former of whom was at one time President of the College and the latter held the chair of Midwifery at the University. We may assume that as a student Downey had attended classes conducted by those two Fellows. Their certificate reads:

These are to certify that Mr. Thomas Downey who has for several years practised physic and surgery in Exeter and Crediton, Devonshire, and latterly in H.M. Fleet is a man of most responsible character—that he has attended a complete course of lectures on the several branches of medical study and that from personal knowledge we judge Mr. Thomas Downey worthy of the honour of a degree in medicine.

WM. FARQUHARSON, M.D. JAS. HAMILTON JUN, M.D.

Edinburgh, 20 Feb, 1810.

An obituary notice published in the Naval Chronicle in the autumn of 1816 describes Downey as an officer of acknowledged merit in his profession and a gentleman of respectable literary merit. He was, indeed, a serious writer, his major achievement being a formidable volume of verse the purpose of which, he tells us, was to place in an interesting and dignified view the pleasures which arise in the course of maritime employment. This work, dedicated to John Wilson Croker, Secretary to the Admiralty, was published in 1813 under the title: Naval Poems; Pleasures of Naval Life; and the Battle of Trafalgar. It contains some three thousand lines of verse and twenty-seven pages of notes which include an excellent glossary of naval terms. In the list of subscribers are two hundred and eighty names, among them those of John Wilson Croker himself, Dr. John Harness, a Commissioner responsible for the medical department of the Navy, and Admiral Lord George Keith who asked in advance for two copies of the work.

Two extracts are given here as examples of Downey's writing. The first comes from the Introduction, where he refers to the sailor's life and makes this comment:

In prose writings allusions to the hardships and perils of the sea are common, and too frequently even on board ship that feeling of languor and monotony which occasionally oppress men in every station of life is uttered in the language of discontent. The naval life is *not* a series of privations, distresses and afflictions. It presents a variety of situations the delights of which are heightened by contrast; it calls into exertion and strengthens those qualities both of body and mind which adorn and dignify manhood.

The second extract, taken from *Pleasures of Naval Life*, is Downey's description of the ship's surgeon:

The sick man's friend, immersed in useful care; Serious yet cheerful; of unruffled mind; Fixed in his purpose; resolute yet kind; Humane in manners; blest with ready skill That traces to its source each latent ill. See as he walks his round in sober state, And anxious expectations on him wait, Neatness and order follow in his train, Attend his beck and smooth the couch of pain. While danger claims the firm, unshrinking hand He softens anguish with attentions bland And haply mingles praise—thrice grateful sound, The sweetest balm that soothes a sailor's wound.

Such, after eighteen years in the Service, was Thomas Downey's sketch of a naval surgeon. Perhaps we can see in it something of the man himself.

ACKNOWLEDGEMENTS

The writer is indebted to Mr. William Park, Keeper of Manuscripts in the National Library of Scotland, for his kindness in drawing attention to James Ker's journal; to Miss E. M. Campbell-Hamilton for her courtesy in allowing access to Thomas Downey's manuscript; and to Mr. N. S. E. Pugsley, City Librarian, Exeter, and Mr. R. N. Smart, Archivist, St. Andrews University, for the trouble they have taken in providing information.

REFERENCES

CHISHOLM, COLIN, An Essay on the Malignant Pestilential Fever introduced into the West Indies from Boullam, London, Dilly, 1795.

Five Naval Journals, ed. H. G. Thursfield, London, Naval Records Society, 1951.

GILLESPIE, LEONARD, Observations on the Diseases which prevailed on board a part of His Majesty's Squadron on the Leeward Islands Station, 1794–96, London, 1800.

JACKSON, ROBERT, A Treatise on the Fevers of Jamaica, London, 1791.

- MOSELEY, BENJAMIN, A Treatise on Tropical Diseases and on the Climate of the West Indies, London, 1787.
- RUSH, BENJAMIN, An Account of the Bilious Remitting Fever in Philadelphia, Philadelphia, Dobson, 1794.

Votiva Tabella, St. Andrews University, 1911.



The Surgeon of H.M.S. Royal Oak and two of the Surgeon's Mates; October, 1779. Reproduced from a pen-and-ink sketch in James Ker's journal, by courtesy of the Trustees of the National Library of Scotland.