Some experiences of ships' surgeons during the early days of the sperm whale fishery

IAN A D BOUCHIER

There is a rich heritage of literature related to the whaling industry. Much of it is documentary, natural history, and of a scientific nature; but at least one great work of art, *Moby Dick*, has emerged. Remarkably little has been contributed by the medical profession; remarkable because from the seventeenth century British whalers carried a surgeon as part of the crew, and he would have been the one man aboard with the requisite education and scientific training to observe and record events occurring during the voyage. The surgeon lived in the cabin and messed with the captain and mate. Very often he had just taken his degree and had not yet settled into his practice. The reasons for a doctor to undertake a voyage on a whaler were varied—financial, love of adventure, and a desire to see new and unexplored parts of the globe, initially the Arctic, then the Pacific and South Seas, and, from the early part of this century, the Antarctic.

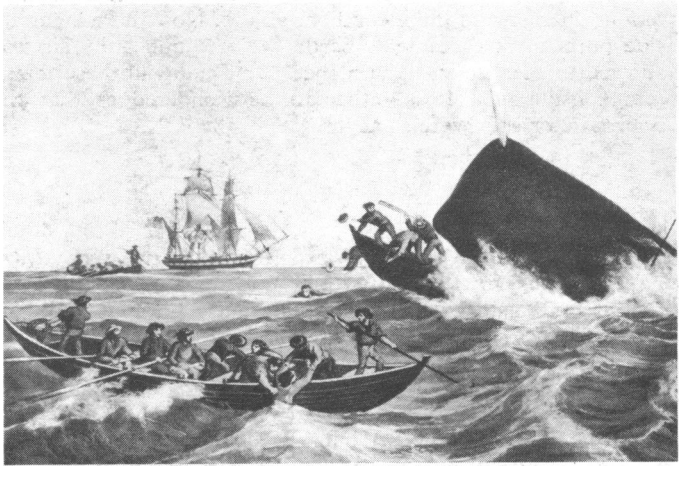
Such early diaries and reminiscences of the ship's surgeon as exist make fascinating reading. They serve as important records of the methods of whaling, the whale hunt itself, the equipment used, and provide early descriptions of the biology of the whale. The surgeon would return with many biological specimens, which often formed the basis for important collections. Because many of the diarists were interested in the new lands being visited, their recordings contain little information about life on board the whaler and, particularly, the health and welfare of the crew. Some of the most important writings by medical officers relate to the early days of sperm whale fishing.

Sperm whales were not fished by Arctic whalers, and were only taken after 1712, when Captain Hussey of Nantucket Island captured the first sperm whale by accident. The British sperm whale industry began in 1775, initially in the Atlantic and after 1788 in the Pacific. By 1819 it extended along the western parts of North America and the Japanese Sea, where rich catches were to be had. In the early nineteenth century the ships' surgeons Lyell, Bennett, and Beale all wrote about the long voyages that they had undertaken on whalers.

John Lyell

John Lyell was born on 14 August 1807, the son of David Lyell and Elizabeth Wishart. After qualifying he joined the *Ranger*, a vessel of war that had been refitted as a whaler. His voyage lasted from 1829 to 1833, and on his return he settled in Newburgh and practised there and in Abernethy. Lyell was a founder of the local horticultural association. In 1870 he went to Glasgow to become a city missionary, but he had to return to Perth in 1874 because of ill health and he died in 1874. A son, David, took over his practice and a grandson, John Lyell, was also in medical practice in Perth.

While in the *Ranger* Lyell maintained a careful and detailed diary. This has not been published and is kept in Perth Museum. I am grateful to the curator of the museum for allowing me access to the diary. It is of considerable interest as a record both of whaling life and of travel. The record is every bit as informative as the works of Bennett and Beale which appeared in the late 1830s. In particular the diary contains charming and accurate water colour illustrations of islands, fauna and flora, and whaling artifacts. The *Ranger* fished in the Pacific, both north and south of the Equator, and towards the end of the voyage life must have been quite uncomfortable. Lyell describes how he had to sleep on top of two trunks to keep dry at night, and he had to lie under pieces of old canvas to protect himself from dropping moisture.



Sperm whale in a flurry.

Lyell tells little about the men and their illnesses. Only one elderly man, George Burns, died, probably of tuberculosis. In August 1830, however, there is a detailed entry about the problem of scurvy. James Lind had published his treatise on scurvy in 1753 but it was only in 1796 that Sir Gilbert Blane enforced the use of fresh fruit and vegetables in the Royal Navy. Well into the nineteenth century merchant seamen were still deprived of the requisite prevention and treatment, partly because of ignorance and partly because of the attitude of the owners. Scurvy was often such a problem for whalers that ships had to leave the whaling grounds when fishing was most productive and put into islands, such as the Marianna or Sandwich, for the crew to recover.

Lyell records that, some 10 months after leaving England, the staple diet was of beef, pork, flour, peas, barley, and rice. Potatoes, bought at Gravesend, had lasted but a few months, and some fresh stock was obtained at Bran and Timon; otherwise there was a total deficiency of fresh vegetables. The men used pickled cabbage to prevent scurvy, consuming two 42-gallon casks during the voyage. Lyell writes: "But the predisposing cause lay, much less I conceive, in the diet, than the impurity of air, and fits of excessive exertion to which the crew were subjected. When whales were pursued in hot sun, and every chance of success lay in the oar, one might easily conceive every effort would be used to ensure the possession of a prize on which depended their pay: and indeed so much was this the case that some of the seamen might constantly be seen with their backs covered with erysipelatous blisters induced by the exposure of their naked bodies to the direct rays of the burning sun: in the worst cases I have seen the whole shoulders and back as far

Based on a lecture given to the Scottish Society for the History of Medicine on 19 June 1982.

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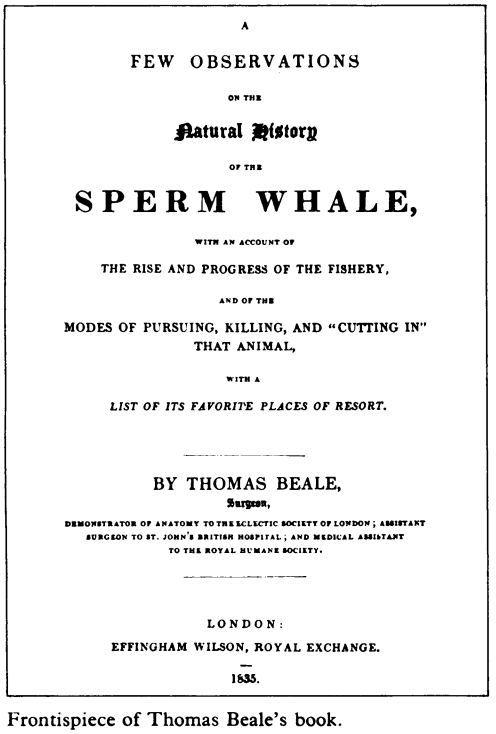
as the loins were covered with blisters, some of which were as large as the hand"; and again: "But an insidious enemy that made a constant inroad on their constitutions was the aerial impurity of the interior of the ship. This was partly unavoidable owing to the nature of the voyage; the dampness of the air was kept even in the dryest weather by the necessary practice of watering the casks in the hold to keep them from shrinking and leaking oil: and it often was surcharged with a noxious effluvin, arising from putrid blubber in the half deck where a third of the crew slept; a filthy mixture of blood, water and oil sometimes stood several inches deep, which could not but impart a deleterious character to the incumbent air. . . . Now there being no side ports for the seamen's berths . . . the unhealthy air was allowed to exercise all its virulence. . . . Taking all these things into consideration it is rather to be wondered at that the Scorbutic ravages were so slight."

Thomas Beale

Thomas Beale did publish his experiences of a two-year voyage he undertook in 1830. In 1835 an important treatise on the natural history of the sperm whale appeared and, encouraged by the success of this, in 1839 Beale produced an expanded version of his voyage. This book is one of the earliest to provide a detailed description of whaling life, and one person who read and was influenced by Beale's book was Henry Melville. We know that Melville had an annotated copy, and that he relied heavily on Beale's descriptions of sperm whales and the whaling industry when writing *Moby Dick*.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FEW OBSERVATIONS

ON THE

Natural History

OF THE

SPERM WHALE,

WITH AN ACCOUNT OF

THE RISE AND PROGRESS OF THE FISHERY,

AND OF THE

MODES OF PURSUING, KILLING, AND "CUTTING IN" THAT ANIMAL,

WITH A

LIST OF ITS FAVORITE PLACES OF RESORT.

BY THOMAS BEALE,

Surgeon,

DEMONSTRATOR OF ANATOMY TO THE ECLECTIC SOCIETY OF LONDON; ASSISTANT SURGEON TO ST. JOHN'S BRITISH HOSPITAL; AND MEDICAL ASSISTANT TO THE ROYAL HUMANE SOCIETY.

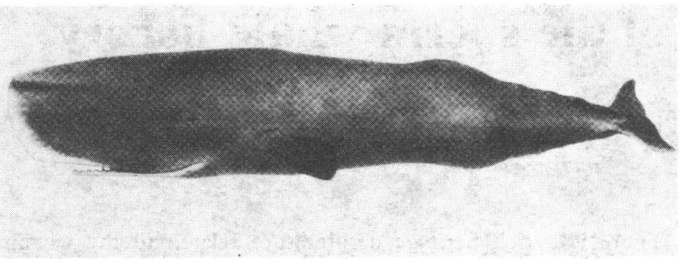
LONDON:

EFFINGHAM WILSON, ROYAL EXCHANGE.

1835.

Frontispiece of Thomas Beale's book.

Beale was born in 1807 and was educated at the Aldergate Street Medical School from 1827 to 1829. One year later, and a married man, he set off in the *Kent* on his 50 000-mile (80 000 km) journey that lasted 30 months. The fishing was mainly in the Japanese Sea. Conditions on board must have been trying, for although Beale provides us with little information about events in the *Kent* he records that the captain abused and ill-treated his men to such an extent that the mate left the ship, several of the men deserted, and in June Beale himself transferred to the *Sarah and Elizabeth* by swapping berths with the surgeon, Mr Hildyard.[1] Hildyard had been a medical student with Beale and it was at his own request, and against Beale's advice, that he moved to the *Kent*, a decision Hildyard was to regret. On his return Beale took the post of assistant surgeon at St John's British Hospital in Hatton Garden, London. Later he moved to Limehouse, where he led a busy life in general practice, dying of cholera in 1849.[2] Beale gives us a detailed description of the anatomy, physiology, and life of the sperm whale, based on his own observations but also quoting from the important publications of John Hunter[3] and including Bennett's[4] detailed observations of the eye and the teeth of the sperm whale. He provides an early history of sperm whaling, and paints a vivid picture of the chase, the cutting of the whale, and the "trying out," whereby oil is extracted from blubber. Little mention is made of his medical experience on board the whaler, but Beale comments on diseases in the native South Sea Islanders including ophthalmia, consumption, gibbus, elephantiasis, and hydrocele.



Sperm whale or cachalot.

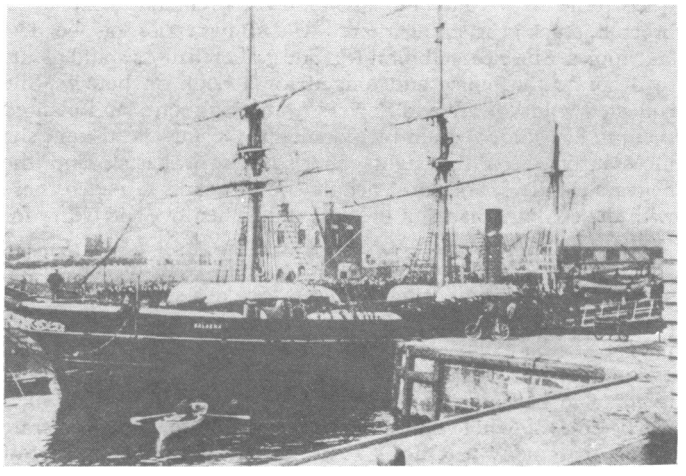
Frederick Debell Bennett

The third important author is Frederick Debell Bennett, who lived from 1806 to 1859. He was born in Plymouth and was admitted to the Licentiate of the Society of Apothecaries in 1828, proceeding to MRCS in the following year. On 17 October 1833 he set out from London on the South Sea whaler *Tuscan* for a three-year voyage. His account of this was published in 1840.[4] Bennett collected a large number of botanical and zoological specimens, which he presented to the Hunterian Museum, the Linnean Society, and King's College.

Bennett greatly admired the whaling man, commenting that he was often regarded as ignorant, degraded, and dissolute, whereas in an occupation of "extreme anxiety and trial" it was the noblest branch of the merchant navy, being "best adapted to display the courage, perseverance, and enterprising spirit of British seamen in their truest and brightest colours." Bennett was more fortunate than Beale for the *Tuscan* was a well-ordered boat and returned without loss of any of the crew from accidents or disease. Scurvy was not a problem on this voyage. Bennett held that, "scorbutic disease arises less from a long continued diet of salt provisions than from the bad quality of the latter, or from a general deficit in the selection, or mode of preserving, both food and water."

Like Lyell, Bennett commented that the crew soon tired of fresh food—pork, beef, poultry, vegetables, and fruit—and preferred to return to the "more stimulating diet of salt beef and pork"—called salt horse.

As the *Tuscan* travelled north, across the Equator to colder waters on the west coast of America, many of the crew developed a profuse eruption on the skin of minute vesicles, attended with intense itching on exposure to the cold. It is not clear what this was but one possibility is sensitisation to the marine animal, resembling seaweed, called *Alcyonidium gelatinosum*, and as such Beale's description bears a relation to that ailment of North Sea fishermen known as "Dogger-Bank itch."



The whaler *Balaena* leaving Dundee Harbour.

Of considerable interest is Bennett's account of an illness after ingesting salted albacore, or tunny. A few hours after the meal the affected men became feverish, complained of headache, and broke out in a "scarlet rash." The illness was not brought on by eating fresh tunny, and was short lived. I believe that this is an early, if not the earliest, account of scombrotoxic poisoning, which results from eating tuna, bonito, or mackerel, the flesh of which has become toxic as a result of bacterial contamination and growth. It is a form of histamine poisoning in which there is a brief, non-fatal illness of headache, fever, diarrhoea, and a bright red rash. The incubation period is a matter of hours, the onset abrupt, and the illness lasts from three to six hours and is always over by 24 hours. Although as little as 20 mg histamine/100 g flesh may cause symptoms, the usual dose is in excess of 100 mg/100 g.[5]

The great days of whaling are over. In the early part of this century factory ships were developed and accelerated the decline of an industry that had already squandered the resources on which it depended. These factory ships brought a new dimension of health care to the whaling crew; and a new literature of life in the frozen south emerged in which medical writers have made their own contributions. Excellent though these be, they cannot equal in importance the early writings of the whaling surgeons.

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Illness of Dorothy Wordsworth

IRIS I J M GIBSON

Dorothy Wordsworth was a very striking woman whose intelligence, character, and sensibility impressed people at first view as vital and unique. She had a gift for words that really exceeds that of both William and Coleridge and often gave rise to their finest poetry when they converted her prose into their poetry.

When I first read her journals and letters I had not had an attack of migraine, but when I came to do so again I had had many attacks and instantly recognised that she suffered from migraine. In 1804 she wrote William's opinion of her illness, "He bids me add that I *always* begin with sickness and that any agitation of mind either of joy or sorrow will bring it on." She said of herself, "It is natural to me to do everything as quickly as I can and at the same time." This seems to me to be the pattern of a particular type of migrainous personality, where the person scarcely seems happy without having so much to do that she can scarcely contend with it. Dorothy did not have unilateral headache, eye symptoms, or paraesthesiae. She obviously had anorexia, vomiting, photophobia, and typical relief by sleep and by lying down in a darkened room. Quite strikingly she might have several days of extreme activity culminating in headache, but after a short period of sleep would be able to return to overactivity. On one occasion, however, she said, "I lay in bed to have a Drench of sleep till one o'clock." Any sufferer from migraine knows exactly what she means and exactly what she sought. There are 63 probable references to migraine in the journals, but there were erasures in the manuscript by an unknown person and some of these referred to illness.

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Samuel Taylor Coleridge

I regard her attacks as multifactorial in origin, due to considerable physical and mental activity, to the stress of William's problems and struggles with composition, and her undue anxiety about him. At this time Samuel Taylor Coleridge played a large part in their lives. He was a poet of genius, a man of great vitality and charm, evasive, an opium addict, and had an unhappy marriage. I am in no doubt that Dorothy found him sexually attractive and that this and Coleridge's own problems contributed to the migraine. It is not so much when Coleridge is actually present that she gets migraine but farewells precipitate attacks.

I wondered if the migraine could be related to late hours, since the Wordsworths often did not go to bed until 11, 12, or 1. If they were in talkative mood or William had insomnia or Coleridge was there, bedtime could be half past three or four in