

THE SOLDIER'S FRIEND— SIR JEREMIAH FITZPATRICK, INSPECTOR OF HEALTH FOR LAND FORCES

by

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DUE TO THE high incidence of disease in British army regiments that were transported in merchant vessels during the French Revolution, the War Office in 1794 established sanitary regulations for troopships. At Plymouth and Portsmouth, the major ports of embarkation in England for military expeditions, Sir Jeremiah Fitzpatrick, M.D., Inspector of Health for Land Transport, enforced this hygienic code. Fitzpatrick improved the practice of military medicine, he supervised the cleansing of ships, and he ameliorated living conditions for soldiers convoyed on long, gruelling voyages to theatres of war. Critical of army colonels and regimental surgeons who were indifferent to the plight of their men, caustic to complacent officials who impeded his sanitary crusade, and contemptuous of venal shipmasters who crammed their decks with cargoes of helpless troops, Fitzpatrick had a stormy career as a public health officer.

Few clues exist about Fitzpatrick's Irish Catholic background, his personal life, or even about his education and training. Even the date of his birth is unknown. He was a doctor when knighted on 20 July 1782 by the Lord Lieutenant of Ireland; inscriptions on two portraits of Sir Jeremiah (or Jerome) cite his degree; and in Public Record Office documents, Fitzpatrick is mentioned as an M.D. Yet, his name is not among the lists of university graduates (Oxford, Cambridge, Dublin, Glasgow, Aberdeen, Edinburgh, Leyden),¹ and the Army Medical Board, during a controversy about his professional qualifications, stated to Henry Dundas, Secretary of War, that Fitzpatrick had not "been bred or accustomed to practice, either Physic, or Surgery in Hospitals of any kind; . . .".²

Although Fitzpatrick's early career remains obscure, he won a reputation as a prison reformer. In 1782, he was Deputy Inspector of Dublin jails, and in 1788, he was appointed Inspector of Prisons in Ireland. An ardent admirer of John Howard (1726–1790), the foremost penologist of the era, Fitzpatrick published in 1784 *An essay on gaol-fevers*, which received little attention compared to Howard's *The state*

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¹ For a very brief reference to Fitzpatrick, see A. Peterkin and William Johnston, *Commissioned Officers in the Medical Services of the British Army*, 2 vols., Aberdeen, The University Press, 1917, 1: 82. I am indebted to Mr. L. M. Payne, Librarian, Royal College of Physicians of London, for additional bibliographic data about Fitzpatrick.

² War Office Papers, 1/897, f.405, Public Record Office. (Hereafter W.O.)

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of prisons in England and Wales (1777).³ It was Howard's sociological critique, and not Fitzpatrick's medical treatise, that aroused some British reformers to improve the nation's penitentiaries. These two humanitarians probably were acquainted, for Howard often toured Ireland, and each mentioned the other. Fitzpatrick praised the Englishman as "the all-worthy Howard whose indefatigable zeal . . . led him to the most loathsome dungeons in most parts of the Christian world, . . ."⁴ And, Howard, in 1789 explained that an Irish colleague, presumably Fitzpatrick, had recently submitted a prison report to the government that "was very full, and laid open many scenes of exactions, abuses, and cruelty. . ."⁵

Howard's masterpiece, replete with data about Europe's major penitentiaries and characterized by a brisk literary style, was far superior in scope and content to the essay by Fitzpatrick, who, as a penologist, was knowledgeable only about Irish prison life, and who wrote in a less graphic manner. Another fundamental difference is apparent in their views of medicine. Howard was not medically qualified, but, even for a layman he demonstrated an impressive knowledge about the nature of pestilence. On the other hand, Fitzpatrick, as a doctor, pondered the causes of disease, he referred frequently to contemporary scientific discoveries, and he confidently anticipated that the medical profession could assist mankind in mastering the environment.

To demonstrate that a physician could better society, Fitzpatrick stated that he himself had promoted prison reforms that were enacted in 1784, and that in 1787 he had convinced the Irish Parliament to improve institutional facilities for lunatics.⁶ Sir Jeremiah explained that as Inspector of Prisons, he had advised on the location and construction of new buildings, and that he had determined "that the humane intentions of the laws were punctually executed; . . . The happy effect of the foregoing regulations," he declared, "have been such as have surpassed the most flattering expectations, . . ."⁷ Determined "to obviate the miseries to which prisoners are unfortunately exposed,"⁸ Fitzpatrick promulgated sanitary measures to protect the health of inmates, particularly from the ravages of the dreaded typhus. This infection—then termed gaol, ship, camp, putrid, hospital, or poor-man's cabin fever—had killed more prisoners from 1773 to 1775 than were publicly executed in the entire kingdom.⁹ Yet, during his eleven years as a prison custodian, Fitzpatrick stated, he had so improved hygienic standards that only two men died from "fevers". His success in curtailing the normally high mortality rate in Irish jails had resulted, Fitzpatrick asserted, from his application of sensible sanitary measures.¹⁰

³ Jeremiah Fitzpatrick, M.D., Knight, *An essay on gaol-abuses, and on the means of redressing them; together with the general method of treating disorders to which prisons are most incident*, Dublin, D. Graisberry, 1784; John Howard, F.R.S., *The state of prisons in England and Wales, with preliminary observations, and an account of some foreign prisons*, 3rd ed., London, T. Cadell, 1784.

⁴ Fitzpatrick, op.cit., note 3 above, p. 27.

⁵ John Howard, *An account of the principal lazarettos in Europe, with various papers relative to the plague; together with further observations on some foreign prisons and hospitals; and additional remarks on the present state of those in Great Britain and Ireland*, London, T. Cadell, 1789, p. 78.

⁶ British Museum Additional Manuscript 35,917, ff. 207–209. (Hereafter Brit. Mus. Add. Mss.).

⁷ Sir Jeremiah Fitzpatrick, M.D., Knt., *Suggestions on the slave trade for the consideration of the legislature of Great Britain*, London, John Stockdale, 1797, p. 29.

⁸ Fitzpatrick, op. cit., note 3 above, p. 13.

⁹ Howard, op. cit., note 3 above, p. 81.

¹⁰ Brit. Mus. Add. Mss. 37,847, f. 197.

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The control of contagion was possible, Fitzpatrick explained, if the physician studied nature. "I am entitled from experience to declare," he emphasized, "that he who makes nature his pilot will seldom be disappointed."¹¹ In his discussion of disease, Fitzpatrick made no novel contributions to epidemiology. He knew about experiments underway in oxidation and respiration by Joseph Black and Joseph Priestley and he was familiar with the works on nautical and military medicine by James Lind and Sir John Pringle.

Health, Fitzpatrick explained, was maintained by the proper functioning of bodily fibres and fluids, which in turn depended upon the equilibrium of air pressure upon the body. Like other contagionists, Sir Jeremiah believed that atmospheric variations, resulting from changes in humidity and temperature, released "the putrid exhalations" that entered the blood stream and which inflamed the brain and other organs. Thus, if the air were "deficient," then:

. . . a general relaxation [in the body] takes place, the air continued in our fluids, not finding the atmospheric pressure continued, expands itself, and by distending the vessels causes a universal plethora on the surface, and in the pulmonary vessels; and from the aerial tubes not being sufficiently distended, arises that difficulty of breathing experienced on lofty mountains. . . .¹²

Likewise, sudden changes in temperature had harmful effects. Cold air checked perspiration, "constricts the solids, and contracts the limbs." Air that was too moist, "destroys the necessary spring and elasticity of the vessels . . ." And if air were too warm, he pointed out, a profound dislocation of the circulatory system would occur, resulting in "bilious, putrid, malignant fever, and fluxes." In protecting men subject to prolonged confinement, Fitzpatrick advised against rapid variations of humidity and temperature, for "as heat and moisture conjoined, are the parents of vegetation, they are likewise so of putrefaction."¹³ The word putrid and its derivatives were cited frequently in Fitzpatrick's vocabulary.

Fitzpatrick's concept of health was cleanliness to be achieved by pure air, adequate ventilation, suitable diet, and bodily purgatives. He believed that contagion was the transmission of some inexplicable chemical substance from one person to another propagated by dampness, a stagnant atmosphere, fetid and cramped quarters, an unwholesome diet, miasmata arising from bodily wastes and from ships' holds, and by poisonous vapours emanating from "putrid lungs". Thus malignant disease originated in:

. . . exhalations arising from the discharges of the human body pent up . . . from want of ventilation; to this cause may be added uncleanness, highly capable of breeding pest and vermin. . . . The dangerous vapors of the body pent up . . . acquire such a degree of virulence, . . . that air corrupted and petrified is so subtil [*sic*] and powerful, as to rot and dissolve [a] heart of oak.¹⁴

From his experiences in designing prisons, Fitzpatrick appreciated that the health of incarcerated criminals improved significantly by providing sufficient heat, light,

¹¹ Fitzpatrick, *op. cit.*, note 3 above, p. 120.

¹² *Ibid.*, pp. 25–26.

¹³ *Ibid.*, pp. 20–26, *passim*.

¹⁴ *Ibid.*, p. 60.

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daily exercise, clothing changes, adequate diet, latrine and bathing facilities, and regular medical examinations. Typifying the exuberance of the Enlightenment with respect to man's ability to better his society, he declared: ". . . , how eagerly we ought to embrace every method [of preventing disease] which can be devised toward the further preservation of the species".¹⁶

During the War of the First Coalition, when Britain joined Austria and Prussia in a reactionary alliance against Revolutionary France, Sir Jeremiah amplified his knowledge of preventive medicine as he observed the plight of another inmate under the state's jurisdiction—the British soldier. Usually recruited from the dregs of society, the under-nourished and often consumptive enlisted man was rarely given a medical inspection, and he was usually fed a diet inadequate to protect him from deficiency diseases that plagued the king's armies. Troops were housed in filthy barracks, garrisoned in damp fortresses, hospitalized in grimey warehouses, and transported in insalubrious troopships. As he sailed on 8 November 1793 with the 40th regiment from Cork to England, Fitzpatrick, who had volunteered to comfort the sick on the voyage, was appalled by the condition of the sickly Irish drafts, their ill treatment aboard small, dirty vessels (with their wives and children), and their inadequate provisions during the nightmarish passage to Plymouth.¹⁶

In the movement of troops by sea, little had changed since the War of the American Revolution.¹⁷ Due to the exigencies of global warfare, the Naval Transport Board usually relied upon chartered merchant ships to convey men and material. These vessels were first appraised at Royal Dockyards where naval agents inspected their hulls, masts, yards, timbers, planking, and rigging; and where they determined a ship's measured tonnage. According to a charter, a shipowner was required to fit, arm, and man (six sailors per 100 tons) a vessel before it could earn freight-money; he was also required to have his craft inspected and refitted periodically in order to maintain its seaworthiness. But as Fitzpatrick discovered, greedy ship-captains, apparently in connivance with corrupt officials, sometimes falsified the actual tonnage figure; they often neglected to provide even primitive passenger accommodations, and they frequently packed the decks and holds, supposedly consigned to troops (or "living freight" as Fitzpatrick described them)¹⁸ with their own merchandise.

The required number of vessels—transports, storeships, victuallers—depended upon the destination, the duration of the voyage, and the number of regiments embarked. For Calcutta, for example, the Transport Board hired supposedly spacious

¹⁶ *Ibid.*, p. 70.

¹⁶ W.O. 1/896, ff. 11–22.

¹⁷ For information on chartering ships, see David Syrett, *Shipping and the American war 1775–1783*, London, Athlone, Press 1970 *passim*; Piers Mackesy *The War for America 1775–1783*, Cambridge, Mass., Harvard University Press, 1965, pp. 65–72; Edward A. Curtis, *The British Army in the American Revolution*, New Haven, Conn., Yale University Press, 1926, pp. 120–134; Evan Fyers, 'The transport of troops by Sea', *Mariner's Mirror*, 1920, 6: 322–328; Mary Ellen Condon, 'Surveying, measuring and valuing British transports during the war against revolutionary France, 1793–1802', *J. Soc. Army hist. Research*, 1971, 49: 14–19. According to Alan E. Bax, 'Tons Burden', *Mariner's Mirror*, 1958, 44: 257, the tonnage of merchant vessels was computed thusly:

$$(L - 3/5B) \times B \times \frac{B}{2} = \text{Tonnage (L=length of keel; B= breadth)}$$

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¹⁸ W.O. 1/897, f. 633.

Indiamen, from the East India Company or from an association of owners known as “the Shipping Interest”, that measured from 800 to 1,200 tons. But on passages in British waters, and to Continental or American destinations, the Board rented smaller vessels ranging from 150 to 300 tons. Instead of a more scientific standard based upon cubic feet of space per man, the rule for ships hired was two and one-half tons of shipping per officer and two tons per soldier. Thus, a typical example is that a regiment of 700 troops, sailing to New England in 1779, voyaged in six transports of 1,531 tons—1,400 for the men, and 131 for the camp baggage, women and children.¹⁹ Frequently, however, due to perennial shortages of craft, the actual tonnage available averaged only one ton per man. In 1778, an official supervising the embarkation from Stade of 674 Anhalt-Zerbst troops on three vessels with a total capacity of 526 tons, callously remarked that the men “will be a little crowded, there being no remedy for these inconveniences . . . till they get to Portsmouth.”²⁰

The movement of an army overseas required the co-ordination of complex strategic and logistical factors that were ordinarily beyond the control of the Admiralty and the War Office. Although a knowledge of the favourable winds for Bombay and Barbadoes were familiar maritime lore, and although the navy endeavoured to embark, to convoy, and to disembark troops on distant shores during suitable weather, invariably, unforeseen obstacles marred such foresight. Transports in harbour usually needed repairs and refitting; store-ships were sometimes overloaded or their cargoes carelessly stowed; and victuallers were often undermanned or their provisions for a fleet were defective. Likewise, a scarcity of shipping, a strike by dockworkers, or the vagaries of weather, that could keep an armada in ports for weeks or blow it far off course, could alter the most judicious planning for an expedition. Due to such unpredictable circumstances, a general often found himself relatively immobilized at the inception of a campaign with troops already incapacitated from nauseating food, contagious diseases, and from close confinement for months on stormy seas.

The space allotted a soldier was a problem that perplexed Fitzpatrick. On Indiamen, regiments of a large expedition were usually supplied hammocks and a hospital area, they were often accompanied by ancient but unarmed warships euphemistically called “hospital ships”, and they drilled, cleaned their muskets, stood inspection and daily watch, and entertained themselves on Saturday nights on the broad upper deck. But a single regiment, or a portion of a regiment, transported on smaller craft had less room and fewer facilities. Except for inspection and guard duty, the men slept, lived, and passed the time on the orlop deck, located above the hold below the water-line, where the space was divided into two-tier wooden berths. For the wretched creatures thrust into “the womb of the vessel,”²¹ as Sir Jeremiah phrased it, life at sea was unbearable. “The men were packed like herring,” complained one such victim. “To every berth, six men were allotted, but as they were [*sic*] room for only four, the last two had to squeeze in as best they might.”²²

¹⁹ Syrett, *op. cit.*, note 17 above, p. 183.

²⁰ Cited in *ibid.*, p. 185.

²¹ Brit. Mus. Add. Mss. 37,847, f. 198; W.O. 1/897, f. 54.

²² Cited by Syrett, *op. cit.*, note 17 above, p. 185. Troops were also carried aboard warships on voyages to the Continent for amphibious assaults. Furthermore, in 1793 the Admiralty began converting some two-decked frigates into troopships.

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Not only was living space inadequate, but provisions were scant, dietetically un-sound and were often sickening. Troops at sea received the seamen's fare, but unless these soldiers were destined for the Indian Ocean, they were allotted only a two-thirds ration. Thus, on the route to America, the weekly provisions for every six soldiers consisted of: 28 pounds of bread, 18 lbs. of beef, 8 lbs. of pork, 2 lbs. of cheese, 2 lbs. of rice, 1 lb. of butter, 12 pints of peas, and 8 pints of oatmeal. Their main beverage was one half-pint of rum (diluted by water) daily per man.²³ That the food was usually unpalatable has often been mentioned. During a voyage to North America in 1778, one Hessian soldier recollected: "The pork seemed to be four to five years old. . . . The salt beef was in much the same condition. The ship's biscuit was often full of maggots [and] was so hard that [troops] sometimes broke it with a cannon-ball."²⁴

On weighing anchor, military officers occasionally supplemented the fare with fresh provisions, and frequently, a commanding general, prior to an amphibious assault, increased the ration in order to strengthen his men. Livestock was sometimes carried on board for fresh meat, fish was usually available, and at landings like Cape Town, passengers purchased additional food. But, although prominent naval doctors—James Lind, Thomas Trotter, Sir Gilbert Blane—had long urged improvements in the meals, the concept of a balanced diet was a century away. Thus, the rations were deficient in nutrients, and until the navy required that citrus fruit and lime juice be supplied to sailors in 1795, scurvy perennially struck the services. Even the water supply, contained in wooden barrels, was often undrinkable, and it was frequently infected with the germs of bacillary or amoebic dysentery, typhoid, paratyphoid or other organisms. On his naval vessel at Yarmouth in 1788, Dr. Leonard Gillespie discovered "Thames water filled six months ago at Deptford . . . now filled with a diluted sort of ink—putrefaction had made it fetid and stinking."²⁵ Yet, the Transport Board issued such unwholesome provisions that odoriferous water, rotten pork, wormy beef, putrid cheese, rancid butter, mouldy biscuits, and adulterated rum were invariably accepted as a serviceman's lot.

Infectious disorders flourished in the unhealthy conditions of ocean voyages in an era when baths were infrequent, lice and rodents abounded in living quarters, and when uniforms were seldom washed. As one result, the records of troopship crossings in the eighteenth century make gruesome reading. During the Seven Years War, Pringle noted the prevalence of pestilential fevers "in full and crowded barracks and transport ships when full beyond due number and detained by long and contrary winds; or when men have been kept long at sea, and under closed hatches in stormy weather."²⁶ Not only was typhus common in such a habitat, but troops were susceptible to a variety of other debilitating diseases. Out of a shipment of 3,800 British soldiers convoyed to New York in August 1779, 100 men died in passage, 800 had

²³ Condon, *op. cit.*, note 17 above, p. 15. For a summary of victualling, see John J. Keevil, Christopher Lloyd, and Jack L. S. Coulter, *Medicine and the Navy, 1200–1900*, 4 vols., Edinburgh, E. & S. Livingstone, 1959–1963, vol. 3, pp. 81–93. (Note: Lloyd and Coulter wrote vols. 3 and 4).

²⁴ Syrett, *op. cit.*, note 17 above, p. 189.

²⁵ Cited by Lloyd and Coulter, *op. cit.*, note 23 above, vol. 3, p. 91.

²⁶ John Pringle, *Observations on diseases of the Army in camp and garrison*, London, A. Millar & T. Cadell, 1752, p. 254.

“a malignant jail fever”, and the survivors of the expedition, explained General Sir Henry Clinton, infected the rest of the army “and sent above 6,000 of my best troops to hospital.”²⁷ Although information about comparative mortality rates for European and East Indian waters is unavailable, studies indicate that from 1775 to 1783, about eight per cent of the soldiers shipped to North America died en route, and that on the Caribbean passage, the mortality rate soared to eleven per cent.²⁸ Thus, a disease, or two or three diseases running concurrently—typhus, scurvy and other dietetic ills, malaria, smallpox, yellow fever—not the enemy’s muskets or bayonets, took a heavy toll of British troops even before they entered combat.

The traditional procedures for shipping soldiers were unchanged by January 1794 when Fitzpatrick sailed with the 40th from Cork to Plymouth. In harrowing terms, he described the inhumane spectacle that he had witnessed—no quarantine measures were enforced; no hospital ships accompanied the convoy; and no drugs or medicines were available on board. Anxious to please the regimental colonel, army surgeons ashore had neglected to remove the aged, the insane, the maimed, and the sickly from the passengers. The most distressing aspect, however, was that 923 recruits were confined with their women and children aboard six filthy transports, (whose total measured tonnage was 1,034 tons) where they remained nine weeks in port and then another week at sea. Dismayed by the disgusting food and at the lack of ventilation below deck, Sir Jeremiah was baffled by the attitude of some superstitious Irishmen who insisted that their dead comrades, who perished on the passage, could not be heaved overboard to the deep. The air in the berths was so foul, Fitzpatrick exclaimed, “that it might justly be called an atmosphere of putrid malignancy . . . as corrupted as the fatal [Black] Hole of Calcutta.”²⁹

What were the precautions that Fitzpatrick proposed “to avert like misfortunes”? In the blunt language that typified his writing, he urged a screening of recruits, the establishment of quarantine regulations and a military hospital at Cork, the cleansing and fumigation of troopships, the inclusion of more medical personnel on voyages, and the exclusion of women near the state of childbirth from sailing. Sir Jeremiah also suggested dietary improvements for the soldiers such as the addition to their fare of malt, rice, sugar, potatoes, sauerkraut, “and proper oatmeal . . . ; all of which tend to counteract the tendency to putrescence.” He concluded his recommendations by stating that the government should promulgate a sanitary code for troopships to be enforced by “a real Commissary of Health.”³⁰

After this voyage, Fitzpatrick intended to return to Ireland, but the Governor-

²⁷ William B. Willcox (editor), *The American rebellion: Sir Henry Clinton's narrative of his campaigns, 1775-1782, with an appendix of original documents*, New Haven, Conn., Yale University Press, 1954, pp. 140-141; William B. Willcox, *Portrait of a general: Sir Henry Clinton in the War of Independence*, New York, Alfred A. Knopf, 1964, pp. 283-284.

²⁸ Syrett, *op. cit.*, note 17 above, p. 191; Mackesy, *op. cit.*, note 17 above, p. 526. For a vivid description of how disease, inadequate provisions, and careless stowage on a voyage affected an expedition under Commodore George Johnstone landing at Cape Town in 1781 so that the troops “were diminished to one third of their original force before they saw a shot fired.” see [Anon.], *Remarks, etc. upon the causes which produce disease amongst new raised troops upon long voyages, etc. etc.*, London, T. & J. Egerton, 1788, pp. 9-10.

²⁹ Brit. Mus. Add. Mss. 37,847, ff. 196-198.

³⁰ *Ibid.*, f. 199. See also W.O. 1/897, ff. 15, 53-55.

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General of Plymouth, Lord George Lennox, persuaded him to remain in England in order to supervise the landing of battlefield casualties. Through 1794, the British army in the Lowlands, under the Duke of York, retreated from relentless French offensives. Sickness rates from typhus and dysentery in York's command were high, and his battered legions were not provided with sufficient drugs, surgeons, or hospital equipment by the army medical staff in Flanders. Casualty evacuation procedures from the line to hospitals, and from hospitals to embarkation ports, were primitive indeed. The British were defeated that year not only in Flanders, but in the Antilles also; an expedition sent out in 1793 to conquer the French Sugar Isles, was virtually annihilated by yellow fever. Due to these disasters, and the vision of Henry Dundas (1742–1811), one of the ablest administrators in the first Ministry of Pitt the Younger (1783–1801), on 8 September 1794 the Crown appointed Fitzpatrick as its first Inspector of Health for Land Transport.

Dundas ordered Fitzpatrick to inspect merchant ships hired to transport troops, horses, and livestock:

You are to examine how far the Vessels are calculated for the Purpose of these Destinations; to suggest the most eligible means of rendering and keeping them wholesome by Fumigation and Ventilation; and to point out Methods of fitting them up, . . . ; to see that they are provided with all such Accommodations for Cleanliness and Comfort, . . . to preserve the Men, while on Board, in a State of Healthiness, as well as with every requisite for the Relief of those who may happen to be sick.⁸¹

When a corps was embarking, the Secretary of War continued, Fitzpatrick was to examine its bedding, medicines, provisions, and water supply. "You will, by personal examination, inform yourself of the State of Health of the Troops, and, . . . when the Occasion requires, prevent any Man being put on board ship, who shall appear to you in a condition not fit to be embarked." Sir Jeremiah was to co-operate on such matters with the personnel of the Medical and Transport Boards. Fitzpatrick also had a consultative function, for he was to advise on the location of barracks and military hospitals. But Fitzpatrick was not confined to Britain. If he journeyed to observe the army in Holland, he was authorized to make "any observations that may occur to you as conducive in Improvements in the Mode of pitching tents, of forming huts, . . . , in the Means of moving the Wounded and, . . . sending them over to this country."⁸² Thus, Fitzpatrick had a mandate to reform some aspects of military medicine. But, unfortunately, for Fitzpatrick, because the scope of his responsibility was not defined precisely, it was inevitable that his duties would overlap with those of the Army Medical Board.

The energetic Irishman soon busied himself in establishing temporary hospitals at Harwich and Ipswich for the reception of casualties from the Low Countries. He also inspected vessels returning from the Caribbean where half their crews had perished from tropical diseases. His major contribution in 1795, however, was to

⁸¹ W.O. 6/119, ff. 6–7. See also A. Aspinall, *The later correspondence of George III*, 5 vols., Cambridge, Cambridge University Press, 1962–1970, vol. 2, p. 251. (Fitzpatrick's only reference to inspecting animals was about a case of glanders which infected a cargo of cavalry mounts aboard the *Themis*, a horse brig, W.O. 1/897, f. 467).

⁸² W.O. 6/119, ff. 8–9.

recommended dietary improvements. The deleterious combination of moisture between decks, insufficient light, inadequate ventilation, poisonous discharges from diseased men, and loathsome provisions, consisting mainly of "animal rancid food, . . . a strong promoter of the blood's corruption," he reported, were all factors that contributed to an atmosphere below decks "loaded with deadly Effluvia and destructive Exhalations." Because the soldier at sea was provided a diet "widely different from his [customary] fresh meat, vegetables, Malt, Liquor and Milk, . . .," Fitzpatrick urged that the fare vary depending upon the length of the trip, the climate of the destination, and the perishability of food. Suggesting a daily supply of fresh bread and vegetables for the men while in port, and an increase in their rations at sea, Sir Jeremiah noted that the meat and dairy products supplied by victuallers were usually "putrid", and that the oatmeal, invariably coarsened with inferior grain, usually sickened the soldiers. Urging a rigid inspection of provisions, Fitzpatrick suggested that the men be given rice, barley, onions, sugar, sauerkraut, porter, cider, malt, wine, and lime juice.³³ After reporting his dietary suggestions to the Medical Board, Fitzpatrick was delighted to observe that his recommendations were incorporated into orders for vessels destined for the Continent that Dundas issued to the Transport Board on 28 February 1795: "that all the Articles therein recommended [by Fitzpatrick] are to be supplied . . . for Transports now fitting up for the Service."³⁴

The dietary improvements were also standardized in regulations for a West Indian armada. Lord Charles Grey had returned from the Caribbean in July 1794 after losing three-quarters of his army to yellow fever. The commander of the next expedition to the Antilles, General Sir Ralph Abercrombie, was determined not to repeat Grey's mistakes in neglecting the welfare of the rank and file. Abercrombie selected a capable medical staff, he relied upon the advice of Caribbean veterans, and he devised military sanitary regulations to be enforced on ship. It is apparent that Fitzpatrick's ideas about victualling—which had been urged by many army and naval physicians—were supported. Hence, the sickly were left behind, the troopships were thoroughly cleaned, the soldiers were provided hammocks, soap (six lbs. per 100 men), bathing facilities, and they were daily exercised; a hospital ship accompanied the fleet; and the soldier's diet was supplemented by some wholesome food and drink.³⁵ Thus, from a medical standpoint at least, Abercrombie's expedition to the West Indies was the best-prepared military force that had ever sailed from British shores. In October 1795 the first hygienic code for Caribbean-bound troops was published by the War Office,³⁶ and soon after, Dundas informed the Transport Board "that a similar provision is to be made for all future expeditions . . .".³⁷ Hence, although Fitzpatrick cannot be credited as the principal instigator of these improvements, yet it is apparent that he had won a minor victory.

Another service that Sir Jeremiah performed was to inspect army medical services

³³ W.O. 1/897, ff. 47–72.

³⁴ W.O. 6/156, f. 36.

³⁵ Papers regarding the expedition to the West Indies under the Command of Sir Charles Grey and Sir John Jervis, Parliamentary Papers, 1795–96, XLII (840), 84–100. (Hereafter *P.P.*).

³⁶ *Regulations to be observed by Troops for the West Indies*, London, [n.p.], 1795.

³⁷ W.O. 6/156, f. 124.

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in Flanders. There, by late 1794, due to many factors—inept strategy, lack of supplies, constant French attacks, faulty co-ordination with Allies, and so forth—the British forces began to disintegrate. The organization of medical care system on the line collapsed and the general hospitals were inundated with hordes of sickly and emaciated men.³⁸ When Fitzpatrick landed at Delft in early December, the French had captured the Scheldt River, and they were attacking York's defences in central Holland. The Dutch had capitulated to the enemy, the Austrians and Prussians retreated to the Rhine, and the British line crumbled. Short of provisions and without reinforcements in a bleak winter, the condition of the "red-coats" became desperate. Quartered in sod-huts on the banks of the Waal in freezing weather, the troops were stricken by typhus which took an enormous toll of the starving men. To add to the difficulties of the demoralized troops, the coldest winter in decades swept over the Lowlands, and by Christmas the Waal became passable for the enemy. As rivers and canals froze, the Jacobins swept up these icy arteries, seized almost the entire Dutch coast and proceeded to drive the British into north-western Germany.

During this disaster, what did Fitzpatrick accomplish? Aided by a War Office emergency fund, he obtained blankets for guards, he found them additional rations of meat and bread, and he provided them with morning broth and evening soup. To improve their quarters, Fitzpatrick utilized "hurdles made of platted willows to be laid on Rollers to keep the straw [on which the men slept] from the ground . . .". He removed the sick "out of exposed cold barns and tobacco warehouses" into warmer farmhouses, and he attempted to procure wagons for the removal of the wounded. He also toured some ports and hospitals. Supervising an embarkation of 1,200 casualties at Helvoetsluys, Fitzpatrick sympathized with "the poor wretches sent on board." On 25 December, from the hospital at Arnheim, "where such misery and wretchedness as I found, can scarcely be described," he wrote that York's staff tried to assist him in improving medical services. In early January 1795, Sir Jeremiah made a final and frenzied trip to Delft, Utrecht, and Rotterdam to evacuate the wounded.³⁹ As he sailed home with the last convoy in early February, the remnants of the army continued its harrowing march through north Germany to reach the sanctuary of the Ems. Some 21,000 British-Hanoverian troops were in the Flanders campaign; about 6,000 of this number perished, but most of them died from disease.⁴⁰

By late February 1795 Fitzpatrick was in Plymouth awaiting troopships bearing York's army from Bremen. He also concerned himself with refitting some vessels destined for the Caribbean. During one inspection of soldiers bound for Barbadoes, Sir Jeremiah bitterly complained to Dundas that a Colonel Murray insisted that even very sickly men, some over sixty years of age, sail with the fleet. Shocked at "the sort of men foisted to compose companies and complete regiments," Fitzpatrick lamented that some recruits were "old and infirm, maimed, insane, ruptured, epileptic, incurably ulcerated, and deaf."⁴¹ But regardless of his protests, Fitzpatrick learned

³⁸ For the medical aspects of the Flanders campaign, see G. A. Kempthorne, "The war on the continent, 1793–1795", *J. R. Army Med. Corps*, 1935, 64: 339–351.

³⁹ W.O. 1/897, ff. 83–85, 91, 107–128.

⁴⁰ John W. Fortescue, *A history of the British Army*, 13 vols., London, Macmillan, 1899–1930, vol. 4, p. 324.

⁴¹ W.O. 1/897, ff. 177, 213.

that to contest a ranking officer, even on health matters, was usually futile.

Sir Jeremiah soon argued with the Medical Board about hospital conditions in Plymouth. On 23 February, he hurriedly removed hundreds of feverish men from transports in the harbour and placed them in temporary quarters ashore, called the Friary, Stoke, Coxside, and Saltrun Hospitals. While later inspecting the Friary, Fitzpatrick discovered that soldiers lay on damp floors, that the rain poured through broken doors and windows, and that the patients had been completely neglected by attendants. Even a dead man who had expired the night before was still untouched. Disgusted with the apathy of the army medical staff, Fitzpatrick found at Coxside "a most criminal neglect in the making of provisions for the sick," and at Stoke and Saltrun, he discovered that regardless of the disease, or the patients' degree of recuperation, all the inmates were indiscriminately thrown together.⁴²

Supported by Plymouth's Governor-General, Fitzpatrick plunged into a reform of the hospitals. He segregated patients by wards, he established a convalescent unit, fumigated bedding and clothing, utilized two civilian surgeons to assist him, and he systematized the distribution of drugs and meals. Regardless of the strenuous opposition from the army's Dr. John Boone, Physician to the Forces in Plymouth, Fitzpatrick persevered. On 18 March, the fiery Irishman confided to Dundas that he had saved lives, he had restored order in the hospitals, and that "the regiments are daily getting stronger." Confident that he had improved military medicine in Plymouth, Fitzpatrick expected that his achievements would be praised by the Medical Board as a model of modern hospital administration.⁴³

But, instead, Sir Jeremiah's ardour earned him a curt reprimand from Dundas who had been inundated with complaints about his Health Inspector. The Secretary of War informed Fitzpatrick that he had exceeded his authority, he had antagonized the Army Medical Board, and that he had caused "a Misunderstanding . . . which if not counteracted . . ., would prove highly detrimental to the Service . . .". Urging Sir Jeremiah to be prudent and conciliatory, Dundas ordered him to refrain from criticizing hospital conditions, especially in the presence of enlisted men. "Conversations of this nature," warned Dundas, ". . ., create Uneasiness and Discontent, . . . particularly of soldiers embarked, . . . on Foreign Service."⁴⁴

Yet the impetuous Fitzpatrick, who was often oblivious of professional etiquette in dealing with his colleagues, continued to agitate and to demand that his antagonist, Dr. John Boone, initiate sweeping changes. Fitzpatrick even instituted court-martial proceedings against Surgeon William Elliott for neglecting his dying patients. Now the Medical Board, tired of this meddlesome Irishman, entered the fray. Although it admitted that some mistakes had occurred in the transfer of sick, the Board stoutly defended its subordinates and provided the War Office with testimony from its staff. Apothecary Acheson at the Friary, for example, claimed that the sick were well treated, the rooms had "coal and candles" and that in twenty years of service, he had never witnessed such an efficient hospital. At Saltrun, Assistant Surgeon Andrews stated that orderlies were always available, and that standards of cleanliness were

⁴² *Ibid.*, ff. 221–227.

⁴³ *Ibid.*, f. 228.

⁴⁴ *P.P.*, 113–114.

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high. Six other staff members denounced Fitzpatrick for his temperamental outbursts, for incorrectly diagnosing maladies, and for improperly prescribing for the sick. According to these indignant personnel, Fitzpatrick had squandered excessive quantities of wine on his patients (a cardinal sin in hospital supervision), and had even mistakenly listed some men as dead who had actually returned to duty. Elaborating on this evidence, the Board stated that Fitzpatrick's outcry "appeared to us to proceed from a desire to criminate [*sic*] the Medical Department rather than to proceed from a desire to benefit His Majesty's Service." Tired of the Health Inspector's tirades, the Board denounced him for ridiculing their staff at patients' bedsides, a habit "so totally indefensible, we strongly condemn as tendency [*sic*] to discount, if not to mutiny, . . .". Concluding its damning brief against Fitzpatrick, the Board urged that he be prohibited from interfering in their hospitals and that he be confined "to the Cleaning and Ventilation of Prisons and Transports, and in this he may be undoubtedly of service."⁴⁵

Unable to improve the military hospitals in Plymouth, and exasperated that a mere army surgeon could call him "a lying Black Guard" and could still go unpunished,⁴⁶ Fitzpatrick finally relented and meekly accepted a transfer to Portsmouth. Although he was required to find quarters in English ports in 1795 for incapacitated veterans returning from Continental campaigns, and although he advised a general in 1800 about the construction of a military prison, never again did Fitzpatrick interfere in army hospital matters. Yet one footnote should be added. In their account of the Royal Naval Hospital at Plymouth, which was far superior to any army hospital, Lloyd and Coulter note that desertions by soldier-patients to this establishment in 1795 were common. "Is it possible," they inquire, "that army victims felt that more successful treatment might be obtained in a naval hospital, and so adopted the drastic measure of deserting from one service to another for this purpose?"⁴⁷ One may wonder, therefore, if the Medical Board's denunciation of Fitzpatrick was really fair, and if some enlisted men may not have appreciated his efforts to alleviate their misery.

At his new post in Portsmouth, Fitzpatrick encountered obstacles similar to those in Plymouth—rotten provisions, unhealthy troops, lack of quarantine authority, and a general indifference by local officials to sanitary conditions. Beseeking the War Office for support in "battling prejudices and custom," he declared, "every day I am witness to such Error, Artifice, and Design that I begin (contrary to my nature) to believe the worst of Mankind, think that many act from vain Glory, or self interest, than from Correct Principal."⁴⁸ Sir Jeremiah was discouraged because he was not compensated for expenses incurred on duty, and he was also embittered by the fact that he was unauthorized to purchase a longboat, so necessary for his arduous task of visiting transports anchored off Spithead. Unable to win powerful allies, Fitzpatrick wailed "I am actually set down either as a mere *Fumigator* or *Cleanser* of Ships."⁴⁹

⁴⁵ W.O. 1/897, f. 467. Fitzpatrick may have been correct about Boone's inept supervision of the hospitals, for an investigation revealed that Boone was a corrupt administrator. *P.P.*, Fifth Report of the Commissioners of Military Inquiry, Army Medical Department, 1808(6), V, 1, pp. 75–77.

⁴⁶ *Ibid.*, f. 447.

⁴⁷ Lloyd and Coulter, *op. cit.*, note 23 above, vol. 3, pp. 274–275.

⁴⁸ W.O. 1/897, f. 467.

⁴⁹ *Ibid.*, f. 471.

THE FUMIGATION AND VENTILATION OF SHIPS

Yet, even though relegated to this mundane function, Fitzpatrick performed a valuable service. His efforts to improve hygiene, fumigation, and ventilation merit attention. Summarizing his views on these subjects to Dundas, Fitzpatrick stressed the irrationality of the measured tonnage rule. "Surely there was never greater error in calculation," he insisted, because troopships had insufficient space "between their beams and deck, and the tainted air had spare [*sic*] to fly off."⁵⁰

As one cause of pestilence was reputed to be "tainted air", the problem of maintaining a crew in health was receiving more attention during the French Revolution. Except for increases in size, few structural changes had occurred in ship-building for decades, and not until the nineteenth century did iron replace wood in construction and steam replace sail in propulsion. Hence the difficulty of keeping a ship dry, clean and ventilated remained acute in the 1790s, particularly when candles used for lighting polluted the air and the odour of bilge-water permeated the decks. As Thomas Trotter, Physician to the Channel Fleet, explained: "No department of service is more frequently the subject of conversation among officers and surgeons than the ventilation of ships."⁵¹ Areas below deck were aired by portholes, cabin windows, open gun-ports, hatches, scuttles (small slits) cut on the gun-deck, and by windsails which conducted breezes down the hatchways. But, as John Peter Wade, an army surgeon in Bombay, noted: "Indiamen are sometimes so deeply laden that the portholes cannot be opened even in moderate weather, and never perhaps when the sea is rough."⁵² Thus, if a ship carried excessive cargo, or if it encountered rough weather, then the openings were closed and the hatches battened down, with the result that the supply of oxygen below was soon limited.

Related to ventilation difficulties were the methods of cleansing and fumigation. Some captains had the decks washed daily; some had it done weekly. Other mariners preferred to rub and scrape the decks down with sand, "holystone" (blocks of pumice stone), or cleanse them with vinegar. Supposedly, bedding and hammocks were cleaned frequently and berths were scoured with vinegar. When dampness became excessive below, portable fires called "bogies" were utilized to check the moisture. Fumigation techniques varied. Some officers preferred to wash the decks and bulwarks with lime wash; others warmed a mixture of vitriol with potassium nitrate to combat lurking miasmata. Likewise, wood or charcoal fires were sprinkled with brimstone; vinegar was applied to the decks and beams; arsenic was placed into cracks and crevices; pots containing burning tar, tobacco, sulphur, charcoal, or wetted gunpowder were hung to purify the atmosphere; red-hot irons were immersed in buckets of tar; foul clothing and bedding were destroyed; and pieces of cloth dipped in vinegar were strung along the timbers.⁵³

⁵⁰ *Ibid.*, f. 48.

⁵¹ Thomas Trotter, M.D., *Medicine nautica: an essay on the diseases of seamen*, 3 vols., London, T. N. Longmans & O. Rees, 1797–1803, vol. 3, p. 269.

⁵² John Peter Wade, M.D., *A paper on the prevention and treatment of the disorders of seamen and soldiers in Bengal*, London, John Murray, 1793, p. 24.

⁵³ Lloyd and Coulter, *op. cit.*, note 23 above, vol. 3, pp. 70–80; T. B. Shaw, 'Ventilation in H.M. ships from the earliest times to the present day', *J. R. nav. Serv.*, 1926, 12: 176–201; John J. Keevil, 'Archibald Menzies, 1754–1842', *Bull. Hist. Med.*, 1948, 22: 795–811; Christopher Lloyd (editor),

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Fitzpatrick believed that windsails were usually adequate to air a vessel, but in a calm, or in a squall, he believed that this device was useless. For such contingencies, and when apertures were closed, Fitzpatrick noted the value of additional scuttles cut above gun-ports, of brass air-tubes extending from the hold to the open air, or wood funnels placed before the fore-mast leading through the fore-castle deck. He especially recommended manually operated "air-machines". Presumably, he was referring to a respiratory device invented by Stephen Hales (1677–1761), a pioneering pneumatic engineer, who devised a contraption in 1741 for breathing in a contaminated atmosphere. Hales' box-like bellows, or "ship's lungs", sucked in fresh air and expelled the foul. On land, his ventilating machine, driven by a windmill, had been used successfully in two prisons, five hospitals, and in granaries to prevent spoilage. At sea, his invention had been tried on slave-ships, and on a vessel carrying indentured servants to Georgia. In order to prevent dry rot in its ships, the navy in 1751 experimented with the ventilator, and in 1756, the Naval Board ordered that the device "be fitted into all His Majesty's Ships." But, states Hales' biographer, "to what extent the general order of 1756 was actually carried into effect is uncertain."⁵⁴ It is doubtful if many troopships before 1793 carried such equipment. Yet Fitzpatrick, appreciative of the technological value of scientific discoveries, frequently mentions his efforts to ventilate the orlop deck with a manual bellows. "The air-machine had the effect . . . of forcing currents of air through the funnel-deck air tubes, the hatches, and every other aperture, all the tainted, axotic [*sic*] or lethal fluid."⁵⁵

For fumigation, Fitzpatrick recommended heating a mixture of tar and vinegar, or nitre and vitriol to produce a "medicinal" vapour. He also had the decks washed with quicklime, the portholes closed and the hatches covered with tarpaulins, while containers of charcoal and brimstone burning below exterminated "every species of vermin." Even then, some areas were not purified, and for this reason, Fitzpatrick urged that gunpowder be discharged, "not only for . . . bestowing the wholesome and elastic vapor . . . to the surrounding atmosphere, but, further, . . . to dislodge the sleepy, poisonous fluid from its latent recesses."⁵⁶ In this manner, the Inspector of Health applied preventive measures to merchant shipping that were becoming standardized in the navy.

Sir Jeremiah applied these techniques to troopships lying at St. Helens, Spithead, and the Motherbank. On 6 June 1796, for example, he reported that the Indiaman, *Princess Charlotte*, had poor accommodations, little light or ventilation below deck, and that the owner had neglected to improve the vessel. "I am compelled to say, that,

The health of seamen. Selections from the works of Dr. James Lind, Sir Gilbert Blane and Dr. Thomas Trotter, London, Spottiswoode, Ballantyne, 1965 (Naval Records Society, vol. 107), *passim*. The windsail's lower end was shaped like a funnel (and braced by small wooden hoops) to which was added a long canvas cylinder for conducting the air below. *Ibid.*, p. 182.

⁵⁴ A. E. Clark Kennedy, *Stephen Hales, D.D., F.R.S., An eighteenth century biography*, Cambridge, Cambridge University Press, 1929, p. 169. See also G. E. Burget, 'Stephen Hales (1677–1761)', *Ann. med. Hist.*, 1925, 7: 109–116; Richard Foregger, 'Two types of respiratory apparatus of Stephen Hales', *Anaesthesia*, 1956, 11: 234–240, and Richard Mead, 'An historical account of a new method for extracting the foul air out of ships, etc.:', *The Medical Works of Richard Mead*, London, C. Hitch, 1762, pp. 391–436.

⁵⁵ Fitzpatrick, *op. cit.*, note 7 above, p. 60.

⁵⁶ *Ibid.*

she is the most unfit ship I ever saw for carrying troops," he stated.⁵⁷ But Fitzpatrick was unable to delay the vessel's departure. After supervising the cleansing of the *Anna of Bengal*, that had returned from the Caribbean in March 1797, Sir Jeremiah blamed the high mortality rate of troops upon the "putrid food," and the unwholesome condition of the vessel. Most of the disembarking veterans were sick with "flux", fever, dysentery, "Tertian Ague", smallpox, and venereal diseases. He added that Corporal Walsh and Drummer Wilson had fractured skulls and could not "bear heat", and Private John Thomas was "an idiot".⁵⁸

On 4 March 1798 he warned the War Office that the 60th regiment—1,100 men, 44 women, 41 children—was sailing to Bengal on ships totaling 1,250 tons which were "in a filthy state and improperly fitted." Likewise the 20th Light Dragoons were voyaging to the Indian Ocean in a "cramped and very unprepared state of shipping."⁵⁹ Even the handling of Irish recruits at Cork had not improved since 1793. In heated correspondence through 1798 with commanders of army depots, he urged the government to have "a due and humanitarian concern paid in regard to the Treatment of Soldiers—whether Volunteers, Deserters, or Culprits . . .". Health, Sir Jeremiah declared, "man's greatest blessing and, the essential of an army, surely deserves attention."⁶⁰

Was Fitzpatrick successful in such efforts? Although insufficient evidence exists about major improvements in troopships during this era, occasionally Sir Jeremiah won a minor victory. In August 1798, he reported to Dundas that several Indiamen, which supposedly weighed 3,776 tons, actually measured only 3,108 tons. Ventilation was poor, no "air tubes" were available, and the orlop deck was filled with casks of rotting meat. Fitzpatrick's recommendations for refitting the vessels were approved, and in his next letter on this subject, he recorded that the transports were suitable for passengers.⁶¹

Typical of his frustrations, however, was the case in February 1799 of the *Carnatic* and the *Taunton Castle*, which were engaged to convey the 88th to Bombay. Originally, each ship was to carry 100 men; however, additional soldiers were crammed on board. "But to have stowed 396 men with a proportion of women and children, independent of the crew on board the *Carnatic* . . . and 411 on board the *Taunton Castle*," said Fitzpatrick, "was one of the most unreasonable acts ever committed, and would have been better classed with those of the darkened ages than of the enlightened 18th century . . .".⁶² How the men fared on the *Taunton Castle* was chronicled by James McGrigor, the surgeon for the 88th. "A fever of the typhoid form had prevailed there several weeks before the soldiers came on board, and pervaded the ship's company, and proved fatal to many of them." As the ship sailed through the South Atlantic, the malady struck the entire regiment. Although a stay at Cape Town helped some to recuperate, disease continued to plague the craft, and

⁵⁷ W.O. 1/897, ff. 498–499.

⁵⁸ *Ibid.*, ff. 522–523.

⁵⁹ *Ibid.*, f. 575.

⁶⁰ *Ibid.*, ff. 587–593, 657–658, 665; Home Office Papers, Public Record Office, H.O. 100/74, ff. 379–384.

⁶¹ W.O. 1/897, ff. 611–619.

⁶² *Ibid.*, f. 637.

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twenty-eight men perished on the voyage to the Malabar Coast.⁶³

By coincidence, another vessel condemned by Fitzpatrick in December 1799 was also utilized by the 88th. The *Minerva* of 1,058 tons, reported Fitzpatrick was “a Spanish frigate and is very ill calculated to carry more than 300 men.”⁶⁴ The shabby *Minerva*, however, carried the 88th in December 1800 from Bombay to Ceylon. When 450 soldiers, 150 crewmen, and native followers were all squeezed together on the passage to Point de Galle, over 800 men were packed on the vessel. In fact, some 200 men had to remain above deck exposed to the sun, wind, and the rain. “From the weather, the men suffered severely,” McGrigor remarked, adding that “the sickness which prevailed [in Ceylon] . . . is principally to be attributed to the situation of the troops on board the *Minerva*.”⁶⁵

Two of the worst Indiamen that Fitzpatrick inspected were the *Scaleby Castle* and the *Surret Castle*. The former measured only 1,237 tons; yet it carried 819 soldiers, women, and crew. Thus, as Sir Jeremiah pointed out, “with 400 tons subtraction of space for maritime stores to Bombay, consequently there remains but 757 for the living freight.” Likewise, the *Surret Castle* of 1,150 tons carried 702 passengers and crew, but, after deducting 420 tons required for stores, only 730 remained for the men. Denouncing the venal shipowners responsible for such scandals, Fitzpatrick exclaimed: “Thus are the Troops injured, and Mr. Dundas deceived.”⁶⁶

To convince the War Office that the rule of measured tonnage was unsatisfactory, Fitzpatrick submitted architectural plans to demonstrate how the *Carnatic* could be structurally modified. The data in his sketches, Fitzpatrick assured Dundas, would provide more information “than any other Minister yet possessed of transport of troops, by freight ships, whose owners only interest is gain.”⁶⁷ Whether Dundas appreciated that Fitzpatrick sought a more scientific standard based upon cubic feet of space per man is unclear, for in this correspondence, the phrase “cubic feet” is not cited. Yet, from another source, it is apparent what Fitzpatrick intended. In his second published work, he frequently used the term “aerial space”, and he showed how two ships, the *Hope* and the *Monmouth*, both weighing 350 tons, varied greatly in their storage and passenger areas below deck. By measuring their heights between deck, he calculated that the *Hope* and *Monmouth* contained, respectively, 7,400 and 11,760 “cubic feet of aerial space,” which, obviously, was an enormous difference in determining troop capacity.⁶⁸ Apparently, Fitzpatrick had either a very limited audience for his message, or the War Office failed to appreciate his endeavours, or the shipping lobby in Parliament was too powerful for a minor functionary like a public health official to challenge.

THE CONVICT SHIPS

In addition to his troopship duties, Fitzpatrick also inspected convict ships owned by private contractors. In 1787, the navy transported its first cargo of convicts to

⁶³ *Ann. Med.*, 1801, 1: 353–354.

⁶⁴ W.O. 1/897, f. 737.

⁶⁵ *Edinb. med. surg. J.*, 1801, 1: 369.

⁶⁶ W.O. 1/897, ff. 745–746.

⁶⁷ *Ibid.*, f. 646. (Fitzpatrick's sketches are in ff. 751–752.)

⁶⁸ Fitzpatrick, *op. cit.*, note 7 above, pp. 61–62.

New South Wales, but, by 1794, straining to fight France with undermanned squadrons, it transferred this task to merchantmen who plied this loathsome trade with a minimum of supervision by the Home Office or the Colonial Office. The story of this sordid enterprise in human cargo, the shocking tales about male and female prisoners on passage to Botany Bay, and the high degree of sickness and mortality on these floating hells have been vividly recorded elsewhere, and, consequently, this information need not be summarized here.⁶⁹

Fitzpatrick's task of overseeing convicts in Portsmouth was not part of his official duties, and hence he received extra pay for the fifteen Australian-bound transports that he inspected in six years (1795–1801). His first reference to this task was in September 1797, when he commented that he was "doing something for the convicts."⁷⁰ Sir Jeremiah was empowered to supervise the cleansing, the victualling, and the ventilation of these ships, and to suggest structural changes, such as removing some bulkheads, in order to provide more room. He managed to have sugar and lime juice added to the provisions, he segregated married men and their families from other convicts, and he improved the shackles by which some prisoners were chained to floors. Supposedly, he had the authority to remove convicts sickly enough to infect their fellow wretches on passage. But callous officials repeatedly ignored his advice. Thus, his warnings about the horrible state of the *Britannia* in 1797 went unheeded; and one-seventh of the passengers perished en route. In October 1798 he tried to prevent typhus-ridden convicts from being transferred from a prison hulk to the *Hillsborough*, but again, his protests were overruled.⁷¹ In fact, of 6,634 convicts transported between 1797 and 1800, the mortality rate for men was 1 in 8.57.⁷²

Yet some reforms were underway. The Acting Governor of the struggling colony in New South Wales, John King, recommended in 1800 that contractors be held accountable for negligence of their cargoes; similarly, Fitzpatrick proposed that they be compensated only for landing convicts alive and healthy. That year, after the death of forty-three convicts on the *Royal Admiral*, Lord Robert Hobart, Secretary for War and Colonies, ordered a stricter medical examination before embarkation and that bonus money be paid for every able-bodied convict landed in the settlement. Fitzpatrick played only a minor role in these developments, and, as usual, he irritated officialdom. He quarrelled frequently with Mr. A. Graham, Inspector of Convicts in Portsmouth; Graham complained that Fitzpatrick had "a mischievous tendency."⁷³ Presumably, Fitzpatrick had only a minor influence in ameliorating the plight of the convicts.

THE SLAVE TRADE

One remaining aspect of Fitzpatrick's humanitarianism should be mentioned—his interest in the abolition of the slave trade between West Africa and the British

⁶⁹ Charles Bateson, *The convict ships, 1787–1868*, Glasgow, Brown, Son & Fergusson, 1969; Donald R. McNeil, 'Medical care aboard Australian-bound convict ships, 1798–1840', *Bull. Hist. Med.*, 1952, 26: 117–140; Lloyd and Coulter, op. cit., note 23 above, vol. 4, pp. 124–139.

⁷⁰ W.O. 1/897, f. 559.

⁷¹ Bateson, op. cit., note 69 above, p. 164. See also Brit. Mus. Add. Mss. 33, 106, ff. 138–139, 162–163.

⁷² Lloyd and Coulter, op. cit., note 23 above, vol. 4, p. 130.

⁷³ Cited in McNeil, op. cit., note 69 above, p. 123. Some clues about Fitzpatrick's difficulties are in Brit. Mus. Add. Mss. 33, 105 ff. 243–244, 260–261, and 33,107 ff. 200–202.

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colonies. "My first principle is," he declared in his second published volume, "that no man, or body of men, whatever, has a right to enslave or punish persons not subject to their laws . . ." Although he denounced the enslavement of blacks as "big with expiable cruelty, cunning, and disgrace, . . .," he did not urge immediate emancipation. Instead, he proposed some reforms—an inspection by government agents of slave ships before they cleared British ports; the supervision of the victualling and accommodation provisions affecting slaves destined for the transatlantic passage by British officials stationed at factories from Sierre Leone to Cape Lopez (the Grain Coast, the Ivory Coast, the Gold Coast, the Gulf of Benin); and a system of gradual manumission of blacks in the British West Indies over a seven-year period so that their legal status would be that of indentured servants.⁷⁴ The abolitionist movement underway during the French Revolution is beyond the scope of this essay, and it is difficult to determine if Fitzpatrick's tract had any impact upon the contemporary anti-slavery debate.

FITZPATRICK'S ACHIEVEMENTS

After 1800, Fitzpatrick's correspondence with the War Office declined, and when his protector, Dundas, left office when the Pitt Ministry resigned in February 1801, he sensed that his own forced retirement was pending. Although he repeatedly beseeched Lord Hobart, Dundas's successor, for permission "to put the finishing stroke to my pursuit . . .," Sir Jeremiah's pleas went unanswered. If his work were terminated, Fitzpatrick inquired, who would oversee the provisioning of troopships, and who would protect the soldier, "the child of my adoption?"⁷⁵ Why Fitzpatrick was placed on half-pay in December 1802 is unclear, except that he had lost his patron, Dundas, and that he had antagonized many officials. Perhaps Hobart regarded the Health Inspector as unnecessary; possibly, Fitzpatrick was the victim of an economy drive, or more probably, the Medical Board considered his post superfluous, for in Portsmouth, army medical personnel gradually had assumed Fitzpatrick's regular duties. Hence, not only was Fitzpatrick the first Inspector of Health for Land Transport, but he was also the last one in British history.

How can one evaluate Fitzpatrick's accomplishments? Except for his humanitarian zeal, Sir Jeremiah's work is characterized by little that is unique, and no medical, technical, or scientific contributions are associated with his name. The improvements that he urged for the troops were also voiced by many of his contemporaries in the services, and only some of his suggestions had materialized when he retired to obscurity.

Yet, viewed in a broader perspective, it is apparent that Fitzpatrick's endeavours typified improvements underway in military medicine during the French Revolution to match that of naval medicine, and to apply naval medicine standards to the merchant marine. Since 1794, the Medical Board advised on barracks construction; by 1798 it had devised better procedures to screen recruits; and in 1800 the Board published the first printed regulations for general and regimental hospitals. By then, the Board had established new hospitals along the English coast, and it had determined

⁷⁴ Fitzpatrick, *op. cit.*, note 7 above, pp. 3–57, *passim*.

⁷⁵ W.O. 1/897, ff. 819–827.

the drugs and instruments required in a surgeon's medicine chest. Although no cure was available for most diseases that plagued the army, and although only slight improvements transpired in military hygiene, yet scurvy (due to the provisioning of servicemen with lemons and limes), typhus, and smallpox (due to Dr. Edward Jenner's vaccination method that was introduced at Mediterranean stations in 1800) were under better control. During the last years of the Napoleonic wars, some attention was devoted to the construction of more spacious troopships,⁷⁶ and pig-iron was utilized for ballast instead of sand and gravel. The traditional diet for sailors was slightly improved in 1806, and again in 1815. Furthermore, oven-baked bread and canned meat were available on some ships before the battle of Waterloo, and by then, the navy was storing purer water aboard vessels in iron tanks. Even the old measured tonnage rule was eventually replaced in 1836 by a more scientific standard for determining a ship's capacity. Presumably, troops at sea benefited from these changes.

While Fitzpatrick cannot be credited with instigating these reforms, he did suggest many methods to protect the health of servicemen. He was a pioneering sanitarian, but one who had limited support. "I have no influence or power, . . .," he admitted, "truth alone, and the crying claims of humanity can support me."⁷⁷ Fitzpatrick realized that bureaucrats regarded him as a nuisance, and he even called himself "the busy-body . . ., the eccentric."⁷⁸ Yet, when Fitzpatrick died in 1810, two periodicals cited him as "a second Howard."⁷⁹ In a letter Fitzpatrick revealed that "my exertions [for the troops] were for the Wretched, the Oppressed, and the Unfortunate, . . ., and not for pecuniary reward."⁸⁰ It was this sensitivity to pain and suffering that won him the accolade from *The Times* as "the soldier's friend."⁸¹

SUMMARY

Sir Jeremiah Fitzpatrick (d. 1810), a relatively obscure Irish physician, and the author of virtually forgotten works on penology and slavery, crusaded for sanitary improvements during the 1790s in the British army. As a public health official responsible for supervising the welfare of troops sailing on merchant vessels leased by the government, Fitzpatrick strove to establish hygienic standards in order to benefit the rank and file. A study of this fiery Irishman's career shows some relationship between naval and military medicine during the French Revolutionary era, and it demonstrates how the state, somewhat reluctantly, assumed a growing responsibility for the health of men in the service of the Crown.

After instigating penal reforms in Ireland, and after experiencing a harrowing voyage on a vessel crowded with sick and dying soldiers, Fitzpatrick in 1794 was appointed the first Inspector of Health for Land Transport. He was authorized to administer the cleansing, fumigation, and ventilation of troopships, and to determine

⁷⁶ For Dundas's speech about improving troopships (following the military disasters of Corunna in 1808 and the Scheldt in 1810), see *Hansard's Parliamentary Debates*, 1st Ser., 17: May 21 1810, cols. 86–114.

⁷⁷ Brit. Mus. Add. Mss. 33,106 ff. 363–364.

⁷⁸ *Ibid.*, f.362.

⁷⁹ *The Times*, 10 February 1810, p. 4; *Gentleman's Mag.*, 1810, 80: 187.

⁸⁰ Brit. Mus. Add. Mss. 33,106, f. 362.

⁸¹ 10 February 1810, p. 4.

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that suitable food and adequate quarters be provided for the men. For eight years, he inspected craft at Plymouth and Portsmouth that were bound for India, the Continent, and the Caribbean. To Fitzpatrick's dismay, in his quest to devise quasi-scientific rules for a soldier's diet and for his living quarters on shipboard, he encountered innumerable bureaucratic obstacles from civil and military authorities, and even from his medical colleagues. Yet, occasionally, Fitzpatrick won a minor victory with officialdom, and as a result, soldiers, and convicts (bound for Australia), voyaged in somewhat healthier circumstances. Although Fitzpatrick cannot be credited with any significant medical, scientific, or literary achievements, a study of his turbulent life provides a rare insight into the difficulties confronting pioneering sanitarians in the late eighteenth century.

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