

THOMAS CRAWFORD, REGIMENTAL MEDICAL OFFICER IN THE CRIMEA, 1855

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Thomas Crawford was an Ulsterman, born in the year 1824 at Dumbrain, Newbliss, Co. Monaghan. His family had their origins in Ayrshire and came from Scotland in 1698 after the main plantation of Ulster. Crawford studied medicine in Edinburgh and graduated there in 1845. On February 18th, 1848, he was appointed assistant surgeon in the 51st Regiment of Foot (Kings Own Light Infantry) and saw service with that Regiment in the first Burmese war of 1852-53. Those years for him were not uneventful as the record shows: "Dr. Crawford served with the 51st Regiment of Foot throughout the Burmese War. He was on board the East India Company Steam Frigate Ferooz during the naval action and destruction of the enemy's stockade on the Rangoon River: served during the succeeding three day operation in the vicinity, and at the storm and capture of Rangoon (including the storming of the Whitehouse redout) also at the storm and capture of Bessein, various skirmishes at Prome, and during the advance on Meaday."¹

It was therefore with some experience of battle conditions that, in February, 1855 he was appointed surgeon to the 18th Regt. of Foot (The Royal Irish). This regiment had embarked at Portsmouth on 8th December, 1854 and landed in the Crimea at Balaklava after a sea journey of some three weeks. Surgeon Crawford joined the regiment, then encamped on the slope of a hill two miles outside Sebastopol, with a draft of 138 men, on the 20th February, 1855.

Conditions in the Crimea were appalling by any standards. In part, these were due to severe weather conditions, but much of the misery suffered by the Army was of its own making. As Lord Montgomery states "The Crimean War really provided an object lesson on how not to make war."² The administrative organisation on both sides was disastrous. The Allies (France and Britain) despatched a naval expedition to capture Sebastopol without discovering beforehand that the water on either side of the Isthmus was too shallow for their ships to berth. The British brought no transport for their food and ammunition, and the troops lacked practically all the equipment necessary for a winter campaign. Medically, little or no thought was given to endemic disease, the siting of camps and other important factors which subsequently conspired to give horrific morbidity and mortality statistics for the whole British Army. It was into this situation that the 34 year old Crawford entered with his regiment of 28 officers and 835 soldiers.

THE REGIMENTAL MEDICAL SYSTEM OF 1855

Medical officers or regimental surgeons were specially commissioned for each regiment, wore its distinctive uniform, and were confined to treating the regimental sick only. Although each regiment had its own hospital, the responsibility for the order and interior economy of these hospitals rested solely with the regimental or battalion commanding officer,³ and not with the medical officer. The duties of prescribing for the sick were delegated to the surgeons and here their responsibilities ended. Support to the surgeon was provided by the regiment, "the hospital sergeant

was a sergeant of the regiment, taken from the regimental ranks by permission of the commanding officer, and he and the nursing orderlies were returnable to duty at any time by the commanding officer's order."³ Everything within the hospital, from discipline and ward duties for patients, to times of reveille for patients, was arranged for by the commanding officer. For professional standards of treatment, the surgeons were responsible to inspecting medical officers "who half yearly or yearly visited the hospitals, and looked into the records of treatment and dieting."³

The medical aspects of the Army were therefore essentially regimental—except for three or four general hospitals established in wartime. These general hospitals were staffed "by scratch contributions of individual medical officers and stray orderlies and recovering patients obtained with difficulty from regiments."³

The advantages of the regimental system were said to be:

1. The regiment had its hospital complete and independent of the rest of the Army.
2. The surgeon being constantly with the same regiment learned to know the men, prevented scheming, and thus benefited the State.
3. It formed a pleasant home for the surgeons of the service!

To equip the surgeon for his task of operating a miniature hospital of 12 beds, he had bedding, blankets, sheets and pillows, with the essential ward items; a large medicine chest containing a six month supply, and a detachment chest of a smaller design for use if a part of the regiment was on detached duty: a pair of panniers for carriage on a pack horse which contained sufficient drugs and dressings to last a week and some medical comforts. The surgeon was responsible for the purchase of his own instruments.

Tentage included a hospital marquee for use as a ward, and a bell tent for the surgeon. All the equipment required two wagons for its conveyance, and carts were provided under regimental arrangements.

For professional advice on the treatment and problems of war surgery, surgeons were advised to take with them Dr. Guthrie's "Commentaries on Surgery." This volume was produced as a result of experiences in the Peninsular War—some thirty years previously. However, other works were beginning to be produced such as "Outlines of Military Surgery" by Ballingall,⁴ adopted by the Medical Departments of the Army and Navy.

Thomas Crawford appears to have been an extremely industrious young man. Cantlie⁵ describes him as "a distinguished officer of great experience with an enormous capacity for work and a master of detail." That this was so is shown in the remaining records. These indicate a high volume and wide breadth of clinical activity, coloured by constant attempts at improvement of knowledge and standard of treatment.

CASUALTY RATES

The months of January and February 1855 were disastrous for the Army. Figures from official records⁶ provide details.

Table showing the number of men who died in each month from all causes: and from the principal classes of disease.

	<i>Diseases and Wounds</i>	<i>Wounds and Mechanical Injuries</i>	<i>Cholera</i>	<i>Disease of the Bowel</i>	<i>Fever</i>	<i>Diseases of Lungs</i>	<i>All Other Causes</i>
Jan. 1855	3168	83	71	2033	512	117	352
Feb. 1855	2528	42	12	1230	687	118	439

Of the total of 5,696 deaths, only 125 or 2.2% were the result of enemy action and could be classified as battle casualties.

The casualty death rates in January and February were at the rate of 9.49 and 8.01 per 100 of strength respectively. Later these rates fell considerably. However, the death rate combined with hospital admissions, and the sick, produced a loss of about 35% of effective military manpower at its peak. The work loads which these casualty rates generated for the regimental surgeons were enormous. The admissions record of Surgeon Crawford's regimental hospital shows a total of 1,941 admissions between February 1855 and June 1856, ranging from 304 in June 1855 to 38 in June 1856.⁶ Of these 1,941 admitted, only 64 died in the hospital, and another 60 died outside, mainly on the battlefield.

With the mean average size of the 18th Regiment of 758 officers and men and 79 deaths from non-battle casualties, the survival chance of its members was 9.6:1. Within the Army as a whole—of 33,500 and non-battle casualty deaths of 16,211, the survival chances were only 2.1:1. Other factors apart, it seems likely that Surgeon Crawford's energy, interest and hard work helped in some measure to sustain his regiment through a very difficult campaign.

THE CLINICAL WORK

Cases of Fever—diagnosed as “of a Typhoid character with gastric or cerebral complications,” Cholera and Dysentery, Pneumonia and Catarrhal afflictions are frequently described in Crawford's reports. In August of 1855 he notes “the sanitary conditions of the regiment exhibited much improvement; fever and bowel complaints became less prevalent: and only two cases of cholera were presented.”⁶

Less frequent were battle casualties. In one incident 10 casualties “were caused by the bursting of a shell thrown by the enemy among the men, on their way to the trenches; and of the 10 thus wounded, seven underwent the operation of amputation of a limb.”⁶ Thus a heavy volume of surgery was generated in one incident and treated, if somewhat drastically, by the surgeon.

It is interesting to observe references to fractures of the femur, which was then, and still is now, a life threatening injury—“in two of these (wounded) the femur was fractured at its upper third, the bone having been much comminuted in one and obliquely fractured in the other, but both proved fatal, one after amputation and the other in consequence of mortification of the limb.”⁶ Frost-bite, exhaustion, acute hepatitis, and rheumatic illness all appear to have been encountered.

Three months before the regiment left the Crimea, Crawford observed the initial effects of scurvy. "At first the men looked robust and healthy; but after the lapse of three months, scurvy made its appearance—spongy gums, purple blotches on the extremities, haemorrhagic dysentery, and profuse discharges of blood from the stomach and bowels, marked the outset of the disease. Lime juice was procured and issued freely, and the scurvy rapidly abated. Lime juice or the salts rich in potass, will generally check scurvy under such circumstances: and it is scarcely necessary to remark that the nitrogeous or albuminous elements were superabundant in this case."

"When the reverse of this occurs, the nitrogeous or albuminous elements of the food being deficient, or the whole diet being insufficient to meet the wear of the system—a disproportion, at the same time, existing between the various nutritious constituents—the system is equally liable to suffer, though not so rapidly as in the former case. The gums show the same tendency to separate from the teeth; a lividity of countenance takes the place of the roseate hues of health; boils degenerate into unhealthy ulcers; slight indispositions are accompanied by disproportionate congestion of important organs, not infrequently terminating in sub-acute inflammation ere its presence is even suspected; and if any of the preparations of mercury be administered for the relief of such symptoms, profuse salivation will be produced by a quantity of that metal which, under other circumstances, would have no perceptible effect; but there is not the same tendency to haemorrhage. Such are the indications of the scorbutic taint, represented as prevalent in the regiment during the month of March and which, under the names of pneumonia, rheumatism, contusion, phlegmon, debility, etc. filled the wards of the hospital during that period."⁶

Crawford concluded that "the necessity of a constant issue of lime juice implies a presumed defect in the vegetable portion of the diet" and made representations to the supply commissariat for fresh rations to include fruit and vegetables

Many deaths were simply related to the bitterly cold winter weather coupled with inadequate clothing and shelter. Crawford noted that the group who suffered most from the effects of the weather "was composed of men nearly all of whom were above average height, and the majority of whom were considerably so; but whether this circumstance contributed to swell the list of casualties cannot be determined."⁶ This sound observation is in fact correct, in that tall males are most vulnerable to the exposure-exhaustion syndrome.

The 18th Royal Irish during the service in the Crimea suffered 124 deaths. 265 men were invalided to England, 50 men were discharged the service on account of disease, and 82 in consequence of wounds inflicted by the enemy.

SUBSEQUENT CAREER

Surgeon Crawford became a Staff Officer in London, Surgeon Major in 1868 and Deputy Inspector General of Hospitals in 1870. After holding the post of Surgeon General from 1876 and P.M.O. H.M. Forces in India 1880, he was appointed Director General of the Army Medical Service—set up by his predecessor, Sir William Muir.

Muir evolved many changes and improvements in the previous years. However, it was for Sir Thomas Crawford to see how practical the reorganisations were, for



THOMAS CRAWFORD
Director General of the Army Medical Service

Britain did not become involved in another major military confrontation till 1882 and the arrival of Arabi Pasha on the Egyptian scene.

During a period of enormous change in the medical arrangements within the Army between 1856 and 1882, Crawford had played a major supporting role. The result after the battle at Tel el Kebir in 1882 caused Sir Garnet Wolseley to comment "I never saw wounded men better cared for."⁷

Crawford did not return to his homeland. He died on the 12th October 1895 and was buried at Blackheath.

REFERENCES

- 1 Army Medical Department. *Annual Reports, 1861*. London: War Office, 1861.
- 2 Montgomery BL. *A History of Warfare*. London: Collins, 1968.
- 3 Evatt GJH. *Army Medical Organisation*. Allahabad: Pioneer Press, 1877. pp 3-4.
- 4 Ballingall G. *Outline of Military Surgery*. Edinburgh: Adam and Black, 1833.
- 5 Cantlie N. *A History of the Army Medical Department*. London: Churchill-Livingstone, 1974.
- 6 *Medical and Surgical History of the British Army which Served in Turkey and the Crimea*. Vol. II. London: War Office, pp. 186-209.
- 7 Morley, Earl. *Report of Committee and Enquiry in the Organisation of the Army Hospital Corps. Hospital Management and Nursing in the Field*. London: War Office, 1883. p 6210.