Medicine in the Year of Waterloo
An exhibition at the Library of the Royal Society of Medicine
Monday 4 May – Saturday 25 July 2015

OPENING TIMES
Monday – Thursday: 9.00 – 21.00
Friday: 9.00 – 17.30
Saturday: 10.00 – 16.30

ADMISSION FREE. OPEN TO ALL.
The Library, Royal Society of Medicine,
1 Wimpole Street, London, W1G 0AE
Tube: Oxford Circus or Bond Street
“By God, Sir! I’ve lost my leg.”

“On the evening of yesterday, after having seen Colonel Gordon put to bed, Captain Seymour came to me to say that the Earl of Uxbridge had been wounded, he was afraid badly, in the knee, and begging that I would be in the way to see him on his arrival as they were then bringing him in from the field. I offered to go out to meet him but in my progress through the village of Waterloo I was stopped by so many wounded men and officers who knew me that it seemed cruel to refuse looking at their wounds without assigning some good reason. I had hardly got to the end of the town when his lordship made his appearance in a gig or Tilbury supported by some of his aides-de-camp. I followed him to his quarters and found on inspection that a grape shot had struck him on the right knee close to the lower edge of the pitilla [sic] and entered on the inside of the ligament, and having torn open the capsular ligament, had made its exit behind, externally fracturing the head of the tibia and cutting the outer hamstring in two. The capsular ligament was filled with fragments of bone and cartilage like gravel, but there was no swelling of the joint or limb whatever,

His Lordship was perfectly cool, his pulse was calm and regular as if he had just risen from his bed in the morning and he displayed no expression of uneasiness though his suffering must have been extreme but what struck me as most remarkable was his excessive composure though he had been on horseback during the whole day and personally present in almost every one of the many charges made by the cavalry during the battle he was neither heated nor did he display the least agitation. There could hardly be a doubt of the expediency of amputating the lag [sic] but as I was not personally known to His Lordship I conceived it was a duty, I owed to his family and to himself to do no hing [sic] rashly or without evincing to all the world that amputation was not only necessary but unavoidable. I therefore, withput [sic] giving a decided opinion, applied a piece of lint wet with cold water over the knee and having desired His Lordship to repose himself for a little I went out to endeavour to collect as many Medical Officers as I could meet that they might see the wound and assist me in the operation.

I could find no Staff Surgeon or any other Surgeon of the line but I met with several surgeons of Artillery who were kind enough to accompany me and from one of them I borrowed a knife that had never been used as my own had been a good deal employed during the day.”
We entered Lord Uxbridge’s quarters together, his Lordship was lying in the same position as when I left him, and with the most placid smile I ever beheld he said “Good evening to you gentlemen”. I went up to him and, having removed the piece of lint which covered the wound, I was looking round for Mr F, who seemed to be the senior in order to request him to examine the wound, when a young assistant surgeon pushed himself forward and without taking the trouble to ascertain the extent of the injury said “My Lord, this is a very nasty wound. It may be long of getting well but a stiff joint will be the only consequence, there will be no need for taking off the limb”.

I never felt myself so completely confounded and taken aback, however restraining myself, I said “Sir you have not examined the wound when you have it will be time enough to give your opinion. Mr P, and two or three of the other gentlemen came forward and examined the injury. I then said “I hope you all have ascertained exactly what has happened. You see that the ball has passed through the centre of the joint, that the head of the tibia is smashed to pieces and that the capsular ligament which is torn open is filled with fragments of bone and cartilage from the middle external condyle of the femur, the outer hamstring is also divided: even were the capsular ligament simply punctured with a sword my own opinion would be against risking the life of the patient under all the circumstances”.

Lord Uxbridge who was attentive to everything that passed said “I put myself under your charge and I resign myself entirely to your decision at the same time whilst I observe to you that I feel as any other man would naturally do, anxious to save my limb, yet my life being of infinitely more consequence to my numerous family I request that you will, without having regard to anything else, act in such a way as to the best of your judgement is most calculated to preserve that. I replied “Certainly my Lord, but …” He stopped me and said "Why any buts - are you not the Chief? It is you I consult on this occasion”.

I said “We shall just retire for a minute and get everything ready in case of necessity”. There was but one opinion amongst us, so having prepared the dressings etc, we returned into the room where I announced to Lord Uxbridge that, the operation being found necessary the sooner it was performed the better. He said “very well I am ready”.

I disposed the assistants as I thought best calculated to avoid confusion and having applied the tourniquet I took the knife in my hand. Lord Uxbridge said “Tell me when you are going to begin”. I replied “Now, my Lord”. He laid his head upon the pillow and putting his hand up to his eyes said “Whenever you please".
I began my incision without retracting the integument nor in the usual way with one circular sweep, but with my knife I made one cut above from within outwards describing a small segment of a circle and in the same manner below, beginning at the inner point or horn of the upper and keeping as nearly parallel as possible. I finished the incision by joining the two points on the outer side of the thigh. I then retracted the skin as much as possible and with a few strokes of the point of the knife had integument enough to cover the end of the stump.

With one stroke of the knife I divided the muscles all round down to the bone and having retracted them on both sides I took the saw. I had sawes [sic] nearly through the femur, but the person who held the leg, being over apprehensive of splintering the bone, raised up the limb so that the saw being confined could not be pushed forwards or backwards. I did not perceive what was the cause and said angrily “Damn the saw”.

When Lord Uxbridge lifting up his said with a smile “What is the matter?” These were the only words he spoke and during the whole of the operation he neither uttered groan or complaint nor gave any sign of impatience or uneasiness. I had only two arteries to tie, namely the femoral and a small cutaneous branch. The stump was dressed in the usual manner and his Lordship having drank [sic] a very small quantity of weak wine and water was undressed and made as comfortable as the miserable bed on which he was stretched would allow him to be.

His skin was perfectly cool, his pulse which I was curious enough to count gave only 66 beats to the minute, and so far was he from exhibiting any symptoms of what he had undergone in his countenance that I am quite certain had anyone entered the room they would have enquired of him where the wounded man was. This veracious account, although by no means so picturesque as the cannon ball carrying the limb clean away and the owner's nonchalant remark, yet it shows an astounding degree of coolness, fortitude and endurance in a situation of most intense agony.”

John Robert Hume (1781 – 1857), the Duke of Wellington’s personal physician and surgeon.

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Following the Battle of Waterloo, Lord Uxbridge (Henry Paget) was created Marquess of Anglesey on 4 July 1815. The following year, a 27m high monument to his heroism (designed by Thomas Harrison) was erected at Llanfairpwllgwyngyll on Anglesey, close to Paget's country retreat at Plas Newydd. Appointed a Knight of the Garter in 1818, he was promoted to full general on 12 August 1819.

Paget had an articulated artificial limb fitted, while his amputated leg was retained as a tourist attraction in the village of Waterloo, to which it had been removed and where it was later interred. Visitors were able to see the blood-stained chair upon which Uxbridge had sat during the amputation. The amputated leg even had its own 'tombstone', with the following inscription:

Here lies the Leg of the illustrious and valiant Earl Uxbridge, Lieutenant-General of His Britannic Majesty, Commander in Chief of the English, Belgian and Dutch cavalry, wounded on the 18 June 1815 at the memorable battle of Waterloo, who, by his heroism, assisted in the triumph of the cause of mankind, gloriously decided by the resounding victory of the said day.
At the Battle of Waterloo, fought on 18 June 1815, around 55,000 men from both sides of the battlefield were killed, wounded, or missing in action. Most of the dead had bled to death from injuries caused by small arms fire, sabres, or cannon fire. The site of most of the injuries was the limbs. Interim hospitals set up at Brussels received wounded soldiers for treatment. A surprisingly large number of soldiers who survived their injuries had, by the year following the battle, returned to their regiment.

At a meeting of the Medical & Chirurgical Society held on 20 June 1815, two days after Waterloo, and two days before news of the victory was reported in the London Gazette, Sir James McGrigor, described as Vice-President of the Medical & Chirurgical Society, Late Inspector of Hospitals to the Army under the Duke of Wellington, and Director of the Army Board, presented a paper on the Medical History of the British Armies in the Peninsula of Spain and Portugal during the Late Campaigns.

Sir Gilbert Blane, modestly described as Physician to the Prince Regent, spoke at that same meeting on the Comparative Health of the British Navy from the Year 1779 to the Year 1814, with proposals for its farther improvement. Blane (1749-1834) had been physician-extraordinary to the Prince of Wales since 1785, but when the revolutionary wars against France broke out in 1795, he became commissioner for sick and wounded seamen and held that post until 1802. He pioneered the collecting and collating of statistics to support improvements in naval healthcare, and, in 1795, authorised the universal distribution of lemon juice throughout the navy to prevent scurvy. Under orders and instructions dictated by Blane, in 1799 soldiers were able to return safely from plague-stricken regions of Egypt. In 1810 the island of Walcheren was evacuated of troops devastated with disease and their expedition aborted on Blane’s advice.

In his paper, McGrigor reported “Of all classes of society from which soldiers are recruited, I believe it will be found that, caeteris paribus, tradesmen and manufacturers, particularly those from large towns, are soonest swept away by the fatigues and diseases of an army; and that those who have followed agricultural pursuits are the most healthy.”

Quite apart the dangers of battle, service abroad in unfamiliar climates made soldiers vulnerable to disorders such as dysentery, malaria, and yellow fever. But army life offered some means of escape for those men otherwise fated to endure, in large towns or in rural settings, conditions that were unhealthy and hard, and that carried with them the inevitable prospect of poor life-expectancy.
Sir James McGrigor (1771-1858)
Surgeons of the Napoleonic Wars

The two outstanding French surgeons to emerge during the Napoleonic Wars were Pierre Francois Percy (1754-1825), and Dominique Jean Larrey (1766-1842). Percy was Surgeon in Chief with the French army in Spain. He introduced a trained corps of field stretcher bearers to transport the wounded to surgical aid. This system was universally adopted by the French army in 1813.

Larrey had joined the French navy in 1787 in which he served as ship’s surgeon. He returned to France in the months before the 1789 revolution. By 1792, Larrey had been posted to the Army of the Rhine. His military duties included a total of 25 campaigns and 60 battles, and continued until the Battle of Waterloo at which he was severely injured. Serving throughout Europe, as well as in Egypt, Syria, and Russia, Larrey was Chief Surgeon to the Imperial Guard, Surgeon in chief to the Imperial Army, and Professor of Surgery at the army medical school at Val-de-Grace.

Larrey placed his surgical teams as close as possible to the front-line troops to ensure the rapid transport and early surgery of the wounded. To this end, he designed his “flying ambulance,” a light horse-drawn vehicle in which to carry wounded personnel. At the Battle of Borodino in 1812, Larrey performed 200 amputations in a 24-hour period.

At the Battle of Waterloo, Larrey was taken prisoner by the Prussians, but the death sentence pronounced upon him was cancelled when he was recognised by Marshall Blucher, the Prussian Commander, as the surgeon who had treated Blucher’s wounded son while a prisoner of the French. Larrey recovered from the severe injuries he received at Waterloo and went on to become Surgeon Inspector to the Army and Chief surgeon at Les Invalides and retired at the age of 72.
“When a limb is so much injured by a gun-shot wound that it cannot be saved, it should be amputated immediately. The first 24 hours is the only period during which the system remains tranquil, and we should hasten during this time, as in all dangerous diseases, to adopt the necessary remedy.”

Larrey’s Memoirs of Military Surgery.

Baron Dominique Jean Larrey (1766 – 1842)
Apprenticed at the age of thirteen to Mr Phillips, a surgeon of Pall Mall, and to Dr Hooper of the Marylebone Dispensary, Guthrie had, before his sixteenth birthday, passed the examination for membership of the Royal College of Surgeons of England. He had, by then, entered the army as a hospital mate. He served as assistant surgeon to the 29th regiment in Canada from 1803 to 1808, and then in the Iberian peninsula from 1808 to 1814.

He treated the wounded at many important battles, including 3000 after the Battle of Talavera, and came to the notice of the Duke of Wellington. In 1811 he was promoted to staff surgeon. At the Battle of Oporto, he single-handedly captured a French gun, and, following the death of his assistant surgeon at the Battle of Albuera, he operated on casualties for eighteen hours a day.

Guthrie retired from the Service in 1814 but returned from civilian life to help treat soldiers wounded at the Battle of Waterloo, and, in his own words, “with the view of obtaining additional support to some opinions I had advanced in military surgery.” In his Treatise on Gunshot Wounds Guthrie describes how, on 7 July 1815, he performed surgery on a French soldier, Francois de Gay, wounded at the Battle of Waterloo, and successfully amputated at the hip-joint.

Five days earlier, on 2 July 1815, Guthrie successfully ligated the peroneal artery of a German soldier also wounded at the Battle of Waterloo.
George James Guthrie
(1785-1856)
Baron Dominique Jean Larrey (1766 – 1842)

John Thomson (1765-1846)
Report of observations made in the British military hospitals in Belgium : after the Battle of Waterloo ; with some remarks upon amputation.

Baron Pierre Francois Percy (1754-1825)
Manuel chirurgien-d'armée; ou, Instruction de chirurgie-militaire sur le traitement des plaies, & spécialement de celles d'armes à feu; avec la méthode d'extraire de ces plaies les corps étrangers, & la description d’un nouvel instrument propre à cet usage; ouvrage qui a remporté le prix au concours de l'Académie royale de chirurgie de Paris.
Paris : Méquignon, 1792.

John Hennen (1779 – 1828)
Observations on some important points in the practice of military surgery: and in the arrangement and police of hospitals. Edinburgh : Constable, 1818.

Baron Pierre Francois Percy (1754-1825)

Baron Rene Nicolas Dufriche-Desgenettes (1762-1837)
Histoire medicale de l'armée d'Orient

George James Guthrie (1785-1856)
On gun-shot wounds of the extremities requiring the different operations of amputation with their after treatment establishing the advantages of amputation on the field of battle to the delay usually recommended.
London, Printed for Longman, Hurst, Rees, Orme, and Brown, 1815
George James Guthrie (1785-1856)
Commentaries on the surgery of the war, in Portugal, Spain, France, and the Netherlands: from the battle of Roliça, in 1808, to that of Waterloo, in 1815, showing the improvements made during and since that period in the great art and science of surgery on all the subjects to which they relate. Revised to 1853.

Alfred, Lord Tennyson (1809-1892)
Ode on the death of the Duke of Wellington.
London : Edward Moxon, Dover Street, 1852.

Memoir of Baron Larrey, Surgeon-in-chief of the Grande Armee.
From the French. London, 1861.
Abridged and adapted from the work by L.A.H. Leroy-Dupre.

Sir Charles Bell (1774-1842)

John Haddy James (1788-1869)

Sir James McGrigor (1771-1858)
The autobiography and services of Sir James McGrigor, Bart. Late Director-General of the Army Medical Department. With an appendix of notes and original correspondence.
London, Green, Longman, & Roberts, 1861

Gaspard Laurent Bayle (1774-1816)

James Carson (1772-1843)
An inquiry into the causes of the motion of the blood: with an appendix, in which the process of respiration and its connexion with the circulation of the blood are attempted to be elucidated.
Liverpool: Wright, 1815.
Matthew Baillie (1761-1823)

Sir James Fellowes (1772-1858)
Reports of the pestilential disorder of Andalusia, which appeared at Cadiz in the years 1800, 1804, 1810, and 1813: with a detailed account of that fatal epidemic as it prevailed at Gibraltar, during the autumnal months of 1804. Also observations on the remitting and intermitting fever, made in the military hospitals at Colchester, after the return of the troops from the expedition to Zealand in 1809.
London: Longman, Hurst, Rees, Orme, and Brown, 1815.

Joseph Hodgson (1788-1869)

Joseph Hodgson (1788-1869)
Engravings, intended to illustrate some of the diseases of the arteries : accompanied with explanations. London: T. Underwood, 1815.

James Curry (1763-1819)
Popular observations on apparent death from drowning, suffocation, &c. 2nd ed. London, 1815.

John Cross (1790-1850)

Philibert Joseph Roux (1780-1854)
Relation d'un voyage à Londres en 1814, ou Parallèle de la Chirurgie Angloise et Française. Paris, 1815.

James Carrick Moore (1763-1834)
The history of the small pox.
**James Gideon Millingen (1782-1862)**
The army medical officer's manual upon active service; or precepts for his guidance in the various situations in which he may be placed; with observations on the preservation of the health of armies upon foreign service. London: Burgess and Hill, 1819.

**Sir Charles Bell (1774-1842)**
A dissertation on gun-shot wounds.
London: Longman, Hurst, Rees, Orme and Brown, 1814.

**Jacques Lisfranc (1790-1847)**
Nouvelle méthode opératoire pour l'amputation partielle du pied dans son articulation tarsométatarsienne; méthode précédée des nombreuses modifications qu'a subies celle de Chopart … Paris: Chez Gabon, 1815.

**Thomas Thomson (1776-1853)**

**William Percivall (1792-1854)**
Series of elementary lectures on the veterinary art. London, 1823.

**John Vetch (1783-1835)**
An account of the ophthalmia which has appeared in England since the return of the British army from Egypt. London: Longman, Hurst, Rees and Orme, 1807.

**John Cunningham Saunders (1773-1810)**
A treatise on some practical points relating to the diseases of the eye.
London: Longman, Hurst, Rees, Orme, and Brown, 1816.

**George Man Burrows (1771-1846)**
A statement of circumstances connected with The Apothecaries' Act, and its administration.
London: J. Callow, 1817
A surgical artist at war: the paintings and sketches of Sir Charles Bell 1809-1815.
Edinburgh, Royal College of Surgeons of Edinburgh, 2005.

Sir Charles Bell (1774-1842)
Letters of Sir Charles Bell, K.H., F.R.S.L. & E.: Selected from his correspondence with his brother George Joseph Bell.
London: J. Murray, 1870.

Augustin Cabanes (1862-1928)
Au chevet de l'empereur.
Paris, Albin Michel, 1924.

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