The Diary and its Author

This work is based on an untitled, anonymous manuscript diary,¹ containing a vividly written and often lively sequence of daily entries, with no omissions even for high days and holidays such as Christmas and New Year's Day. The diary covers the period from Saturday 1 November 1834 to Saturday 30 June 1835. Thus it encompasses an academic year, in this case spent in Paris. The diary was written, presumably with a quill pen, in black ink now faded to a sepia-like colour in an unlined exercise book bearing a mottled cardboard cover and measuring 17 cms wide by 21.5 cms long. There are eighty leaves in the book with writing on both sides of all but the final page. The leaves are numbered in pencil by another hand on the recto side only. Following conventional practice, these are designated "r" and each overleaf "v" or verso. The work with its dated daily entries of varying length runs continuously from 1r to 74r. There are thus 146 pages of text; these are followed by 11 blank sides.

The manuscript is "raw" as first written. There is no post-Paris revision and most of the daily entries are likely to have been written at the end of a busy if not tiring day. And although there are occasional glimpses of the diarist's emotional state, the diary as a whole is a factual record of the observations, together with some valuable judgements, of a medical student following the work of a number of French surgeons and physicians performing either general or specialist clinical work in a wide range of Paris hospitals. The writer's observations on the cases examined in his presence reveals a generally sophisticated level of detail and analysis, indicating that he knew what he was looking at and for. Intermingled with these "professional" observations are the diarist's personal reactions to the sights he saw and to local social events and customs.

Explicit details of authorship are absent but internal evidence throughout indicates that the author was a final year medical student from the University of Edinburgh. He refers to his "Note Book" where, as well as lecture notes, he recorded in greater detail the individual "history" of some of the cases he encountered, indicating their management and daily progress to either discharge or death. But this document has not been traced. The Note Book could also have furnished more precise details of gender, age, occupation and social class of the patients on whom he comments in his diary. He indicates that at the end of his period in Paris, following his return to England in late June 1835, he was to take his final degree at Edinburgh. This would have been an MD degree; Edinburgh did, however, also provide courses for intending surgeons. These were trained in the Edinburgh Infirmary under the auspices of the Edinburgh Incorporation of Surgeons.

Further evidence within the diary strongly suggests that the diarist was James Surrage who lived in Clifton, part of Bristol in the county of Gloucestershire. The relevant evidence includes references by the diarist to letters sent to and received from Clifton, which he

¹MS 7147, Western MSS, The Wellcome Library for the History and Understanding of Medicine, London.

describes as "home". There was also correspondence to and from Wincanton in Somerset. Furthermore, towards the end of his period in Paris, the diarist details a visit by his family including his father, who was keen to see some of the hospitals in which his son was observing and gaining experience with certain of the leading surgeons. This suggests that the father was himself a medical man, possibly a surgeon. Lisa Rosner, in her excellent study of medical students in Edinburgh between 1760 and 1826, shows that the medical profession, the army, the church and the legal profession represented the social background from which the majority of the 300 Edinburgh medical graduates between 1760 and 1805 came. They belonged to the same social class as that of the surgeons' apprentices between 1696 and 1730. As she expresses it, "Medicine then, seems to have been primarily an occupation for genteel, though not aristocratic, families".²

The List of Members of the Royal College of Surgeons of 1840 lists two medical practitioners, James Surrage and T. Lydden [sic] Surrage, both in Wincanton.³ The older is Thomas Lyddon Surrage who had gained the qualification of MRCS in 1801 and whose address in the 1845 List is given as "Clifton Gloucestershire". The younger Surrage is James, who, like the diarist, had gained an MD degree from Edinburgh in 1835, having submitted a thesis on puerperal fever,⁴ a common cause of death among women in childbirth throughout much of the century. James Surrage then went on to gain the less prestigious MRCS. The MD was the mark of a university education and requisite for the more elevated status of physician in England compared to that of surgeon or apothecary, both of whom acted as general practitioners but did not command the same benefits and esteem as the smaller number of physicians. Nevertheless, surgeons regarded themselves as superior to apothecaries.

Living and Studying in Paris

Like many other foreign medical students from the English-speaking world, especially North America, the diarist was, towards the end of his medical course, spending an extended period in Paris. By attending lectures given by many of the leading physicians and surgeons of the day in the École de Médecine, and studying the patients in some of the capital's great hospitals, he would gain valuable experience.

The tone and contents of the diary suggest that the diarist was a confident, highly organised but by no means boisterous young man of cultivated tastes in his early twenties. He opens with a declaration that he has "for a long time intended to keep a journal",⁵ and presumably considered November 1, when he was embarking on a completely new course in a new country, a most propitious time for putting his intention into effect. No motive for writing a diary is revealed. His observations on French women and details of his experiences during his midwifery course with Mme Lachapelle would suggest that he was not deliberately preparing a gift for family reading. It seems doubtful therefore that he was keeping his diary as a justification for his time abroad.

²Lisa Rosner, Medical education in the age of improvement: Edinburgh students and apprentices 1760–1826, Edinburgh University Press, 1991, p. 27.

³List of members of the Royal College of Surgeons, London, R. Carpenter, 1840.

⁴List of graduates in medicine in the University of Edinburgh, from MDCCV to MDCCLXV1, Edinburgh, Neill and Company, 1867, p. 105, where Surrage is listed as "Jacobus Surrage, Anglus", the form of his name used in the index separately bound at the back of the volume.

⁵Diary, Saturday 1 November 1834, 1r, p. 41.

He sensibly sought a proper balance between his medical training and his cultural and social life in the French capital. An avid tourist who visited all the main landmarks of Paris and its environs, nevertheless, he did not skimp on his studies. To reach his hospital of the day on foot, before 9 o'clock, he had to get up early if he was to be in time to accompany the surgeon or physician on the ward round,⁶ and he was extremely good at organising his time so as to fit in his chosen single lectures or series of lectures on a specialist subject.

He kept abreast of political events at home through regular reading of the imported English newspapers along with others published in English in Paris, such as the *Messenger*. The local politics of his home district in England certainly interested him and he saw developments there against the background of the somewhat turbulent national politics of the day in which the Whigs were gaining the upper hand over Robert Peel and the Tories.⁷ This process of ascendancy for the Whigs was anything but smooth and between 1830 and 1841 there were four changes of mainly Whig governments. But there was a Tory caretaker administration during November and December 1834 led by the Duke of Wellington. This was followed by another short-lived Tory administration under Robert Peel which ran only from December 1834 to April 1835.⁸

Events in France in the late eighteenth and early nineteenth centuries were not isolated mainland European events. Calls for greater democracy for the population at large and anti-monarchist, pro-Republican sentiments were not unknown in Britain, and in 1832 the Great Reform Act was passed. The diarist's observations on the results of a recent local election involving a member of the Russell family, the Irish question and the fate of the government at home suggest that he was a Tory.

Not surprisingly given the still relatively recent Napoleonic War, the diarist shows his ambivalent, even at times xenophobic, attitudes towards French culture, social behaviour, religion, modes of entertainment and food, as well as French theories and practice in medicine. Whilst he certainly displays some francophobic tendencies, he is not totally devoid of objectivity and does include some favourable comments on certain French surgical techniques. In any case Edinburgh had not been impervious to the changes and advances in medical and surgical techniques taking place in Paris and had among its professoriate those who looked southward to Paris with admiration.

Catholicism is primarily the butt of his disdain, although he reveals a sincere appreciation of the architecture, art, organ music and singing in the great Catholic churches such as Notre Dame cathedral, and he was curious about this alien religion. On one occasion, during an overheard conversation a "clever young Frenchman who is engaged in translating Bulwer's work on France" assured the English physician to whom he was talking that there was no such thing as religion in the country, only "a few women & priestridden men" continued to practise the faith.⁹ This comment, together with the diarist's declaration

⁶ At least two of the individuals he followed, viz. Guillaume Dupuytren and P. C. A. Louis, were said to begin their ward rounds between 6.30 and 7.00 a.m. (John Harley Warner, *Against the spirit of system*, Princeton University Press, 1998, pp. 27, 186.) The diarist makes no reference to such an early start for himself.

⁷Sir Robert Peel had been Chief Secretary for Ireland 1812–18. He became Member of Parliament for Tamworth in 1833 and often voted with the government.

⁸Eric J. Evans, *The forging of the modern state: early industrial Britain 1783–1870*, 3rd ed., Harlow, Longman, 2001, pp. 306, 470–1.

⁹Diary Monday 3 November 1834, 4r, p. 48. The diarist almost certainly meant to write that the Frenchman was translating Bulwer Lytton's recent book on the English "into French". Bulwer Lytton published his work

that the amusements and entertainments available to the French on Sundays distract them from sincere divine worship,¹⁰ hints at the active post-Revolutionary moves against the predominant religion of Catholicism and towards the secularisation of French society. As a non-Catholic he dismisses the Mass – smells, bells and processions – as flummery. He is also scathing about the amusements associated with the celebration of Catholic festival days such as Mardi Gras (Shrove Tuesday) and the end of Lent, indicating sentiments that were not merely anti-papist but also anti-High Anglican.

His practice of eschewing the Sunday services held in the British Embassy for members of the Church of England among the considerable English community in Paris at the time, is an indication that he was not a member of the Church of England. He was, however, a devout Christian who never missed attending a Sunday service in one of the five other English-speaking Protestant churches that catered for British nonconformists in the capital. Dissent from the established church had made great headway in England towards the end of the eighteenth century, not only among the working class in the large urban and industrial centres, but also in the more rural regions of England, particularly those with ports or market towns such as the area from which the diarist hailed.¹¹ If he were a surgeon rather than a physician, the diarist's father would have belonged to the lower middle ranks of society. Members of this group traditionally found dissent more appealing. His nonconformism could have influenced the diarist's decision to study at Edinburgh rather than at Oxford, which preferred members of the Anglican Church.

The church first attended by the diarist in Paris was in the rue d'Aguesseau where on his second Sunday he heard the well-known Bishop Luscombe preach. The sermon was dismissed as mediocre.¹² Since Luscombe was said to hold high church principles, this criticism of him is not surprising and the diarist soon sought out for himself a more congenial congregation. A main emphasis of nonconformity was on hearing and preaching the word of God as told in the Bible. The diarist frequently expresses his admiration for the sermons – closely based on Biblical contexts – of Mr Newstead, the pastor of the church in the rue du Bouloi which moved to rue d'Anjou/St Honoré in 1835. The diarist's admiration may have been enhanced by his enjoyment, as a sometimes homesick young man, of the social gatherings in Mr Newstead's home. These seem to have been rather earnest occasions with much hymn singing and praying. There are also references to visiting preachers attending this church; they are sometimes identified as Wesleyans.

Whilst he acknowledges that he likes the Church of England services, his next preference was for those of the Wesleyans and he gives as his reason the fact that they supported the need for an established church.¹³ John Wesley's Methodism, in comparison with the other Protestant nonconformist Baptist and Congregationalist groups, depended on an itinerant ministry. These other two groups had also, however, along with the Methodists, considerably increased their membership during the first three decades of the nineteenth century.

The Parisians much later in the century. Edward George Earle Bulwer Lytton, The Parisians, London and Edinburgh, W. Blackwood and Son, [1873].

¹⁰Diary, 2 November 1834, 2r, p. 43.

¹¹Evans, The forging of the modern state, p. 65.

¹²Diary, Sunday 9 November 1834, p. 57; see note 105 for details of Bishop Luscombe's career.

¹³Diary, Sunday 7 December 1834, 20v, p. 80.

The diarist's dismissive comment that during the Carnival procession on 1 March 1835 the boulevards were "crowded with fools in masks",¹⁴ and his disapproval of what seems to have been tame gambling¹⁵ could have allied him to either of these groups, Nevertheless, he did not retain all traces of his somewhat strict upbringing and soon after his arrival in Paris he went to a dance attended by several other members of the English community; he was however acutely class conscious. Dancing in a controlled environment where he could safely be sure of meeting his own kind, he obviously enjoyed. But he did not feel a great need for the company of others, including women. In fact his remarks about some of the females he encounters are almost insulting. He idealised English women, but believed their main occupations should remain those of modest homemakers and cradle rockers. He certainly cast doubt on the probity of women in general when at a consultation in a free clinic in the Hôtel Dieu in January 1835 the mother of a child with a deep syphilitic sore on its buttocks denied any connection with syphilis.¹⁶ The condition was known to be both contagious and congenital and physicians dealing with the disease where children were involved were aware of the possibility of highly emotional contexts concerning parental responsibilities, recriminations, litigation, ruined marriages as well as spontaneous abortions, stillbirths or damaged children.¹⁷ The diarist, still a very young man and especially since he had not studied the disease in Edinburgh, may well not have developed sensitivity to these repercussions for the mother when, in criticising her for her denial, he declared that "women can never be believed".¹⁸

The diarist was always aware of the need to manage his finances prudently although he does not appear to have been badly off. For the previous century Rosner provides details of the cost of accommodation, candles and fuel that students in Edinburgh had to cover, in addition to some meals and their fees. Professor Andrew Duncan Jr. had known some students who got through the winter session (six months) on less than £10 whereas others might spend £500 or £600.¹⁹ The diarist does not give details of his own rent and meals in Edinburgh although he does on one occasion of homesickness speak tenderly of his room there. In Paris he had the choice of finding a suitable hotel, taking a room with a "professional" student landlord – one who regularly took in students – and where he would look after himself, or entering one of the very numerous pensions and having an arrangement with a local restaurant where he could take at least his breakfast. John Wiblin, a surgeonapothecary who produced a Paris guide for medical students four years after the diarist's departure from Paris, definitely recommended eating away from the lodging house. He himself was in favour of the pensions which were frequented "by students of law and physic" and were generally quiet places for studying. By contrast he warned of some of the hotels that housed large numbers of undesirable medical students who were "a set of dirty,

¹⁵Diary, Monday 3 November 1834, 3v, pp. 47-8.

¹⁴Diary, Sunday 1 March 1835, 48v, p. 138.

¹⁶Diary, Friday 9 January 1835, 32v, p. 106.

¹⁷ John Thorne Crissey and Lawrence Charles Parish, *The dermatology and syphilology of the nineteenth century*, New York, Praeger, 1981, p. 92.

¹⁸ Diary, Friday 9 January 1835, 32v, p. 106.

¹⁹Rosner, Medical education, p. 31.

filthy, and disgusting fellows".²⁰ Their disorderly behaviour, which caused a "tumultous uproar that is so constantly going on" included "singing, music, blowing horns etc., etc.".²¹ Alas the diarist did not escape this in his first boarding house where a violin player in the next room so disturbed him that he had to abandon his letter writing.²²

The diarist was clearly not used to domestic chores. He had difficulty initially in lighting a fire in his room. Similarly his efforts at making his own coffee compared miserably with what he could buy in the cafés and restaurants. But his skills improved. He seems to have taken his evening meals in restaurants and dutifully tried to use economical establishments whose food he came to appreciate – until on one occasion a clumsy waiter spilt soup all over him scalding his hand and greasing his coat.²³ When his family came to Paris they generally dined at one of several restaurants which shot up after the Revolution and which provided dinner including wine for 2 francs a head. One evening, they dined at Périgord, one of the best restaurants in the Palais Royal.²⁴ The superior restaurants owed much to the influence of the modestly born Antonin Carême, possibly the first celebrity chef, famous because he had cooked for the Tsar, Napoleon himself, and the immensely wealthy Rothchilds living in Paris at the beginning of the nineteenth century.²⁵

Neither the diarist's first lodgings in the rue des Francs-Bourgeois, north of the Seine, nor his second abode in the rue N. St. Étienne near the Panthéon, south of the river, placed him within easy walking distance of the hospitals and other medical institutions he attended. This meant that inevitably he had to walk longish distances to and fro between them. Many of the non-medical locations such as theatres, galleries and national institutions that he visited were also in or near the centre of Paris. But the diarist's student accommodation was, not surprisingly, more economically situated in less expensive areas. He occasionally complained of the distance he had to cover, especially on the winter evenings when he attended his classes in midwifery – which he enjoyed – and on bandages which he found less enthralling.

The Latin Quarter, where some of the hospitals were to be found, also contained a number of the other institutions and activities allied to medicine. There were, for example, medical booksellers, instrument and equipment makers and suppliers, medical artists and wax educational model makers as well as those who prepared natural and artificial human skeletons. During his course, the diarist bought a range of frequently used and easily transportable equipment to take back to England, where these items would all have been more expensive.²⁶ American students also generally returned home with preserved specimens, instruments, skeletal material, as well as books. And some physicians even travelled to London and Paris exclusively to shop for "anatomical models, pathological

²⁰ John Wiblin, *The student's guide to the hospitals and medical institutions of Paris*, London, Henry Renshaw, 1839, pp. 7–8. This sentiment could have arisen from the envy of one who had probably gained his qualification through an apprenticeship rather than a university education.

²¹ Ibid., p. 7.

²²Diary, Saturday 1 November 1834, 1v, p. 43.

²³Diary, Friday 7 November 1834, 6v, p. 53.

²⁴ Diary, Sunday 7 June 1835, 71r, p. 179.

²⁵ Ian Kelly, Cooking for kings: the life of Antonin Carême, London, Short Books, 2003.

²⁶Diary, Saturday 17 January 1835, 38r, p. 117.

specimens, books and instruments", which would enhance the facilities of the American schools they represented.²⁷ The diarist did manage to purchase a skeleton, albeit probably a composite from several sources. He was particularly pleased that its box was large enough to accommodate also some of his newly acquired books for the return journey home.²⁸

Unlike many of the American students²⁹ – and no doubt at least some of the English ones too – the diarist seems to have had no real difficulty in following the lectures and courses he attended. While acknowledging that it was more difficult to follow the colloquial French of individuals such as the *garçons*, he felt confident enough to make comparative judgements about the content and presentation skills of his French medical teachers. Thus his school education, or even study with a crammer, would seem to have encouraged a good standard of spoken French. And some of his mis-spelling of French specialist medical terms does not invalidate this speculation. On the contrary, his not infrequent "frenchified" English syntax – a common phenomenon in individuals who spend an extended period of immersion in a foreign language – would seem to support the speculation that he was fairly comfortable with the French language. On the other hand his linguistic skill probably could not match that of American students from New Orleans or Louisiana where French was still spoken and who formed the majority of those few who enrolled for the longer and more prestigious *Diplôme* in the Faculty of Medicine.³⁰

No doubt the diarist's comparative ease with the language contributed to his gaining so much from his academic year in Paris. As a medical student aiming for an MD degree at the University of Edinburgh, his general cultural education seems also to have been good. He realised that he could, at a much lower cost than in England, and in addition to his medical books, build up a good library of general books to take home, as well as to enjoy as an intellectual distraction from his studies in Paris. Thus he tells of his pleasure at reading the works of Byron. He also developed considerable admiration for Peter the Great from reading Voltaire's work on him.³¹

Apart from a few minor episodes, the diarist seems on the whole to have enjoyed the robust health one would expect in a young person. Like many living abroad, he complained of intermittent bouts of diarrhoea. At the beginning of April 1835 he developed a sore throat, cough and temperature. Since his hospital visits included following Pierre C. A. Louis (1787–1872), who specialised in treating lung diseases – especially phthisis (tuberculosis) – the diarist's symptoms could have been associated with a more serious condition; but he recovered. Hospitals with their diseased patients in the wards and in the day clinics have long been seen as sources of infection. He spent one disturbed night vomiting but that was after an evening meal which he had actually enjoyed.³² He also, on three occasions,

³² Diary, Monday 3 November 1834, 2r, p. 43.

²⁷Warner, Against the spirit of system, pp. 64-5.

²⁸Diary, Saturday 20 June 1835, 74r, p. 185.

²⁹ Warner, Against the spirit of system, p. 86-7.

³⁰ Jonathan Mason Warren, *The Parisian education of an American surgeon: letters of Jonathan Mason Warren*, 1832–1835, Philadelphia, Memoirs of the American Philosophical Society, 1978, p. 3.

³¹ In Galignani's new Paris guide there was an advertisement for "Popular works at one-third to one-sixth of the London prices". For the diarist's interest in Peter the Great, see diary, Wednesday 18 March 1835, 52v, pp. 145–6. He may have been referring to Voltaire's *The history of the Russian empire under Peter the Great*, London, J. Nourse and P. Vaillant, 1763.

suffered what seem to have been severe headaches, which caused him to miss classes, but none of which heralded the onset of fever or any other illness. Headache or pain in the head was given a variety of non-specialist names depending on whether it was produced by some other disease, and on the part of the head affected. According to Robert Hooper, there were very few diseases in which headaches were totally absent and they were frequently associated with weakness or exhaustion.³³ The diarist's first severe headache was around lunchtime in the middle of his first week in Paris and the two further episodes in April and May 1835 were at the end of very busy days.³⁴ Although he makes no reference to a longstanding chronic condition, the diarist's headaches could have been what were vulgarly known as "megrims". It could be that these events were associated with the punishing pace of medical and surgical experience plus the programme of extra-mural activities to which he subjected himself whilst in Paris.

More seriously, in May 1835 he pierced his finger with a scalpel during dissection. He describes in detail the incident itself and the subsequent symptoms of fever, pain, swelling of his hand, livid colouring within the lymphatics rising up his affected arm, and his self-medication with silver nitrate over the inflamed lymphatics.³⁵ He seems to have remained calm throughout and recovered in a couple of days but he cannot have been unaware of the potential danger of such wounds.³⁶ Perhaps it was the comfort of his strong religious belief plus a little tender loving care from his friend Bird³⁷ that stood him in good stead.

Dissection of cadavers definitely involved risk and the pricking or cutting of parts of the hand was not an uncommon occurrence. Neither was contact between cuts sustained elsewhere and the cadavers in the dissecting rooms or the sponges used by students in wiping areas of their dissections. Whilst most students recovered from the infection suffered, an American student Henry Bryant writing to his father from Paris in 1847 reckoned that he had "no doubt that out of a hundred persons dissecting there would be at least one dangerously sick and probably one death in the same number each session."³⁸ In 1837, George Shattuck,

³⁶Warner, Against the spirit of system, pp. 113-14.

³⁷ A positive identification of Bird has not been possible. The diarist may have had two friends with that surname, as on June 8 and 14 he refers specifically to "J. Bird", who may have come to Paris with the diarist's family. In all other references the surname alone is used. "Benjamin R. Bird, Hibernus" is listed as having graduated from Edinburgh in 1830, and could have been gaining postgraduate experience in Paris at that time. (*List of graduates in medicine*, p. 89.) There is also a "Bird, Rd., Tamworth – M.R.C.S." listed in *London and Provincial Medical Directory*, 1848, p. 72. Another, Henry Bird, from Gloucestershire, had qualified as a surgeon with an MRCS and an LSA in 1834 (ibid.) There was a J. Bird listed in the 1849 *Medical Directory* (p. 43) living at 2 Regent's Place West, Regent's Square, London, who had by then gained an MRCS and an LSA, which would qualify an individual to practise as a general practitioner in the previous year 1834. He could have been studying at Edinburgh University, which provided courses for both aspiring physicians and surgeons, at the same time as the diarist. Although known to the diarist, the Bird cited here was clearly not on exactly the same programme but as a qualified surgeon – albeit recently – had come to Paris to gain experience with some of its highly renowned practitioners. The Bird appearing in the 1849 *Directory* was listed as having been Resident Surgeon Apothecary to the Northern Dispensary, 1837–40.

⁸Warner, Against the spirit of system, p. 114.

³³Robert Hooper, *Lexicon medicum; or medical dictionary*, 6th ed., London, Longman, Rees, Orme, Brown, and Green, 1831, pp. 648–9.

³⁴ Diary, Wednesday 5 November 1834, 5v, p. 51; Wednesday 22 April 1835, 62r, p. 161; Monday 18 May 1835, 67v, p. 172.

³⁵Diary, Wednesday 6 May 1835, 66r, p. 169; 8–12 May 1835, 66v–67r, pp. 170–1.

another student from the United States, wrote to his mother, "a medical student from Philadelphia died yesterday".³⁹ Such news could only have enhanced the anxiety of some parents already concerned about other dangers – real or imagined – and temptations to their offspring or other family members, thought to be lurking in Paris.

In terms of his appreciation of the visual arts, the diarist really loved the Louvre and his diary comes alive with the pleasure gained from his numerous walks through the galleries. He also enjoyed the theatre and, having on one occasion been so enchanted by the performance of the leading – and by then ageing – comedy actress Mme Mars in Molière's *Le Misanthrope*, declared that he would still have enjoyed the evening even if he had not been able to understand the language.⁴⁰ This provides another indicator of the diarist's competence in French.

Medical Reform in Paris

In the eighteenth century, particularly in the 1770s and 1780s and even up to the 1820s, Edinburgh University was the most prestigious institution for medical education in the British Isles. It was "widely acclaimed both in Britain and on the Continent and provided a model for medical schools in the American colonies as well".⁴¹ Its eminent professors, including William Cullen, John Gregory, and the Monro dynasty, attracted students from all over the British Isles and America, far more so than Oxford or Cambridge. Guenter Risse emphasises that "Medicine played an important role within the framework of ideas guiding the Scottish Enlightenment",⁴² and Stephen Jacyna argues that this period of Edinburgh's medical school coincided with the broader intellectual life of the Scottish Enlightenment of Adam Smith and David Hume.⁴³

By contrast, in the early nineteenth century the medical school's importance had started to decline, partly as a result "of faction and of the injudicious distribution of patronage that flowed from it".⁴⁴ During the 1830s there were pamphlet wars in Edinburgh over faculty appointments.⁴⁵ In the 1820s medical education in London had already been advancing through the establishment of University College London in 1826 with its Faculty of Medicine, the development of organised medical schools, and the establishment of anatomy schools. The latter were then overtaken around 1840 by the more scientifically based curriculum in the University of London (which now included King's College) and the hospital medical schools. On the other side of the channel much greater changes in medical education were already well under way and Paris became the preferred location for further training in medicine.

Othmar Keel has examined the complex issue of the relations between Great Britain – in a wider context than just Edinburgh – and France at the time.⁴⁶ Relating his analysis to the

³⁹ Ibid.

⁴⁰Diary, Thursday 15 January 1835, 36v, p. 115.

⁴¹Rosner, Medical education, p. 2.

⁴²Guenter B. Risse, Hospital life in Enlightenment Scotland, Cambridge University Press, 1986, p. 2.

⁴³L. S. Jacyna, *Philosophic Whigs: medicine, science, and citizenship in Edinburgh, 1789–1848*, London and New York, Routledge, 1994, p. 1.

⁴⁴Ibid., p. 2.

⁴⁵Rosner, Medical education, p. 195.

⁴⁶Othmar Keel, 'Was anatomical and tissue pathology a product of the Paris clinical school or not?', in Caroline Hannaway and Ann La Berge (eds), *Constructing Paris medicine*, Amsterdam and Atlanta, Rodopi, 1998, pp. 117–83.

development of anatomical tissue pathology, he believes that achievements in this area pre-dated the Paris school and owed much "to a massive use of British works". He even speaks of appropriation of the work of such individuals as Matthew Baillie, William Lawrence and John Abernethy, among others, by great Paris figures including Philippe Pinel and François J. V. Broussais.⁴⁷

By the early 1830s, therefore, Paris – as well as the major London hospitals – was already on the itinerary for many overseas students who might formerly have gone on to spend longer periods in Edinburgh. In 1828, a House of Commons Committee noted that there were "200 English students of anatomy in Paris", and according to William Baly, who was in Paris in 1835, "300 English students [are] here every year".⁴⁸ Ambitious medical students or practising physicians and surgeons seeking to widen their horizons went to Paris to gain, at first hand, experience of what was perceived as the new scientific medicine developing there. The supremacy of the French capital would in its turn, after half a century or so, give way to Germany and Vienna with their development of prestigious laboratories devoted to new lines of chemico-physical research and its application to medicine.

The massive upheaval of the French Revolution and the further less traumatic minor revolutions of, for instance, 1830 did through what might be called their "corporate endeavours" provide impetus for major, albeit not always smooth, change in a relatively short period in French institutions, including medicine. The Institut de France was established in October 1795 after the abolition by the National Convention in 1793 of all the élite literary and scientific societies called academies which had been established during the reigns of Louis XIII and Louis XIV. By a decree of October 1795 the Institute was founded to replace the former academies. Thus it embraced the Académie Française, originally founded in 1635, the Académie des Inscriptions et Belles-Lettres established in 1663, the Académie des Sciences, established in 1666, and the Académie des Beaux Arts established more recently in 1816 from the union of the academies of sculpture, music and architecture. To these was added the Académie des Sciences Morales et Politiques established in 1795 at the time of the founding of the Institute.

There was at that time no academy devoted to medicine. The Société Royale de Médecine, a Paris based institution founded by the crown in 1776, had been abolished during the Revolution. The Académie de Médecine was not established until 1820 and strove to raise its initial lower status towards that of the more prestigious Académie des Sciences. Indeed, as Weisz points out, the pinnacle of success in an élite medical career was election to the Académie des Sciences, which had a special section for medicine and surgery. Competition for appointment to this section was so acute that the average age of appointment rose throughout the nineteenth century and the place of clinical medicine over laboratory scientists working in the medical institutions decreased.⁴⁹

By comparison, change in Britain was slow and still dominated by the Royal Society – which was not over enthusiastic about having too many medical men among its membership. Furthermore, the conservative Colleges of Surgeons and Physicians, unlike their

⁴⁷Ibid., pp. 117, 118, 141.

⁴⁸ Warner, Against the spirit of system pp. 188, 196.

⁴⁹ George Weisz, The medical mandarins: the French Academy of Medicine in the nineteenth and early twentieth centuries, Oxford University Press, 1995, pp. 249–50.

counterparts in France, did not want a unified profession. Whilst there had been in Paris, as in Britain, a basic hierarchy of apothecaries, surgeons and physicians, already by the eighteenth century this structure had begun to break down. Towards the end of the century there had emerged an élite corps of city surgeons, whose members had been educated in classics and philosophy and who had trained in newly founded independent surgical colleges rather than through apprenticeships. These surgeons were by law, and much to the resentment of the physicians, entitled to professional rather than artisanal status.⁵⁰ This and other features increased the tension between the three grades within the existing medical system.

During 1791, in the revolutionary period in France, the law permitted anyone to follow whatever medical occupation he chose, provided he paid a tax called a *patente*.⁵¹ All those practising medicine were included in the general term officier de santé, which was adopted as part of a range of linguistic changes intended to democratise the language⁵² and remove the élitism associated with, for example, the title "physician" compared with that of "surgeon" or "apothecary". This new term, which appeared to embody at least one of the ideals of the Revolution, viz. égalité, failed to distinguish the trained from the untrained and unlicensed, who included the many charlatans, or empirics as they were often called, parading as medical practitioners. Later in the nineteenth century, however, the term officier de santé came to be applied exclusively to second class doctors practising mainly in rural areas.⁵³ It was widely believed that the rural poor were healthier than the urban rich and needed only practitioners with a more restricted repertoire of skills to deal with "commonplace acute diseases and chronic maladies especially found in the village, such as scrofula".54

The élite surgeons were, in addition to their surgical procedures, capable of treating internal diseases and were, to the disapproval of the physicians, often seen as surgeonphysicians.⁵⁵ On the Napoleonic battlefield some of these individuals were more useful and generally more highly esteemed than physicians. They were assisted by officiers de santé and this role in war was one justification for the scheme that had produced them in large numbers and in a short period. The diarist went one day to the veterans' hospital of Les Invalides to see one such élite individual, the chief surgeon Baron Dominique-Jean Larrey (1766-1842).

Among these eminent surgeons had been several reform-minded individuals including Bichat, Laënnec, Broussais (who later qualified as a physician) and Cruveilhier, through whose work France's surgery became famous, and in Ackerknecht's view her medicine was ridiculed.⁵⁶ There were at the same time reform-minded physicians who addressed their proposals to the Société Royale de Médecine. The secretary of the Société was the physician

⁵⁰L. W. B. Brockliss, 'Medical reform, the Enlightenment and physician-power in late eighteenth-century France', in Roy Porter (ed.), Medicine in the Enlightenment, Amsterdam and Atlanta, Rodopi, 1995, p. 65.

⁵¹ Maurice Crosland, 'The officiers de santé of the French revolution : a case study in the changing language of medicine', Medical History, 2004, 48: 229-44, p. 239.

²Ibid., p. 229.

⁵³Robert Heller, 'Officiers de santé: the second-class doctors of nineteenth-century France',

Medical History, 1978, 22: 25-43, p. 32. ⁵⁴ Brockliss, 'Medical reform', p. 82.

⁵⁵ Ibid., pp. 66–9.

⁵⁶ Erwin Ackerknecht, Medicine at the Paris hospital, 1794–1848, Baltimore, Johns Hopkins Press, 1967, p. 25.

and comparative anatomist Félix Vicq d'Azyr (1748–94), who later could have been regarded as a physician-surgeon and who was to become professor of surgery and obstetrics. The National Assembly of the Revolution formed a number of committees including the Comité de Salubrité, which Vicq d'Azyr organised in 1790. Through its proposed reforms, embodied in a 'Plan', the Comité threatened the existing medical system.⁵⁷

A major proposal in the 'Plan', already voiced well before the Revolution, was the unification of the profession, although the apothecaries, now renamed pharmacists, were to remain separate. Calls for such unification were widespread throughout Europe but in Britain were realised much later than in Paris. The establishment of the British Medical Association did not take place until the 1830s. Other major aims of Vicq d'Azyr's 'Plan' involved reform of the curriculum and the examination system. Courses in practical medicine and surgery were to be hospital based. And, whilst some of the proposals were not implemented, the *cliniques* as envisaged in the 'Plan' played a crucial role in the transformation of Paris medicine.

The Paris hospitals, the majority of whose names indicate their original foundation and management by the Church, were transferred to the nation. As Wiblin expressed it, "The hospitals belong to the city of Paris", and were supported by an annual fund derived partly from donations, leases of property, receipts from the theatres and most of all from the mont de piété, a form of pawnshop.58 Hand in hand with the management changes, but aided by them, were the ideological changes, born of the spirit of the Enlightenment, on how medicine and surgery - which underpinned clinical practice - should be pursued and carried out. As in Britain, French physicians had, with their traditional emphasis on bookish learning and teaching, held sway over the surgeons. They now had to give way to the privileging of hands-on experience, more usually associated with surgeons, which made possible the acquisition and verification of knowledge gained through close first-hand observation of the sick and also, if the patients did not recover and survive their disease, through the deeper gaze and analysis of their inner organs and tissues hidden in their corpses. In Edinburgh Cullen had already advocated that physicians should always check their diagnoses in this way since "it is not improperly said that the earth hides the faults of physicians".⁵⁹ This empiricist approach was seen as a means of exposing the falsehoods of the long prevailing rationalistic, speculative medical systems of pathology and therapeutics. These had largely been generated and controlled by the great system builders, the physicians, who had always sought to maintain a certain professional mystery about their skills.

Careful and systematic noting and recording of the results of post-mortem examinations or autopsies made possible the linking of symptoms observed externally with evident morbid changes within the body. This led to the questioning of ideas associated with the *ancien régime* and to the formulation of new theories about pathology. These centred on the interpretation of lesions and inflammation in the solid parts – organs and tissues – rather than on the constituents of the body, such as blood and urine, on which the

⁵⁷ Brockliss, 'Medical reform', p. 70.

⁵⁸ Wiblin, Student's guide, p. 22-4.

⁵⁹ Diana E. Manuel, *Marshall Hall (1790–1857)*, Amsterdam and Atlanta, Rodopi, 1996, pp. 58–61. The Cullen quotation comes from the original manuscript of a clinical lecture delivered by him on 21 April 1772, MSS Collection, University of Glasgow. This is also referred to by Risse, *Hospital life*, p. 261.

physicians had long depended and on which they had based their therapies. There were, of course, conditions such as septicaemia which were, and remained, both systemic and local. The seats of diseases could now be localised. In Maulitz's graphic words, it was possible to "put one's finger on that abstraction, 'disease' at the post-mortem table".⁶⁰ This new approach led to what is sometimes called tissue pathology or histopathology; it was first clearly systematised by the physician pathologist Xavier Bichat (1771–1802), although he was not the first to articulate its characteristics. The son of a physician, Bichat's early training had been in surgery but in a short life of thirty-one years he had embraced medicine, physiology, histology and pathology as well as experimental work in pursuit of explanations of and appropriate treatment for the sick. The new approach in French medicine and surgery was allied to other developments including the importance of quantification, associated but not originating with Louis, whose tuberculous patients were observed by the diarist.

The first chair of pathological anatomy was given to Jean Cruveilhier (1791–1874). Such a post had already been called for in 1799 by Pierre J. G. Cabanis (1757–1808), described by Ackerknecht as the best known philosopher of the medical revolution in Paris,⁶¹ and who was a member of the philosophical group of social critics called the *idéologues*.⁶² The chair was created in 1836 and was funded by the will of Guillaume Dupuytren (1777–1835), the eminent surgeon whose work was commented on by the diarist, who also recorded his death in February 1835.

Another eminent Paris "moderniser" and critic of long established medical doctrines, was François J. V. Broussais (1772–1838), a surgeon-physician, whose lectures the diarist attended. Broussais was, initially, a supporter of the doctrine which gave primacy to lesions and their location in diagnosing and treating disease. His own interpretation of diseases was described as "physiological" since he came to see and claim that overstimulation of body functions led to the lesions. For him they were almost always due to inflammation of the intestinal tract, and commonly called gastro-enteritis, for which the best treatment – antiphlogistic – was bleeding and diet. Through his own practice, and that of his supporters, Broussais was responsible for the use of thousands of leeches annually in Paris alone. He could, for example, recommend the application of fifty leeches at a time.

Broussais's star definitely waned. After all he was, with his all-embracing view of gastroenteritis, in his turn responsible for another catch-all explanation of disease. One of his harshest critics was Louis, also a physician, described by Warner as "a radical empiricist and enemy of rationalist medical system building".⁶³ His major innovation was the application of numerical methods to the investigation of the efficacy of therapeutic approaches. He was right that single cases taught little or nothing, but data on groups of treated patients could yield valuable information. As a positive gesture to institutionalise his contribution to the new medical education and against the spirit of system in the old regime, Louis

⁶⁰Russell C. Maulitz, Morbid appearances: the anatomy of pathology in the early nineteenth century, Cambridge University Press, 1987, p. 18.

⁶¹ Ackerknecht, Paris hospital, p. 33.

⁶² The *idéologues* considered Christian churches to be dogmatic and intolerant and they opposed the hierarchical, corporate nature of contemporary society, two social strands which were inimical to the spirit of the Enlightenment, with its values of an open meritocratic system. Brockliss, 'Medical reform', pp. 80–1.

⁶³Warner, Against the spirit of system, p. 4.

established the Société Médicale d'Observation in 1832, embodying his numerical, statistical approach to the collection of first-hand empirical research data based on careful observation of his patients.

Pointing out that "Revolutionaries are not altruists", Brockliss considers the issue of who really initiated the reforms of the medical system and who were the winners and losers.⁶⁴ Whilst there were reformers among the élite surgeons, he believes that the main impetus came from the physicians whose aim all along had been to extend and maintain their professional power and superiority, such that they should be able to train and practise surgery as well if they wished.⁶⁵ Brockliss admits that this is a controversial conclusion and that others, including Toby Gelfand, bestow the honour for the reforms on the surgeons.⁶⁶

Courses, Hospitals and Doctors

The diarist does not provide much detail of his medical curriculum at Edinburgh University, but a Royal Commission on the Universities and Colleges of Scotland, the first in 130 years and called for by the Senatus Academicus, published in its report of 1830, following a visitation to Edinburgh in 1826, the 'Course of Study to be Observed by Candidates for the Medical Degree' in all Scottish universities. In the first year the course included anatomy, chemistry and materia medica in the winter, and practical chemistry and practical pharmacy, "which may be taken with a Private Teacher or Lecturer", in the summer. Clinical Medicine was included in the curriculum throughout the second, third and final years.⁶⁷

During his studies at Edinburgh up to 1834 the diarist would have gained much of his clinical experience in the large Edinburgh Royal Infirmary, established on a small scale in 1729 and granted its Royal Charter in 1736. It had been founded to take care of the "sick and hurt poor" of the city⁶⁸ and had close links with the University Faculty of Medicine. Thus many of the medical and surgical professors in Edinburgh held joint posts in both institutions and provided a medical course of high quality. In 1756 the hospital had created an orderly rotation of professors for patient care in its teaching ward and a systematic course of clinical lectures.⁶⁹ The cases admitted to the teaching ward were medical ones as were the patients discussed during the clinical lectures. Striking a critical note, Benjamin Bell, writing to his father in 1771 from Paris, declared: "For a surgeon, I assure you Edinburgh comes greatly short of either Paris or London".⁷⁰ A claim in the 1792 prospectus for medical students that the Edinburgh Infirmary was "much superior to any similar institution in Britain for the purpose of medical education" was attributed to Alexander Hamilton.⁷¹ It is the case that hospital-based clinical training at the bedside, such as the diarist received in

⁶⁴ Ibid., p. 89.

⁶⁵ Ibid., pp. 89–95.

⁶⁶Toby Gelfand, 'A clinical ideal: Paris 1789', Bulletin of the History of Medicine, 1977, 51: 397-411.

⁶⁷Rosner, Medical education, p. 175.

⁶⁸ Bill Yule, Matrons, medics and maladies: inside Edinburgh Royal Infirmary in the 1840s, East Lothian, Tuckwell Press, 1999, p. 5.

⁵⁹Risse, Hospital life, p. 240.

⁷⁰Ibid. p. 266. ⁷¹ Ibid., p. 240.

France, had figured in his Edinburgh education and was in fact quite widespread throughout Europe. He would therefore already have observed the relationship between hospital patients – mainly poor ones – and doctors, who were definitely in control, an experience he would meet on a much larger and more varied scale in Paris. Only doctors with private patients would have been able to judge for themselves the difference between this relationship with the poor and that between a doctor and a private patient who could follow or ignore his advice.

There were a few smaller, specialist hospitals in Edinburgh such as the Lying-in Hospital established in 1793 where the physician James Hamilton (son of Alexander Hamilton, professor of anatomy in the Medical Faculty) had hoped to establish a specialist teaching centre for obstetrics. This hospital provided students with some practical obstetric training but not of the range offered by Paris. In 1828, just before the diarist embarked on his medical studies, the Infirmary had acquired the old High School building adjacent to it, which became the surgical hospital.⁷² Therefore he is likely to have gained his surgical experience through observing operations in this "new" building rather than in the former attic theatre. Nevertheless the Infirmary, with a capacity of only just over 200 patients covering a wide range of medical and surgical cases⁷³ as well as the mentally ill associated with a large urban population, remained the main source of clinical training available to students. As Foucault acknowledged, "The Edinburgh clinic was for long a model of its kind; it was organised in such a way that 'those cases that seem most instructive' could be brought together".⁷⁴

In Paris, by contrast, the diarist had the invaluable experience of "walking" a number of the seven general hospitals and the five specialist hospitals located across the city, which treated skin and venereal diseases, sick children, and women in childbirth, as well as elderly men and women with incurable conditions, surgical cases of all kinds, tumours, cancers, and eye complaints. He also observed the work – medical and surgical – of a range of first class individuals, and noted the details of some of the prescriptions to be administered as treatments. This exceptionally wide range of opportunities for almost unlimited practical experience was much appreciated by the foreign students, particularly by the Americans who had been increasingly turning to Paris rather than Edinburgh since the early part of the nine-teenth century.⁷⁵ Furthermore, the diarist also paid for and attended a range of private courses. Those on aspects of surgery were generally held during the day whilst some of the courses on bandaging, diseases of the eye, dentistry and midwifery might be held in the evening.

The diarist attempts to compare aspects of French medicine and surgery with those at home. He certainly makes clear that whilst syphilis is frequently indicated among the patients treated in the Paris hospitals, he had not studied the condition in Edinburgh. This is surprising since there was a ward containing twelve beds in the Edinburgh Infirmary for treating women with syphilis.⁷⁶ Nor had he previously had the opportunity of examining

72 Ibid.

⁷³Risse provides a table of the numbers of cases from the teaching ward during 1771–99, under headings including infectious, respiratory, neurological, circulatory, musculo-sleletal and skin diseases as well as eye problems and tumours and cancers (Ibid., pp. 256–7).

⁴Michel Foucault, The birth of the clinic, London, Tavistock, 1973, p. 59.

⁷⁵ Warner, Against the spirit of system, pp. 34-6, 71.

⁷⁶Yule, Matrons, medics and maladies, p. 4.

pregnant female patients that was now available to him in Paris. But in Edinburgh he would have begun to learn how to take the patient's "history" and to note through careful and appropriate observation external features such as colour of complexion, condition of eyes and nails, which could be useful diagnostic indicators. The collection of such data was practised on a much larger, more organised scale in Paris and was allied to other developments designed to increase understanding of the concept of disease.

The numerous hospitals in Paris – many of which were larger than the Edinburgh Infirmary – as well as being institutions for treating the sick, also played an important role in medical education alongside the École de Médecine. A major aspect of this hospital education was provided through the system of *cliniques* or clinics of which there were two types, official and *cliniques gratuites* or "free" clinics. The official clinics, of which there were four surgical, four medical and one obstetric, were, like the École de Médecine, administered through the Faculté de Médecine and were distributed between the Hôtel Dieu, La Charité, La Pitié and the small Hôpital des Cliniques associated with the faculty of the medical school. Attendance at these clinics was free for foreigners. The teaching was carried out by paid appointees of the dean of the faculty and attendance was compulsory for third year medical students.⁷⁷ These clinics were therefore generally very crowded.

The "free" clinics, of which there were about thirty in the diarist's time, were held in a wide range of hospitals, general and specialist, and conducted by a more diverse group of hospital physicians and surgeons. These individuals were not members of the faculty and received no extra payment but still had to obtain permission from the Conseil Général des Hospices de la Ville de Paris, the body which administered the Paris hospitals, which were supported by the public authorities. All the civil institutions in Paris devoted to public charity were directed by the Conseil Général. This council was set up in the first years of the Revolution "from the ruins of the administration which had preceded it".⁷⁸ Permission to hold the "free" clinics was rarely refused because many of the lecturers were experts in particular conditions and could offer education and training in specialist areas such as venereal diseases, urology, skin diseases and nervous disorders, some of which were not dealt with in either the École or the official clinics. Since these clinics were not compulsory for French students they were less crowded and very popular among the foreign students, who had more chance of a ring-side view. A further advantage was the fact that they were free on production of a passport and confirmation from the student's home institution of the entry qualification.

The basic pattern of "clinic education" within the hospital setting had three components, although not all were provided in all hospitals. First was the ward visit in which the chief surgeon or physician, followed by his team together with any visitors and students, walked through the wards. Ideally the ward notes of each patient would be read, the patient questioned and comments made on his symptoms, condition and progress before the group moved on to the next patient. The diarist indicates that this protocol was not always observed and indeed on one occasion he described a visit at the Hôtel Dieu as a sort of race through the ward between the surgeon Louis Joseph Sanson and the students.⁷⁹

⁷⁷ Warren, Parisian education, pp. 19-20.

⁷⁸ F. S. Ratier, Medical guide to Paris, London, 1828, pp. 3-4.

⁷⁹ Diary, Monday 10 November 1834, 9v, p. 57.

On another occasion he complained bitterly about the non-arrival of another chief surgeon and, since this had happened before, suspected that he was not genuinely indisposed.⁸⁰ But it would seem that the real leaders of French medicine, like Louis and Dupuytren, were conscientious, making their ward rounds regularly and on time. During this stage of the clinic, as well as having their attention drawn to symptoms and treatments, the students themselves could examine the patient, making use of the new instrument, the stethoscope, take the pulse and ask questions of the practitioner. This was truly hands-on clinical learning experience. The diarist was scathing about Philibert Joseph Roux's treatment of a patient for a tumour in the region of the colon. After several days, on feeling the abdomen, he learned for the first time that the bowels had not been open for two weeks. Roux blamed the patient for not telling him of the constipation.⁸¹

The second part of the clinic took place in a lecture hall where the doctor gave an informal lecture on the cases observed and commented on in the ward, and discussed the diagnosis, possible causes and prognosis, which could not have been done in front of the patients. In a surgical clinic one or more operations might be performed in front of the students. The criticisms sometimes included claims that there was a concentration on acute rather than chronic cases because they lent themselves more readily to instruction and were more interesting for students. A more serious criticism from the students' point of view was that some lecturers gave long, prepared and much used discourses unrelated to the observed cases.⁸² There would seem to have been an implied accusation of laziness here.

The final part of the clinic involved, where relevant, an autopsy by the practitioner or his assistant but never by a student. This could be carried out only on unclaimed bodies and so would probably involve the really poor or destitute patients. The purpose of the autopsy was to check the clinician's diagnosis of the case. This had of course been based on external symptoms, and the autopsy, according to the prevailing theory of Broussais,⁸³ which involved internal lesions in a particular organ or tissue as the cause of disease, should enable the physician to identify the location of the lesion.

Because of the shortage of cadavers in Britain up until 1832, their use for anything other than autopsies was forbidden. They could not, as in Paris, be used for practising surgical procedures.⁸⁴ In Edinburgh, the Anatomy Act of 1832 legalised for teaching purposes the dissection of the bodies not only of hanged criminals but also of those who died in the workhouse. As Ruth Richardson has shown, the marginalised poor were never safe from the anatomist's knife.⁸⁵ Nevertheless, it was still far easier to acquire bodies for dissection in Paris. Very important to the diarist were his sessions on dissection at either the École Pratique or the Amphithéâtre des Hôpitaux, for which he needed to purchase a cadaver for about half a franc. The Amphithéâtre was more generally known as "Clamart" and was his preferred dissection were scattered throughout the city and represented a public

⁸⁰Diary, Wednesday 14 January 1835, 35v, p. 111.

⁸¹Diary, Thursday 11 December 1834, 21v, p. 82.

⁸²Warren, Parisian education, p. 24.

⁸³Warner, Against the spirit of system, p. 178.

⁸⁴Ibid., p. 179.

⁸⁵Ruth Richardson, Death, dissection and the destitute, London, Penguin, 1989, pp. 52-72.

health nuisance.⁸⁶ Of the two facilities which replaced them, the École Pratique was controlled by the faculty of the École de Médecine conveniently nearby and could accommodate 200 students but its dissecting spaces were dirty, damp and wet. Clamart, established only the previous year, in 1833, was controlled by the hospitals whose unclaimed dead were taken to it by cart each morning. It provided altogether more congenial conditions for dissection but no one has commented on whether or not these more civilised conditions lessened the brutalising effect of human dissection *per se* among those medical students who worked there rather than in the more ghastly conditions of the amphitheatre.

These Paris hospitals and the dissecting rooms provided excellent opportunities for overseas medical students – joined sometimes by experienced practitioners for short periods – to study alongside the indigenous students. Foreign students needed to provide evidence of their eligibility – that is, that they had reached a certain standard in their home country – in order to gain access to the hospitals. Thereafter they required a registration form or *inscription* for entry to each course, and to pay the generally low fee for private courses. They also needed these registration forms to be signed by the relevant tutor at the end of each course as evidence of their attendance and as documentation towards the award of their final qualification at their university of origin.

Fevers and Typhus

The diarist's opening entry on 1 November 1834 makes reference to beginning his day – a Saturday – at the Hôpital de la Charité where the first case he observed was one "of fever (typhus)".⁸⁷ Three days later he recorded two cases of intermittent fever in La Charité, one described as quartan and the other as quotidian⁸⁸ and a few entries later he explains that in the opinion of the eminent surgeon Dupuytren, the English method of dressing wounds after surgery gives rise to a range of symptoms including fever, as well as rigors and profuse suppuration.⁸⁹ The diarist also records having observed patients with fever following surgery, another case accompanying phthisis, and the dissection by an *interne* in the dead house of the Hôtel Dieu of a woman who had died of puerperal fever.⁹⁰ In addition he attended a "curious case of the true Arabian elephantiasis" which had been thought to arise following a slight fever.⁹¹

In his chapter on 'Cullen and the study of fevers in Britain, 1760–1820', William Bynum opens with "There is probably no clinical subject in the whole history of medicine with a more extensive literature than fevers". This is hardly surprising since acute infectious disorders accounted for so much of the medical experience of earlier generations.⁹² The diarist's own linking of fever and typhus draws attention to what was at the time a very complex and unclear picture of the status of these terms, which were not by any means

⁹² W. F. Bynum, 'Cullen and the study of fevers in Britain, 1760–1820', in W. F. Bynum and V. Nutton (eds), *Theories of fever from antiquity to the Enlightenment, Medical History*, Supplement No. 1, London, Wellcome Institute for the History of Medicine, 1981, p. 135.

⁸⁶Warner, Against the spirit of system, pp. 94-5.

⁸⁷ Diary, 1 November 1834, 1r, p. 41.

⁸⁸Diary, Tuesday 4 November 1834, 4r, p. 49.

⁸⁹Diary, Saturday 8 November 1834, 7r, pp. 54.

⁹⁰ Diary, Wednesday 11 February 1835, 44v, pp. 130.

⁹¹Diary, Monday 3 November 1834, 2v, p. 45.

always connected. Typhus fever was seen as potentially fatal⁹³ and, according to Auguste Chomel (1788–1858) at the Hôtel Dieu, it "was more prevalent now than it had ever been".⁹⁴ Hooper describes typhus as a most infectious and contagious fever.⁹⁵ But Gabriel Andral (1797–1876) had already told his audience that he was definitely an anticontagionist with respect to typhus fever. He had never known even a single case to be propagated by contagion. In true Broussaisian fashion he declared typhus fever and inflammation of Peyer's Patches, the follicles in the intestines, to be synonymous.⁹⁶ Three days later, when he was finishing his series of lectures on 'Gastro-entérite and entérite folliculeuse', he declared that the latter was in fact "the Typhus fever of the English".⁹⁷ This view, opined the diarist, was the prevalent doctrine in the French school and it led to their being "so inert" about treating typhus fever, believing that medicines would only aggravate the intestinal lining and worsen the condition. So they confined their therapies to administering the mild substance of gum arabic and sugar water.

Common in hospitals, gaols – where it was often called gaol fever – and in military camps as well as slum dwellings, typhus fever was associated with overcrowding, insanitary and unhygienic conditions and poor nutrition, all of which the diarist would have met already as the background of many patients in the Edinburgh Royal Infirmary. Fevers were attributed to the products of putrefaction that polluted the air. Typhus could be misdiagnosed, as it was by Chomel who had suspected that a case of arachnitis was also accompanied by pericarditis. The post-mortem dissection revealed it to be typhus fever, not accompanied by any cardiac pathology.⁹⁸ Chomel did not believe that the glands of Peyer were necessarily involved in cases of typhus fever but that they should be considered a secondary symptom.⁹⁹ Not surprisingly, and echoing Bynum, Dale Smith claimed that "At the beginning of the nineteenth century *typhus fever* or simply *typhus* was one of the most extensively studied diseases".¹⁰⁰

Skin Diseases

Skin diseases in their many and frequently bewildering manifestations and corresponding nomenclature, including the common itch, ringworm, scabies, eczema and others, known from ancient times, would have been encountered in abundance by the diarist in Edinburgh. They were also among the most common conditions he met in Paris. Indeed, within a few days of observation in the Paris hospitals, he remarked that itch and secondary syphilis (noted for its skin symptoms) were the most common form of diseases among the outpatients.¹⁰¹

⁹³Diary, Friday 20 February 1835, 46v, p. 134.

⁹⁴ Diary, Friday 13 February 1835, 45r, p. 131.

⁹⁵ Diary, Saturday 1 November 1834, 1r, p. 41, note 2.

⁹⁶Diary, Friday 21 November 1834, 16r, p. 70.

⁹⁷ Diary, Monday 24 November 1834, 17v, p. 72.

⁹⁸ Diary, Monday 16 March 1835, 51v, p. 143.

⁹⁹Diary, Friday 20 February 1835, 46v, p. 134.

¹⁰⁰Dale C. Smith, 'Medical science, medical practice', in, Bynum and Nutton (eds), *Theories of fever*, pp. 121–34, p. 121.

¹⁰¹ See, for example, diary, Monday 3 November, 1834, 2v, pp. 45-6.

The scheme of skin diseases associated with Galen in the second century could be seen as the basis of classifications which persisted in western medicine until the end of the eighteenth century. As early as 1682 the English physician Thomas Sydenham (1624-89) had advocated that diseases could and should be arranged with the same meticulous care as that employed by botanists in the classification of plants.¹⁰² Robert Willan (1757–1812), a Quaker physician from Yorkshire who had been educated in Edinburgh where he was a pupil of William Cullen, was greatly interested in the issue of nosology. Willan had a dispensary in London and was highly esteemed as a skin specialist. He looked at his specialism through the eyes of the ancients but tackled the issue of re-naming the diseases, which included conditions variously labelled as herpes, tetters, lichens and impetigos. He attempted to do this on the basis of different types of lesions in the skin. Willan's work on skin diseases was initially published in four sections in 1798 and 1808, and was illustrated with artistically beautiful coloured plates – the first of their kind – (see Figures 15 and 16). These illustrations are iconographically accurate representations of disease conditions and, in some cases, even suggest the suffering of the patient. The work appeared in one volume in 1808 under the title On cutaneous diseases.¹⁰³ With its plates it continued to be reproduced by his contemporaries and successors, including the fellow Yorkshireman Thomas Bateman (1778–1821), who could be regarded as a Willanist. He had studied at the Windmill Street School of Anatomy founded by William Hunter and later at the University of Edinburgh before joining Willan in London. Between 1813 and 1824, Bateman published five editions of A practical synopsis of cutaneous diseases according to the arrangement of Dr Willan.¹⁰⁴ Bateman also completed the coloured plates which Willan had commenced. There had been professional co-operation between interested individuals in England and France but between 1793 and 1813 the two nations exchanged little but insults and gunfire.¹⁰⁵ However, at the end of hostilities, French physicians and the Swiss Laurent Biett (1781–1840) again travelled to London where they met Willan and Bateman. Biett returned to Paris where initially he criticised Willan's work as superficial. Nevertheless, Willan's treatise on skin diseases was acknowledged as the cornerstone of modern dermatology despite the dismissive comments of, for example, Samuel Plumbe.¹⁰⁶

Not surprisingly, in an age that still lacked knowledge of micro-organisms and modern concepts of infection, the Willanists' efforts at classification, including later attempts to apply the system of Carl Linnaeus to a nosology of skin diseases, simply could not cope with their range and number. In the second half of the nineteenth century Willan's arrangement was abandoned, although his terminology was preserved. As Crissey and Parish point out, later developments in pathology revealed that skin diseases sharing the same elementary lesion often shared nothing else. Hence morphology alone could hardly

¹⁰⁴ Thomas Bateman, A practical synopsis of cutaneous diseases according to the arrangement of Dr Willan, London, Longman, 1813.

¹⁰⁵Crissey and Parish, Dermatology and syphilology, p. 39.

¹⁰⁶ Samuel Plumbe, A practical treatise on diseases of the skin, London, Thomas and George Underwood, 1824, p. vi.

¹⁰²Crissey and Parish, Dermatology and syphilology, p. 23.

¹⁰³ Robert Willan, On cutaneous diseases, London, J. Johnson, 1808. The illustrations consist of a page displaying examples of, for instance, individual rashes, tubercles and vesicles associated with groups of skin conditions followed by larger illustrations of mainly limbs plus a few head regions, showing the skin diseases in situ.

serve as the basis for a classification that reflected the insights provided by the newer tools of science.¹⁰⁷

In France, Jean Louis Alibert (1768–1837), the teacher of Biett – the two were later to clash head-on over the classification of skin diseases – was a provincial from the south. He had travelled to Paris in 1794 to join the École Normale. This had been set up by the Convention, which was already seeking reform in the Paris medical system and intending that the new institution would revise the existing system of education by training large numbers of teachers who could bring about the desired regeneration. The École Normale closed within a year and Alibert transferred to the École de Santé de Paris, a school of medicine created by the Legislative Assembly in the early years of the Revolution to replace the long established and conservative Faculty of Medicine and the Colleges of Medicine and Surgery. Crissey and Parish point out that these institutions had regressed to a state of total decadence, revering the ancients such as Galen and Hippocrates rather than embracing new developments.¹⁰⁸ At the same time in England expressions of dissatisfaction with the premier Colleges of Physicians and Surgeons were also developing. Those in leadership positions in these institutions feared that the revolutionary activities in France were helping to motivate this dissatisfaction at home.

The new École de Santé in Paris attracted, in addition to Alibert who came to specialise in skin diseases, many illustrious figures including Jean Nicolas Corvisart and Philippe Pinel who had played an important role in shifting the centre of the medical world from Edinburgh to Paris. The Hôpital St. Louis, regularly visited by the diarist, became the main centre for the treatment of and research into skin diseases. Following his observations there, the diarist soon acknowledged a preference in at least one case for the French system of naming these conditions. He noted that whilst the term *Lepra vulgaris* was commonly used in England, he had so far seen only one case so named in Paris where the term *psoriasis* was more usually applied. He agreed that it was a good idea to discard the name *Lepra* because of its connotations, for those he called "non professionals", with leprosy.¹⁰⁹ Yule comments on a case entering the Edinburgh Infirmary in 1849 and still listed as *Lepra*, noting that after the middle of the nineteenth century the term was confined to leprosy proper, other conditions being, as in Paris, designated *psoriasis*.¹¹⁰

Alibert was a colourful teacher and an energetic, engaging and fluent lecturer, who laced his exposition in his southern accent with attractive simile and metaphor. Thus whilst speaking of syphilis, which with its skin symptoms was grouped with skin diseases, he designated a syphilitic prostitute as "a priestess of Venus wounded by a perfidious dart of love". On another occasion, to illustrate just how much scale was shed in exfoliative dermatitis, he suddenly dumped a boxful of scale, fresh from the wards, on to the occupants of the front row of his audience.¹¹¹ On the absence of syphilis from his Edinburgh course, the diarist noted, "Syphilis is quite a new subject to me. I have never yet studied it".¹¹² He did

¹¹⁰Yule, Matrons, medics and maladies, p. 196.

¹⁰⁷Crissey and Parish, Dermatology and syphilology, p. 51.

¹⁰⁸ Ibid., p. 41.

¹⁰⁹ Diary, Monday 10 November 1834, 10r, p. 58. According to Bateman, "The confusion, which has every where [*sic*] prevailed in the use of the terms *Lepra* and *Leprosy*, seems to have originated principally with the translators of the Arabian writers after the revival of learning". Bateman, *A practical synopsis*, p. 25, in a footnote.

¹¹¹Crissey and Parish, *Dermatology and syphilology*, p. 44.

¹¹²Diary, Tuesday 20 January 1835, 39r, p. 118.

though in Paris gain considerable experience of the disease either as a primary condition in itself or as an accompaniment to other disorders. Thus he encountered it through observing and listening to the lectures of the French American specialist Philippe Ricord (1800–1889) at the Venereal Hospital, when seeing patients at the Hôpital St. Louis, or even when observing a few children as well as adults in the other main hospitals.

Alibert became a leading member of St. Louis, where he was eventually succeeded by Biett. Alibert had published his observations in a large and expensive folio volume *Descriptions des maladies de la peau*, with coloured plate engravings, in 1814.¹¹³ The plates are reminiscent of the earlier work of Willan. Alibert's volume was still organised on old-fashioned lines in which skin diseases were divided into two large classes: those affecting the head (particularly the scalp) labelled *teignes*, and those occuring elsewhere on the body labelled *dartres*. Alibert did at least add a number of extra categories to accommodate the obvious exceptions. But he was confronted with the classification problems that had troubled Willan and every other contemporary nosologist – the sheer bewildering range of diseases in the absence of any real knowledge of underlying causes. During his dispute with Biett, Alibert produced a "tree of dermatoses"¹¹⁴ resembling the attempts to classify the range of known animals. Biett dismissed it. Nevertheless, there is no doubt that Willan, Bateman, Alibert and his successors Biett and Alphée Cazenave (1795–1877)¹¹⁵ contributed to the great achievements in dermatology of the later nineteenth century.

Surgery

According to Risse, "By far the most common surgical procedure carried out at the Edinburgh Infirmary between 1770 and 1800 seems to have been amputation (73.6%)".¹¹⁶ And considering the ravages of warfare still to come, some casualties of which would have reached Edinburgh, together with the increasing numbers of accidents associated with advances in industrialisation of production, construction and mechanisation of transport, amputations must have figured importantly among the cases observed by the diarist before he left for France. In Paris, he heard the lectures and observed the work of some of the most eminent surgeons. They included Guillaume Dupuytren, handsome, rich and self-assured, professor of operative surgery at the Faculté de Médecine, a member of the Académie de Médecine, chief surgeon at the Hôtel Dieu and a great surgical showman,¹¹⁷ his colleagues, Louis Joseph Sanson (1790–1841), popular but, in the diarist's

¹¹⁵P.-L. Alphée Cazenave and H. E. Schedel, Abrégé pratique des maladies de la peau, 3rd ed., Paris, Béchet jeune, 1838.

¹¹⁷ Warren, Parisian education, p. 26.

¹¹³ J. L. Alibert, *Description des maladies de la peau observées à l'Hôpital Saint-Louis*, Paris, Barrois L'Ainé, 1814. The splendid illustrations were drawn by Moreau Valvile. The faces bearing the skin diseases seem unusually attractive and untroubled by the condition depicted. A second edition of this work (see note 114), under a different title, was published in 1822 and a further revised and retitled edition in 1833. See also L. S. Jacyna, 'Pious pathology: J. L. Alibert's iconography of disease', in Caroline Hannaway and Ann La Berge, *Constructing Paris medicine*, Amsterdam and Atlanta, Rodopi, 1998, pp. 185–219.

¹¹⁴The beautiful full page coloured illustration of Alibert's 'Tree of dermatoses' faces the title page of his *Clinique de l'Hôpital Saint-Louis, ou traité complet des maladies de la peau*, Paris, B. Cormon et Blanc, 1833. Crissey and Parish produce a very small and modest black and white reproduction of part of the tree (*Dermatology and syphilology*, p. 49).

¹¹⁶Risse, Hospital life, p. 170.

opinion, lazy, and Gilbert Breschet (1784–1845). He also observed Philibert Joseph Roux (1780–1854), a less showy surgeon, at La Pitié, and Alfred Armand Louis Marie Velpeau (1795–1867), who was soon to succeed the older Roux as professor of surgery at La Pitié.

It was sometimes difficult to get into even the back of the lecture theatres of those lecturers who were most admired. Velpeau was highly esteemed by American students who seemed to follow his slower delivery more easily than that of Dupuytren and they "bagged" the best seats in his lecture theatre.¹¹⁸ The diarist soon discovered that to gain a good seat for listening to Andral, in whose lectures one could hear a pin drop, he had to attend the preceding lectures of Broussais, whom he did not particularly admire.¹¹⁹ James Jackson Jr. had made the same point three years earlier when writing to his parents after Broussais's lecture, which he did not want to hear, but had entered at the end in order to secure his seat for the following lecture by Andral.¹²⁰ It was even more important to be in place at the bedside especially early if one wanted a good view of the operative procedures of the surgical stars. Not surprisingly, the more central the hospital and the nearer it was to the École de Médecine the greater the number of French students and hence the greater the pressure on these coveted bedside locations. The hospitals of La Pitié and St. Louis as well as the Hôpital des Enfans Malades, being a little further afield, attracted fewer students and provided better opportunities of viewing case details and treatments.

Inevitably, the diarist witnessed a variety of operations including the removal of cancerous growths from a range of bodily locations, treatment of fractures, anal fistulae, harelip and, on one occasion under persistent parental pressure, despite contrary advice from the surgeon, surgery on a form of club foot in a young girl. The child seems to have borne the experience with amazing stoicism.¹²¹ The diarist also observed episodes of heroic surgery involving amputations such as tumours in a breast, or a whole or part of a limb. He consistently criticised the method of post-operative binding of wounds to promote healing. On a number of occasions, he almost explodes with vitriolic criticism of what he implies is the self-centred careerism of surgeons whom he sees as prepared to sacrifice the life of patients in pursuit of their own research on surgical procedures. Velpeau, whom he observed in the Hôtel Dieu, was described as a murderer for his treatment of a man in whom he had tied a branch of the carotid artery about eight days earlier for an aneurism in the temple. On first seeing the patient, who had suffered three haemorrhages following the coming away of the ligatures, the diarist predicted that he would die.¹²² Unfortunately he did. In the diarist's opinion, the ligaturing was inappropriate in such a small aneurism which had not enlarged over the previous year. He felt Velpeau should have tried one of the methods used in England, probably including those of John Hennen (1779-1828), who had dealt with cases of aneurism and advocated leaving all but the most grave "to nature". He cited cases which continued "without any detriment to the patient for twenty or thirty years" and was of the opinion that "it is both unnecessary and injudicious in the extreme to attempt any operation".123

¹¹⁹Diary, Wednesday 12 November, 1834, 11v, pp. 60, 62.

¹²¹Diary, Saturday 8 November 1834, 7r, p. 53.

¹²³ John Hennen, *Principles of military surgery*, 2nd ed., Edinburgh, Archibald Constable and Company, 1820, p. 185.

¹¹⁸Warner, Against the spirit of system, p. 100.

¹²⁰ Warner, Against the spirit of system, p. 179.

¹²² Diary, Tuesday 13 January 1835, 35r, pp. 110–11.

The diarist harshly and consistently over the months, and during his final weeks, said of Roux that he "slashed away as usual".¹²⁴ An unfortunate patient had had his femoral artery accidentally penetrated with a seton; he perished, despite Roux's attempts to plug the tear. This was for the diarist another case of murder. But, as Risse, speaking of the Edinburgh Infirmary and quoting from William Nolan's 1786 essay on abuses in hospitals,¹²⁵ points out, "Physicians and surgeons were not immune to the charges of cruelty".¹²⁶ He quotes a sarcastic comment about physicians from a critic using the pseudonym "Flogg'em" and notes that surgeons in their turn "were criticised for their apparent propensity for attempting operations, especially amputations, without the necessary consultations".¹²⁷ There was a call for the setting up of a "Humane Committee" to act as a hospital practice, was shelved as Britain became engulfed in the Industrial Revolution.¹²⁸ Hence the diarist in going to Paris was not leaving behind such an unblemished reputation in medicine and surgery as he seems to have believed.

According to the American surgeon Dr Edward Reynolds, writing from London more than a decade earlier about his observations on French surgery, theoretical surgery was better understood in England but the mechanical parts of surgery were better understood in France. There are many contested claims from both English and American observers, who had studied in Paris, concerning the superiority or otherwise of the two countries' science, medical practice and surgical procedures.¹²⁹ With his sentiments of outrage about some of the Paris surgeons, the diarist is perhaps echoing those views rampant among American students in Paris at the time. Although in his diary he seems almost to ignore American students, he must have encountered some of them. For both nationalities there would probably have been genuine ambivalence since, on the one hand, they had chosen to study in Paris in order to avail themselves of its more advanced techniques and hands-on experience, and, on the other, they felt regret at what they perceived as a move away from the more humane attitude to patients in their home countries. They were on occasions critical consumers of what Foucault saw as a dehumanising development in medicine in which the human body was converted into an object of study like any other.¹³⁰

But nowhere does the diarist overtly indulge in self-reflection about the need to monitor his own attitudes and ensure that he does not allow his experiences in the dissection room and his perception of the behaviour of some of his Paris teachers to blunt his own sensitivities about preserving humane attitudes and respect for his patients. And, whilst he is sometimes critical of what he sees as brutal surgical procedures, he does on several occasions express real admiration for aspects of French surgery.

The diarist observed his surgical cases and the post-operative care of the patient in what were pre-anaesthetic days. Although amputation had been carried out even by the ancients, it had always been seen as a hazardous procedure performed under many disadvantages.

¹²⁴ Diary, Saturday 6 June 1835, 70r, p. 178.

¹²⁵ William Nolan, An essay on humanity, or a view of abuses in hospitals, London, John Murray, 1786.

¹²⁶Risse, Hospital life, p. 24.

¹²⁷Ibid. pp. 24–5.

¹²⁸Ibid., p. 25.

¹²⁹ Warner, Against the spirit of system, pp. 199–202.

¹³⁰ Ibid., p. 4.

These included ignorance of the best method of making the incision, stopping the haemorrhage, which itself led to many deaths among those who had had the courage to submit to the surgery, healing of the wound after the amputation, and the dressing and binding of the wound areas, which had generally been clumsy as well as irritating and inappropriate.¹³¹ Although better than in earlier times, according to Samuel Cooper in 1822, amputation did still in the hands of some surgeons require greater care and dexterity. The surgeons whose work the diarist observed included Dupuytren, who controlled 266 beds and the work of a team of assistant *adjoints, internes* and *externes* at the Hôtel Dieu. Dupuytren was among a number of Paris surgeons who had honed their skills during the fighting of the Napoleonic Wars. During this period, immense numbers of soldiers – and seamen – were wounded by grapeshot or musket balls and there had been few surgeons to deal with them. Furthermore the field hospitals and the essential supplies were often far behind the battle front or even captured by the enemy. Thus there were generally not the facilities to nurse and dress the seriously wounded.

Samuel Cooper, who became professor of surgery at University College London, had himself been a surgeon to the forces and had seen active service on the continent. The University of Edinburgh had in the 1820s a Regius professor of military surgery, "Dr Thomson, Surgeon to the Forces", who had helped John Hennen in the production of his work on *Principles of military surgery*.¹³² Hennen was described on the title page as "Deputy Inspector of Military Hospitals". George Ballingall, Surgeon Extraordinary to the King for Scotland and one of the surgeons to the Edinburgh Royal Infirmary, was also regius professor of military surgery in Edinburgh. He produced a syllabus of his lectures on military surgery,¹³³ which were given on Mondays, Wednesdays and Fridays at two o'clock. Medical officers of the army, navy and ordnance together with those of the "Honourable East India Company's Service" could obtain free admission on application to Dr Ballingall.¹³⁴ In his course, Ballingall gave details of the "Ambulance" of his former French battle opponent Baron Larrey.¹³⁵

On the battlefield, as Cooper points out, it was considered wise to amputate as soon after the gunshot wound injury as possible to avoid worse conditions due, for example, to gangrene setting in.¹³⁶ It was known that bad compound fractures of the thigh, especially if the injury were high up, had a low survival rate if left to heal. Cooper himself, in the hospital at Oudenosch in the spring of 1814, recorded that of eight bad compound fractures only one had survived.¹³⁷ This was probably due to the disposition of the thigh bone to splinter well above and below the gunshot wound or other injury, so providing sites

¹³¹Samuel Cooper, A dictionary of practical surgery, 4th ed., London, Longman, 1822, p. 50.

¹³² The first edition of this work by John Hennen was published in 1818 under the title: Observations on some important points in the practice of military surgery, Edinburgh, Archibald Constable and Company, 1818. See also Matthew H Kaufman, The regius chair of military surgery in the University of Edinburgh, 1806–55, Clio Medica 69, Wellcome Series in the History of Medicine, Amsterdam and New York, Rodopi, 2003.

¹³³ [G Ballingall], Syllabus of the course of lectures on military surgery, delivered in the University of Edinburgh, Edinburgh, Balfour, 1828.

¹³⁴ Ibid., p. 7.

¹³⁵Ibid., p. 4.

¹³⁶See Sylvester O'Halloran, A complete treatise on gangrene and sphacelus; with a new method of amputation, London, Paul Vaillant, 1765.

¹³⁷Cooper, Dictionary of practical surgery, p. 52.

for infection. Whilst it had been claimed that "to save one limb is infinitely more honourable to the surgeon than to have performed numerous amputations however successful",¹³⁸ Hennen countered that it is much better for a man "to live with three limbs than to die with four".¹³⁹ Away from the battlefield where orthopaedic damage could be due to gunshot wounds in duelling – even though in the diarist's period it was against the law – being run over by a carriage or suffering from scrofulous joints,¹⁴⁰ there were still debates about the process of amputation.¹⁴¹ These again concerned timing, location and method of execution. Amputation could take place immediately following the injury, or after the fractured bones showed no disposition to unite or, even if the union of the bones looked satisfactory, if mortification – gangrene – had set in. The diarist would have been familiar with the miasma theory of infection which persisted until much later in the century. This environmental condition was seen as an important factor that could lessen the chances of saving a badly broken limb and hence needed to be considered in weighing the reasons for and against amputation.

It had long been a matter of dispute as to whether the incision should be made through healthy or mortified tissue. The prevailing view in the diarist's period was that the incision should pass through healthy tissue. He describes a number of amputations, some carried out using the procedure designated as the "circular operation", a technique used in antiquity, and others involving what was termed a flap separation.¹⁴² Both techniques were used by Roux at La Charité and, although later criticising Roux severely, the diarist had initially admired his work. Another variable in carrying out amputations was the treatment of the wound area immediately following the amputation. Thus English and American surgeons generally favoured promoting healing by what was termed the mode of first intention in which the vessels were ligatured and the edges of the wound drawn together by means of sutures and adhesive bandages. The "weeping" of the wound was held to be natural pus and a good sign of healing. The diarist found that French surgeons preferred to promote healing by what was termed the second intention, in which the wound area was stuffed with charpie or lint to keep the wound edges open. This French method, which the diarist criticised because it was clearly opposed to the Edinburgh practice,¹⁴³ was thought to allow better drainage and the formation of scar tissue from inside the wound. Roux on his return in 1814 from a visit to England, where he had studied under Sir Astley Cooper, preferred the English practice.

In the circular operation, the surgeon's arm was placed beneath the limb to be amputated. Starting with the sharp blade edge above the limb, the surgeon drew the knife through the skin and muscle cutting away from himself and around the limb in a circular motion then towards himself to his starting point. The tissue above the cut was then dissected away from the bone and pushed back along it to form a cuff. The bone was sawn through at the level of the contracted tissue which was then drawn back over the stump, sutured and bandaged.

¹³⁸Hennen, Principles of military surgery, p. 251.

¹³⁹ Ibid.

¹⁴⁰Encyclopédie méthodique, médecine, Paris, Mme veuve Agasse, 1827, vol. 12, pp. 736-40.

¹⁴¹ Ibid., pp. 407–10; see Ulrich Tröhler, 'Quantification in British medicine and surgery, 1750–1830 with special reference to its introduction into therapeutics', PhD thesis, University of London, 1978, pp. 397–442.

¹⁴²O'Halloran, *Treatise on gangrene*, pp. 206–214.

¹⁴³Diary, Saturday 8 November 1834, 7r, pp. 53-4.

The flap operation involved the dissection away of flaps of skin and muscle which were long enough to overlap at their ends to provide a form of cushion over the stump. This form of amputation was less likely to result in the unattractive mushroom shaped stump.¹⁴⁴

The American, Jonathan Mason Warren, writing in the previous academic year, claimed that Roux was very unsuccessful with his amputations. He believed that in general in Paris they did not save one out of three patients, even though Dupuytren claimed a 50 per cent success rate, whilst admitting that death did sometimes follow departure from the hospital in some patients "worn out by the lengthy cure".¹⁴⁵ As part of the reform measures in France - and Paris certainly preceded Edinburgh and London in applying statistical methods to investigate the outcomes of the reforms - the Conseil Général had since 1804 recorded the number of patients admitted to the public hospitals and the numbers who died. The data were published in the annual comptes généreaux of the Conseil. The diarist had been aware of death among the surgical patients he observed. Unfortunately it was not until after his departure in 1835 that the Conseil Général separated out the surgical and medical mortality rates and further separated the amputation cases from the overall surgical ones. For the two years while the diarist was in Paris there were 5,305 deaths out of 62,132 admissions in 1834, and 5,952 deaths out of 66,099 admissions in 1835. After this, more sophisticated data gathering was required including monthly reports on the number, nature and results of amputations and other grave operations. Further refinements followed.¹⁴⁶ But amputation deaths continued to be high until the introduction of aseptic techniques. Clearly the majority of post-operative deaths were due to infection, ignorance of which would persist until there were improvements in the microscope, and the work of Pasteur and others was developed later in the century.

Eye Diseases

Whilst French surgery was highly regarded in the early nineteenth century, ophthalmology was by comparison very weak.¹⁴⁷ Nevertheless, throughout his period in Paris the diarist records his encounters with a wide range of eye disorders. He had in December 1834 tried unsuccessfully to obtain a copy of William Lawrence's *Treatise on diseases of the eye* published in the previous year. This was a comprehensive account of the eye and its diseases and was based on Lawrence's lecture delivered at the London Ophthalmic Infirmary. In his introduction, making the case for the importance of the subject to medical practitioners, Lawrence declared that:

Everyone feels that sight is the most valuable of the senses; that it not only is, in itself, the most important inlet of knowledge, the most valuable medium of our communication with surrounding persons and objects, but also that it is essential to the full enjoyment of our other senses; to the free exercise of almost all our other faculties and endowments; so that these lose more than half their value when sight is gone. Hence blindness is one of the greatest calamities that can befall human nature, short of death \dots ¹⁴⁸

¹⁴⁴Warren, Parisian education, p. 91.

¹⁴⁵Ibid., p. 143.

¹⁴⁶Ibid., pp. 42-3.

¹⁴⁷ Ackerknecht, Paris hospital, p. 179.

¹⁴⁸W. Lawrence, A treatise on the diseases of the eye, London, John Churchill, 1833, p. 1.

The hospitals did not up to that time have any departments or specialists devoted to ophthalmology, so the great generalist surgeons, including Dupuytren and Roux, also treated eye diseases. But in 1834 the German immigrant Jules Sichel (1802-1868) became a French citizen and acquired a French medical diploma.¹⁴⁹ He had qualified in Berlin and had also studied under the ophthalmologist J. L. Schoenlein (1793-1864) in Vienna, already a prestigious centre for the diagnosis and treatment of diseases of the eye. Sichel, who was apparently married to a Scots woman and spoke English well,¹⁵⁰ had ambitions of establishing an ophthalmic hospital in Paris. In 1833 he had already obtained a ward in the St. Antoine hospital where he conducted a clinic on diseases of the eve. According to the diarist's entries, it would seem that by 1834 Sichel had established a specialist dispensary where the young man registered on Wednesday 3 December and paid 15 francs for a three month course.¹⁵¹ He makes frequent and consistently favourable references to Sichel's work which was, he declared, "quite a new study to me".¹⁵² He felt that Sichel would "give a man considerable tact in the examination of the diseases of the eye, & in that manner assist, if in no other, to make him a tolerably good oculist".¹⁵³ He did though, whilst acknowledging the efficacy of Sichel's treatments, criticise his skill as an operator. Later in the year he even describes how, during the removal of an excrescence from the conjunctiva covering the eyeball, Sichel's knife slipped and pierced it.¹⁵⁴ One wonders if the diarist was already speculating about a possible future specialism for himself.

The wide range of eye diseases encountered by the diarist, chiefly in Sichel's clinic and dispensary, involved pathological conditions of the eye itself including cataract and other disorders associated with diseases such as syphilis and gonorrhoea originating in other parts of the body but which also affect the eyes. He observed too the treatment of wounds involving the eye, but does not indicate whether Sichel acknowledged his blunder as a wounding or give details of the treatment for the damage. Eye surgery could involve the removal of an eyeball and its replacement by an artificial eye. The diarist was very impressed by two artificial eyes which he encountered in patients of Sichel. He claimed that some students even wondered why the patients had come.¹⁵⁵ Inflammatory conditions of the regions of the eye included conjunctivitis - which could also occur in neonates and be due to maternal gonorrhoea - keratitis, iritis and sclerotitis. More complex eye disorders included amaurosis, referred to as gutta serena in Arabic sources, which involved total or partial blindness but where there was no ocular lesion. Sichel provided sophisticated explanations of the conditions he was diagnosing and treating and sometimes questioned prevailing ideas, offering his own explanations or speculations. He was of the opinion that amaurosis could be due to disease of the spinal cord.¹⁵⁶ Sichel's external treatments, depending on the region of the eye affected, included applications of silver nitrate, a lotion of laudanum or - and this was one of his favourite prescriptions - an ointment containing

¹⁴⁹Warren, Parisian education, p. 98.

¹⁵¹Diary, Wednesday 3 December 1834, 19v, p. 78.

- ¹⁵³Diary, Friday 5 December 1834, 20r, p. 79.
- ¹⁵⁴ Diary, Friday 16 January 1835, 38r, p. 116.

¹⁵⁵Diary, Friday 26 December 1834, 26v, p. 92.

¹⁵⁶ Diary, Wednesday 7 January 1835, 31v, p. 104.

¹⁵⁰ Ibid.

¹⁵²Diary, Tuesday 9 December 1834, 21r, p. 81.

belladonna.¹⁵⁷ He would also sometimes recommend purging with Seidlitz powder or local bloodletting with leeches applied to the temple.

The condition of cataract involving development of opacity of the crystalline lens or its surrounding capsule was, according to Cooper, more common among those exposed to strong fires such as blacksmiths, locksmiths and glassmen.¹⁵⁸ Other causes were held to be long exposure to bright light, wounds to the eye and slow insidious inflammation. Early external therapies had included bleeding and fumigations. Preparations of the plants eyebright, wild poppy, henbane and hemlock had figured among internal treatments. By the diarist's time, surgery, properly carried out in appropriate cases was seen as the best treatment. It was originally thought that this procedure should not take place until the individual had attained the age of "docility and reason".¹⁵⁹ This view was abandoned on the ground that clear vision was more valuable for the young.

Auscultation and the Stethoscope

On the first day of his studies in Paris, when he visited the hospital of La Charité, the diarist had been impressed by the superior possibilities in diagnosis opened up by the use of the relatively new instrument, the stethoscope, devised by R. T. H. Laënnec (1781-1826). This indicates that he was developing some awareness of the importance in diagnosis of the role of the senses and of the possibility of their enhancement through the use of instruments. The stethoscope improved the procedure of auscultation, or listening to the sounds produced by organs such as the heart with blood gurgling through it and lungs with their breathing noises. In "immediate" auscultation the ear of the practitioner is placed close to the part. without any intervening instrument. In "mediate" auscultation an instrument such as a stethoscope is used. Having established familiarity with the repertoire of sounds associated with organs in a healthy state, skilful use of the stethoscope could reveal hidden pathology within. Thus auscultation as a diagnostic skill depended on careful or precise differentiation of the sounds produced by both healthy and diseased organs. At La Charité during the diarist's early observations, it was being used for examining a diseased heart.¹⁶⁰ However, the diarist had already met the instrument briefly in Edinburgh, indicating that the medical curriculum there included some aspects of important contemporary medical advances.

In fact among the Edinburgh professoriate the admirers of French medical education and practice advocated the use of auscultation. Maulitz points out that the Edinburgh professor of materia medica and editor of the *Edinburgh Medical and Surgical Journal*, Andrew Duncan Jr. (1773–1832), who was disdainful of the quality of medical education south of the border but favourable towards that in Paris, was a strong advocate of further developing medical science and its underpinning of chemistry and anatomy. He was an admirer of Laënnec and became an early champion of the use of auscultation in anatomico-clinical science. William Thomson (1802–1852), son of John Thomson (1765–1846) another Edinburgh professor of military surgery, had also become an early champion of

¹⁵⁷Diary, Wednesday 24 December 1834, 25v, p. 90.

¹⁵⁸Cooper, Dictionary of ractical surgery, p. 293.

¹⁵⁹Ibid., p. 298.

¹⁶⁰Diary, Saturday 1 November 1834, 1r, pp. 41-2.

auscultation.¹⁶¹ Malcolm Nicolson in his paper on stethoscopy in early-nineteenth-century Edinburgh points out that Laënnec's De l'auscultation médiate was more a text on pathological anatomy than on diagnosis. He also interestingly claims that due importance has not been accorded to the distinction between academic and practical knowledge of the technique of physical examination.¹⁶² Hooper described the stethoscope as a cylindrical instrument made of cedar wood, about 12 inches long and with the diameter of a flute. He explained that the state of respiration could be ascertained by removing a stopper. Use of the stopper made it possible to determine the condition of the heart or the signs in the voice indicating diseased states of the lungs or pleural membrane. In the words of Roy Porter, "pathology could now be done on the living".¹⁶³ It was important to use the instrument in such a manner as to avoid either escape of sound or entry of air and to hold the appropriate end close to the ear. Silk caused a crackling sound and thick fabrics a muffled one and so should not be worn by the patient. Linen or flannel dresses on the other hand caused no problems.¹⁶⁴ Porter looks at the emergence of the series of highly stylised acts performed by the doctor, including sounding the chest, which include procedures that in other contexts would be seen as intrusive and even offensive. The popularisation of the stethoscope which followed this period aided the development of the ritual of the physical examination.¹⁶⁵ Thus the diarist had already realised that auscultation was no longer entirely dependent on percussion, that is tapping some part of the body with the fingers and listening to the sounds produced. But he lamented that he "had forgotten the majority of the sounds, I knew, when in Edinburgh".¹⁶⁶ Despite his competence in French, it is doubtful if the diarist had already read the initial work of Laënnec, or even the more extensive second edition.¹⁶⁷ Laënnec's ideas were propagated in Britain by Charles Scudamore's useful, short text on the use of the stethoscope published in 1826.¹⁶⁸ Scudamore had visited Paris where he had received personal instruction on the diagnostic uses of the stethoscope in the hospital of La Charité from the inventor himself. According to Scudamore, Laënnec was considered as skilful and accurate in the use of percussion as in the use of the stethoscope and he regarded it as an important auxiliary source of information on diseases of the chest.¹⁶⁹ Laënnec could distinguish between pulmonary ailments such as bronchitis, pneumonia, and the dreaded tuberculosis to which he himself succumbed at the age of only forty-five. The ears had joined the eyes as detectives looking for the footprints of disease.

¹⁶¹ Maulitz, Morbid appearances, pp. 143-4, 252, note 31.

¹⁶² Malcolm Nicolson, 'The introduction of percussion and stethoscopy to early nineteenth-century

Edinburgh', in W. F. Bynum and Roy Porter (eds.) Medicine and the five senses, Cambridge University Press, 1993, p. 135.

¹⁶³ Roy Porter, The greatest benefit to mankind: a medical history of humanity from antiquity to the present, London, Fontana Press, 1999, p. 308.

¹⁶⁴ Hooper, Lexicon, pp. 1157-8.

¹⁶⁵ Roy Porter, 'The rise of physical examination', in W. F. Bynum and Roy Porter (eds), *Medicine and the five senses*, Cambridge University Press, 1993, p. 179–80.

¹⁶⁶ Diary, Wednesday 17 December 1834, 23r, p. 84.

¹⁶⁷R. T. H. Laënnec, De l'auscultation médiate ou traité du diagnostic des maladies des poumons et du coeur, Paris, J. A. Brosson et J. S. Chaudé, 1819; idem, Traité de l'auscultation médiate et des maladies des poumons et du coeur, 2nd ed., Paris, J. S. Chaude, 1826.

¹⁶⁸ Charles Scudamore, Observations on M. Laennec's method of forming a diagnosis of the diseases of the chest by means of the stethoscope, and of percussion, London, Longman, Rees, Orme, Brown, and Green, 1826. ¹⁶⁹ Ibid., pp. 1–5.

Scudamore paid tribute to another work, that of John Forbes, physician to the Chichester Dispensary, on the use of the stethoscope and percussion.¹⁷⁰ Forbes, who had studied in Paris, was an advocate of both. He acknowledged that: "To Auenbrugger alone belongs unquestionably the honor of the discovery of Percussion; but it is to its reviver and second founder, Corvisart, that it is almost entirely indebted for the present rank and estimation which it has obtained".¹⁷¹ The major part of Forbes's work is based on the cases of his dispensary patients. He also included his own translation of Auenbrugger's original treatise, published in 1761, together with a selection of Corvisart's more important commentaries published in 1808. Forbes made occasional comments of his own on the opinions of both authors. To this he added a translated, brief extract from Laënnec's original treatise on mediate auscultation published in 1819.¹⁷² In his earlier treatise on diseases of the heart and great vessels, Corvisart pointed out that "Cullen admits that he never used percussion of the chest, in forming his diagnostic of hydrothorax; by this omission, he deprived himself of the means which would have enabled him to rectify his observations on this part of practical medicine".¹⁷³ Forbes too joined in this criticism of Cullen with his stricture that "Dr Cullen, in his account of Hydrothorax, in First Lines (MDCCII), just alludes to percussion as a practice with which he is personally unacquainted".¹⁷⁴ Nevertheless, it is clear that in Edinburgh both auscultation and percussion were taught by the 1830s.

The diarist went on to take a course on diagnosis with the stethoscope and the use of percussion, with M. Roquet the interne of J. C. A. Récamier. ¹⁷⁵ Roquet would have received a fee from each student and, according to Wiblin, who commented that "M. Roquet speaks English very well", he attracted many English students to his wards.¹⁷⁶ The diarist describes the range of sounds he heard in Récamier's ward, sometimes under the supervision of Roquet, and they included that of aegophony, which was likened by some to the bleating of a goat or to the hissing sound of speaking through a comb.¹⁷⁷ Remembering his own immediate experience of forgetting his fairly recent learning in Edinburgh, the diarist emphasised the familiar phenomenon of losing unused skills. Thus he feared that "the use of this instrument will never be so extensively diffused as its immense importance requires, for this reason, that persons not in the constant, almost daily habit of employing it, will forget all but the most characteristic & well marked sounds".¹⁷⁸ Not surprisingly, the diarist was most concerned, not with the familiar and more easily remembered sounds, but with those less often encountered. These less frequent sounds often subtly blended into one another and were difficult to distinguish. Little did he realise what an icon of the physician and the medical student - the stethoscope, in modified form, would become.

¹⁷⁰ Ibid., p. 4; John Forbes, Original cases with dissections and observations illustrating the use of the stethoscope and percussion in the diagnosis of diseases of the chest, London, T. and G. Underwood, 1824.

¹⁷¹Forbes, Original cases, p. xii.

¹⁷² Ibid., pp. 1–64, 65–82.

¹⁷³ J. N. Corvisart, A treatise on the diseases and organic lesions of the heart and great vessels, transl. C. H. Hebb, London and Edinburgh, Underwood and Blacks, 1813, p. 378.

¹⁷⁴Forbes, Original cases, p. xii.

¹⁷⁵Diary, Thursday 5 February 1835, 43v, p. 128.

¹⁷⁶Wiblin, Student's guide, p. 29.

¹⁷⁷ Diary, Monday 9 February 1835, 44r, p. 129; Thursday 19 February 1835, 46v, p. 133.

¹⁷⁸Diary, Wednesday 17 December 1834, 23r, p. 84.

Midwifery

Another piece of equipment which greatly impressed the diarist during his time in Paris was the speculum, an instrument which made it possible to view the neck of the cervix and to note changes in it brought about by pregnancy and disease. This was for him yet another opportunity of enhancing for diagnostic purposes and through instrumentation one of his senses – that of sight – to gain visual access to such a hidden region of the body. He appreciated enormously his tuition in midwifery. The lectures were free but there was a fee for participating in the practical sessions. The classes were run by Mme Lachapelle, the daughter and granddaughter of two renowned sages-femmes or midwives of the same name. Her mother had been the *adjointe* midwife at the Hôtel Dieu, where poor women were delivered until 1804 when the lying-in hospital or Maison d'Accouchement was established in conjunction with the institution for foundling children. Once delivered, women could either take their infants home, with linen and other provisions provided by the hospital for tending them, or make them foundlings.¹⁷⁹ Mme Lachapelle's mother had later become the organiser and director of the practical course of instruction for midwives and medical students in the new École d'Accouchement, which was attached to the Maison d'Accouchement.

The law in France insisted that all midwives, who had to be baptised and married, must be properly qualified before they could practise. The pupil midwives, who were provided with board and lodging as well as their training, paid a fee of 600 francs per annum. The curriculum included the theory and practice of midwifery, vaccination, bleeding and a knowledge of the medicinal plants most commonly employed in the treatment of pregnant and puerperal women. Following two approved courses of lectures on the theory and practice of midwifery, delivered by a recognised professor and examined before three professors, midwives could, for a further fee of 120 francs, gain admission to the Faculty of Medicine. This qualification enabled them to practise throughout France, on production of their diploma. During the diarist's period in Paris, there were 62 pupil midwives and 8 midwives who gained the coveted diploma in 1834; in 1835 the corrresponding figures were 65 and 11.¹⁸⁰

Following in her mother's footsteps, Mme Lachapelle trained students and hence future medical practitioners, as well as midwives, in what the diarist referred to as *toucher* and *manoeuvres*, the skills of diagnosing pregnancy and its associated problems and the processes of delivery and childbirth, including the use of forceps.¹⁸¹ She was well respected within the medical fraternity. The diarist had initially not been impressed by either Mme Lachapelle's appearance or her manner but decided to join her class because the classroom was comfortable and on a cold, dark evening that was an important factor. He mentions that pupil midwives were also in his class but does not hint at this being a further inducement to enrol with Mme Lachapelle. His teacher seems to have devoted considerable time – too much in the diarist's opinion – to teaching the important technique of "turning", the *manoeuvre* used in attempts to correct the position of a

¹⁷⁹Wiblin, Student's guide, p. 45.

¹⁸⁰Ibid., pp. 46-7.

¹⁸¹ See diary, Tuesday 11 November 1834, 10v, p. 59, note 120; Wiblin names the midwife in chief for 1839 as Mme Legrand (*Student's guide*, p. 46).

foetus in the breech position. The diarist referred to this technique as manoeuvres des accouchemens contre Nature.¹⁸²

A magnificent series of illustrations of the stages of the foetus in utero during pregnancy and delivery, including cases of breech presentations and those, described by Mme Lachapelle in her lectures, where a limb rather than the head presents first through the neck of the uterus had appeared in William Smellie's Anatomical tables in 1754. As well as the use of forceps in difficult cases, Smellie's final plate shows the removal, with the use of the crochet, an instrument to which the diarist was introduced at almost his final session,¹⁸³ of the head of a foetus decapitated during delivery. The diarist makes no comment on the inevitably lethal effects of using the crochet, which figures along with the scissors and hook, also used in some of the most difficult cases, in Smellie's final plate.¹⁸⁴ Smellie was criticised by more than one contemporary, including the physician John Burton, who claimed that he "uses the forceps in cases that don't require it, and thereby increases the Dangers to both Mother and Child".¹⁸⁵ This dispute between Smellie and Burton on the use of forceps was taken up two years later by Giles Watts.¹⁸⁶ William Hunter, one of Smellie's successors during the later part of the century, regretted that the forceps had ever been invented.¹⁸⁷

Unlike Edinburgh, Paris offered hands-on experience of intimately examining the women, and the diarist's teacher also maintained her own skills as a practitioner midwife, for on one occasion she was absent, attending a woman in labour.¹⁸⁸ There is no doubt that the experience of handling the pregnant women externally and even more internally, created for the diarist an unexpected frisson, which he tried to make light of by referring to the shock waves it would cause back home. He regretted that "some of our old maids in England did not pop in some night – it w^{ld}. furnish them with scandal & tabletalk for the next month".¹⁸⁹ He also declared that "the moral people of England" would scout from society anyone who might suggest teaching the practical parts of midwifery as in Paris.¹⁹⁰ Despite his enthusiasm for midwifery and hence by extension obstetrics as a possible career, he sadly admitted, providing the only indication of his own physical features, that since his fingers were very short, it made it difficult for him to experience *ballottement*.¹⁹¹ This is the sudden moving away of the foetus in its amniotic fluid, on the uterus being pushed by the intruding fingers and its return to its original position. This was a reliable indication of pregnancy.

Whilst the diarist had already encountered the stethoscope in Edinburgh, he did not declare a similar familiarity, however slight, with the speculum. He seems to have met it for

London, [Mr Grignion], 1754, Plate 36; diary, Tuesday 2 June 1835, 69v, p. 177.

184 Smellie, ibid., Plate 39.

185 John Burton, A letter to William Smellie, M.D. containing critical and practical remarks upon his treatise on the theory and practice of midwifery, London, W. Owen, 1753, p. vi.

¹⁸⁶Giles Watts, M.D., Reflections on slow and painful labours, and other subjects in midwifery... interspersed with remarks on Dr Burton's letter to Dr Smellie London, G. Keith, 1755.

¹⁸²Diary, Tuesday 26 May 1835, 68v, p. 175.

¹⁸³ William Smellie, A sett [sic] of anatomical tables, and an abridgment, of the practice of midwifery,

¹⁸⁷See a later, if somewhat partial, reappraisal of Smellie in R. W. Johnstone, William Smellie: the master of British midwifery, Edinburgh and London, E. and S. Livingstone, 1952, p. 130. ¹⁸⁸ Diary, Saturday 6 June 1835, 70v, p. 179.

¹⁸⁹Diary, Wednesday 12 November 1834, 12r, p. 62.

¹⁹⁰Diary, Tuesday 11 November 1835, 10v, p. 59.

¹⁹¹ Diary, Wednesday 12 November 1834, 12r, p. 62.

the first time at the Hôtel Dieu, during his rounds with Alphonse César Robert (1801–62), of whom he frequently spoke with admiration. Declaring, perhaps deliberately for the benefit of the students, that a patient had a diseased neck of the uterus, Robert allowed all the students to pass one by one and examine her with the speculum. Robert's fears were not upheld for, as the diarist observed, "We all had a fine opportunity of seeing this part in a perfectly healthy condition". The diarist was amazed by his observations and, making a somewhat exaggerated claim for his "newly discovered" instrument, declared, "I had no idea, that the neck of the uterus c^{ld}. be seen so distinctly – this part is, since the introduction of the speculum, as much under the cognisance of the senses as any part of the exterior of the body".¹⁹²

Dentistry

Some other forms of forceps which the diarist appeared to meet for the first time in Paris were among those used in dentistry. On Thursday 30 December 1834 he enrolled for a course on dental surgery with M. Lemaire and paid 10 francs.¹⁹³ Initially, as with his first impression of Mme Lachapelle, the diarist did not think much of Lemaire as a lecturer. But, as with some of his other courses, the diarist felt that "probably, a good many practical remarks may be gained from him". He was right; before the end of the first session he was full of admiration for Lemaire's dexterity, declaring that from one of the patients present, he had already removed several teeth "whilst a general practitioner w^{ld}. be thinking of it". At this same session he learned how to distinguish between primary and secondary teeth. He also learned how, with the straight forceps also called the "key", to draw "the front teeth of the upper jaw".¹⁹⁴ Warren, for his part, referred to seeking out "Chevalier the first dentist here"¹⁹⁵ in connection with his own toothache.

The diarist describes in minute detail the manner in which the patient's head was kept straight and still throughout the procedure. It involved what seems a considerable degree of intimacy of contact, with the dentist's left arm hooked firmly around the patient's neck whilst at the same time he pressed the patient's head against his chest, whilst his left hand fingers held the lower jaw and intruded partly between the patient's lips. The pulling of molar teeth involved the head being pressed against the dentist's thigh. For extracting teeth in the lower jaw he used a pair of powerful forceps which the diarist had never seen before. At his second dental surgery class on Saturday 3 January, he identified these as the "Parrot's Bill forceps"¹⁹⁶ needed for the more difficult process of extracting the lower incisors. He again describes in considerable detail the movements of the hands to avoid snapping off the teeth.

Whereas he clearly observed the rapid and dexterous extraction of real upper incisors it seems likely that work on the lower ones was theoretical, as his descriptions of torsion, pulling and pushing with the forceps would surely have involved considerable pain to a patient. Of this he makes no mention nor of any form of painkiller such as oil of cloves,

¹⁹²Ibid., 11v, p. 60.

¹⁹³ Diary, Tuesday 30 December 1834, 27v, p. 94.

¹⁹⁴ Ibid., p. 95.

¹⁹⁵ Warren, Parisian education, p. 162.

¹⁹⁶Diary, Saturday 3 January 1835, 30r, p. 99.

which was recommended for dulling toothache. At his final session on Tuesday 20 January, Lemaire taught the class how to fasten in with silk or catgut a loose tooth, a process similar to that required in the transplantation of teeth. The diarist learned how to screw into a still existing root an artificial tooth and how, with sealing wax, to take an impression of the teeth for making a false set. He may have learned from Lemaire that the first porcelain teeth were made by a Frenchman, Nicholas Dubois de Chemant, who had fled to England as a refugee from the Revolution. Chemant replaced bone and ivory with his mineral paste or porcelain as the material for his artificial teeth.¹⁹⁷ The diarist had also received instruction in removing caries from diseased teeth and filling, or as he described it "stopping", them with tinfoil or an alloy of bismuth, mercury and lead.¹⁹⁸ Guidance on sophisticated orthodontics for correcting irregular teeth with the use of braces, which, according to Lemaire, could be made by "any working jeweller", was also included in the course.¹⁹⁹

The dental surgeon, J. Menzies Campbell, who was interested in the history of dentistry,²⁰⁰ named the powerful forceps referred to by the diarist, as being of "the favourite French parrot-beak pattern".²⁰¹ He acknowledged that around 1800 dentistry in England was of very low status and barbers still combined tooth extraction with blood-letting, haircutting and shaving. Nevertheless, whilst there was not yet a separate profession of dentist during the eighteenth century, there had been recognised surgeons who specialised in the care and treatment of disorders involving the teeth and gums. These included John Hunter (1728-93), surgeon to St. George's Hospital, who declared in his detailed and beautifully illustrated Natural history of the human teeth that most of his observations in the work had been made before 1755.²⁰² In 1778 he published a supplement to the Treatise in which he presented in greater detail the processes involved in the transplanting of teeth, a procedure already practised in the previous century and criticised by Charles Allen who wrote one of the earliest books in English devoted entirely to dentistry.²⁰³ A third edition of Hunter's work appeared in 1803 and contained a practical treatise on the diseases of the teeth.²⁰⁴ Thomas Berdmore, of the Surgeons Company and Surgeon-Dentist to his Majesty, had also at the age of twenty-eight already published an informative but somewhat combative work on the not infrequent disorders and deformities of the teeth and gums.²⁰⁵ And, referring to his privileged and hence lucrative cadre of patients rather than to the more numerous and needy poor, he considered the use and abuse of tinctures, toothpowders, and brushes. He also highlighted the far-reaching effects on the whole system

¹⁹⁷ Anne Hargreaves, 'Dentistry in the British Isles', in Christine Hillam (ed.), *Dental practice in Europe* at the end of the 18th century, Amsterdam and New York, Rodopi, 2003, pp. 171–282, on p. 201. See also Pierre Baron's four chapters on dentistry in France in the same work.

⁹⁸Diary, Thursday 15 January 1835, 36r, p. 114.

¹⁹⁹Diary, Tuesday 20 January 1835, 39v-40r, pp. 120-1.

²⁰⁰ Menzies Campbell was appointed honorary lecturer in the history of dentistry at the University of Edinburgh in 1960.

²⁰¹ J. Menzies Campbell, 'An exhibition of early dentistry', British Dental Journal, 1955, 99 (7): 4.

²⁰² John Hunter, The natural history of the human teeth: explaining their structure, use, formation, growth, and diseases. Illustrated with copper-plates, London, J. Johnson, 1771.

²⁰³ John Hunter, A practical treatise on the diseases of the teeth; intended as a supplement to the natural history of those parts, London, 1778; Charles Allen, The operator for the teeth, York, John White, 1685.

²⁰⁴ John Hunter, The natural history of the human teeth: ... to which is added a practical treatise on the diseases of the teeth, 3rd ed., London, J. Johnson, 1803.

²⁰⁵ Thomas Berdmore, A treatise on the disorders and deformities of the teeth and gums, London, 1768.

following, on the one hand, from the care of teeth, including cutting of the teeth in infants, and, on the other, from their neglect. Thus in addition to the offensiveness of the smell imparted to the breath by dirty, rotting teeth and the deleterious effects on digestion, he declared that:

The oratory of the pulpit and the bar, and above all the art of pleasing in conversation and social life, are matters of the highest concern to individuals. But in these no one can excel whose loss of Teeth, or rotten livid stumps, and fallen lips and hollow cheeks destroy articulation, and the happy expression of the countenance; whose voice has lost its native tone, and whose laugh, instead of painting joy and merriment, express only defect and disease.²⁰⁶

Berdmore was clearly interested in the professionalisation of dentistry, which did not come about until the mid-nineteenth century; he saw simple tooth-drawing and tooth-scraping as but a part of the skills needed by the surgeon-dentist. He wanted the public to realise that it was inappropriate to "place on an equal footing with the Surgeon-Dentist, the Tooth-drawing Barber and the itinerant Mountebank".²⁰⁷

In his section on tooth transplantation, Hunter said of the practice: "Although this operation is in itself a matter of no difficulty, yet upon the whole, it is one of the nicest of all operations, and requires more chirurgical and physiological knowledge than any that comes under the care of the dentist".²⁰⁸ He described the transplanting of living teeth, referred to as scions, which could be teeth pulled out by mistake or, as in one case included by Hunter, knocked out. In cases of donated living teeth, often sold by impecunious individuals for cash,²⁰⁹ the importance of the ages of the recipient and donor (women were mentioned as the most suitable donors because their smaller teeth were easier to fit into the gaps), the maturity and soundness of the tooth to be transplanted and the condition of the receiving socket were all considered in terms of the outcome of the procedure. Hunter also included details of the transplantation of dead teeth, which although harder to match in terms of colour had always been more numerous, not only due to the reputed activities of resurrectionists or the plundering of cadavers on battlefields such as Waterloo. Following the actual transplantation, the tooth had to be tied in place in a manner similar to that demonstrated to the diarist by Lemaire for tying in a loose tooth or attaching an artificial tooth to a remaining root.²¹⁰ Hunter is clear about the outcomes which could be expected. The procedure was not always successful and if successful could take different lengths of time for the root to unite with the socket, such that the retaining silk might need to be left in place for a while.

Hunter included in his Supplement the details of what was at the time probably considered to be a curious but fascinating experiment, which clearly illustrates his scientific approach to his work. He "took a tooth from a person's head" and plunged its root deeply into a wound made in the thick part of a cock's comb, fixing it in place with thread. Some months later the cock was killed and the head injected "with a very minute injection" of an unnamed substance. The comb plus tooth were then removed, placed in acid,

²⁰⁶ Ibid., p. 4.

²⁰⁷ Ibid., p. 5.

²⁰⁸ Hunter, A practical treatise ... Supplement, p. 94.

²⁰⁹J. Menzies Campbell, 'An outline of dental history', British Dental Journal, 1970, 129 (11): 525.

²¹⁰Diary, Tuesday 20 January 1835, 39v, p. 120.

presumably to soften the tooth by removing the calcareous components, and the whole preparation slit lengthwise. Hunter observed that the vessels of the tooth were well injected and that the external surface of the tooth adhered to the comb by vessels similar to the union of a tooth with the gum and sockets. In a footnote and with great integrity, Hunter admitted that the experiment was not generally successful, he himself having succeeded only once out of a great number of trials.²¹¹

At the beginning of the nineteenth century, the surgeon, Joseph Fox (1776–1816), who on the death of his father had become a pupil of Henry Cline, lecturer in anatomy and surgeon at St. Thomas's Hospital, published an illustrated work with a title similar to that of Hunter.²¹² Fox includes an account of the chemical analysis of teeth. He also includes some fine engravings of irregular dentitions in need of orthodontic treatment²¹³ and also of the bridge mechanisms described by the diarist during his course with Lemaire.²¹⁴ Furthermore, extending the publication of Hunter, Fox deals with and illustrates some problems of the jaws, such as disease of the *antrum maxillar* and cleft palate, conditions which the diarist saw in Paris. He also adds a section on the effects of mercury on the teeth. Whilst he sees mercury as a useful therapeutic drug he is aware that injudicious use could lead to serious mischief within the mouth. It could adversely affect the teeth and gums, resulting on occasion in actual loss of teeth and even to shedding of parts of the jaw bones. Fox recommended washing the mouth with a mild astringent lotion of infusion of roses with alum, and also with tincture of myrrh if necessary. Depending on the severity of the damage, the bones and gums could recover, following cessation of the use of mercury.



Although the diarist, if indeed he was James Surrage, appears not to have become a celebrity in his own right,²¹⁵ he certainly enjoyed a prestigious introduction to his chosen profession of medicine under the influence of several French medical celebrities. The Edinburgh Medical School where he had followed his formal academic medical curriculum and the Royal Infirmary where he had gained clinical experience, although both less illustrious than a few decades earlier, had benefited greatly from the Scottish Enlightenment which had still left its mark on the discipline and the institutions. By continuing and completing his studies in Paris, which had taken over the mantle of excellence from Edinburgh, the diarist could be said to have had the best of both worlds.

There is no doubt that he was in many ways an admirable young ambassador for his country. He was very competent in the French language, seems to have done a prodigious

²¹¹Hunter, A practical treatise ... Supplement, pp. 111-12.

²¹² Joseph Fox, *The natural history of the human teeth*, London, Thomas Cox, 1803.

²¹³Ibid., Plate XIII.

²¹⁴Ibid., Plate XII.

²¹⁵ James Surrage, a physician living in Wincanton, Somersetshire, did publish a detailed account of the case of one of his patients involving the procedure, ligature of the common carotid, for which the diarist had called Velpeau a murderer for his incompetence and the death of the patient. James Surrage, 'Ligature of common carotid', *London Medical Gazette*, 1841, ns., **2**: 392–4. These details were included in Surrage's entry in the *London and Provincial Medical Directory*, 1848, p. 263, but not for subsequent years.

amount of homework in preparation for his sightseeing within and around Paris, and had the organisational skills of a mature individual. His unbounded energy for following both his programmes of study within the Faculty of Medicine including the large number and disparate range of hospitals in Paris, some of which were centrally located whilst others were far away, and his sightseeing comes across clearly. He appears, however, to have lacked one essential ambassadorial skill in that he was a loner. He does not even seem to have participated very actively in the meetings of the Société des Médecins Étrangers organised by English-speaking doctors in Paris for the purpose of exchanging medical views.²¹⁶ Nevertheless, on one occasion he laments the departure of his compatriot Bird, whose company everyone enjoyed. The diarist did, occasionally, commit to paper his expressions of homesickness, which he could still have felt even in the midst of a hectic social life with his fellow students. Since he was mindful of the need to watch his expenses, his solitary condition may have been self-imposed in order to escape the temptations of wasting time and money with his peers.

In spite of a very busy schedule this unknown young man, with admirable daily dedication, kept a diary which provides some invaluable insights into the life and studies of an early nineteenth-century English medical student in Paris. He spoke of collecting portraits before his departure but unfortunately does not tell us whose images he was seeking. Weisz comments on the work of the medical journalist Louis Peisse who described the new building of the Academy of Medicine in 1850, some fifteen years after the diarist's departure for Paris, as a monument not only on account of the building itself but for its artistic contents including paintings, busts and statues.²¹⁷ Some of this art could be seen as providing a visible history of certain of the leading figures and their contributions to medicine. The painting of the surgeon Larrey on the battlefield²¹⁸ is one such example. The portraits collected by the diarist could be seen as his desire to select and create his own collection of likenesses to embody for the future memories of his year in Paris. His records of walking the wards of some of the great early-nineteenth-century Paris hospitals has thrown additional professional and personal light on aspects of both British, especially Edinburgh, and French medicine and surgery of almost two centuries ago.

²¹⁶Warren, Parisian education, p. 55.

 ²¹⁷ Weisz, Medical mandarins, pp. 112–23; Louis Peisse, La médecine et les médecins; philosophie, doctrines, institutions, critiques, moeurs et biographies médicales, 2 vols, Paris, Baillière, 1857.
²¹⁸ See diary, p. 171, note 48.