

# THE PASSING OF THE BARBER-SURGEON

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THE pole that is displayed outside a barber's shop is a very familiar object, with its characteristic red, white, and blue bands for ever pursuing one another spirally from end to end. How many of us however have paused in our daily walk to consider its significance? Like many other British institutions it is a survival of mediaeval times, and it serves to remind us of the days when the barber was not only a tonsorial artist, but wielded also the operating knife. The spiral arrangement around the barber's pole represents the bandage which his predecessors in the old days tied round the patient's arm in the operation of blood-letting. In some instances, especially in the home-land, a shallow brass dish with a rounded notch in its margin may be found dangling alongside the pole. This typifies the vessel that was used in venesection, the notch being no doubt devised for the purpose of fitting against the rounded surface of the limb or other part of the body that was being operated upon. Truly these time-worn institutions die hard!

Barbers were originally trained for the purpose of bleeding the monks in monastic times. They were woefully illiterate and ignorant of even the most elementary or fundamental principles of anatomy. This condition of matters was indeed inevitable owing to the prohibition placed by the Church upon the dissection of the human body, the only sure path to accurate and enduring anatomical knowledge. As a result the appalling inaccuracies of the anatomist Galen held sway for nearly fifteen hundred years. The world of course insisted on claiming its martyrs, the anatomist Servetus being burned at the stake in 1553 at Geneva, the anatomist Vesalius forced to resign his chair at the University of Padua, and left to die, forsaken and forlorn, on the island of Zante in 1564. Thus it came about that those surgeons of the Middle Ages who possessed even a superficial knowledge of anatomy were "raræ aves." In 1462 the powerful and flourishing Guild of Barbers was incorporated by Edward the Fourth of England, while the surgeons, deficient in numbers and lacking in influence, obtained a somewhat equivocal Royal Charter in 1492. The guild

of surgeons never prospered, so that by the year 1540 it was glad to avail itself of the opportunity of becoming amalgamated with the influential Barber Company to form the united Barber-Surgeon Company. A famous painting by the great Holbein represents Henry the Eighth in an arrogant attitude handing this Charter to Thomas Vicary, the first Master of the Company, who is receiving it on bended knee. This historical picture conveys an excellent idea of the costume and general bearing of the sixteenth century surgeon. In the statute accompanying this Charter it was enacted that the barbers should confine themselves to the minor operations of blood-letting and the extraction of teeth, while, to off-set this, the surgeons were on the other hand prohibited from the practice of "barbery or shaving."

In *Gil Blas* will be found what is believed to be a tolerably accurate description of the methods adopted by these ignorant venesectors during the seventeenth century. For example, the detailed delineation of the procedure by means of which Sangrado treated, or rather maltreated, the old Canon, provides much food for reflection. Thus he informs the attendant nurses that "it is a mere vulgar error that the blood is of any use in the system; the faster you draw it off the better." Again, in the next paragraph it is noted that "when the doctor had ordered these frequent and copious bleedings, he added a drench of water at very short intervals, maintaining that water in sufficient quantities was the grand secret in the *Materia Medica*." A little further on it states, "the surgeon on the other hand taking out the blood as we put in the water, we reduced the old Canon to death's door in less than two days."

With such murderous proceedings as these it can be well imagined to what a low level the status of surgery had sunk during the seventeenth century. It is a remarkable historical fact that the French surgeon came into his own kingdom through the influence of that most autocratic of monarchs, Louis the Fourteenth, who had been a martyr to fistula for years. This was successfully operated upon by a surgeon of the name of Felix, upon whom the grateful king conferred the appointment and title of Royal Surgeon. This act gave great prestige to the French surgeons, and in 1724 Louis the Fifteenth went a step further by creating five professorial chairs of surgical instruction at the medical school of St. Come at Paris, in the face of violent opposition on the part of the physicians, who had always looked down upon the surgeons as an inferior caste. This epoch-making step was quickly followed by the founding of the Academy of Surgery at Paris in 1731, and by a further ordinance of Louis the Fifteenth in 1743, which finally

freed the surgeons from further association with the barbers, who were then and there forbidden to practice surgery. Henceforward the French surgeon was to be a man of learning, with a good knowledge of anatomy and the other pre-requisites to a sound medical education.

Meanwhile the dawn of the new era began to manifest itself in the British Isles. The first chair of Anatomy to be founded there was that in Edinburgh University in 1705. Its first occupant was to receive the munificent sum of £15 as his yearly salary! In London some sporadic lecturing on anatomy had been attempted at St. Bartholemew's Hospital as early as 1734, but no one still cared to dissect the human body extra-murally to the Barber-Surgeons Hall, unless he wished to run the risk of a heavy fine. The result was that there were no surgeons of the first rank in England before the advent of Cheselden, Pott, and John Hunter. There had been almost continuous friction between the barbers and surgeons since their union in 1540, and it was not until fully two hundred years afterwards—in 1745 to be exact—that this unholy alliance was finally severed. In this year, mainly through the felicitous influence of Ranby, who was Sergeant Surgeon to George the Second, the Guild of Surgeons was formally separated from the barbers, with the title of the "Masters, Governors and Commonalty of the Art and the Science of Surgeons of London." Further it was declared to be a punishable offence for any one to practice surgery in London, or within a radius of seven miles from it, without being duly examined and licensed by that body. This was the British surgeons' Declaration of Independence.

It was just about this time that the brothers Hunter stepped into the arena of medical history. Dr. William Hunter, the elder of the two, migrated from Scotland to London in 1741, and in 1745, like a far-seeing Scotsman, at once availed himself of the great opportunity afforded by the severing of relations between the barbers and the surgeons, and founded the first school of anatomy in London that was unconnected with a general hospital. Hunter with great discernment recognized that now was the appointed time to place medical and surgical training upon a sure and steadfast scientific basis. He was, however, essentially a physician, and it was left to his younger brother John to found the practice of surgery upon sound fundamental principles. William Hunter was, like his brother, an indefatigable worker and his collection of anatomical preparations, beautifully dissected and mounted by himself, is now one of the prized possessions of the University of Glasgow.

The life of John Hunter provides us with an instructive as well

as interesting study in biography. It shows the degree of eminence that may be attained to by the due exercise of patience and perseverance coupled with an unquenchable enthusiasm and an indomitable will. This famous surgeon and anatomist was born near Glasgow, Scotland, on February 14, 1727. His natal day is still commemorated yearly by the delivery of the Hunterian Oration at the Royal College of Surgeons, London,—a great tribute to out-standing merit and distinction. The youngest child of a large family, Hunter was left by the death of his father when he was but ten years of age to the care of an over-indulgent mother. His early education was sadly neglected, as he was in great measure master of his own actions, and preferred an open air life and country sports to the study of school-books. Indeed, his school life seems to have been so utterly wasted that at the age of seventeen he was glad to move into Glasgow to work as a cabinet-maker in the factory of his brother-in-law. Here he spent three years, which after all proved by no means a barren period, for there can be no doubt that much of Hunter's manual and digital dexterity was due to this early training in cabinet-making.

It was his greatest good fortune to possess such a gifted elder brother as William, without whose guiding hand we should never have been able to acclaim John Hunter the Great. In his twentieth year, hearing that William had established a reputation for himself as a teacher of anatomy, John wrote to his brother requesting to be allowed to join him in London, as he was desirous of entering the medical profession, and at the same time offering in return his services as an assistant in the dissecting room. William, who may have had some doubts as to the ability of his hitherto indolent brother, put him to the test by ordering him to prepare dissections of the human body for class demonstration. This was no light task for the raw untrained youth, but so favourable were the results that William, delighted with his brother's first attempts at dissection, immediately appointed him one of his pupils. John studied that winter with such diligence and eagerness that during the following session he was able to direct the other students in their dissections,—almost a unique record for a demonstrator in anatomy. He had also the good fortune to study under Cheselden and Pott, the two foremost surgeons of the day. At the early age of twenty-six he became a partner at his brother's school of anatomy, and immediately entered upon his extensive researches into the structure and functions of the body. The Hunters very soon involved themselves in disputes with contemporary investigators, and the controversies of those days were conducted with much rancour. Both brothers

were afflicted with fiery tempers, and moreover were very insistent regarding their rights. One famous controversy was waged with the Monros (primus and secundus) of Edinburgh University regarding the real function subserved by the lymphatics, and there is now no doubt that the theory advocated by the Hunters was the correct one.

In 1759 Hunter's health began to fail, and he was advised to seek a more equable climate. He applied for the post of army surgeon, and participated in the campaigns of Belle Isle and Portugal, where he had ample opportunities for the study of gun-shot wounds and the resultant sepsis. Hunter was so careful with the publication of the results of these researches that he did not make his final conclusions public until thirty years afterwards. In 1763, upon the conclusion of peace, his health being completely restored, he settled in London as a surgeon, the later years exhibiting a patient struggle to have his ability recognized against strong competition. His spare time was never wasted; he continued to teach anatomy and surgery, and prosecuted his researches into comparative anatomy with the greatest vigour and enthusiasm. To procure material for these investigations, he organized a small zoological collection, and built in the outskirts of London a house for himself and suitable accommodation for his varied collection of animals. His ability as a comparative anatomist was soon perceived and was fittingly acknowledged in 1767 by his election as a Fellow of the Royal Society. In the following year he was appointed Surgeon to St. George's Hospital, and was then in a position to take private pupils. One of the earliest of these was Jenner, who made his name famous by his experiments upon the efficacy of vaccination as a protective agent against small-pox. In succeeding years Hunter carried on a voluminous correspondence with his favourite pupil, nearly every letter containing an application for natural history material, or a request to Jenner to conduct some experiment of his own and report the results. Those letters demonstrate very forcibly his insatiable demands for material, either for dissection or for physiological experiment. His brain appears to have been always active in evolving or elaborating new problems. His thoroughness must have been wonderful, for he was never satisfied until he had obtained irrefutable proof in support of his theories or hypotheses. In the course of his practice Hunter had the misfortune to become accidentally inoculated with lues. He displayed no worry about the matter, but was struck with the brilliant, and indeed rather heroic, idea of studying the course of the disease upon himself, allowing it to gain the secondary stage before he decided to commence treatment. He was one of the real pioneers in surgery.

In May 1771 Hunter published the first part of his *Treatise on the Teeth*, which dealt with their normal anatomy. Part II, which comprised dental diseases, was not published till 1778. The succeeding years of his life were marked by untiring and almost unceasing labour at his beloved subject of comparative anatomy, and the building up of his museum collection. He likewise took a substantial interest in the proceedings of the Royal Society, and communicated almost every year one or more papers to that learned body. These included the study of types representing all the five classes of the Vertebrata. In 1780 he communicated his paper on the structure of the placenta, which caused the regrettable estrangement between him and his brother William. In 1783 the Royal Society honoured him by the presentation of the much coveted Copley Medal in recognition of his valuable contributions to natural history.

It was in 1785 that Hunter performed that famous operation of ligaturing the femoral artery for popliteal aneurism, which placed him in the front rank of surgeons of his day. The following year he was appointed Deputy Surgeon-General to the army, having previously been shown royal favour by his appointment as Surgeon-extraordinary to the king. He was not, however, ambitious of renown in the realms of surgery, but preferred rather to build his reputation upon his museum and his researches in comparative anatomy. To illustrate his eagerness to secure rare specimens for his collection, one has only to cite the colossal sum of £500 which he paid for the body of O'Brien, the Irish giant, in order to prepare the skeleton for his museum. This is now one of the valued possessions of the Royal College of Surgeons. When he removed to Leicester Square he erected a museum behind his house for the adequate display of his anatomical and surgical collections, which had by this time assumed vast size. He used to declare that his museum and its contents had cost him not less than £70,000, an enormous sum in those days. Indeed he had sunk his fortune in it to such an extent that after his death all his effects had to be sold in order to pay his debts and preserve his collection from being dispersed, while his widow and children had to be granted a scanty pittance out of the King's Bounty. It took several years to induce the Government to acquire the museum for the nation, but in 1799 Parliament voted the sum of £15,000 for its purchase. It was handed over to the custody of the Royal College of Surgeons, and now forms the nucleus of their wonderful museum. Hunter died suddenly on October 16, 1793. He was buried in the Church of St. Martin's-in-the-Fields, but later the body was transferred to Westminster Abbey.

In forming an estimate of his fame and professional attainments we need not enumerate the various surgical operations, or modifications of these, that he devised. His claims are of a far higher order. He was one of the pioneers who finally put an end to the crude savagery of the barber-surgeon, and placed surgery upon its one sure anatomical basis. Many of us have heard the well-known dictum that surgery is simply anatomy *plus* common sense. It will be observed that anatomy is placed first, and that is where Hunter put it—namely in the forefront of all clinical investigation. Physiology is not so essential as anatomy to the surgeon's work, but it must be recollected that many of Hunter's investigations were largely physiological. He thus materially assisted in securing for physiology a worthy place in the medical curriculum. Again, to him must be ascribed the chief credit for having founded the science of surgical pathology. He was among the first to recognize that original research is the one true path towards surgical achievement. John Hunter's example is one that all medical men, particularly those on the thresholds of their careers, should strive to emulate.