

**a  
history  
of  
medicine  
in  
pictures**

*by George A. Bender*

*painting by Robert A. Thom*

**Ambroise Paré:  
Surgery Acquires Stature**

WHAT tempestuous, revolutionary Paracelsus did for medicine, and brilliant, bold Vesalius did for anatomy—quiet, kindly, observant Ambroise Paré did for Renaissance surgery: he raised it from a scorned, antiquity-shackled trade to professional stature. His example and his writings influenced many of his contemporaries and pupils toward scientific and humane methods, and won for surgeons and for surgery new respect in the turbulent world of the sixteenth century.

Starting in late antiquity, learned physicians more and more frequently abandoned surgery, leaving performance of operations to manual workers, especially barbers. Separation of medicine and surgery was virtually complete in the Middle Ages.

Surgery was held in low repute until its rebirth in the fifteenth and the sixteenth centuries. Only in Italy and in some centers in France did surgery even then gain grudging respect among practitioners of medicine, and among learned persons of the period. This rebirth was hastened by several factors: the general rise of the importance of the common man in the cultural and political growth of the period; technical developments, such as gunpowder; and spread of syphilis. These new conditions confronted medical men with problems that had to be faced without reliance on reference to classical authorities of antiquity.



ROBERT THOM

The man to whom surgeons owe a debt of gratitude came from lowly origin, and, by standards of his day, was not well educated. He learned by observation in the great school of experience, under tough, grueling conditions of military conflict. Yet he came to know intimately most great figures of his century in social, military, and political circles in France. As Packard points out, Ambroise Paré was more than a great surgeon: his reputation for honesty and for sagacity was such that he became confidant and counselor to many of those with whom he came in contact, including kings, courtiers, and common soldiers. In an age when religious hatred was most intense, nonconformist Paré was sheltered by the King in his private chamber during the bloodiest massacre of Huguenots in Paris' history.

Not only did Paré attend heavy duties of an enormous civilian practice as well as demands made upon him as a military surgeon, but he also wrote voluminously, and found time for scientific research and for study. He loved his fellow men and liked their company. His gentle humanity was demonstrated repeatedly: in his compassion for his patients; in his willingness to comfort them though he knew their condition to be hopeless; in his determination and persistence in treatment, which restored many men to health when other physicians had given them up as bound for the grave. His writings, all in French, are narrated in simple language, and they convey the impression of exact observation and of truthful reporting. The only attacks made upon him were due to professional jealousy.

Ambroise Paré was born at Bourg Hersent, a little village near Laval, about 1510. His father is said to have been *valet de chambre* and barber to Sieur de Laval. Several of his near relatives were in medical occupations. A brother, Jean, was a master barber-surgeon at Vitré, and a brother-in-law, Gaspard Martin, a master barber-surgeon in Paris. Ambroise Paré apparently began his studies under his brother, Jean, and later became apprenticed to a barber-surgeon in Paris, in 1532 or 1533.

At that time the medical profession in Paris was sharply divided into three classes: physicians, members of the *Faculté de Médecine*, who tried to control all persons who practiced the healing arts; surgeons, belonging to the *Confrérie de Saint Côme*, who would not condescend to operate, but who treated patients for surgical conditions with plasters, ointments, and cautery; and barber-surgeons, who practiced venesection, cupping, and leeching, who shaved their customers, and who constantly tried to extend their activities by attempting operations, dressing wounds, and the like. These barber-surgeons were usually unlettered and unfamiliar with Latin, and therefore unfamiliar with the classic literature of medicine. However, they were almost the only practitioners of surgery in Paris.

Paré did not remain for long in the barber's shop. Soon he became *compagnon chirurgien* at the *Hôtel-Dieu*, a position similar to that of today's intern or resident. At the time, the *Hôtel-Dieu* was the only public hospital in Paris. Therefore, opportunities for observation and for experience were excellent. After nearly four years, in 1536, Paré left the *Hôtel-Dieu*, and went off to one of the many French wars as surgeon to Mareschal de Montéjan, colonel-general of the French Infantry. Though Paré did not take examinations for admission to practice in

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**the picture** Ambroise Paré, young French army surgeon with troops of King François at Turin, in 1536, had his first experience treating men for arquebus wounds. Running out of boiling oil, traditional treatment for gunshot injuries, he improvised, discovered that unburned patients healed much better, and resolved never to use hot oil again. It was some years later, in 1552, that Paré put aside cautery irons used for hemostasis in amputations and reintroduced ligatures. During his 80 years of life (1510-1590), the practical, inventive, observant, compassionate Paré served as surgeon to four French kings.

Paris as a barber-surgeon until 1541 (probably because of economic pressures), he plunged into varied and strenuous opportunities for practice afforded by battlefields. It was during this campaign, in 1536, that the young army surgeon made his first great discovery—that boiling oil not only was of no use, but actually was hurtful in treatment for gunshot wounds.

At that time, all authorities on gunshot wounds taught that the victims were poisoned by the gunpowder, and that in order to counteract the poison, they should be treated with boiling oil applied locally. In his account of the incident (in *The Apology and Treatise*, written in later years), Paré describes his observations as follows:

*"Now all the soldiers at the Château, seeing our men coming with a great fury, did all they could to defend themselves, and killed and wounded a great number of our soldiers with pikes, arquebuses, and stones, where the surgeons had much work cut out for them. Now I was at that time a freshwater soldier, I had not yet seen wounds made by gunshot at the first dressing. It is true that I had read in Jean de Vigo, first book, "Of Wounds in General," chapter eight, that wounds made by firearms participate of venosity, because of the powder, and for their cure he commands to cauterize them with oil of elder, scalding hot, in which should be mixed a little theriac; and in order not to err before using the said oil, knowing that such a thing would bring great pain to the patient, I wished to know first, how the other surgeons did for the first dressing, which was to apply the said oil as hot as possible, into the wound with tents and setons, of whom I took courage to do as they did. At last my oil lacked and I was constrained to apply in its place a digestive made of the yolks of eggs, oil of roses, and turpentine. That*

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*Litho. in U.S.A.*

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*night I could not sleep at my ease, fearing my lack of cauterization that I should find the wounded on whom I had failed to put the said oil dead or empoisoned, which made me rise very early to visit them, where beyond my hope, I found those upon whom I had put the digestive medicament feeling little pain, and their wounds without inflammation or swelling, having rested fairly well throughout the night; the others to whom I had applied the said boiling oil, I found feverish, with great pain and swelling about their wounds. Then I resolved with myself never more to burn thus cruelly poor men wounded with gunshot."*

In 1541, after passing his examinations, Paré was admitted to the Community of Barber-Surgeons. The young surgeon's fame was growing. Encouraged by the anatomist Sylvius (Jacques Dubois), professor of medicine in Paris, Paré wrote a classic volume on the treatment of men with wounds made by arquebuses (gunshot wounds). Publication of this volume was not achieved, however, until 1545.

Paré's second book, written between wars, appeared in 1549. It was a handbook on anatomy, written in simple French text designed for surgeons who were ignorant of Latin and of Greek. While based in part on his own dissections, Paré acknowledged that "a good part has been extracted from the book of André Vésal" (Vesalius). It also dealt with obstetrics and discussed Paré's reintroduction of a method of changing the position of the child in utero (podalic version) when faulty presentation presaged difficult delivery.

For the first thirty years of his professional life, Paré alternated between military service, in one war after another, and brief periods of private practice in Paris. During that time, he served as surgeon to four kings of France.

He entered the service of King Henri II as surgeon-in-ordinary in 1552, and served successively Kings François II, Charles IX, and Henri III. The Queen mother, Catherine de Medici, was both his patient and his friend. Under Charles IX, Paré was advanced to the office of first surgeon to the King, January 1, 1562; and he held this high position of trust also in the service of Henri III. In royal service he accompanied the kings or their generals on many campaigns; he was smuggled into the besieged city of Metz to treat wounded beleaguered defenders. In 1553 he was captured by the Spanish, but he practiced medicine while in captivity. When invited to enter the service of the Spanish Emperor, Paré declined. Promised that he would be set free if he could cure the Seigneur de Vaudeville of a leg ulcer which he had suffered for six years, Paré succeeded, and returned to the service of King Henri II.

In 1554, probably due to his prominence at Court, Paré, though still unversed in Latin, was invited to become a member of the Collège de Saint Côme, thereby becoming a master surgeon—a surgeon of the long robe—instead of a barber-surgeon. However, two years before, in 1552, he had made his most important contribution to surgery, which, during his lifetime, was also the most controversial. Ever thoughtful of the comfort and welfare of his patients, Paré, reluctantly, had used the traditional hot cautery irons to stanch bleeding in patients submitting to amputations. At the siege of Danvilliers, Paré amputated the leg of an officer, using his "new method." In this, he reintroduced the ligature, tying off blood vessels instead of cauterizing the stump with hot irons. Though known to Hippocrates, the ligature had been almost completely abandoned since antiquity, replaced, through Arab influence, by cautery as a means of hemostasis. What Paré's reintroduction of ligatures

meant to his patients in being spared pain and suffering may well be imagined; but this was seized upon by Paré's jealous medical contemporaries, especially by an academic professor of medicine, Dr. Etienne Gourmelen. This criticism fortunately stimulated Paré to write his *The Apology and Treatise*, in which he not only answered his opponent's objections by citing specific examples of successful ligations, but went on to give an account of his surgical experiences in various campaigns.

Many other contributions to surgery and to medicine were made by the kindly Frenchman. He invented new surgical instruments, trusses for hernia, artificial limbs, and artificial eyes. He fought superstitions and opposed use of medicines which, though fashionable and expensive, were worthless, such as unicorn and mummy.

Paré died December 20, 1590, at the age of 80 years. He had lived through world-shattering political and historical events. During his lifetime he had published four editions of his collected works. Editions continued to come out after his death, as his influence continued to spread throughout the world of medicine. On the pages of these volumes, wherein Paré precisely described his experiences, there appears his oft-repeated philosophical summary: "*I dressed him, and God healed him.*"

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