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Jefferson Medical College

CHAPTER 14

Archival Objects
George Frederick Cooke (1756-1812) and His Skull

How could the skull of a Shakespearean actor who died in 1812 become part of Jefferson's legend and lore? The bizarre circumstances of the flamboyant life of George Frederick Cooke and the odyssey of his skull comprise a tale worth telling in detail. The severance of his head divides the famous actor's career into two parts: Before and after Death.

Life And Acting Career

Cooke (Fig. 1) was born out of wedlock on April 17, 1756, in Westminster, England. His father is thought to have been an Irish officer in the Fourth Dragoons and his mother a Scottish servant girl. He possibly was born in a barracks.

From early childhood, Cooke was devoted to the stage. At age six, he saw a puppet show and several representations by strolling actors. This created a taste for reading plays which his mother encouraged. He studied all he could procure.

A theatrical group was formed among his school fellows and acted out in a deserted barn at first for their own amusement. On gaining confidence they put on a public performance, none other than Hamlet in which he took the part of Horatio. This was seen and approved by some Edinburgh actors, and their applause increased his enthusiasm.

Cooke did not have money to attend professional plays, but he would sneak in the back door and hide under the stage. In this connection an amusing incident is related by Dr. George McClellan (JMC, 1870), Chairman of Applied and Topographic Anatomy at Jefferson (1905/1913). Dr. McClellan (Fig. 2) enters the narrative by reason of coming to possess Cooke’s skull in 1880 and writing an unpublished history, The Strolling of a Player’s Head, which he read at clubs and literary gatherings on four occasions between 1900 and 1907. The following recounts Cooke’s first appearance on the stage as a child.

Macbeth was playing near his home, and because he did not have the money or had been forbidden to view the performance, young Cooke hid in a barrel off-stage. This particular barrel contained two twenty-four-pound cannon balls which were rolled about to produce thunder. The witches made their appearance, the stage hand rolled the barrel, and thunder ensued. The barrel got out of control and rolled upon the stage in view of the audience; more thunder erupted, some shrill boyish yells came forth, and out popped Cooke, to the amusement of spectators and bewilderment of the witches. The latter had just decided to meet again “when the hurly burly’s done.”

Around age 14, Cooke was apprenticed to a printer and then as a midshipman on a sailboat to Holland. At ports he took every chance to witness...
theatrical productions. On a stop at London, he was immensely impressed by the actor Garrick, then at the height of his career. At age 20, he joined a theatrical troop and made his debut in London at Haymarket Theater in the character of Dumont. Although unnoticed and neglected, but not discouraged, he was spurred on to further effort that later would be crowned with success.

The next ten years (age 22 to 32), were spent traveling throughout the Kingdom, from town to town gaining experience and sharpening his talents. Chance took him to Manchester where he first came into prominence as Philotas in a curious old play called The Grecian Daughter.

Garrick was retiring at this time and Cooke was gaining reputation in the provincial towns. He came to Covent Garden where he soon rivaled John Kemble at Drury Lane. At Kemble’s own suggestion they began to act together, with Kemble always taking the lead part. Cooke played the ghost to Kemble’s Hamlet, Henry to his Richard III and Edmund to his King Lear.

Kemble once accused Cooke of a faulty memory and Cooke said: “I will not have your faults fathered upon me, and hang me if I don’t make you tremble in your pumps some day yet.” He made good that threat.

By 1801 (age 45), Kemble saw Cooke perform as Richard III, which became his most famous role, and recognized him as a dangerous rival. Cooke’s Richard III was a triumph with critics and the audience. Cooke was not over-elated by this success and studied hard in other roles such as Shylock, Iago, Othello and Macbeth. He always acknowledged Kemble as his superior, but others agreed they were equal. In Richard III and Iago, Cooke was unsurpassed. Kemble excelled in nobleness of presence, but Cooke was superior in power and compass of voice, as well as quickness of action.

The first season of Cooke’s success seemed to augur that middle age would be one of fame and financial security. The story is pleasant to this point. The sad fact is that his nomadic life led him into the companionship of bad associates whose influences he could not resist. At the opening of his second season there was a filled auditorium for his Richard III. At curtain time Cooke was not to be found. The truant turned up five weeks later, played magnificently and was immediately forgiven. It became more and more frequent that announcement had to be made that the star actor was suddenly indisposed. The culprit was alcohol. He played less frequently, but when he did it was better than anyone else. His face was very expressive and his eye as interpretive as his tongue. In soliloquy he had no peer.

His friends were fair weather ones who encouraged his eccentricities. After some triumphs, he distributed his money to the poor and needy. On one occasion in a bar room he tried to engage a stranger in a fist fight. The accosted one said: “You take advantage of me because you are rich and I am poor.” Cooke withdrew a large sum from his pockets and threw it into the fire. “Now I am as poor as you, so come on at me.” He once challenged a well known pugilist to a fight but was tossed bodily out of the tavern. With a poker, Cooke broke some windows and said: “I have taken pains to see through my error, so please let me back in.”

While drunk, Cooke enlisted in the army, but a friend purchased his discharge. He spent the fall and winter of 1807 in a debtor’s prison, but the following spring played before the greatest money
house of Covent Garden.

Because of a growing feeling of helplessness in combating his need for alcohol and to escape rivalry with other actors in England, Cooke accepted an offer from Thomas A. Cooper, Manager of the New York Theater, to come to America. He was smuggled out of Liverpool because of breaking a contract with his manager. Aboard the sailing packet Columbia he arrived in New York City in November, 1810, to perform in the Old Bowery Theater. The customs charged 20 cents for a permit to land his baggage.

Cooke condescended to appear only on condition that God Save the King be played before every performance, for which the audience stood and cheered on 17 consecutive nights. He played as Richard III before capacity houses which netted more than $25,000, a goodly sum for those days. Cooke's salary for a ten month's contract was approximately $400 a week. Soon after arrival he was told that President Madison wished to see him act. He refused to play before "the contemptible King of the Yankee Doodles."

Cooke's Toryism grew as his popularity increased. He circulated a lie that he had fought as a British soldier in the Revolution and convinced himself he was the best pistol shot in Europe and a duelist with innumerable fatalities to his credit. Some young men, sensing the fake, arranged an insult that forced Cooke to a duel. Pistols were loaded only with paper wadding. Cooke and his adversary stood off and fired. His opponent fell prostrate as was planned, but Cooke startled everyone by assuming a wound in the shoulder. Although afterward his opponent was seen daily hale and hearty, Cooke refused to recognize his bodily existence and mentioned him in conversation only as one who had departed from this earth.

Unfortunately, Cooke's mind was obviously failing. He forgot his lines, feared the dark and the departure of his friends. He himself believed he was going insane. Nevertheless, he made many friends and admirers in Philadelphia and Boston.

Fig. J. Portrait of Cooke as Richard II by Thomas Sully in Pennsylvania Academy of the Fine Arts.

Thomas Sully painted him in the role of Richard III. This imposing portrait may be seen today in the Pennsylvania Academy of the Fine Arts (Fig. 3).

Cooke struggled to continue his habit of reading. He even planned the outline for a tragedy, The Duke of Mercia, and wrote upon the lack of appreciation of Shakespeare, the rapid deterioration of the stage, on the importance of temperance and morals and encouraged censorship for literature and the theater.

Dr. John W. Francis, Cooke's physician, tried to curb his patient's drinking, but it was too late. He would elude watchers and be found semi-or-unconscious and in this state brought back to the theater. Sobered and before the audience he was himself again as Richard III, and soon another $400 would be squandered among the rich and poor. His final illness started in July of 1812 and lasted until September of that year. His death was ascribed to "dropsy", probably cirrhosis of the liver.

The Cooke Skull

A postmortem examination was performed by three physicians of which the youngest was Dr.
John W. Francis. The latter had a collection of skulls and added Cooke’s (Fig. 4) to his collection by decapitating him at the autopsy. This would not be discovered until a later date.

Our errant actor was buried in the Stranger’s Vault of St. Paul’s Cemetery in New York City amid much ceremony. Flags flew at half mast. Shops closed. The Governor and Mayor of New York City, along with other notables, attended his funeral. At that time there were no secular cemeteries and people were buried in the yards of the church to which they belonged. Cooke, who was without religious affiliation, had to be placed within the Stranger’s Vault, which was an enclosure at the edge of the graveyard.

In 1821, another British actor, Edmund Kean, who was a fanatical admirer of Cooke, obtained permission from Bishop Hobart of New York City to have Cooke’s body moved to the center of the graveyard and arranged erection of a monument to his honor and memory (Fig. 5). The marble was dolomite, of soft nature, and on it was inscribed:

“Three kingdoms claim his birth
Three hemispheres pronounce his worth.”

At the time of Cooke’s burial, the absence of a head was still not known, but from the rotting coffin a phalanx either of a toe or finger fell to the ground. Kean interpreted it as part of the dictatorial finger that Cooke used so convincingly in his acting.

Kean took the finger (or toe) bone of Cooke to England, where he had it mounted and displayed on his mantel at home. Legend has it that whenever he passed the bone he genuflected, much to the increasing annoyance of Mrs. Kean. With little understanding of her husband’s artistic temperament and perhaps some jealousy over his reverence for the bone, she ordered her maid to throw the repugnant object into the river. In a rage, Kean vowed he would not go upon the stage again. This conveniently coincided with his official retirement.

Some years after erection of the monument to Cooke, a company was playing Hamlet in New York and needed a skull for the gravedigger’s scene. Dr. Francis, known to have the finest collection of skulls in the City, was called upon to loan one. The property man pointed in the collection to the one of Cooke as most desirable. Dr. Francis demanded to be in the audience to watch it closely. That night in the Bread and Cheese Club, Dr. Francis disclosed to several friends the true identity of the skull. The secret was thus out. When Dr. Francis died he left the skull and some papers giving its history to his son, Dr. Valentine Mott Francis.

In September, 1888, the younger Dr. Francis, while in Newport, Rhode Island, slipped on the deck of a yacht and injured his head. It so happened that he was attended by Dr. George McClellan for this mishap. Dr. McClellan, a graduate of Jefferson Medical College in 1870, was the grandson of George McClellan, the founder, a nephew of General George Brinton McClellan, Commander of the Union Army of the Potomac, and brother of Elizabeth McClellan, an authority on theatrical costumes. He would later (1905-13) serve as Chairman of Applied and Topographic Anatomy at Jefferson. During convalescence from

Fig. 5. Monument to George Frederick Cooke in St. Paul’s Churchyard, New York, erected to his memory by British actor, Edmund Kean.

Fig. 6. Portrait of George McClellan (in Jefferson art collection) showing Cooke skull in lower left.
the accident Dr. Francis one day summoned Dr. McClellan and a few friends for a formal presentation of the Cooke skull to his physician with papers of verification. "As Fate has deprived you of owning my skull," orated Dr. Francis, "I shall substitute it by another."

As drama would have it, when the skull was handed to McClellan a tooth dropped out and fell to the floor. One of the gentlemen in the group picked it up and asked if it might be sent to his actor friend, Edwin Booth. McClellan on granting permission requested that he be given the letter of acknowledgment if Booth wrote one, since he was also an autograph collector. Booth’s reply was in a telegram: "Thanks for Cooke’s tooth." Booth presented the Cooke tooth to the Players Club of New York City where it resides among other memorabilia of the theater.

Dr. McClellan (Fig. 6), a scholarly surgeon who later wrote books on Regional Anatomy (1892) and Anatomy in Relation to Art (1901), became interested in Cooke’s history. Jefferson’s archives contain his 15-page single-spaced article, The Strolling of a Player’s Head, which he prepared as a lecture in 1904 from the biographical material of Dr. Francis as well as other sources. Some attempts were made to steal this skull. On one occasion, the doctor’s office was ransacked and several other skulls taken, but the one of Cooke had been hidden elsewhere.

At McClellan’s death in 1913, the skull passed to his widow. He had been cared for by Dr. Ross V. Patterson (Fig. 7), a sub-dean at Jefferson Medical College, who also became the physician for Mrs. McClellan. At her death in 1922 she willed the skull to him.

Dr. Patterson kept the skull in his home at 2126 Spruce Street in Philadelphia. He never married and bequeathed his estate to Jefferson at his death in 1938. A domestic servant found the skull hidden under his bed and delivered it to the Jefferson Medical College Library.

It finally took an honored position in a suitable case in the archives.

On the strength of Dr. Patterson’s will, Jefferson has resisted requests for the donation or loan of the skull. Some have felt it should be returned to the headless body in St. Paul’s graveyard. The Actors Guild, the Folger Shakespearean Museum in Washington, D.C., the College of Physicians of Philadelphia, and lately the Walnut Street Theater would be desirous recipients. With respect to a request from the latter it was felt that it was not in the ethics of the medical profession to display a human body part for purposes of entertainment. What about his phalanx at the bottom of a river in England and the tooth in the Players Club?

It is unlikely that John Chalmers DaCosta (JMC, 1885) and first Samuel D. Gross Professor of Surgery (1910-31) ever saw the Cooke skull, but what he said in his poem, The Skeleton, would have applied.

"Behold this ruin! Tis a skull 
Once of life’s ethereal spirit full. 
This narrow cell was life’s retreat. 
This space was thought’s mysterious seat. 
What wondrous pictures filled this spot. 
What thoughts of memories long forgot. 
Nor grief, nor pain, nor hope nor fear 
Has left one trace of record here."

References
1. McClellan, George: The Strolling of a Player’s Head. Typed manuscript (15 pages), dated November, 1901, in archives of Thomas Jefferson University.
Historic Surgical Instruments at Jefferson

The history of surgical instruments is synchronous with that of surgery itself. Instruments make the surgery possible, and progress in the craft may be divined by noting the improvements in design and variety.

Instruments From Herculaneum

During the Roman era, surgery, including obstetrics and ophthalmology, attained a high stage of technology. Excavations at Pompei and Herculaneum revealed over 200 different kinds of instruments, many of which were highly specialized. They even closely resembled some models of present day patterns. The scissors, forceps, tenacula, trephines, trocars, as well as male and female catheters, demonstrate that production of sophisticated instruments date back to ancient times. When one considers that these instruments evolved slowly, it is easy to believe that a great variety were in use as far back as 1000 B.C.

Jefferson is fortunate to have in its archives a collection of more than forty instruments from excavations in Herculaneum. This flourishing Roman City was buried in lava during the eruption of Mt. Vesuvius in 79 A.D. The lava was ideal for preservation of metal, since it was impervious to water that would have resulted in rusting. The instruments (Fig. 1) are composed of bronze in which the blue and yellow coating is the result of the action of the sulfur in the lava. Design of the instruments reveals that the Romans had a surprisingly advanced knowledge of human anatomy, despite the fact that Galen (131-201 A.D.), the authority in

Fig. 1. Instruments excavated at Herculaneum.
Fig. 2. Bone instruments of S.D. Gross

Fig. 3. Lithotomy knife, with center inscription: "This knife, much worn down, was used by Professor S.D. Gross in at least 40 lateral lithotomies. It was presented by me to Dr. C.H. Mastin, October 7, 1887." S.W. Gross

The side inscription reads: "Presented by Dr. William M. Mastin, Mobile, Alabama, to the Museum of Jefferson Medical College, at Philadelphia, June 1, 1916."

Fig. 4. Amputation instruments of S.D. Gross.

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The Herculanean collection, which contains instruments of all types, was obtained originally by Mr. Daniel Baugh, a member of the Board of Trustees (1896-1921) probably in the early 1900s. Mr. Baugh was much interested in archeology and was a founder and President of the Archeology and Paleontology Association. He purchased the instruments at a time when such objects were allowed to be taken out of their respective countries and be placed in museums or private collections in the United States and elsewhere. Mr. Baugh presented these instruments to Dr. Orville Horwitz, Professor of Urology (1904/12). After the death of Professor Horwitz in 1913, they were given to Dr. Thomas Stellwagen, Jr. by George Quintard Horwitz. Dr. Stellwagen who was Chairman of Urology (1930-35) presented them to the Museum of Jefferson Medical College.

A detailed description or even a listing of the instruments in the collection is not necessary. Some of them had uses that are not understood today. Some were not actually used for surgery, but for the administration of powders. Insight into a better understanding of this collection may be obtained by consulting Surgical Instruments in Greek and Roman Times by John Stewart Milne, M.A., M.D. (Oxford at the Clarendon Press, 1907) which is in the Jefferson archives special collections.

**Instruments Of Samuel D. Gross**

Dr. Samuel D. Gross witnessed many changes in the practice of medicine and surgery during his experience of 54 years (1828-82). The last 26 of these occurred in Jefferson Medical College where his fame as "the greatest American Surgeon of his time" was at its zenith. It is likely that the surgical instruments depicted in the forefront of The Gross Clinic in 1875 by the artist, Thomas Eakins, are those preserved in Jefferson's archives (Figs. 2, 3, and 4). It would not happen until the decade of the 1880s that surgery would benefit from the principles of antisepsis as elucidated by Lister in 1867 but which were taking so long for acceptance. Throughout the 1870s the abdomen was rarely entered except for severe trauma or evisceration. The common major operations were mastectomy for cancer, lithotomy for bladder stone, amputation for gangrene, and sequestrectomy for osteomyelitis as portrayed in The Gross Clinic. Most operations were for surface tumors or abscesses and usually performed in the home.

Dr. Gross made numerous contributions to surgical technique, but these consisted mainly of modifications rather than revolutionary procedures. The instruments used by Gross and depicted in the figures would fail to reveal the extent of his technical innovations, - tracheotomy forceps for extraction of foreign bodies from the air passages, special catheters for draining urine when mixed with blood, tourniquet for compression of the vessels of the extremities during amputation, instrument for extraction of foreign bodies from the nose and ear (for many years used in doctor's house call bags), and forceps for arterial compression for hemorrhage from deep seated vessels. He advocated the use of stay sutures to prevent wound dehiscence, wiring the ends of bones in dislocation of the sternoclavicular and acromioclavicular joints, laparotomy for rupture of the urinary bladder, operative correction of ingrown toenail, use of adhesive plaster for skin traction in treating fractures of the lower extremities, direct operation for inguinal hernia by suturing the pillars of the external ring, treatment of ganglia of the hand or foot by subcutaneous division of the cyst, suturing the accidentally divided tendon of the hand, and amputation for senile gangrene of the lower extremity above the knee.

The instruments of Dr. Gross are especially valuable not only because they were used by such an eminent surgeon, but also because of their significance in being depicted in The Gross Clinic by Thomas Eakins, considered as a historic relation of medicine to art.

**Civil War Instruments**

The accepted treatment for a gunshot wound of an extremity during the Civil War was amputa-
INSCRIBED ON A PLATE ON THE LID:
FROM THOMAS K.
TO THOMAS SYDENHAM REED, M.D.
FOUND ON THE BATTLEFIELD AT FAIR OAKS, VA.

Fig. 5. Civil War amputation kit.
tion. An amputation kit was necessary for every operating surgeon on both sides of the conflict. Museums and Civil War exhibits contain these instruments and the Jefferson Archives is no exception (Fig. 5). Surgeons were instructed to perform the primary operation within 24 hours and preferably complete the procedure within 15 minutes. The anesthetics used were ether and chloroform, usually the latter. Statistics reveal that the mortality for prompt primary amputation was 28 percent, but if delayed the rate was 52 percent, practically double. For relief of pain the surgeons used morphine and opium freely.

In 1861, at the start of the Civil War, Samuel D. Gross visited the battlefield at Shiloh, Tennessee, and also examined the wounded on government steamboats at Pittsburg Landing. In little over a week he was able to publish his Manual of Military Surgery which was pirated by the South at Richmond one year later. D.J. Julian Chisholm also wrote his Manual of Military Surgery for the Surgeons of the Confederate States Army which was also widely used by the South. The most devastating defect in the treatment was the absence of antisepsis or asepsis, since Lister did not first promulgate his principles until 1867. Many thousands of lives were lost to infection and septicemia.

The amputation kit (Fig. 5) was removed from the battlefield at Fair Oaks, Virginia. It passed into the hands of Thomas Sydenham Reed (JMC, 1846) and eventually into Jefferson’s archives. It contains three saws (one large, one small and pointed, and a Gigli chain saw); three long guillotine knives (one double edged and two single edged); a bone cutter; one rasp/curette; five small scalpels of slightly different shapes; two small forceps; one long extraction forcep; one long curved probe; two trephines; one ligature carrier; and one hook.

The mention of Civil War surgery conjures up the names of Jonathan Letterman (JMC, 1849) who initiated the system of removing the wounded from the field during the actual battle, and Ninian Pinckney (JMC, 1833), who outfitted the first Navy hospital ship, The Red Rover, and staffed it with Catholic nuns for nursing care.

![Fig. 6. Handsome box, of cherry wood, for instruments of W.W. Keen.](image)

**Instruments Of W.W. Keen**

Dr. W.W. Keen in his 95 years of life (1837-1932) witnessed many changes and improvements in the practice of medicine and surgery. In broad outline, since his graduation from Jefferson Medical College in 1862, there was a shift from total dependence on the five senses for diagnosis to the aid of laboratory science, bacteriology, and roentgenology, as well as the combating of infection by Listerian antisepsis.

Dr. Keen could be considered the greatest student of Samuel D. Gross, and likewise a legend in his own lifetime. In 1887, he was the first in America to successfully remove a large brain tumor with survival of the patient for thirty years. In 1892, he resected the left lobe of the liver and around this time was one of the first four surgeons to perform cholecystectomy and advocate its use in treating gallbladder disease. In 1893, he participated in the secret operation upon President Grover Cleveland for a cancer of the roof of the mouth.

Keen’s surgical instruments were extensive and complete for practically all the known procedures of his era (Figs. 6, 7, and 8). He devised special ones for use in the operation for President Cleveland that are not in the Jefferson collection. While an inventory of the various layers of instruments may seem superfluous, their historic significance warrants such a listing:
<table>
<thead>
<tr>
<th>Box 1 - Manufactured by Tieman</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Half, Deep Lid</td>
<td></td>
</tr>
<tr>
<td>Awl</td>
<td>Skull drill</td>
</tr>
<tr>
<td>Rongeur</td>
<td>Curved forceps</td>
</tr>
<tr>
<td>Scaler</td>
<td>Double hook</td>
</tr>
<tr>
<td>Large awl</td>
<td>Empty space</td>
</tr>
<tr>
<td>Small saw</td>
<td>Pen knife scalpel</td>
</tr>
<tr>
<td>Pliers</td>
<td>Curved dissecting scissors</td>
</tr>
<tr>
<td></td>
<td>Empty space</td>
</tr>
<tr>
<td></td>
<td>Locking forceps</td>
</tr>
<tr>
<td></td>
<td>Suture materials,</td>
</tr>
<tr>
<td></td>
<td>straight pins in box</td>
</tr>
</tbody>
</table>

| Upper Lid of Upper Half       |  |
| Medium saw                    | 2 Gigli saw handles             |
| Small saw                     | Hack saw                       |
| Minute saw                    | Wide blade for hack saw         |
| Small hatchet saw             | 3 chisels (straight,            |
|                              | curved, triangular)             |
| Large rongeur saw             | 5 drills                       |
| Medium rongeur                |                                  |

| Lower Body of Box Deep Layer  |  |
| 9 assorted rongeurs           | Straight chisel                |
| Handle                        | Curved chisel                  |
| Large curved needle           | Mallet                         |
| Gigli chain                   | 2 Right angle retractors       |

| Upper Layer                   |  |
| 5 chisels                     | Slanted scalpel                |
| 2 rongeurs                    | 2 elevators                    |
| 1 Curette                     | Thick handled scalpel          |
| 4 small scalpels              | 2 awls                         |
| Large scalpel                 | Needles, suture materials,    |
|                              | wax, gigli chain in deep box   |

| Box Two                       |  |
| Upper Layer                   |  |
| 4 small scalpels              | 2 Needle point lancets         |
| Ivory handle probe            | Grooved director               |
| 4 straight scalpels           | Small chisel                   |
| Curved scalpel                | Urethral dilator               |
| Hook                          | Forceps                        |
| Saw edge scalpel              | Needle holder                  |
|                              | Empty box                      |

| Lower Layer                   |  |
| 2 empty spaces                | Hatchet saw                    |
|                              | Locked forceps                  |
|                              | 3 Guillotine knives             |
|                              | Double hook                    |
|                              | Scalpel                        |
|                              | Hook                            |
|                              | 8 scalpels                     |
|                              | Ligature carrier                |

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Fig. 7. Instruments of W.W. Keen.

Fig. 8. Instruments of W.W. Keen.
The nineteenth century was impressive not only for the advances in the art and science of surgery, but in the sophistication and improvements for the manufacture of surgical instruments. The subsequent subdivisions of the practice of general surgery into specialties, associated with the multiplicity of operations, has resulted in a variety of instruments previously unimagined.

Jefferson’s surgical legend continued through Samuel D. Gross to W.W. Keen and thence to John Chalmers DaCosta. Although each was a giant in his own right, each had peculiar talents that marked him apart. Gross was famous
for his textbooks, Keen for his pioneering operations especially in neurosurgery, and DaCosta for his oratory. A thread of this legacy is woven through their instruments.

The striking difference in DaCosta’s instruments (Figs. 9 and 10) is in their greater delicacy and elegance. It must be pointed out that DaCosta lost an eye due to injury at the age of nine and that he suffered from rheumatoid arthritis which disabled him during the last eleven years of his life (1922-33). Despite these handicaps he edited Gray’s Anatomy (1905), published ten editions of Modern Surgery (1894-1931), and was Jefferson’s first Gross Professor of Surgery (1910-31). The Mayo brothers, in the early 1920s, proclaimed him to be the greatest teacher of surgery in America.

The protege of Dr. DaCosta was Thomas A. Shallow (JMC, 1911) who was his clinical assistant and performed many operations for him towards the end of his life. Shallow succeeded DaCosta as the Gross Professor of Surgery (1939-55). By this time, surgeons used the large variety of instruments owned and supplied by the hospital.

The Old Operating Table

Like the Cooke Skull, “the old operating table” took part in many dramas in a sense just as colorful. The Cooke Skull functioned in life and death in a fantasy world of the theater. The “old operating table” functioned in a real world of life and death in the hospital. What if each could talk or commingling their tales!

Why should a wooden operating table - old, worn and scarred - be worthy of veneration? It is not artistic or beautiful. It is not regarded because of its sturdy construction or mere ability to survive the years. The simple fact is that it starkly projects almost a century and a half of Jefferson tradition and heritage in tangible form. It is indeed the old operating table, one used by Samuel D. Gross. It is the very one depicted in The Gross Clinic (1875) and the William Smith Forbes (1905) paintings in the Eakins Gallery.

“Facts Concerning the Old Operating Table” is a fascinating chapter in The Papers and Speeches of John Chalmers DaCosta. As the first Samuel D. Gross Professor of Surgery (1910-31), famed teacher, author, orator, surgeon and historian, he is responsible for saving it from oblivion. A Jefferson graduate in the Class of 1885, he promptly joined the faculty, assisted the great surgeons in his early years, and subsequently used the table many times for his own operations. That part of the story is best told in his own words.

“This table, we assistants were told by Professor S.W. Gross, was made in the early fifties of the last century, and has since then been repaired and freshened up once or twice. It stood originally in the arena of the upper lecture room of the old Tenth Street College, the room that was used for anatomy lectures, obstetrical lectures and surgical clinics. At that time we had no hospital. We did not have a hospital until 1877. When an operation of moderate severity was performed, an assistant returned the patient to his home in a cab and the surgeon and assistants provided subsequent care. For the treatment of more severe cases, a room was rented on the third floor of the southwest corner of Tenth and Sansom Streets, a room which was accessible from the operating room and which was pleasantly placed over a cigar store and an oyster saloon. When a severe operation had been performed, the patient was taken into the small ward which contained a few beds. He was cared for by the surgeon and assistants and was nursed by relays of students during the days and nights. The professor of surgery always furnished the students a midnight lunch of oysters, cigars, and beer. When the Sansom Street Hospital was opened in 1877, the
Jefferson College was the second medical college in America to have its own hospital. This table (Fig. 1) was moved into the arena of the hospital. It stood there for many years; in fact, it was very gradually displaced. Some surgeons clung to it, though others had taken to more modern appliances. It disappeared and could not be found. I conducted a search for it and discovered it down in the basement being used to hold oil cans and various sorts of waste. ‘Apollo tending the sheep of Admetus!’ I rescued it, had it brought up to this room and told the class about it. The Class of 1916 had the table cleaned up and repaired and put a plate upon it (Fig. 2); and the Class of 1917 had placed upon it the additional tablet (Fig. 3), so it has finally attained an honored and distinguished old age.”

When the operating table first arrived at Jefferson, Thomas Dent Mutter was the Professor of Surgery (1841-56) and Samuel D. Gross was still in Louisville. Gross must have used it throughout the entire 26 years of teaching in his alma mater (1856-82). Purified ether had just been produced commercially (1852) by Edward R. Squibb, a Jefferson graduate in the Class of 1845. Gross had operated for 25 years since his graduation (1828) without this “greatest blessing to mankind.” At this time, pain, the greatest horror of surgery, became alleviated and chloroform soon thereafter also became available. Gross would live into the era of Listerian antisepsis (1867) but The Gross Clinic shows that as late as 1875, he had not adopted it.

During the early years of the old operating table, surgery was performed mainly for the treatment of wounds and superficial abscesses, for amputations, tumors, aneurysms (proximal ligation), stone in the urinary bladder, empyema, tracheotomy, and trephining of the skull for depressed fracture or extradural abscess. Mastectomy was performed for cancer but with little hope for cure. Cerebral localization was unknown, and it was believed that the brain, like the liver, functioned as a whole. Abdominal surgery hardly existed except for wounds, intestinal obstruction or strangulated hernia. Operations for appendicitis, gallstones or kidney stones were yet to be thought of.

Quoting again from DaCosta: “I think of the men who have operated upon that table or who have stood by it and delivered lectures. I seem to see before me the strong, handsome face of the elder Gross as he kneels upon one knee at the foot of that table operating for stone in the bladder— that marvelous operating surgeon, Joseph Pancoast, full of energy, the embodiment of decision, a man of whom I have spoken before as having had an eye as quick as a flashing sunbeam and a hand as light as a floating perfume.

“The stern, rather grim face of the younger Gross as he operated for cancer of the breast and developed his views as to a radically curative operation for cancer; views which became largely the foundations of our modern methods. John H. Brinton, who amputated with more precision and ligated with more anatomical accuracy than any other surgeon of his time in Philadelphia. That splendid operating surgeon, Levis, a man with a marvelous mechanical ingenuity in correcting difficult displacement in fractures and in maintaining the bones in proper position. The supreme diagnostic ability of that prince of kindly and manly gentlemen, Dr. W. Joseph Hearn, and that greatest of modern American surgeons, W.W. Keen.

“Among other figures that come before me, some of whom operated, some of whom lectured are Theophilus Parvin, J. Ewing Mears, Frank Maury, Nicholas Senn, J.M. DaCosta, Roberts Bartholow, William S. Forbes, Oscar H. Allis, J.M. Barton, Robert F. Weir, Charles B. deNancrede, Thomas Bryant of London, Thomas Annandale of
Fig. 2. Plaque placed upon the “Old Operating Table” by the Class of 1916.

Fig. 3. Plaque placed upon the “Old Operating Table” by the Class of 1917.

"I have seen the hand of Roberts Barthow and the hand of J.M. DaCosta laid on this table during the delivery of lectures. By this table Marion Sims stood and addressed the class. Bryant of London spoke upon aneurysm; Durham of London upon artificial anus; Sir William Macewen of Glasgow about abscess of the brain; and Lorenz of Vienna operated upon several cases for congenital dislocation of the hip. Sir Morrell Mackenzie, the London laryngologist, lectured and paid in that lecture a great tribute to Professor J. Solis-Cohen, and Wyeth of New York made one of his very early demonstrations in the use of his pins for the prevention of hemorrhage in amputation of the hip joint.

"On this table Hans Kehr operated for gallstones employing the huge incision he advocated; Weir of New York operated for stone in the ureter; Sir Watson Cheyne for movable kidney; Nicholas Senn for fracture of the patella; Professor von Esmarch for a fibrosarcoma of the neck; Annandale of Edinburgh for a sarcoma of the base of the skull, splitting the entire bony palate and separating the two sides to gain access to the seat of disease; Faure of Paris for extensive adhesions of the abdominal cavity; Sir William MacCormac of London for removal of a stone from the bladder by the suprapubic operation; and Dawbarn of New York for recurrent dislocation of the shoulder. The writer of this article had the honor of operating many times on this table." DaCosta further stated that the old operating table "should be held, cherished, and cared for as a precious relic as long as the school shall stand."

When the 1025 Walnut Street College Building was opened in 1929, the old operating table was displayed in the Scott Library for many years. Eventually, however, it was again placed in storage and in 1969 moved with archival material into a room in the basement of Jefferson Alumni Hall. When the Samuel D. Gross Conference Room in the Department of Surgery on the sixth floor of the College was established in 1982, there was provision for a special niche to house the table. The moldings of the base were repaired and President Bluele aided in the re-plating of the plaques at the ends of the table (Fig. 4). For the foreseeable future, this venerable relic is safely ensconced.