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Title: Pioneer Surgery in Kentucky

Date of first publication: 1890

Author: David W. Yandell

Date first posted: June 16 2013

Date last updated: June 16 2013

Faded Page eBook #20130626

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PIONEER SURGERY IN KENTUCKY:

A SKETCH

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LOUISVILLE:

PRINTED BY JOHN P. MORTON & COMPANY.

1890

THE PRESIDENT'S ADDRESS:

**DELIVERED AT THE
REGULAR ANNUAL MEETING OF THE**

AMERICAN SURGICAL ASSOCIATION

WASHINGTON, D.C., MAY 13, 1890.

PIONEER SURGERY IN KENTUCKY.

A SKETCH.

FELLOWS OF THE ASSOCIATION: In the endeavor to chronicle the lives and achievements of Kentucky Pioneers in Surgery, I shall not attempt the resurrection of village Hampdens or mute inglorious Miltons. The men with whom I deal were men of deeds, not men of fruitless promise.

It may with truth be said that from Hippocrates to Gross few in our profession who have done enduring work have lacked biographers to pay liberal tribute to their worth. In justice to the unremembered few, I turn back the records of medicine for a century, and put my finger upon two names that in the bustling march of science have been overlooked, while I try to set in fuller light two other names of workers in that day, which have and will hold an exalted place in history. The worthies to whom these names belong were pioneers in civilization as well as in surgery. I shall introduce them in the order of their work.

1806. The earliest original surgical work of any magnitude done in Kentucky, by one of her own sons, was an amputation at the hip-joint. It proved to be the first operation of the kind in the United States. The undertaking was made necessary because of extensive fracture of the thigh with great laceration of the soft parts. The subject was a mulatto boy, seventeen years of age, a slave of the monks of St. Joseph's College. The time was August, 1806; the place, Bardstown; the surgeon, Dr. Walter Brashear; the assistants, Dr. Burr Harrison and Dr. John Goodtell; the result, a complete success. The operator divided his work into two stages. The first consisted in amputating the thigh through its middle third in the usual way, and in tying all bleeding vessels. The second consisted of a long incision on the outside of the limb, exposing the remainder of the bone, which, being freed from its muscular attachments, was then disarticulated at its socket.

Far-seeing as the eye of the frontiersman was, he could not have discerned that the procedure by which he executed the most formidable operation in surgery came so near perfection that it would successfully challenge improvement for more than fourscore years.

Hundreds of hips have since been amputated after some forty different methods; but that which he introduced has passed into general use, and (though now known under the name of Furneaux Jordan's) remains the simplest, the least dangerous, the best.

The first genuine hip-joint amputation executed on living parts was done by Kerr, of Northampton, England, 1774. The first done for shot wounds was by Larrey, in 1793. I feel safe in saying that Brashear had no knowledge of either of these operations. He therefore set about his work without help from precedent, placing his trust in himself, in the clearness of his own head, in the skill of his own hands, in the courage of his own heart. The result shows that he had not overestimated what was in him. But whether or not Brashear had ever heard or read a description of what had been accomplished in this direction by surgeons elsewhere, the young Kentuckian was the first to amputate at the hip-joint in America, and the first to do the real thing successfully in the world.

Dr. Brashear seems to have set no high estimate on his achievement, and never published an account of the case. Had he done so, the art of surgery would thereby have been much advanced, his own fame have been made one of the precious heritages of his country, and, what is better, many valuable lives would have been saved.

Eighteen years after the Jesuits' slave had survived the loss of his limb, the report of the much-eulogized case of Dr. Mott appeared.

Dr. Brashear came of an old and wealthy Catholic family of Maryland. He was born in February, 1776. His father journeyed to Kentucky eight years later, and cleared a farm near Shepherdsville, in Bullitt County. Walter was his seventh son, and was therefore set apart for the medical profession.

When a youth he was enrolled in the literary department of Transylvania University, where it is said he ranked high as a scholar in Latin. At the age of twenty he began the study of medicine, in Lexington, with Dr. Frederick Ridgely, a very cultivated physician and popular man, who had won distinction in the medical staff of the Continental Army. After two years spent in this way, he rode on horseback to Philadelphia, and attended upon a course of lectures in the University of Pennsylvania. At this time Rush, Barton, and Physick were teachers in that venerable seat of learning. His was a restless

nature, and after a year spent in Philadelphia he shipped to China as surgeon of a vessel. While among the Celestials he amputated a woman's breast, probably the first exploit of the kind by one from the antipodes. Unfortunately for science, he there learned the method used by the Chinese for clarifying ginseng, and thinking, on his return home, that he saw in this an easy way to wealth, he abandoned the profession in which he had exhibited such originality, judgment, and skill, and engaged in merchandising. Twelve years of commerce and its hazards left him a bankrupt in fortune, but brought him back to the calling in which he was so well fitted to shine. He moved, in 1813, from Bardstown to Lexington, where he at once secured a large practice, especially in diseases of the bones and joints. He was thought to excel in the treatment of fractures of the skull, for the better management of which a trephine was made in Philadelphia, under his direction, which, in his judgment, was superior to any then in use.

The same temper which led him to leave Philadelphia without his medical degree, sail to China, and afterward enter commerce, again asserted itself, and he forsook for the second time his vocation. With his family he now moved to St. Mary's Parish, Louisiana, and engaged in sugar-planting. During his residence in the South he served his adopted State in the Senate of the United States. He employed much time in the study of the flora of the West. "During the winter of 1843-4, when Henry Clay was on a visit to New Orleans" (says a writer in the New Orleans Medical and Surgical Journal), "we had the pleasure, together with some twenty-five physicians, of spending the evening with him at the house of a medical friend. While at the table one of the company proposed the health of the venerable Dr. Brashear, 'the first and only surgeon in Louisiana who had successfully performed amputation at the hip-joint.' Mr. Clay, who sat next to Dr. Brashear, with characteristic good humor, immediately observed, 'He has you on the hip, Doctor,' to the great amusement of Brashear and the rest of the company."

Dr. Brashear was a man of fine literary taste and many and varied accomplishments. In conversation he was always entertaining, often brilliant. His voice was pleasant, his manners affable. In stature he was short; in movement, quick and nervous. But in the make-up of the man one essential of true greatness—fixedness of purpose—had been omitted. He lacked the staying qualities. He was "variable and fond of change." "His full nature, like that river of which Alexander broke the strength, spent itself in channels which led to no great name on earth." By a single exploit, at the age of thirty, he carved his name at high-water mark among the elect in surgery. Most of his life thereafter he wasted in desultory labors. As the learned Grotius said of his own life, he consumed it in levities and strenuous inanities.

He died at an advanced age at his home in Louisiana.

1809. Three years after Brashear had won his unparalleled success at Bardstown, a practitioner already of wide repute as a surgeon, living in Danville, a neighboring village, did the second piece of original surgical work in Kentucky. It consisted in removing an ovarian tumor. The deed, unexampled in surgery, is destined to leave an ineffaceable imprint on the coming ages. In doing it Ephraim McDowell became a prime factor in the life of woman; in the life of the human race. By it he raised himself to a place in the world's history, alongside of Jenner, as a benefactor of his kind; nay, it may be questioned if his place be not higher than Jenner's, since he opened the way for the largest addition ever yet made to the sum total of human life.

So much has been written of this, McDowell's chief work, that I feel it needless to dwell upon it. All students of our art are familiar with it as presented by abler hands than mine. What I shall say of him, therefore, will relate rather to his life and general work than to the one operation by which his name has come to be the most resounding in all surgery. This is a much more difficult task than at first it might seem to be, for McDowell made no sketch of himself, nor have his brothers or his children left us any record of his life. Even his early biographers failed to gather from his surviving friends those personal recollections of the man which would now be of such exceeding interest to us all. An authentic life-size portrait of Ephraim McDowell, as he was seen in his daily walk among men, can not now be made. The materials are too scant; the time to collect them has gone by. A profile, a mere outline drawing, is all that is possible to-day. The picture I have attempted, therefore, will be found deficient in many details which have passed into general acceptance.

It is known that he came of a sturdy stock, his blood being especially rich in two of the best crosses—the Scotch-Irish. His great-grandfather rebelled against the hierarchy of his time, and enlisted as a Covenanter under the banner of James I. After honorable service, he laid down his arms, gathered his family together, and came to America. It was in honor of this ancestor that the subject of the present sketch was named.

The maiden name of his mother was McClung. She was a member of a distinguished family of Virginia. McDowell was born in Rockbridge County, Virginia, on November 11, 1771. He was the ninth of twelve children. His father, Samuel

McDowell, was a man of note and influence in the State, and was honored with many positions of trust. In 1773 he removed with his family to Kentucky, settling near Danville. He was made judge of the District Court of Kentucky, and took part in organizing the first court ever formed in the State. He lived to see his son confessedly the foremost surgeon south of the Blue Ridge. But it was not given to eyes of that day to see that the achievements of the village operator had illuminated all the work which has since been done in the abdominal cavity, that one had grown up and toiled in their midst,

"Whose influence ineffable is borne
Round the great globe to cheerless souls that yearned
In darkness for this answer to their needs."

Ephraim's early education was gotten at the school of the town in which he lived. He completed his school studies at an institution of somewhat higher pretensions, situated in a county near by. No anecdotes are preserved of his childhood. During his school-age he clearly preferred the out-door sports of his companions to the in-door tasks of his teachers. On quitting school he crossed the Alleghanies and became an office pupil of Dr. Humphreys, of Staunton, Va. After reading under this preceptor for two years, he repaired to the University of Edinburgh. The Scotch metropolis was then styled the "Modern Athens." It afforded opportunities at that time for acquiring a medical education the best in all the world. It was then to the medical profession what Leyden had been in the days of Sir Thomas Browne, what Paris became when Velpeau and Louis taught there. He entered the private class of John Bell, whose forceful teachings and native eloquence made a lasting impression on the mind of his youthful hearer. It has been said that McDowell conceived the thought of ovariectomy from some suggestions thrown out by this great man. The only distinction he is known to have won while in Edinburgh was that of having been chosen by his classmates to carry the colors of the college in a foot-race against a professional. In this it appears he was an easy first. He came away without a diploma. But what was of far greater value than a degree, he brought back the anatomical and surgical knowledge which was to place him in the front of his profession.

He returned to Kentucky in 1795, and settled among the people who had known him from boyhood. His success was immediate, and yet Dr. Samuel Brown, who knew him in Virginia, and was his classmate in Scotland, had said, when asked of him: "Pish! he left home a gosling and came back a goose." In a little while he commanded all the surgical operations of importance for hundreds of miles around him, and this continued till, some years later, Dudley returned from Europe to share with him the empire in surgery.

In 1802, fully established in his profession, and with an income which rendered him independent, he married Sarah, daughter of Governor Isaac Shelby.

In 1809 he did his first ovariectomy. He believed the operation to be without precedent in the annals of surgery, yet he kept no note of it or of his subsequent work. He prepared no account of it until 1817. This appeared in the Eclectic Repertory. It was so meagre and so startling that surgeons hesitated to credit its truth. He had not mastered his mother tongue. The paper was thought to bear internal evidence of its author's having "relied upon his ledger for his dates and upon his memory for the facts." The critics from far and near fell upon him. The profession at home cast doubt upon the narrative. The profession abroad ridiculed it. For all that, McDowell kept his temper and his course, and when he finally laid down his knife he had a score of thirteen operations done for diseased ovaria, with eight recoveries, four deaths, and one failure to complete the operation because of adhesions.

It would be neither fitting nor becoming on this occasion, and in this presence, to speak in detail of the technic observed by McDowell in his work. That has long since passed into history. I may, however, be permitted the remark that the procedure, in many of its features, is necessarily that of to-day. The incision was longer than that now usually made, and the ends of the pedicle ligature were left hanging from the lower angle of the wound. But the pedicle itself was dropped back into the abdomen. The patient was turned on her side to allow the blood and other fluids to drain away. The wound was closed with interrupted sutures. This marvel of work was done without the help of anesthetics or trained assistants, or the many improved instruments of to-day, which have done so much to simplify and make the operation easy. McDowell had never heard of antisepsis, nor dreamed of germicides or germs; but water, distilled from nature's unpolluted cisterns by the sun, and dropped from heaven's condensers in the clean blue sky, with air winnowed through the leaves of the primeval forest which deepened into a wilderness about him on every hand, gave him and his patients aseptic facility and environment which the most favored living laparotomist well might envy. These served him well, and six out of seven of his first cases recovered. He removed the first tumor in twenty-five minutes, a time not since

much shortened by the average operator.

It was not alone, however, in this hitherto unexplored field of surgery that McDowell showed himself a master. His skill was exhibited equally in other capital operations. He acquired at an early day distinction as a lithotomist, which brought to him patients from other States. He operated by the lateral method, and for many years used the gorget in opening the bladder. At a later period he employed the scalpel throughout. He performed lithotomy thirty-two times without a death. Among those who came to him to be cut for stone was a pale, slender boy, who had traveled all the way from North Carolina. This youth proved to be McDowell's most noted patient. He was James K. Polk, afterward President of the United States.

Dr. McDowell's "heart was fully open to the lesson of charity, which more than all men we should feel," and he dispensed it with constant remembrance of the sacred trust imposed upon us. Yet he had a proper appreciation of what was due his guild from those whose means allowed them to make remuneration for professional services. He charged \$500 for an ovariectomy that he went to Nashville, Tenn., to do. The husband of the patient gave him a check, as he supposed, for that sum. On presenting it, the doctor discovered that it was drawn for \$1,500 instead of \$500, whereupon he returned the check, thinking a mistake had been made. The grateful gentleman replied that it was correct, and added that the services much outweighed the sum paid. When the fact is borne in mind that the purchasable value of money was much greater in the first than in this the last decade of the century, it will be seen that the "father of ovariectomy," at least, set his successors in the field a good example. This is made conspicuous by the fact that Sir Spencer Wells has seldom charged a larger sum, and has declared £100 to be a sufficient fee for the operation.

In person Dr. McDowell was commanding. He was tall, broad-shouldered, stout-limbed. His head was large, his nose prominent and full of character, his chin broad, his lips full and expressive of determination, his complexion florid, his eyes dark-black. His voice was clear and manly; he often exercised it in recitations from Scotch dialogues, when he would roll the Scotch idiom upon his tongue with the readiness of a native. He was fond of music, especially comic pieces, which he sang with fine effect, accompanying his voice sometimes with the violin.

He was a man of the times, taking an active interest in the affairs of the community in which he lived. He had many books for that day. Cullen and Sydenham were his chief authorities in medicine; Burns and Scott in literature. He was fond of reading, yet he was inclined to action rather than study.

He placed great reliance on surgery and its possibilities; he placed little trust in drugs. He counselled against their too liberal use. In truth, he did not like the practice of medicine, and turned over most of his non-surgical cases to his associate in business. In manner he was courteous, frank, considerate, and natural. He was a simple, ingenuous man. His great deeds had given him no arrogance. His was a clean, strong, vigorous life. His spirit remained sweet and true and modest to the last. He lived a God-fearing man, and died on June 25, 1830, in the communion of the Episcopal Church.

1813. While McDowell was so busily engaged in his special line of surgery, his collaborators elsewhere in the State were not idle. Four years after his first ovariectomy, the first complete extirpation of the clavicle ever done was accomplished by Dr. Charles McCreary, living in Hartford, Ohio County, Ky., two hundred miles, as the crow would fly, farther into the wilderness. The patient was a lad named Irvin. The disease for which the operation was done was said to be scrofulous. Recovery was slow but complete. The use of the arm remained unimpaired, and the patient lived, in good health, to be forty-nine years old.

In 1829, sixteen years after the back-woods surgeon had achieved his success, Professor Mott repeated the operation, also on a youth, with a like fortunate result, and, believing he was first in the field, claimed the honor of the procedure for the United States, for New York, and for himself. He termed it his "Waterloo operation," not, however, because it surpassed, as he declared, in tediousness, difficulty, and danger any thing he had ever witnessed or performed, but because, as it appears, it fell on the 18th of June, the anniversary of the battle of Waterloo.

Mott's operation required nearly four hours for its execution, and the tying of forty vessels; but after all it proved to be not a complete extirpation; for the autopsy, made many years later, showed three quarters of an inch of the bone at the acromial end still in its place. Yet the case passed quickly into the annals of surgery and added much to the already great renown of the operator. To this day it is referred to by surgical writers as "Mott's celebrated case," and the description of his procedure is often given in his own words.

McCreary removed the entire collar bone, and that while a young practitioner, living in a village composed of a few

scattering houses, situated in a new and sparsely settled country, where opportunities for cultivating surgical science were necessarily rare, and the means for acquiring anatomical knowledge necessarily small.

The only published report of McCreary's case is from the pen of Dr. Johnson, in the New Orleans Medical and Surgical Journal for January, 1850. The account, though all too brief, clearly establishes the date of the operation, its successful issue, and the removal of the entire bone.

It is greatly to be regretted that more is not known of McCreary's personal and professional character. He is said, by one who met him often, to have been a serious, thoughtful man, given to study, devoted to his calling, and fatally fond of drink, to which he fell a victim when but thirty-seven years of age.

1814. A younger man than either of those I have attempted to sketch, Dr. Benjamin Winslow Dudley, now came upon the stage. He, too, was the son of a pioneer. His early training was much like that of his contemporaries. Like Brashear, he had instruction in the office of Dr. Ridgely. Like him, he had attended lectures in the University of Pennsylvania. Unlike him, he carried away its diploma. This he did in 1806, just two weeks before he was twenty-one years old. He came home, opened an office, and offered his services to the public. The public gave him little business. He was deficient either in the knowledge or in the self-trust necessary to professional success. McDowell was located in a village hard by —was applying himself mainly to surgery, and was already in full practice. Dudley resolved to still better qualify himself for the work he was ambitious to do. He longed to go into the hospitals and follow the great teachers of Europe, but lacked the means. To get these he made a venture in trade. He purchased a flat-boat, loaded it with produce, headed it for New Orleans, and floated down the Kentucky, the Ohio, and the Mississippi rivers to the desired port. He invested the proceeds of his cargo in flour. This he billed to Gibraltar, which he reached some time in 1810; there and at Lisbon he disposed of it at a large advance.

The opportunities he had sought were now near at hand. He hastened through Spain to Paris. While there he heard Baron Larrey recite his wonderful military experience. He made the acquaintance of Caulaincourt, "the Emperor's trusted minister." Through him he was present with Talma and John Howard Payne in the Chamber of Deputies when Napoleon entered the building at the close of his disastrous Russian campaign. He saw the Emperor mount the tribune. He heard him begin his report with these portentous words: "The Grand Army of the Empire has been annihilated."

Remaining in Paris nearly three years, he crossed the Channel to observe surgery as practiced in London. While there he listened to Abernethy as he dwelt with all his wonted enthusiasm on his peculiar doctrine. He heard him reason it; he saw him act it, dramatize it, and came away believing him to be "the highest authority on all points relating to surgery, as at once the observant student of nature, the profound thinker, and the sound medical philosopher." He always referred to him as the greatest of surgeons. He saw Sir Astley Cooper operate, and habitually designated him as the most skilled and graceful man in his work he had ever known.

He returned to Lexington in the summer of 1814, "in manners a Frenchman, but in medical doctrine and practice thoroughly English." The public was quick to detect that he had improved his time while away. "His profession had become the engrossing object of his thought, and he applied himself to it with undeviating fidelity. He made himself its slave." One who knew him well wrote of him: "He had no holidays. He sought no recreation; no sports interested him. His thoughts, he had been heard to say, were always on his cases, and not on the objects and amusements around him." He found Lexington in the midst of an epidemic of typhoid pneumonia, the same that had prevailed in the older States. This singularly fatal disease was followed by a "bilious fever, characterized, like the plague, by a tendency to local affections. Abscesses formed among the muscles of the body, legs, and arms, and were so intractable that limbs were sometimes amputated to get rid of the evil." Recalling the use he had seen made of the bandage, while abroad, in the treatment of ulcers of the leg, Dudley applied this device to the burrowing abscesses he saw so frequently in the subjects of the fever. The true position and exceeding value of the roller bandage were not so generally recognized then as now. Dr. Dudley was no doubt himself surprised at the success which followed the practice. This success probably led him to urge that wide application of the bandage with which his name came in time to be so generally associated.

The tide of practice now set full toward him. He had come home a thorough anatomist. With opportunity he exhibited surpassing skill in the use of the knife. His reputation soon became national.

No medical school had at that time been founded west of the Alleghanies. The need of such an institution was felt on every hand. Transylvania University, already of established reputation, was in operation. It required only a school in medicine to make it complete in its several departments. The trustees met in 1817 and added this to its organization. Dr.

Dudley was made its head and appointed to fill the chairs of anatomy and surgery. A small class of students assembled in the autumn. At the commencement exercises held the following spring, W. L. Sutton was admitted to the doctorate—the first physician given that distinction by an institution in the West. Troubles arose in the faculty. Resignations were sent in and accepted. Dr. Richardson, one of the corps, challenged Dr. Dudley. A meeting followed. Richardson left the field with a pistol wound in his thigh which made him halt in his gait for the rest of his life. The year following a second organization was effected, which included the two belligerent teachers.

The history of the Medical Department of Transylvania University—its rise, its success, its decline, its disappearance from the list of medical colleges—would practically cover Dr. Dudley's career, and would form a most interesting chapter in the development of medical teaching in the Southwest. But it must suffice me here to say that Dr. Dudley created the medical department of the institution and directed its policy. Its students regarded him from the beginning as the foremost man in the faculty. That he had colleagues whose mental endowments were superior to his he himself at all times freely admitted. He is said to have laid no claim to either oratorical power or professional erudition. He was not a logician, he was not brilliant, and his deliverances were spiced with neither humor nor wit. And yet, says one of his biographers, in ability to enchain the students' attention, to impress them with the value of his instructions and his greatness as a teacher, he bore off the palm from all the gifted men who, at various periods, taught by his side. A friend and once a colleague described his manner while lecturing as singularly imposing and impressive. "He was magisterial, oracular, conveying the idea always that the mind of the speaker was troubled with no doubt. His deportment before his classes was such as further to enhance his standing. He was always, in the presence of his students, not the model teacher only, but the dignified, urbane gentleman; conciliating regard by his gentleness, but repelling any approach to familiarity; and never for the sake of raising a laugh or eliciting a little momentary applause descending to coarseness in expression or thought. So that to his pupils he was always and everywhere great. As an operator they thought he had distanced competition. As a teacher they thought he gave them not what was in the books, but what the writers of the books had never understood. They were persuaded that there was much they must learn from his lips or learn not at all." His hold upon the public was as great as that upon his classes. "Patients came to him from afar because it was believed that he did better what others could do than any one else, and that he did much which no one else in reach could do."

During the larger part of Dr. Dudley's life few physicians in any part of America devoted themselves exclusively to surgery. The most eminent surgeons were general practitioners—all-round men. In this class Dr. Dudley was equal to the best. In one respect, at least, he took advance ground—he condemned blood-letting. He was often heard to declare that every bleeding shortened the subject's life by a year. Admiring Abernethy more than any of his teachers, his opinions were naturally colored by the views of this eccentric Englishman. Like him he believed in the constitutional origin of local diseases, but his practice varied somewhat from that of his master. Like him he gave his patients blue pill at night but omitted the black draught in the morning. He thought an emetic better, and secured it by tartarized antimony. Between the puke and the purge his patients were fed on stale bread, skim milk, and water-gruel. And this heroic practice he pursued day after day, for weeks and months together, in spinal caries, hip caries, tuberculosis, urethral stricture and other diseases.

I said that as a physician he was equal to the best. As we see things to-day this would not, perhaps, be saying much; but in fact he was better than the best. Negatively, if not positively, he improved upon the barbaric treatment of disease then in universal favor. He wholly discarded one of the most effective means by which the doctors succeeded in shortening the life of man. This was just before those biological dawnings which were soon to break into the full light of physiological medicine and the rational system of therapeutics based thereupon. And it is not improbable that as a watcher in that night of therapeutical darkness, where the doings of the best strike us with horror, his prophetic eye caught some glimpses of the coming day which in old age it was given him to see. Though engaged chiefly with the great things in surgery, he deserves a place in the list of therapeutic reformers.

Much of the renown acquired for Kentucky by her surgeons was in the treatment of calculous diseases. This State is believed to have furnished almost as many cases of stone as all the rest of the Union. Dr. Dudley stands the confessed leader of American lithotomists, heading the list with two hundred and twenty-five cases. Of these he presents an unbroken series of one hundred consecutive successful operations. He used the gorget in all. He preferred the instrument invented by Mr. Cline, of London. "In one case, when his patient was on the table, he discovered that his accustomed operation was impracticable from deformity of the pelvis, and while his assistants were taking their positions resolved to make the external incision transverse, which was executed before any one else present had remarked the difficulty." Through this incision he removed a stone three and a half inches in the long diameter, two and a half inches in the short,

by eleven inches in circumference. The patient recovered.

In an article contributed to the Transylvania Journal of Medicine by Dr. Dudley, in 1828, he thus wrote of the trephine: "The experience which time and circumstances have afforded me in injuries of the head induced me to depart from the commonly received principles by which surgeons are governed in the use of the trephine. In skillful hands the operation, beyond the atmosphere of large cities, is neither dangerous in its consequences nor difficult in the execution." In this remark Dr. Dudley bore early testimony to the efficacy of aseptic surgery. He urged the trephine in the treatment of epilepsy and applied it in six cases—in four of which the disease was cured. The result in the two remaining cases is unknown, because the patients were lost sight of.

Dr. Dudley believed himself to be the first surgeon who ever attempted to treat *fungus cerebri* by gentle and sustained pressure made with dry sponge aided by the roller. Of the first cases in which he used it, he wrote: "By imbibing the secretions of the part, the pressure on the protruded brain regularly and insensibly increased until the sponge became completely saturated. On removing it the decisive influence and efficacy of the agent remained no longer a matter of doubt." He noted the difficulty experienced in removing the sponge because of its being extensively penetrated by blood-vessels springing from the surface of the brain. This inconvenience he afterward obviated by putting a thin piece of muslin between the fungus and the sponge. He saw in this property of the sponge what no doubt others had seen before, the phenomenon of sponge-grafting, but like them he failed to utilize it in practice.

Dr. Dudley was not a student of books. He had no taste for literature. He wrote but little, and that only for the Transylvania Journal of Medicine, edited by two of his colleagues, Professors Cooke and Short. His first article did not appear until 1828, fourteen years after he had begun practice. It was on injuries of the head. It abounded in original views, and did much to shape surgical thought at the time. Today it may be consulted with profit. His second paper was on hydrocele; in this he advocated the operation by incision and removal of the sac. He read so little that he fell into the error of believing that he was the originator of the procedure. There are writers in our own day who would be able to hold their own against him in this particular. A paper on the bandage, another on fractures, and one on the nature and treatment of calculous diseases, embrace all his contributions to medical literature.

Dr. Dudley was the son of Ambrose Dudley, a distinguished Baptist minister. He was born in Spottsylvania County, Va., April 25, 1785. When but a year old he was brought by his father to the then county of Kentucky. The family settled in Lexington, in which beautiful city the child became a man, and lived and wrought and died. The date of his death is January 25, 1870; his age was eighty-five years.

Dr. Dudley was a man of affairs. His practice was always large and paid him well. He amassed a handsome fortune. His opinions were often sought in courts of justice on professional points, where his dignity, self-possession, and dry wit (which he seems to have suppressed at the lecturer's desk), commanded the respect of judge, juror, and advocate, while it made him the terror of the pettifogger. Once, while giving expert testimony in a case involving a wound made by bird-shot delivered at short range, he described the behavior of projectiles, and the danger of bullet wounds. The opposing counsel interrupted him: "Do you mean to say," said the lawyer, "do you mean to say, Dr. Dudley, that shot wounds are as dangerous as bullet wounds?" "Shot are but little bullets," was the unhesitating reply.

Dr. Dudley had also a proper sense of the value of his professional services. He was called on one occasion to a town near Lexington to attend a patient in labor, who was the wife of a man made rich by marriage. The husband was too wise to engage a "night rider," and too purse-proud to call the village doctor. At that time most of the one hundred dollar notes in circulation in Kentucky were issued by the Northern Bank, at Lexington. On the reverse side of the bill was the letter C in Roman capital. This letter was so round in figure that it looked like a "bull's-eye," and in local slang was so called. The visit being over, and the doctor ready to leave, the young father handed him one of these notes. Eyeing it for a moment, Dr. Dudley said: "Another 'bull's-eye,' Mr. X., if you please."

In person Dr. Dudley was of medium size. His features were refined, the forehead wide and high, the nose large and somewhat thick, the lips thin, the eyes bluish-gray. His hair was thin, light, and of a sandy tint. He was a graceful man. His voice was pleasing; his manners courtly; his bearing gracious.

He married Miss Short, daughter of Major Peyton Short, in 1821. He delivered his last lecture in 1850, and the last entry on his ledger bears the date of April 28, 1853.

I can not give these remarks more fitting close than by describing briefly the surroundings which set their impress upon the character of the men whose lives I have attempted to portray. The picture is full of meaning, dignity, and simplicity. In this time "Canetuckee" was still a part of Virginia. The grounds on which, as boys, they played were held by their fathers under what is known as a "tomahawk claim." "Beyond lay endless leagues of shadowy forest." "The Illinois" had not been admitted into the sisterhood of the States. The vast domain west of the Mississippi River was unexplored. The city of St. Louis was but an outpost for traders. The name "Chicago" had not been coined. Fort Dearborn, occupied by two companies of United States troops, marked a roll in the prairie among the sloughs where stands to-day the queen and mistress of the lakes. Cincinnati had no place on the map, but was known as Fort Washington. General Pakenham had not attempted the rape of New Orleans, and General Jackson, who was to drive him with his myrmidons fleeing to his ships, was unknown to fame. Wars with Indians were frequent. Massacres by Indians were common. The prow of a steamboat had never cut the waters of a Western river. Railroads were unknown in the world. There were but two avenues by which Kentucky could be reached from the East. One was the water-way, furnished by the Ohio River. The other was the "Wilderness Road," "blazed" by Daniel Boone. The former was covered in keel-boats, flat-boats, and canoes. The latter was traveled on horseback or on foot. No wheel had broken it or been broken by it. The fathers of the subjects of this narrative followed this road after crossing the Alleghanies. They were a clear-eyed, a bold, an adventurous people. They wrested the land from the savage, made it secure by their arms, and by the toil of their hands fitted it for its present civilization. Among these, and such as these, these heroes in the bloody exploits of surgery were reared. From such ancestors they drew that dauntless courage which was so often tried in their achievements—achievements the fame of which will not lapse with the lapse of time. Boone had opened the way to the wilderness around them. He "blazed" a path through its unbroken depths, along which the stream of civilization quickly flowed. They blazed a path through the unexplored regions of their art along which surgeons continue to tread. His name is written in the history of his adopted State and embalmed in the traditions of its people. Their names are written in the chronicles of their beloved calling and upon the hearts of myriads of sufferers whom their beneficent labors have relieved. They may or may not have felt that their work was durable. But durable it is, and it hands down to posterity a *monumentum ære perennius*, the absolute worth of which passes computation. No present or future modification of this work can rob its authors of that glory which crowns the head of the original workman.

Like their kinsmen in genius, these toilers devised measures and dealt with issues in advance of their time. Like them they enjoyed but scant recompense for labors the far-reaching significance of which they did not comprehend. Let us who are reaping in the harvest which they sowed forget not how much we are beholden to these immortal husbandmen. And as we contemplate the shining record of their deeds, let it counsel us to "bend ourselves to a better future." Not that we may hope to rival their sublime achievements, but that each in his walk, however humble it may be, may strive to enlarge the sphere of his usefulness by making surgery the better for his having practiced it.

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[The end of *Pioneer Surgery in Kentucky* by David W. Yandell]