IN MEMORIAM

HOWARD ATWOOD KELLY
1858—1943

IN THE death of Howard Atwood Kelly on January 12, 1943, the American Gynecological Society lost its most illustrious member. Dr. Kelly was born in Camden, New Jersey, on February 20, 1858. In an autobiographical sketch\(^1\) he says: "On my father's side were the families of Kuhl and Michael Hillegas, our first treasurer of the United States, and the two Kelly brothers (Thomas and Philip), who came over from the north of Ireland in the eighteenth century, when they had been converted from the established church to Methodism under John Wesley and found it difficult to remain at home; they became pillars of the Methodist Church in Philadelphia."

Dr. Kelly's mother, Louisa Warner Hard Kelly, was the daughter of an Episcopal minister, Anson Bois Hard, whose ancestors came from England to Connecticut in 1646. The Warners were prominent in Wilmington, Delaware, in colonial days. During the Civil War, while his father, Henry Kuhl Kelly, was serving in the Union Army, the mother, with Howard and his three younger sisters, made their home near the maternal grandparents in Old Chester, Philadelphia. It was in these earliest formative years that his mother instilled an interest in the Bible and in the natural sciences, two subjects that were followed with enthusiasm throughout a long and astoundingly productive life.

In Charles J. Cohen's privately printed *The Faires Classical Institute,\(^2\) Dr. Kelly's 'Reminiscences' give us a vivid picture of the higher type of private school prevailing in America a century ago. The Reverend John Wiley Faires was a Scotch-Irish schoolmaster who did not spare the rod and spoil the child. He seems, however, to have been a man of character, who understood his boys and knew how by precept and example to direct them toward good scholarship and cooperative community living. According to this source, Dr. Kelly's schooldays forecast an active future both physically and mentally. As a boy of ten he did not hesitate to carry an argument by force if milder persuasion failed. Having one day been threatened by two schoolmates, he packed in his lunchbox the next morning a hatchet. "I still feel the thrill of unmitigated satisfaction at their alarm," he says, "when at the corner of Thirteenth and Locust Streets the weapon was produced and brandished in token of readiness for action.'" He introduced a novel wrestling maneuver in the gymnasium activities. With
a sudden rush he ducked quickly, grasping the adversary by both ankles, pushing his legs apart and then upending him on the gymnasium floor. "This strange device worked well," he reports, "and placed me on a pinnacle with my coevals until I grew rashly bold and one day tackled Caspar Morris, who was certainly born for the ring, for he simply reached over my bowed back and, grasping me by the seat of my breeches, inverted me kopfheister in the air." These boyish pranks combined with a naturally phenomenal mental and physical coordination foreshadowed some of his civic activities when years later, as a member of the Baltimore Reform League, he resorted to strong-arm arguments in an effort to convince a bunch of loafers on Marsh Market Space that ballot-box stuffing was not in keeping with American tradition.

Having entered Faires School in 1867, at the age of nine years, Dr. Kelly's college preparatory course included a thorough grounding in English, Latin, Greek, French, mathematics, history, penmanship, and drawing. He recalls that his two bugbears were the annual oration, and the weekly composition. Posterity is indeed fortunate in that he should have overcome these two aversions to the extent of becoming both an accurate and convincing writer and speaker.

In 1873 he enrolled in the arts department of the University of Pennsylvania, being awarded the matriculate prize in Latin and at the end of four years went on to the Medical School. He states: "I entered the Medical Department in the University of Pennsylvania in 1877, not because I loved medicine as such, but because anatomy and sundry associated scientific studies seemed the closest approach to Natural History, in which it was hard to make a living. Four years in Medicine brought delightful associations with eminent scientists, Joseph Leidy, Edward Drinker Cope and Harrison Allen. Cope I had long known as a teacher and patron through my interest in the reptile kingdom.

"The attempt to cultivate both science and medicine proved too much for the frail flesh, so I had to go West for the year 1880-1881, as a cowboy on the plains of Colorado, on the O. Z. Ranch, to win back my ability to sleep. Returning from Colorado I took my medical degree in 1882 and entered the Episcopal Hospital in Kensington, Philadelphia, for a residence of over a year. Here at last my real medical education began in the dispensaries and wards under excellent and always kindly and sympathetic chiefs, men of reputation, such as Morris Lewis, Louis Starr, J. M. Anders, in medicine, and C. B. Nancrede, John Hooker Packard, and William S. Forbes, in surgery. I found a particularly congenial friend in Andrew K. Minich, chief of the dispensary service, who took a keen interest in his young protégés. After I left the hospital Dr. Minich continued his interest in aiding and abetting my surgical aspirations in every way, circulating the report that I did a cesarean section every morning before breakfast."
"Hospital experience drew me into intimate touch with the problems of suffering humanity and revealed the priceless gratitude of the poor when treated with affectionate consideration; this was the final touch necessary to convert all my interest to my profession, no longer merely a means of livelihood, but a shining path of service replete with rich spiritual rewards. I owe to the poor and the millworkers of Kensington, and all others since who have trusted me so unreservedly through life, the rich rewards of joy and satisfaction the practice of surgery has brought me, these past forty-three years."

Imbued with this spirit, it is not surprising that at the end of his internship in 1882 he decided to give up his home in Philadelphia and settle among his mill people where active surgical work was waiting. His first hospital consisted of two rooms on the second floor of a workingman's home where the housewife acted as nurse. In 1884, needing more space, he moved to a three-story house, and about 18 months later to Kensington Hospital, established in 1883, a four-story building on Norris Square. Dr. Kelly was most active in the organization of this hospital and its incorporation in 1887. During all these years the activities of our young surgeon were commanding attention from the medical men at home and abroad. He never ceased to recall with gratitude the encouragement given him by such men as Agnew, Horatio Wood, William Pepper, Wier Mitchell, William Osler, and Joseph Leidy with whom Kelly as a student had served as prosector in anatomy. At a Testimonial Dinner on his seventy-fifth birthday, he states: "What interested Osler most was, I think, my good library of the medical classics, which I got mainly in Germany. I had the Editio Princeps of Galen (1525) and the first Latin edition of Hippocrates, and a great number of others, coming down the centuries."

In 1888 Howard Kelly was appointed with Barton Cooke Hirst to fill jointly the chair of obstetrics and gynecology in the University of Pennsylvania, recently vacated by the resignation of William Goodell. In 1889, at the age of 31 years, Dr. Kelly was called, largely through the influence of Osler, to occupy the chair as professor of obstetrics and gynecology in the newly organized medical department of the Johns Hopkins University, and to the directorship of these branches in the hospital.

By referring to the bibliography of Dr. Kelly's publications, prepared in 1919 by Miss Minnie Wright Blogg, librarian of the Johns Hopkins Hospital, we find that in his Kensington years, from 1882 to 1889, or from the age of 24 to 31, he had published sixty-five papers. That this record attests an enormous capacity for work must be admitted when we reflect that in those pioneer days the surgeon usually served as his own secretary in obtaining a systematic history and physical examination, and in writing the notes of operation and postoperative care. He was likewise intern, nurse, and orderly for a large part of the patient's postoperative treatment. Much of his operating was done in the pa-
tient’s home, and the surgeon was often his own coachman and anesthesiologist, at least until the patient was asleep, when some member of the family or a neighbor poured ether or chloroform under close supervision by the operator. If fortunate enough to secure a reliable coachman, the surgeon sometimes trained him to act as anesthetist as well.

Despite all these time-consuming activities, Dr. Kelly devoted many of his best hours to the avocation of being a good citizen. He tells us that, in association with his sister, Esther (later Mrs. Robert P. Bradford), “there began that model Christian social work in which the all-pervading, dominating force is the evangelical message, while the physical needs of the people are met as well throughout the year. This is the widely known Lighthouse (Kensington) on West Lehigh Avenue near the hospital, with its great associated activities, now maintained by a large corps of Christian workers.”

During the seven years of pioneer work in Kensington, Dr. Kelly visited Europe three times. In 1886 he went to England, Scotland, and Germany. At the meeting of the British Medical Association at Brighton, Dr. Kelly reported on the diagnosis and removal before rupture of a tubal pregnancy. Lawson Tait, then England’s foremost abdominal surgeon, made it plain that he did not think much of the young man’s “cocksure” diagnosis, for this was a matter of “expert instinct” and therefore hardly attainable by the average man.

In Leipzig Dr. Kelly was tremendously impressed by the teachings of the gynecologist Sänger on the great importance of systematic, careful palpation of the ureters in every preliminary physical examination of the patient complaining of pain in the back, abdomen, or pelvis.

On his second European trip, in 1888, he made a special point of a visit to Pawlik of Prague to perfect himself in the method of catheterizing the female ureter through the water-filled bladder by “fishing” for the orifice with the metal ureteral catheter, devised in 1875 by Gustav Simon. Dr. Kelly had used this method since Pawlik’s first publication, and after his Prague visit he went to Berlin where Rudolf Virchow gave him access to abundant autopsy material for further experimental study. This continued to be the simplest and most satisfactory method of ureteral catheterization until in 1893 he discovered his own method of catheterizing the ureter under direct vision with air distention of the bladder.

The chief event of Dr. Kelly’s third European visit during his Kensington period was his marriage on June 27, 1889, in Danzig, to his life’s helpmeet, Laetitia Bredow, daughter of Dr. Justus Bredow of Stettin. This union was destined to continue to the day on which both of them died, fifty-three years and six months later, and it was marked by an ideal family life with nine children.

During the Kensington period Dr. Kelly’s pioneer surgery was of a general nature, but tending more and more toward specialization in
gynecology. Only six of his sixty-five publications during this period were on obstetrical subjects, two of these dealing with cesarean section. He performed three successful cesarean sections, the first one said to have been the first to terminate favorably in Philadelphia in fifty years. His "Pelvic Measurements" and the "Resuscitation of the Asphyxiated New-Born Child," both showed his bent for scientific research on better methods for avoiding serious catastrophies during childbirth. After occupying the combined chair of obstetrics and gynecology for the first ten years of the Hopkins period, Dr. Kelly felt that both departments could be greatly strengthened by having separate executives, and he relinquished the chair in obstetrics in favor of his associate, J. Whitridge Williams, who had had nominal charge of the department since the medical school opened in 1893.

Dr. Kelly's generally conceded position as Father of American Gynecology depended on so many factors that one hesitates to attempt to analyze some of the chief influences affecting his career. In the first place, he was endowed with a phenomenal mind, as shown by his intelligent grasp of many scientific interests early in life. He had many athletic tendencies, being an expert swimmer, canoeist, and cyclist, and his devotion to botany, biology, anthropology, astronomy, and geology meant numerous short or long trips into the wilds and away from too close confinement to city life and book work. His annual vacation of from two to three months at his summer home on beautiful Lake Ahmie, 200 miles north of Toronto, contributed greatly to his marvelous physical health and enabled him to keep up his lifelong studies in the natural sciences. Finally, his practical religious life, stimulating his endeavors to an unselfish interest in helping others physically, mentally, and spiritually, filled enough time to occupy the entire life of an ordinary individual.

His surgical activities began at an opportune time. General anesthesia was well established, robbing surgery of its previous horrors. Dr. Kelly's open mind quickly grasped the importance of the newer discoveries in pathology and bacteriology as applied to diagnosis and aseptic technique. Having been prosecutor for Leidy in his student days, he continued to make valuable use of the autopsy room for working out details of anatomical relations as an aid to rapid and fearless operating, and especially to help in the art of illustrating his work. His remarkable operative dexterity fascinated visitors from all parts of the world. He had the ability of explaining each step of the operation without sacrifice of valuable time. With blackboard and chalk he could ambidextrously add further details between operations. Broedel always claimed that Dr. Kelly's unique ability as an illustrator, and his appreciation of the difference between an imitative and a creative drawing in the illustration of an operation or a tumor had a great influence on the department of anatomical art. His mastery of Greek and Latin gave him direct access, through his library of
classical medicine, to the lore of the ancients, while his command of German, French, Italian, and Spanish enabled him to keep abreast of the modern medical world.

His more certain claim to the veneration of posterity is to be found in the printed and illustrated word which he bequeathed in such abundance and richness to his beloved profession. Only those of us who are old enough to have been familiar with the surgical practices of the last decade of the nineteenth century can fully appreciate the value of Dr. Kelly’s early contributions in originating, extending, simplifying, and standardizing many procedures which are commonplace today. Furthermore, his greatness as a man and a teacher is testified to by the accomplishments of the hundreds of men who had the great privilege of at least one year under his special tutelage.

Few living men are old enough to have experienced the disagreeable atmosphere and stultifying etiquette prevailing in operating rooms early in this century, and it has always been this writer's conviction that to Dr. Kelly’s example is due much of the favorable change. For a number of years it had been the custom for American surgeons to broaden their education by frequent visits to European clinics. The Germans were the leaders during the last quarter of the nineteenth century, and too often the atmosphere of their operating rooms was that of Prussian militarism. Along with the good points of technique brought home from these visits many surgeons adopted the overbearing, boorish attitude of publicly belittling their assistants and of transferring to them the onus of any shortcomings in operative procedure. This humiliating criticism not infrequently led to resentment and a distinct let-down by the victim in the character of his staff and hospital work. Dr. Kelly, on the contrary, kept every assistant on his toes, stimulating him to do his best. In the event of a momentary lapse slowing up team work, the offender might get a *sotto voce* admonition to “assist with the head as well as with hands and feet,” but this would be in a half-joking spirit and inaudible to the large audience usually in attendance. Dr. Kelly’s approachability, frankness, and kindliness created a remarkable *esprit de corps* within his staff, while his immense capacity for work, his inquisitiveness for a better understanding of the obscure, his constant striving for better methods of procedure (with newly devised instruments if necessary), and his quiet insistence on complete records of the patient (covering early history, therapeutic or operative measures used in hospital, and laboratory findings before and after operation), set a high standard for every member on the staff. One could not be associated with this man’s dynamic and inspiring personality for long without being stimulated to emulate him and to make at least some small contribution to medical knowledge.

For those fortunate enough to remain on the staff for the five years necessary to complete the residency, Dr. Kelly, with the enthusiastic
cooperation of Cullen, arranged that one of these years be devoted to assistant residency in the department of general pathology, coincident with supervision of the staff work in gynecological pathology.

Dr. Kelly’s activities in urology having been centered largely on diseases of the female, one can scarcely speak of him as the Father of American Urology. During his active days no one doubted his leadership in surgery of the urinary tract. Of course Sims led the world in developing successful methods for the cure of vesicovaginal fistula, and Emmett and Kelly were early and enthusiastic contributors in this field. Kelly’s renal surgery set a high standard which has probably never been surpassed. The beautifully illustrated two-volume textbook, published in 1914 by Kelly and Burnam, on Diseases of the Kidneys, Ureters and Bladder, still provides the urologist with one of the most valuable sources of reference for the early developments in this specialty.

History will probably give Kelly his highest rating in urology, not because of his superb surgery in this field, but because of his early recognition of the ureter as an organ susceptible to disease. His first visit with Sänger of Leipzig, in 1886, resulted in his publication in the Transactions of the American Gynecological Society in 1888 of the article on “Examination of the Ureters,” in which he emphasizes the relative frequency of ureteral disease, the tendency of mistaking its symptoms for disease of the kidneys or bladder, or for “functional disease,” and the ease with which the signs of ureteral disease may be detected by vaginal palpation.

After evolving, in 1893, his own simple method of catheterizing the ureters by direct vision through the air-distended bladder, Dr. Kelly wrote many articles on the value of catheterizing the ureters for diagnosis and therapeutic purposes, and described many new instruments to help in this work. His contributions probably did more than those of any other individual to reduce the prejudice existing in the medical profession concerning the dangers of these methods of diagnosis and treatment.

In 1902, in the Journal of the American Medical Association, we find his paper on “Stricture of the Ureter.” After pointing out the recognized ill-effects, upon the bladder and upper urinary tract, of neglected urethral stricture, Dr. Kelly states: “We must with better discrimination call many of our cases hitherto labeled ‘pyonephroses’ and ‘hydro-nephroses’ by the proper name of ‘stricture of the ureter’ and then describe the secondary changes produced by the accumulation of urine or pus in the upper urinary tract.” This statement, probably the most important one written in urology since Simon of Rostok, in 1875, showed that the ureter could be catheterized, was so far in advance of the thought of that day that no one gave it any notice, and there still exist prominent urologists who have not grasped its implications.
Forbidden to name Dr. Kelly the Father of American Urology, it is probably safe to say that the ultimate judgment of history will give him a leading position as one of the world’s great urologists.

In his “Janeway Memorial Lecture,” Dr. Burnam presents in clear outline Dr. Kelly’s early activities as a pioneer in radiation therapy, both with radium and with deep x-ray. The author credits Dr. Robert Abbe of New York City as being the American pioneer and “one of the very earliest users and proponents of radium in the world.”

Always concerned with the question of whether a given case of cancer would respond more readily to treatment by operation or by radiation, it was only natural that Dr. Kelly should become intensely interested in the newer methods of endothermy and electrosurgery. In 1932, with his associate, Dr. Grant E. Ward, he published a valuable treatise on *Electrosurgery.*

His passion for making operative procedures plain to the student, and especially to the rural surgeon who does not have easy access to large surgical clinics, led to the development of his Stereo Clinics. Beginning in 1908 and extending over a period of several years Dr. Kelly, with his associate, Dr. Cecil Vest, visited clinics in America and Great Britain to obtain the stereo photographs for this series of thirty-nine sections. Incidentally this was the forerunner of the present-day moving pictures of important operations.

In Dr. George W. Corner’s “Howard Atwood Kelly as a Medical Historian” we learn that “his first historical paper appeared in 1890, soon after his removal to Baltimore. He took a leading part in the first meeting of the Johns Hopkins Hospital Medical History Club in November, 1890, and was still interested fifty years later, at the Golden Anniversary of the Club, when he gave a lively review of its early years. During the half-century between these two events, he published about sixty articles and books on historical topics.”

The most extensive of these historical works is his *A Cyclopedia of American Medical Biography, Comprising Lives of Eminent Deceased Physicians and Surgeons from 1610-1910.* Fielding H. Garrison says: “The best account of American gynecology is the essay by Howard A. Kelly in the introduction to his *Cyclopedia of American Medical Biography.*” This introduction, or Dr. Kelly’s “History of American Gynecology” in Arthur H. Curtis’ *Gynecology and Obstetrics,* 1933, Vol II, p. 473, should in this writer’s opinion be required reading for the physician planning to enter gynecology as a specialty. The following quotations from his introduction to the *Cyclopedia* reveal Dr. Kelly’s warm human enthusiasm over his chosen specialty:

“‘The history of Gynecology seems to me more full of dramatic interest than the evolution of any other medical or surgical specialty.’"

“Gradually out of the inchoate mass transmitted to us through the centuries, in the course of the last hundred years, there has arisen a
specialty which has aroused more interest, and whose development has been followed with more enthusiasm, than that of any other branch of our art."

"The new specialty, the first of all modern specialties, was the child of a new spirit in a new age, born in an era of healthy skepticism, and fostered by every new and quickening influence in an age pre-eminent in scientific investigation and progress."

"First and foremost of all our special societies in its long and splendid record of service stands the American Gynecological Society which was founded in 1876, under the presidency of Fordyce Barker."

In an evaluation of Dr. Kelly’s gift to the Hopkins Library of his collection of medical classics, the late Dr. John R. Oliver states: "Dr. Kelly’s gift makes the Hopkins (now Welch) Library one of the best sources in America for those who wish a ‘book-laboratory’ for the study of Medical History."

Dr. Kelly was blessed with remarkably good health almost to the time of his death in 1943. After resigning the professorship at the Hopkins, in 1919, he confined his work to his private hospital, but during all that interval it was always a gala day on the gynecological service when Dr. Kelly was announced to operate. His last operation at the Hopkins was for an ovarian cyst of endometrial origin, done on January 10, 1938, about one month before his eightieth birthday. He led a surprisingly active and useful life for another five years.

Early in January, 1943, urgent symptoms of uremia developed and he was taken to the Union Memorial Hospital. Mrs. Kelly had been confined to bed, or in a wheel chair, for several years with arthritis, and a change for the worse determined her removal to the same hospital a few days later. Dr. Kelly passed away quietly at 3 a.m. on January 12, and Mrs. Kelly died five hours later. A simple but most impressive dual funeral service was held in Memorial Protestant Episcopal Church on January 14, 1943. Of their five sons and four daughters, all were present except Major Edmund B. Kelly, who was serving with the Hopkins Base Hospital Unit No. 18 in the Fiji Islands.

REFERENCES

Guy L. Hunner.