



HOWARD ATWOOD KELLY

DEDICATION

To a distinguished physician, teacher of medicine, mycologist, herpetologist, patron of sciences, humanitarian, and philanthropist, Howard Atwood Kelly, of Baltimore, Maryland, this volume of the **PUBLICATIONS OF THE BIOLOGICAL SURVEY OF THE UNIVERSITY OF OKLAHOMA** is dedicated. His encouragement, interest and participation, especially through the Howard A. Kelly Fellowship, are gratefully acknowledged.

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A. I. ORTENBURGER AND ROBERTA D. ORTENBURGER

To Doctor Howard Atwood Kelly, emeritus professor of gynecology, Johns Hopkins University of Baltimore, Maryland, we dedicate this volume of the PUBLICATIONS OF THE UNIVERSITY OF OKLAHOMA BIOLOGICAL SURVEY in appreciation of his material assistance over a period of several years with the work of the University of Oklahoma Biological Survey. Like every new enterprise, the Survey started in 1924 in a modest way with a small personnel, but little equipment, and a limited budget. Doctor Kelly's gift of a truck and other supplies from time to time, as well as his annual scholarships for student assistants, have been a great help throughout. It is gratifying that our work has merited the abiding interest and friendship of a man whose achievements as a naturalist and whose nation-wide reputation as one of our foremost surgeons have raised a high standard towards which to strive.

To know Doctor Kelly is a rare pleasure and privilege. We have never met anyone who is more inspiring nor who leaves a more indelible impression; truly, he must have revolutionized many lives. His eager enthusiasm is so infectious, his insight so penetrating, his sense of humor so keen, his interests so broad, his love of Nature and her Creator so deep and abiding, and his kindly spirit so truly and sincerely Christian, that one cannot be with him even a short time without finding his own outlook profoundly influenced. Such exuberant delight in every smallest manifestation of the glories of Nature, such abundant and enthusiastic energy are rarely found beyond the years of buoyant youth, yet he has passed his seventy-fifth birthday.

No branch of natural science is too remote or specialized to interest him or to call forth an appreciative acquaintance with it. Mycology, lichenology, and herpetology are his special hobbies, in which he has collected valuable and extensive libraries, and many fine paintings of fungi, snakes, and turtles. To quote Doctor Kelly's own words:

"Snakes struck my fancy from the first encounters in the years of early childhood, and have held my interest through all the vicissitudes of a busy variegated life. There they are, upwards of some two thousand species each with its characteristic habits: ramping over the tropical savannahs and the seas, burrowing underground, living beneath loose bark and leaf mold, creeping or, as in the case of our coachwhips, flashing over the surface, climbing trees—sometimes entirely arboreal—and flowing with inimitable grace through the leafy branches like the very breezes, and, again dying like the poisonous sea dwellers if kept out of the water. Looking at them once more, from the standpoint of size: one extreme is the delicate little burrowers, blind and scarce a span long; the other, that monstrous long-time mythical anaconda thirty-five feet in length, secured by

*Contribution from the Zoological Laboratory of the University of Oklahoma, Second Series, No. 118.

Vital Brazil on an island out in the mouth of the Amazon River. As to the capabilities of such deformed creatures, without hands or feet, I think it was Huxley who said they could do everything but fly; but great scientist that he was, he erred in this exception, for there is an Asiatic snake which like a flying squirrel draws in its abdomen and floats off in the air and parachutes to a distance. No, snakes are rarely of a responsive nature, but what an interesting study: given a rod with a mouth and a vent, what could you or I do with such an idea in the way of creating so many interesting varieties? Mighty little, indeed, but the hand that fashions Nature thrills us with interest by all it accomplishes with exiguous resources.

"The same is true of fungi—mushrooms, toadstools, and their ilk. The groundwork idea is that of a parasol and nothing more: a stalk lifting it from the ground and a veil to protect the spores until they mature under their efficient cover. But lo, what an infinite variety! What marvels of provision for disseminating their spores! It was only a little toadstool which gave me the greatest thrill I have ever experienced in the field of Nature. I wish I could communicate it in the telling. It was not its size, for it was only about an inch tall, growing on an island near my camp, looking at first sight like any ordinary fungus; its beauty lay in the exquisite amethystine luminosity of the numerous translucent mycelial threads enveloping its lower stem—like beauty so often evanescent, for it faded in an hour or two after picking. And where, for example, can we find colors more glorious than in many of our fungi?"¹

Scarcely less dear to Doctor Kelly's heart are the ferns, lichens, mosses, insects, shells, fishes, birds, and the study of geology and astronomy. "I want so long as I live," he says, "to study the laws governing our universe and to know as much as I can grasp about the innumerable varieties of life inhabiting our globe. Out-of-doors and Nature have ever been almost my sole recreation in an active professional life."¹ But it is not alone for his own sake that Doctor Kelly has enjoyed studying Nature and collecting specimens and books and paintings. "It is a sufficient and satisfying reward to be able to assist from time to time the younger men who are zealously enlarging the boundaries of our knowledge."¹ It was in this spirit that he presented in 1928 his mycological library and collection to the University Museums of the University of Michigan; these included two thousand dried specimens of fungi, twelve thousand books and papers, innumerable photographs and three hundred water-colors, and a volume of de Schweinitz's paintings. These figures give some idea of the extent of his interest in this field.

Doctor Kelly is also an ardent student of the Bible, which he likes best to read in its original Greek and with some help in Hebrew. His profound conviction in the Christian faith is an outstanding characteristic, and he *lives* his faith.

To most of us the scholarly subjects mentioned would seem to be enough to fill a life, but to Doctor Kelly they represent an avocation, for

¹Kane, Paul: "Howard Atwood Kelly," NATURE MAGAZINE, August, 1931, p. 104-106.

his life-long profession has been that of surgeon, gynecologist, obstetrician, and radiologist.

Howard Atwood Kelly was born February 20, 1858, in Camden, New Jersey. During the Civil War, while his father was at the front, the family removed to Chester, Pennsylvania, to be near relatives. It was in these early years that the boy's inherent love of Nature began to develop. His mother was also a student of the out-of-doors, and she encouraged him in his eager search for insects, turtles, and snakes. Like most beginners, his great desire was to discover a new species; in his own words, "I was depressed by the thought that all might be found and described before I could sally forth into the field. Dr. John Le Conte, the great coleopterist of the Philadelphia Academy of Natural Sciences, visiting us in Chester about that time (in the early sixties) bade mother assure me that some would surely be left for the next generation."²

When the war was over, the family returned to Philadelphia, where the young Howard attended the Reverend Mr. Shinn's school, and at the age of nine he entered the famous Classical Institute of Doctor John W. Faires, for six years of excellent instruction and discipline, not to forget the Scotch dominie's busy rattan.

In the year 1873, at the age of fifteen, he entered the University of Pennsylvania, pursued the four-year course in Arts, and then entered the medical school, "not because I loved medicine as such," he says, "but because anatomy and sundry associated scientific studies seemed the closest approach to natural history, in which it was hard to make a living,"² his practical nature already manifesting itself. To the study of medicine, then, he brought all his earnestness and energy, enjoying at the same time associations with such eminent scientists as Joseph Leidy, Edward Drinker Cope, and Harrison Allen.

Three years of strenuous work in medicine brought on an insomnia which forced the young student to go west for a year, where he lived as a cowboy on the S-J ranch in Elbert County, Colorado, 45 miles north-east of Colorado Springs. Riding the range over the plains and practicing some medicine in the Grizzly Gulch mining district up Chalk Creek Canyon and substituting briefly as a pony mail carrier on the United States Star Route from Colorado Springs up to the Divide, he gained through this year in the open valuable experiences, both physical and spiritual. Many long winter evenings were spent in serious discussion with his cowboy friends, some of whom were "aggressive atheists," particularly the neighboring OZ postmaster, William Bates, a warm friend and a man of fine character.

In 1882, after a last (fourth) year of study in Philadelphia, his medical degree was granted, and he entered upon a residency in the Episcopal Hospital in Kensington, a mill-worker's community in Philadelphia, where he next started out in private practice and began building up a gynecological clinic, and a small hospital, which grew and had to be moved twice, and now comprises the fine large Kensington Hospital for Women.

²Kelly, Howard A.: "A Scientific Man and the Bible," New York, Harper and Bros., 1925.

Meanwhile he made several trips abroad to Europe's foremost medical and surgical clinics. On the third trip, in 1889, he married Laetitia Bredow, of Danzig, daughter of Doctor Justus Bredow.

For a year (1888-89) he held the position of associate professor of obstetrics and gynecology in the University of Pennsylvania. In 1889, at the age of thirty-one, with Sir William Osler, William Henry Welch, Henry Halsted, and Henry Hurd, he took part in opening the new Johns Hopkins Hospital, followed in 1893 by the Medical School, Doctor Kelly occupying the chair of gynecology and obstetrics.

He soon became, as Garrison has said, "the recognized leader in his science in America."³ No one "connected with the Johns Hopkins Hospital has written more or has added more to the knowledge of his department than has Doctor Kelly."⁴ Sufficient to give anyone an idea of his accomplishments is the fact that a bibliography⁴ of his books and papers numbers 485 titles. Many of his new procedures, both operative and in examinations, have today become standards throughout the medical world. For example, one of his papers published in 1899 resulted in the present general practice of systematic examination of the abdominal cavity for unknown and unexpected pathological conditions whenever opened for any operation. He also devised the open air cystoscopic examination.

Doctor Kelly has been a pioneer in radium therapy, a field which he has studied and helped to develop. He obtained his first supply from Vienna. Later, when it was definitely known that there was radium ore in Colorado, he and Doctor J. P. Douglas, of the Phelps, Dodge Mining Company, of New York, with the aid of the Bureau of Mines, authorized by U. S. Secretary Lane, were to extract radium from the Colorado deposits in Montrose County, owned by the Crucible Steel Company. Doctor Kelly's share of the ore yielded him and his hospital the largest single supply in the world (five grams). This was used liberally in free treatment for deserving cases.

Of his writings we need mention only a few. In 1898 there appeared the "Operative Gynecology," which brought him recognition in his special field. With Elizabeth Hurdon, he published in 1905 a large volume, "The Vermiform Appendix." In 1906 appeared a readable biography of "Walter Reed and Yellow Fever" (three editions). In 1907 and 1908, with Doctor C. P. Noble, he published "Gynecology and Abdominal Surgery." In 1908 came the "Medical Gynecology." Another volume of equal length came out the following year, with T. S. Cullen, "Myomata of the Uterus." His well-known "Cyclopedia of American Medical Biography" (1912; largely augmented in 1920 and 1928) tells the story of the lives of over two thousand eminent American physicians and surgeons. A new system of gynecology with collaborators, combining medical and surgical gynecology, appeared in 1928. Ever active in developing the field of surgery, he is particularly interested in electro-surgery, and with Doctor Grant E. Ward has just published the first

³Garrison, F. H.: "History of Medicine," 2nd Ed., Philadelphia, W. B. Saunders, 1917, pp. 639-640.

⁴Cullen, T. S.: "Doctor Howard A. Kelly," the Johns Hopkins Hospital Bulletin, Vol. XXX, No. 344, Oct., 1919.

general authoritative volume in English on this important technic. So goes the story of his medical and surgical publications, the extent and value of which can barely be touched upon here.

Examples of his avocational writing include a paper published in 1899, "The Recognition of the Poisonous Serpents of North America," another in 1900, "Poisonous Snakes," and his well-known book, "Some American Medical Botanists."

On Doctor Kelly have been bestowed many honors both at home and abroad. His memberships comprise the following:

Commander, Order of Leopold, Belgium; Order of the Cross of Mercy, Serbia; Cross of Charity, Kingdom of the Serbs, Croats and Slovenes; Honorary curator division reptiles and amphibians, University of Michigan Museum of Zoology; A. A. A. S.; fel. Am. Col. Surg.; hon.fel. Am. Gynec. Soc. (pres. '12); hon. fel. Am. Urol. Asn.; hon. fel. Roentgenol. Soc.; fel. Am. Radium Soc.; Soc. Ichthyol. and Herp.; life mem. Nat. Asn. Audubon Societies; fel. S. Surg. and Gynec. Soc. (pres. '07); hon. fel. Chicago Gynec. Soc.; Acad. Nat. Sci. Phila.; N. Y. Zool. Soc.; fel. British Gynec. Soc.; Philos. Soc. Gt. Britain; British Mycol. Soc.; hon. fel. Obstet. Soc. London; hon. fel. Edinburgh Royal Col. Surg.; hon. mem. Edinburgh Royal Med. Soc.; hon. fel. Edinburgh Obstet. Soc.; hon. fel. Glasgow Obstet. and Gynec. Soc.; hon. fel. Royal Acad. Med. Ireland; hon. mem. Berlin Gesell. für Geburtshülfe und Gynec.; hon. mem. Leipzig Gesell. für Geburtshülfe; cor. mem. K. K. Gesell. der Aerzte Wien; Gesell. für Pilzkunde; Asn. francaise d'Urol.; hon. mem. Soc. d'Obstet. et de Gynec. de Paris; for. cor. mem. Soc. de Chirurg. de Paris; hon. mem. Soc. Ital. di Ostet. e Gynec.; hon. mem. Moscow Obstet-Gynec. Soc.; hon. fel. Kiev Obstet-Gynec. Soc.; Roumanian Acad. Sci.; hon. mem. Peruvian Surg. Soc.; cor. mem. Soc. Int. d'Hist. de la Med.⁵

In 1928 by invitation of the Royal College of Surgeons he gave the lecture in the mansion of the Lord Mayor of London in honor of the two hundredth anniversary of the birth of John Hunter.

A busy surgeon must relax to keep active and youthful, and this he does in communing with Nature at every opportunity. Each April finds Doctor Kelly in Florida in the great out-of-doors, travelling many miles into swamps and woods, collecting and enjoying all of God's creations. His summers have been spent since 1891 at his log cabin camp on Ahmic Lake and the Magnetawan River in the Parry Sound district of Ontario, some two hundred miles north of Toronto. Here the doctor finds rest and quiet; the beautiful northern woods of pine, spruce, hemlock, and birch are ever yielding specimens to study. His scientific books, his microscopes and field glasses are conveniently at hand in a comfortable and well-equipped study. Not only does he have his own telescope in a separate observatory high on the hill behind the other cabins, but he also has his "glory seat" built atop the roof of his own cabin, commanding an inspiring view of the heavens and the lake. In this summer camp Doctor Kelly has largely brought up his family of nine children and lately some of the grand-children who are acquiring the love for outdoor life—swimming, fishing, canoeing, and tramping through the woods.

⁵"American Men of Science," Fifth Edition, New York, The Science Press, 1933, p. 605.