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THAT AMAZING MAN BECK

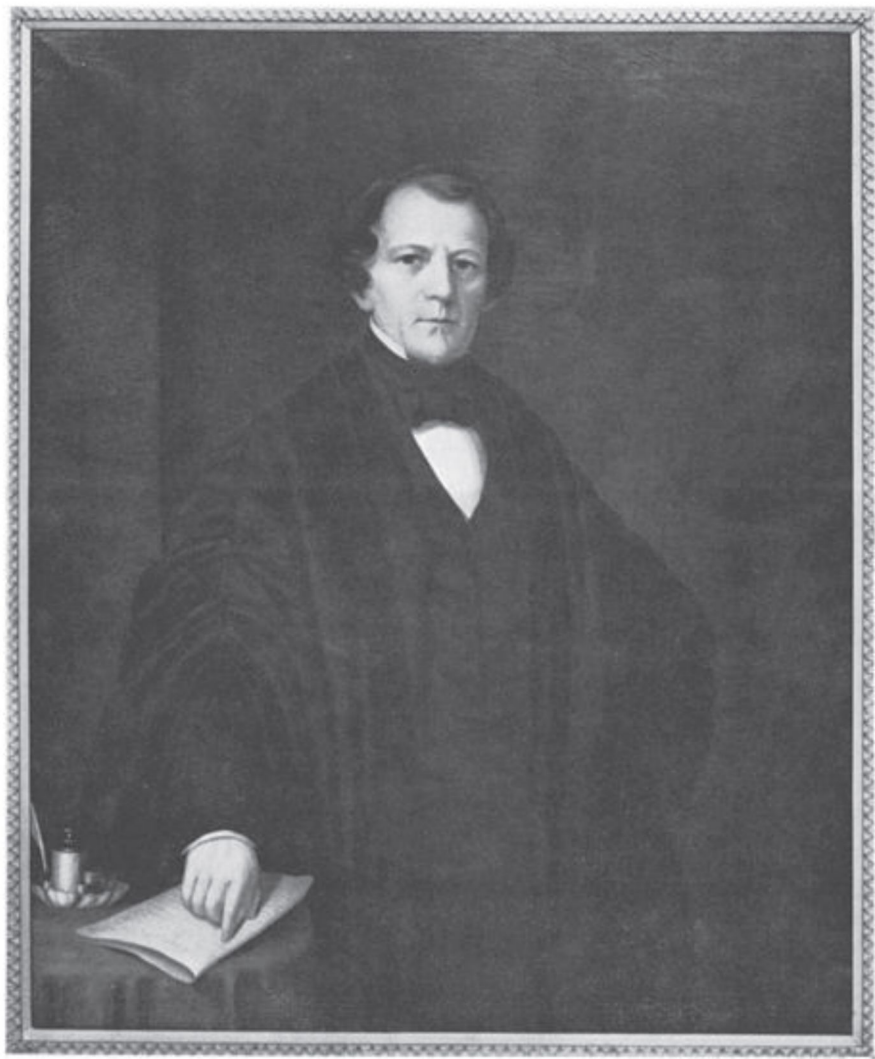
BY WILLIAM H. COLE

This article by the late Dr. Cole, Professor Emeritus of Physiology and Biochemistry at Rutgers University, was completed shortly before his death in February, 1967.

RIDING an Olean flat boat down a strange, muddy river five hundred miles from home was the first lesson in exploration for the city-bred stripling. Indians were not likely to appear on the shore, but then again they might. If friendly, it would be fun to see them; if not—well, why worry? It was enough to think about keeping the boat off the mud banks, as he and his three companions struggled with their clumsy craft. It was only eighty miles from Pittsburgh to Wheeling, but it took six long days of hard work to get there.

While waiting a day for the keel boat to take them to St. Louis, Lewis C. Beck of Albany, New York, just past his twenty-first summer, had time to explore the frontier settlement and to describe it in his diary. That became part of a neatly written chronicle of 806 pages in nine volumes which covered the next thirty-one years.

Besides those diaries, this amazing man Beck left behind 2800 other manuscript pages on medicine, botany, chemistry, mineralogy, and a few other subjects. Then there are 1400 pages of printed books and pamphlets, and a package of memorabilia. These valuable papers were fortuitously assembled by a grandson and great grandson, and recently came into the possession of the Rutgers University Library. They constitute an important source for students of the first half of the nineteenth century. Now the Library owns enough to tell a great deal about the first Rutgers Professor of Chemistry



Lewis C. Beck (1798-1853), Rutgers Professor of Chemistry and Natural Philosophy, 1830-1853. From a painting by J. H. Shegogue owned by Rutgers University.

and Natural History, from 1830-1853, the predecessor and teacher of the well-known George Hammel Cook, who carried science at Rutgers into the modern period.

Both Beck and Cook were among the country's five American leaders in natural history during the final emergence of that subject from fancy to fact. The others were Amos Eaton (1776-1842), John Torrey (1796-1873), and Asa Gray (1810-1888). With able assistance from the Swiss zoologist Louis Agassiz and the Swiss geologist Arnold Guyot at Harvard and Princeton respectively, they had brought into separate disciplines of importance at American colleges the subjects of chemistry, geology, botany, and zoology, by the end of the nineteenth century.

The recent acquisitions pertaining to Beck include the rare *Gazetteer of the States of Illinois and Missouri* (Albany, 1823), the uncommon *Botany of the Northern and Middle States* (Albany, 1833), a personal diary, 1819-1850, a journal kept while head mineralogist of the New York Geological Survey, 1836-1841, lectures on chemistry and botany, and about 300 letters received. All of which provide a more complete understanding of Beck's life than was possible before, and a fuller appreciation of his contributions to science.

The fifth and last child of Caleb Beck (1771-1798) and Catherine Theresa Romeyn Beck was born October 4, 1798. He was christened Caleb Lewis Beck, but he never used the name Caleb, his signature always being Lewis C. Beck. The first of his family in this country was Henry Beck, who came from Warwickshire, England, to Portsmouth, New Hampshire, in 1635. After two generations in New Hampshire the family removed to Albany. Here Caleb Beck III was an attorney-at-law in the mid-1750's. His son, Caleb IV, married Catherine, daughter of the Reverend Dr. Derick Romeyn, minister of the Dutch Reformed Church in Schenectady.

The oldest son of Caleb and Catherine Beck, Theodoric Romeyn Beck, became a distinguished physician and educator, a co-founder of the Rensselaer School (later Rensselaer Polytechnic Institute), Principal of the Albany Academy, President of the Medical Society of New York, Professor of Materia Medica in the Albany Medical College, and holder of the honorary degree of LL.D. from Mercersburg and Rutgers Colleges.

After him in order came Abraham Beck, who trained as a lawyer

but soon emigrated to the frontier town of St. Louis; John Brodhead Beck, who trained and practiced as a physician; and, fourth, Nicholas Fairly Beck, who was once Adjutant-General of New York State, and who died at about thirty-four years of age.

Young Lewis C. Beck, the last of the children, attended Grammar School in Schenectady where he showed deep interest in all aspects of nature. Not as many flowers or rocks or animals or chemicals or cloud formations were named and described in those days as now. It was thus more difficult to find out if one's discovery was real, but also easier to make one. Graduating from Union College at age seventeen, he began the study of medicine as an apprentice under Dr. Thomas Dunlop of Schenectady. In the winter of 1816-1817 he attended lectures at the New York Hospital of Physicians and Surgeons, and became an active member of the New York Lyceum of Natural History. Then he had another year of study before admission to medical practice by the Albany Medical Society on February 21, 1818. Late in October, 1819, he accepted the urgent invitation of his brother Abraham to visit him in St. Louis. So began his journey of discovery into the wilderness.

Leaving Albany by overnight steamboat to New York, then ten days later on to New Brunswick, young Lewis took a stagecoach for Trenton. Little did he realize as the stage rattled through New Brunswick that he would return in twelve years as a professor at Rutgers College, which his diary describes as "formerly a flourishing institution." Sixteen further miles brought him to "the beautiful town of Princeton," where "Nassau Hall or the College of New Jersey, an ancient and highly respectable institution is located." Soon thereafter he rode into Trenton. From there the next day a steamboat again was used, this time to go down the Delaware River to Philadelphia, which had an excellent medical school, physicians, surgeons, apothecaries, and men eminent in the natural sciences. By stage over the mountainous route to Pittsburgh gave him views of forests, farm lands, and exposed rocks not seen before. Since there was no public conveyance to Wheeling, West Virginia, the young explorer sought out three other men going that way who were willing to share the cost of a "light vessel (an Ark)" to propel themselves down the Ohio River. Having loaded up for an early morning departure, they retired to sleep aboard, but in darkness

about midnight were awakened to find their craft sinking fast. Recovering their wetted baggage and supplies, including Beck's books and herbarium, they secured "by threats" another boat from the seller, this time an "Olean flat" mentioned at the beginning of this account. From Wheeling their journey to St. Louis was resumed in a steamboat of sixteen tons.

When they reached Louisville on December 17 they learned that the water was too low in the river for the boat to proceed further. Undaunted, they searched for and found horses suitable for riding, following the trail to St. Louis on the morning of December 30. Beck notes in his diary that "being unaccustomed to this mode of travelling the journey was a very fatiguing one," and he was undoubtedly pleased that only seven days were needed to reach his brother's place, in spite of the fact that opportunities to secure specimens were better than by stage or boat.

There being "no advantageous opening for the practice of medicine, my first business was to collect materials for an account of St. Louis" and the surrounding countryside. On March 22, Beck joined two business men on their way to northern Illinois to inspect a valuable tract of land near Fort Clark, or Peoria, which they had purchased. Using a keel boat propelled by five oarsmen, the party began the long trip up the Mississippi and Illinois Rivers. The tenderfoot from the East made the most of the thrilling experience, sleeping on buffalo robes at night with a fowling piece at his side, and eating food that no elite member of Albany society would relish. One highlight for him was watching a half dozen Tiaah Indians make their camp for the night, and trading two ducks for some biscuits of corn pone. Another was seeing hundreds of sand hill cranes, six feet tall, along a muddy bank.

By April 5 they were in Peoria where eight days were spent in "laying out the plot of a new town," and in collecting all kinds of information available. For ten days he had been describing and preserving the early spring plants and flowers for identification later. Maps were drawn, and notes made of the geography and geology of the regions visited. Social customs, ways of life, were included also. Having met and talked with several persons living in the wilderness because of some reverses in their past lives, he concluded that "it is much more easy for civilized man to relapse into a state

of savagism than for the savage to become civilized." On April 25 Beck was back "home" again, having covered 500 miles on the round trip. The rest of 1820 was spent in exploring St. Louis in detail and making many short trips into the country, continually collecting specimens of plants and information of all kinds that could be used in a gazetteer of the area. In between times he wrote articles for the St. Louis newspapers telling of his various experiences.

Late in the year his brother asked him to make a tour of business for him eastward, so on December 6, 1820, he left on horseback, having been delayed several days by floating ice in the river. He was accompanied by a friend, Captain Amos Wheeler, and for their baggage they secured a prairie pony or led horse. As much as possible he would return by a different route so as to visit more places and observe different areas. On the fifth day they reached Vandalia, the capital of Illinois, laid out in the summer of 1819, which had not yet become a place of much consequence. Beck attended a meeting of the State Agricultural Society, and during the next two days talked with local scientists and others interested in natural history. On December 23 he departed cross-country, following well-marked trails towards Ohio. Christmas Eve was spent encamped on the bank of the Fox River at "Dumont's," and New Year's Eve in Louisville, with no statement in his diary about celebrating either. Five days later he reached Lexington, Kentucky, where for six days he visited scientists and institutions. Among the former was one whom he had met at the New York Lyceum three years earlier, Constantine Samuel Rafinesque, the Constantinople-born, eccentric naturalist from Sicily, who had finally settled down in the United States. The medical department of the University of Transylvania was inspected with great interest and its professors queried.

Turning north he rode across the beautiful country of Kentucky, much of it covered by snow, to Covington, arriving there on January 20. Two hours were required to cross the ice-filled river by ferry, and the horses suffered some injury when landing at Cincinnati. After four days of rest, the journey was resumed, and in spite of the intense cold and nine inches of snow, about twenty miles were covered. Next day the temperature was 19° below zero, which meant that a rest period was needed every five miles. With some

relief from the cold on January 26 it was possible to go thirty-four miles, and on the twenty-ninth he reached Lancaster, Ohio. Here the pack horse was sold for fifteen dollars, and the other two horses, with the blankets, saddles, whips, and spurs were left with a farmer to keep at three dollars per month. By stage to Wheeling in two days completed a round-trip of experience and self-education of lasting value to young Beck.

In mid-March the explorer-botanist-geographer was back in Albany, where he spent most of his time during the spring and summer preparing his gazetteer for publication. The death of Abraham in St. Louis required his return there, and he started his second trip westward on October 11, 1821, by going down the Hudson River in the steamboat "Chancellor Livingston." En route he visited the Botanical Garden in Philadelphia and became acquainted with the well-known botanists, Thomas Nuttall, who later was the first Curator of the Harvard Botanical Garden, and Zacheus Collins; he saw the tomb of Alexander Wilson, the "Father of American Ornithology," and talked with the naturalists and physicians at the University of Maryland in Baltimore and Columbian College in Washington, D.C. His return east beginning April 23, 1822, through Ohio and New York states was quite different from his first trip; this time he crossed into Canada to see Niagara Falls, and then cut across the Empire State from Lewiston to Albany, the total distance of 1148 miles being covered in forty-six days, ending June 8, 1822.

For the third time Beck found himself practicing medicine in his home town. Soon, however, the large amount of time required to finish the gazetteer interfered with that practice. The next year of 1823 saw him serving his deeper interests in natural history by arranging the minerals and plants in the new Albany Lyceum of Natural History, by describing a new species of *Ranunculus* (a dandelion), by writing a long article on the climate of the Mississippi valley, and by assisting in the revision of the fourth edition of Eaton's *Manual of Botany*. By 1824 it was clear that Beck was destined for a career of study and teaching in the fields of botany, chemistry, and mineralogy. The summer was spent on giving a short course of lectures on botany at the Albany Institute, and on a "natural history expedition" to the western part of the state under Professor Eaton's auspices.

Thus he entered upon a series of appointments to teach his favorite subjects in four medical schools and five colleges over the next twenty-five years, sometimes holding three or four different assignments at the same time. Fortunately, this was possible because in those days it was customary for a professor to give his lectures in a course over a period of only a few weeks, leaving the rest of the year free for study or investigation or for giving other courses. By this method Professor Beck took care of his duties at Rutgers, Albany, and New York simultaneously for many years. He also carried out special assignments, such as the study of smallpox on his own initiative, the investigation of cholera for Governor Throop, the publication of his *Manual of Chemistry*, and his *Botany of the Northern and Middle States*; and finally the mineralogical survey of New York State for Governor Marcy.

Although appointed to Rutgers in 1830 his lectures were first given in June and July of 1831. From the lectures and notes in botany and chemistry now available, it is clear that he was a skillful organizer of knowledge, that he kept up to date as new knowledge became available, and that his presentation was effective. In the words of a colleague at Rutgers, he was "peculiarly happy and popular as a teacher of young men, and his instruction was clear and impressive, never failing to produce a profound conviction of his learning and talents."

There are still items missing about Professor Beck's life at Rutgers and in New Brunswick as indicated earlier. It is hoped that they will be found somewhere, sometime, in places not yet explored, so that a more complete story of that amazing man can be told.