Life

OF

Lewis C. Beck, M. D. 1813

PHYSICIAN, TRAVELER, GEOLOGIST, AUTHOR, EDUCATOR

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Dr. Lewis C. Beck

1798 - 1853

The early years of the Nineteenth Century were filled with a new hope for the people of the United States. A great empire had been defeated at arms for the second time. New institutions-- political, social, educational-- were springing up. Eyes were turned beyond the narrow eastern seaboard to the vast resources of an inland wilderness. There was a call for men of vision, of courage, of steadfast purpose, and yet imbued with that natural curiosity which probes the depths of nature to the everlasting advantage of the human race.

Of the political and military leaders of the period much is known; their deeds form the proud background of a nation's history. But behind them were hundreds of others, unfortunately less publicized in the popular mind, whose untiring energy and technical skill contributed no less to the solidity of the national foundation that has weathered the storms of a century, and bids fair to last out the stress of many a century more.

One of these was Lewis Caleb Beck, physician by training, geologist, mineralogist and botanist by choice, traveller and observer of all things by avocation. It was in such a time that he grew to manhood, and having as a youth witnessed the victorious formation of a new republic, he lost no opportunity as a man to throw his energies into the best of those causes which were to carry that republic from an experimental stage to the realm of world power.

Of distinguished ancestry, English on his father's side, Dutch on his mother's, Lewis Beck was one of five brothers, all of whom pursued notable careers during the contemporary period. Three, including himself, turned to the field of medicine, branching out into educational careers that embraced distinguished service in virtually every early institution of consequence in New York State and nearby Vermont and New Jersey. The other two brothers took up the practice of law, in widely-separated sections, one in Albany, N. Y., and the other in the frontier town of St. Louis, Mo., becoming, each in his own field, noted in the community.

Back of the brilliant performance of the five brothers in the young republic there lay a family history that bore out in full measure the emphasis placed on the value of heredity and home training. The name of Beck originated among the gentle, undulating hills of Warwickshire, England. It must have been with more than a tinge of regret that the first emigrant of the family turned his back upon the charming vista of the River Avon and the fine old Guild Hall and Castle of Warwick town in 1635, and set sail from London in the ship "Blessing."

Henry Beck, the emigrant, landed at Portsmouth, New Hampshire, where the family remained for at least two generations, until, in 1703, Caleb Beck

the great-grandfather of Lewis C. Beck, came to New York City, a seaport of promise, less than thirty years under the English successors to the original Dutch regime. During his first year in the little town, Caleb Beck married Hannah Harley, Nov. 21, 1703, and together they went to Schenectady, N.Y., then hardly more than a frontier settlement. There they passed the remainder of their lives.

Caleb Beck, later the father of the five distinguished sons, was born in Schenectady on January 27, 1771, and it was he who united the English and Dutch branches of the family by marrying Catharine Theresa Romeyn, the only daughter of the Rev. Dr. Theodoric Romeyn, pastor at the time, of the Reformed Dutch Church in Schenectady, and later one of the founders of Union College in that city.

Dr. Romeyn, or the Rev. "Dirck" Romeyn, as he was generally called at the time, was the great-grandson of Claas Kuyper Janse Romeyn, who emigrated from the Netherlands in 1660, and among whose descendants were several eminent physicians and clergymen of the pre-Revolutionary period.

Caleb Beck, the son-in-law of Dr. Romeyn, studied law and bore every promise of pursuing a notable legal and social career, but Providence willed otherwise, and he died on April 14, 1798, at the age of twenty-seven. It was a heart-rending tragedy for his young wife, left with four sons, the oldest only eight, but her faith was not shaken, and with the aid of her father, she brought to all of them, and to Lewis Caleb, born after the death of his father, the fruits of the best home training. She died Aug. 28, 1853, having outlived all but her eldest son, Dr. T. Romeyn Beck, at whose home in Albany she died at the age of eighty-five.

T. Romeyn Beck, a physician and teacher, principal of the noted Albany Academy, author of "Beck's Medical Jurisprudence," and honored with numerous appointments, died two years after his mother, at the age of sixty-four.

His next oldest brother, Abraham, was born in Schenectady in 1792, and at an early age, having studied law in the east turned his talents into developing the wilderness of the mid-West, where he practiced for several years in St. Louis. He died there, however, in 1821, unmarried.

Third of the brothers was John Broadhead Beck, born in 1794 at Schenectady, which he left at the age of seven to live with his uncle the Rev. John B. Romeyn, pastor of the Reformed Dutch Church at Rhinebeck, N. Y., and later a resident of New York City. Adding thereto the love for classics which had been instilled by his mother, he made a notable record as a student in Columbia College, New York, of which later he was a Trustee; took up the practice and teaching of medicine, and eventually gained prominence as an author of medical and classical works. He died in 1851.

Second of the lawyers in the family was Nicholas Fairly Beck, youngest of the children at his father's death. A practicing lawyer in Albany, he also participated actively in public affairs, and during the administration of Governor DeWitt Clinton was appointed Adjutant General of New York State.

He also dies at an early age-- thirty four -- in 1830.

Lewis C. Beck, baptized Caleb Lewis, was born in Schenectady on Oct. 4, 1798, six months after the death of his father. Because of this circumstance, he was the object of peculiar tenderness and affection on the part of his mother, and from it he inherited more, perhaps, of the characteristics which marked his later life, than had his brothers. In particular he developed a love of nature, and a most minute neatness in all of his deeds, the latter marked especially to this day by perusal of the detailed diaries and scrap books which he left to the world. As a youth he was exact to the finest degree in whatever he undertook, in manhood he was distinguished for firmness and decision. His daily work, even in later years, when he was worn by illness, was systematized to the last second.

Having received his preliminary education in the Schenectady grammar school, he entered Union College--he could hardly have been more than twelve at the time--and was graduated in 1815 with the degree of Master of Arts. His brother T. Romeyn had been graduated twelve years earlier at the age of only sixteen.

Just after his graduation from Union College, Lewis Beck obtained the first of more than two score memberships with which he was honored before his death. It was as "non-attending member" of the Philo Euterpean Society of the College, and is dated July 20, 1815.

Losing no time after graduation--another characteristic instilled by his mother, who perhaps had taken warning on this point from the untimely death of her husband, the young man in that year entered the office of Dr. Thomas Dunlop in Schenectady to undertake the practical study of medicine. He supplemented this with a course at the New York Hospital of Physicians and Surgeons during the winter of 1816-17, and on February 22 of the latter year received a diploma from that institution attesting to his study.

On February 21, 1818, when he was less than twenty years old, and after three years of medical study, he was admitted to practice, receiving a license from the Albany County Medical Society to pursue a career as physician and surgeon. In less than a year more he felt himself qualified to set out on his own, away from the city of his birth.

While still a student of medicine, Lewis Beck began to display an evidence of interests along the other lines for which he later became noted, and under date of July 1, 1817, there was presented to him a corresponding membership in the Lyceum of Natural History of New York City. He apparently had become interested in the Lyceum while attending the medical school there the previous winter.

A few years before this, the second oldest of the five brothers, Abraham, had gone to St. Louis to practice law, and finding the newness of the territory to his liking, he urged Lewis to join him once the younger brother had gotten a start in medicine. It would, he felt, furnish a wide open field for practice, as well as an outlet for the youthful curiosity and spirit of adventure inherent even in the best-bred of men.

The young doctor, with his painstaking attention to details, must have turned it over in his mind at length, but he finally acceded to the suggestion and in the fall of 1819, he set out for the west.

The misgivings of his mother must have been tremendous, for it was wild territory through which he was to pass, though he characteristically chose the best route of the time. The Missouri country which was his goal was not even a state; it did not become a part of the Union until two years later. The Missouri compromise still was pending; the scars of battles of less than six years before still were upon the district. Lewis Beck saw history made at first hand and he used his observance to good advantage later.

From Albany, he went down the Hudson by steamboat to New York, and thence across country to Philadelphia, which he found a thriving seaport, replete with social activities for the better classes of residents. Striking out then through Cumberland Gap, he reached the Ohio River, and in company with other travellers, hired an unseaworthy flatboat from an unscrupulous boatman. The results were a wetting for the voyagers and destruction of the collection of flora and fauna which Dr. Beck had picked upon his way across the mountains.

More careful thereafter of the residents of the territory through which he was passing, the doctor finally reached St. Louis. It was a curious town, he afterwards wrote, with a strange conglomeration of white settlers, Indians, traders, and remnants of the French who had settled the country comprising the Louisiana Purchase, out of which Missouri state was carved. It was fascinating, and yet, still the physician, and firm in his convictions, he did not like it.

Determined to make his trip furnish something of value, however, he conceived the idea of writing a descriptive work of Missouri and neighboring Illinois, something which would incorporate a resume' of the botany, geology and mineralogy of the territory, as well as details of history, and types and habits of the people. It was from this idea that there developed his "Gazetteer of Illinois and Missouri," published in 1823 and considered even now, a century and eleven years later, a remarkable first-hand treatise on the territory bordering the Mississippi at the thirty-eighth parallel.

In the preface to this work, he said, in part:

"The growing importance of the states of Illinois and Missouri--their mineral and vegetable riches--the fact that numbers are in different ways interested in their prosperity, and that in our country, a correct knowledge of its component parts is necessary to all classes and descriptions of its citizens, are my apologies for appearing before the public."

"Under the impression, that a more detailed description of these states than had hitherto been published, would be useful, and perhaps interesting, I commenced, shortly after my removal to Missouri in 1819, the collection of materials for the present work. I travelled over a considerable portion of

enterprise. The rich harvest, too, which its natural history presented, and which I had, as it were, just begun to gather, made me regret the necessity which seemed to be laid upon me to return."

But he still lived with the west, if not in it, and passed the greater part of the summer of 1822 completing the Gazeteer, which, with engraved maps of towns of the two states, designs of indian mounds, and diagrams of the flow of the Mississippi, was published in January 1823 by Charles R. and George Webster, book-sellers, of Albany, N. Y.

Meanwhile, he was engaged in the nominal practice of medicine, but he devoted the greater part of his time to contributing articles on his travels to the Albany newspapers, writing essays, delivering a short course of lectures on botany before the Albany Institute, and making scientific excursions through eastern New York State.

As a result of his study of physical ailments as well as travel details during his western trips, he wrote, in 1822, a comprehensive treatise termed "Facts relative to a Disease generally known by the name of Sick Stomach, or Milk Sickness," which was published in the New York Medical and Physical Journal, of which his brother, Dr. John B. Beck, was editor-in-chief.

Rounding out the first quarter century of his already active life, Dr. Beck, on July 1, 1823, was appointed by Governor Joseph C. Yates of New York State as hospital surgeon of the First Division Cavalry, with the rank of Lieutenant Colonel. Two years previously he had been elected an honorary member of the New York Historical Society. In September of 1823, the month before his twenty-fifth birthday, he wrote "An examination of the Question whether the Climate of the Valley of the Mississippi, under similar parallels of latitude, is warmer than that of the Atlantic Coast." The article was published in the New York Medical and Physical Journal.

The second phase of the life of Dr. Lewis C. Beck began in 1824-- a career of teaching in which he was to engage until his death twenty-nine years later. During the early part of the year he began a series of lectures, which ran through to 1827, on botany and chemistry, at the College of Physicians and Surgeons of the Western District of New York, at Fairfield, Herkimer County. His eldest brother, Dr. T. Romeyn Beck, had previously been on the staff of the same institution, later withdrawing to become principal of Albany Academy. In the late summer, he delivered several lectures on botany at the Berkshire Medical Institute in Pittsfield, Mass., and in September, he was prominent, as a member of the Military Association, in the visit to Albany and Troy of General Lafayette, engaged in a last tour of the country he had helped to free from British rule.

There was in process of formation at the time an institution at Troy, N. Y., backed by Stephen Van Rensselaer, descendant of the family which looms large in the early history of New York State, which had as its purpose "to instruct persons who may choose to apply themselves, in the application of science to the common purpose of life."

his spare time with the writing of scientific papers and doing scientific investigation on the side.

One of these papers which gained wide circulation at the time, originally published in the New York Medical and Physical Journal, was "An Account of the Salt Springs at Salina, Onondaga County, State of New York; with a Chemical Examination of the Water, and of the several varieties of Salt manufactured at Salina and Syracuse." It was the first extensive treatment of the salt industry for which Syracuse later became famous,but which in recent years of the present century has been abandoned.

While gathering material for this and other works, Dr. Beck passed through considerable territory in central New York State almost as unknown as that into which he had penetrated in the west, and in his diaries has left extensive accounts of the early days in that part of New York State. Perhaps he was spurred on by the stories of his father-in-law,Israel Smith, who years before had been in charge of salt operations along the Seneca River, west of Syracuse. Dr. Beck's wife, in fact, had been born in October, 1806 at Montezuma, N.Y., while her father was so engaged.

Turning next to chemistry as his sole subject, Dr. Beck collaborated in 1827 with Professor Joseph Henry, the physicist who later developed the electro-magnetic principles used in the telegraph, in writing "A Scale of Chemical Equivalents." Dr. Henry, soon to become first secretary of the Smithsonian Institution, and at that time a professor at Albany Academy, arranged the divisions and furnished the account of the mathematical constructions,and Dr. Beck arranged the substances according to their atomic weight and p r e pared the copy for the engraver, a task in which he could bring into full play his accuracy and attention to neatness.

Having apparently become considerably interested in the problems of electro-magnetism on which Professor Henry was working, Dr. Beck, in 1828, devoted much of his time to studying the subject, and during that year, among other things, he reviewed a book by Dr. Jacob Green, on "Electro-Magnetism; being an arrangement of the principal facts hitherto discovered in that science." There are listed among Dr. Beck's papers a number of other reviews in the same year, together with an original paper, "On the Geographical Botany of the United States," which was published in the first volume of the Transactions of the Albany Institute.

The following year, 1829, Dr. Beck found it necessary, because of the pressure of other business, to relinquish his junior professorship at the Rensselaer School, and he devoted the time thus gained to a specialized study and arrangement of his botanical collection. The result was the publication,first in Silliman's Journal, and later as a separate volume, of a "Catalogue of the Ferns and Mossesof the United States," a most comprehensive work. There followed the first edition of "Botany of the Northern and Middle States, " which augmented the material in his work on ferns and mosses.

Passing the early part of 1830 "in various scientific operations," as he set forth in his diary, he was elected in July as Professor of Chemistry and Natural History at Rutgers College, New Brunswick, N. J. He did not begin his

It was to be called the Rensselaer School, and expanding into one of the outstanding scientific institutions of the nation, it later became Rensselaer Polytechnic Institute.

On November 25, 1824, Dr. Beck received his first important educational appointment, as one of the two original professors of the Rensselaer School. He was designated junior professor, and was to lecture on chemistry, botany, mineralogy and zoology, with side talks on "Social Duties Peculiar to Farmers and Mechanics."

The other professor, the senior of the two, and co-founder of the School was Amos Eaton. For five years they worked together, developing an institution which Dr. Beck recorded as being exceptionally successful in the character of its instruction. Said he in one writing: "The principal peculiarity of the school, that of making the student act as teacher--obliging him to arrange the illustrations for his lecture, and deliver it to the professor---worked admirably with the class that came to us."

The Beck family was well represented in the early history of the school, Dr. T. Romeyn Beck having been vice president at its start and a trustee from 1824 until 1826, and Adjutant General Nicholas F. Beck, another brother, having been a trustee from 1828 until 1831. Both were close friends of Mr. Van Rensselaer, who, an exceedingly wealthy man, was one of the most generous patrons of arts and sciences in his day.

In the first year of his service at the school, Dr. Beck found time to continue with his scientific writing, and in July, 1825, he delivered the anniversary address before the Pi Beta Phi Society of Union College, of which he had been a member for several years.

On October 17, 1825, at the age of twenty-seven, Dr. Beck married Hannah Maria Smith, a daughter of Major Israel Smith of Albany, herself a descendant of a long line of patriots dating back to early English settlement on L o n g Island.

Evidently Dr. Beck and his bride took little or no wedding trip, for the following month he was elected Professor of Materia Medica at the newly formed Troy Medical Institute, a school started by some of the citizens and physicians of that city. The institution was short-lived, however, and was abandoned at the end of the first term, apparently because in their eagerness the sponsors had overlooked the solid groundwork necessary to carry it on.

In the summer of 1826 Dr. Beck received what he personally considered was his first important appointment. It was as Professor of Botany and Chemistry at the Vermont Academy of Medicine, in Castleton, Vermont. Associated w i t h him were numerous distinguished lecturers and physicians, among them Dr. Alden March, later author of a sketch of Dr. Beck's life, and Solomon Foot, subsequently a United States Senator from Vermont. His course at the Academy of Medicine later was supplemented by the teaching of natural history.

Entering 1827, Dr. Beck found himself not only teaching at the Rensselaer School in Troy, the Academy at Castleton, and the Medical School at Fairfield, but also delivering a short course of lectures on chemistry at Middlebury College in Vermont, and in 1828 he continued much the same schedule, filling in

these states, and became acquainted with a number of intelligent gentlemen, residing in different parts of them, who afforded me much assistance in the prosecution of my design. xxx

"The kindness and hospitality with which I have everywhere been treated while travelling through these states, and particularly at St. Louis and Vandalia, and the promptness with which their citizens have always furnished me with such information as they possessed, deserve my warmest thanks. x x x

"Although the Gazetteer has engaged my attention nearly three years and no labour has been spared to render it accurate, I am not so sanguine as to suppose it is entirely free from errors. But when the candid reader reflects that the states which are here treated of are as yet but thinly p o p ulated, and have been but partially explored, he will be fully sensible of the difficulties I had to contend with, and I doubt not will extend his indulgence accordingly."

There then follow, for 352 pages, the detailed results of his observations, listed, for each state separately, under the headings: Situation-Boundaries, and Extent--Face of the Country--Rivers--Vegetable Productions-Animals-Minerals--Climate--Natural Curiosities--Antiquities--Land Districts---Government--Education--History. For Illinois he also listed "Lakes, Canal Between Lake Michigan and the Illinois River." Appendicies embraced correspondence relating to the lead mines of northwestern Illinois, and tables of land and water distances in both states and from Washington, D. C.

Unfortunately the Gazeteer failed to gain a wide circulation, but d e - spite this it must have been of considerable satisfaction to Dr. Beck and to the group of travellers and scientists who undoubtedly made use of it during his time. Besides a very few copies of it which have come down to t h e present day there are also numerous diaries and other notes in the possession of his descendants which furnish in detailed form his comments, more interesting now, probably, than in his day, on the experiences of western travel.

Having been in the west for something less than a year, Dr. Beck started back east in the autumn of 1820, on combined business for himself and his brother. Whether he ever intended to return to St. Louis is problematical, but nevertheless, he continued the careful observance of every detail on the way, this time entirely by horseback, and by the time he reached Albany had a prodigious mass of notes which he began immediately to put i n t o shape for his publication.

The task was interrupted in the fall of 1821, however, by the death of his brother in St. Louis, and thither Dr. Beck hastened again to take charge of the lawyer's estate. The sad purpose of this second journey left him in no mood to remain in the territory, although one of his writings indicated that he might have remained longer had it not been for the urgent requests of his family that he return.

"I yielded," he said, "to the solicitations of my friends, and especially of my mother, and forever gave up the prospect of successful adventure in a part of the country which seemed to promise a rich reward to industry and

work there, however, until the following year as he was engaged at the time in preparing a "Manual of Chemistry," intended as a textbook for use in medical schools, colleges and academies. This work, "containing a condensed view of the present state of the Science, with copious references to more extensive treatises, original papers, etc.," was published in 1831, and met with considerable favor among the educational institutions of the country.

The first course of lectures was delivered by Dr. Beck at Rutgers College in May and June of 1831, and later in that year he was also appointed lecturer on chemistry at Albany Academy, of which his brother T.Romeyn Beck was principal. He continued at the same time with his lectures at the Vermont Academy of Medicine, and also began the teaching of another course, on some branches of natural history, at the Vermont Classical Seminary, which, like the Academy, was located at Castleton, Vt.

Still a resident of Albany, although he must have been able to pass but little time there, Dr. Beck, on September 15, 1831, was elected Academician and Associate of the Northern Institute and Academy of Fine Arts of Albany, an organization in which his brother T. Romeyn, together with numerous other outstanding citizens of the city, were interested. In May of that year Dr. Beck also had been elected an honorary member of the Society of Natural History of Rutgers College, which apparently was quite a flourishing organization in the school.

With the exception of his Manual of Chemistry, Dr. Beck confined h i s publications during the years 1828 to early 1832 to two works, the first published in 1830 in Silliman's Journal, "On the Office of the Nitrogen of the Air in the Process of Respiration," and the other, published in the same journal in 1832, "Researches on the Commercial Potash of the State of New York."

The latter treatise was the result of the selection of Dr. Beck by the New York State Legislature to examine into the processes employed in t h e manufacture of potash, in the sale of which there seems to have been at the time some evidence of fraud and negligence on the part of the manufacturers. A part of his duty was to analyze samples of the substance, with a view to protecting purchasers against impure products.

The year 1832 was one never to be forgotten in the lives of those who passed through it. The people of the eastern United States were horrified when, early in June, it became known that Asiatic cholera had invaded t h e continent for the first time. The first case appeared at Quebec, Canada, on June 9, apparently brought in by ship from foreign shores. There was great alarm, and not without reason, for the dread disease broke out in Albany, N. Y., early the following month.

The inhabitants of New York State were in terror, not knowing n e x t where the scourge would appear, and with the idea of partially allaying their fears, and also to combat it as much as possible, Governor Enos T. Throop called a special session of the Legislature to consider means of protection and relief. On June 22, by "An Act for the Preservation of the Public Health," the Legislature clothed the Governor with sweeping authority to meet the emergency, and he at once set to work deploying the forces of the state against the invader.

One of his first steps, taken on July 11, was to commission Dr. Beck as an agent to visit all parts of the state to the north and the west, and obtain all information possible on the origin, progress, spread, prevention and treatment of the disease. It also involved visiting and consulting with every quarantine station and local board of health in the territory affected, and arranging to obtain complete statistics of their experiences with the malady.

On his return to Albany after an absence of only a few weeks, Dr. Beck made his report to Governor Throop, who in turn gave it wide circulation publicly through the newspapers of the day. It also was published in the Transactions of the New York State Medical Society, and later was republished in the Edinburgh Medical and Surgical Journal in Scotland.

The report embraced five divisions, as follows: 1, The Nature of the disease; 2, Geographical march and mode of extension of the disease on this continent; 3, Causes of the disease; 4, Sanitary regulations; 5, Treatment of the disease. It was regarded at the time as one of the most comprehensive treatises on the subject yet published, and was widely circulated after its submission to the Governor in August, 1832.

With all of the other demands upon his time at points nearer home, Dr. Beck found it necessary in May, 1833, to give up his professorship at the Vermont Academy of Medicine, a step which he keenly regretted.

Meanwhile, during the early months of 1833, Dr. Beck was hard at work on further botanical studies, amplifying his earlier attention to the ferns and mosses of the United States, and late in the year he published in book form the result of these labors. The work was entitled: "Botany of the Northern and Middle States; or a Description of the Plants found in the United States, north of Virginia; arranged according to the Natural System. With a Synopsis of the Genera according to the Linnaean System, a Sketch of the Rudiments of Botany, and Glossary of Terms."

Incorporation of the references to the Linnaean System of nature classification indicated a long study of the subject, dating back to his election, in March, 1826, as a corresponding member of the Linnaean Society of Paris.

The volume was dedicated to another student of botany with whom Dr. Beck had gained a close and life-long friendship during his study of the ferns and mosses---the Rev. Lewis De Schweinitz, a Moravian clergyman of Bethlehem, Pa. After considerable preliminary correspondence, Mr. De Schweinitz forwarded to Dr. Beck for examination and classification a comprehensive collection of botanical specimens, and it was partly on this that the Botany was based.

With the Botany successfully launched, Dr. Beck, on January 3, 1834, accepted the Professorship of Chemistry at the University of the City of New York, later New York University. He continued teaching there until 1838, when due to a reorganization of the institution, all the professors but one were removed.

The greater part of his time in 1834 and 1835 Dr. Beck devoted to preparation of a short series of lectures on scientific subjects under a plan

inaugurated by James Wadsworth of Monroe County, N. Y., great-grandfather of the later United States Senator, for the wider dissemination of such knowledge. In effect it was a prize essay contest, for Dr. Beck was awarded a premium of $120 for the most acceptable lectures. This incidentally, is the only mention anywhere in his memoirs of pecuniary reward for any task, and he obviously was quite proud of the award.

The article on which the award was based was entitled: "A Short Series of Elementary Lectures on Chemistry, Electricity, and Magnetism, and the Application of Science to the Useful Arts; intended for the use of Schools."

The award was made in 1835 by a committee comprising John A. Dix, then secretary of State of New York and later Governor, John C. Spencer and Benjamin F. Butler.

On October 26 of that year Dr. Beck received another honorary membership, this time to the Philomathean Society of the University of the City of New York, while he continued active as a corresponding member of the Society of Natural Science of Philadelphia, to which he had been elected just two years before.

The year 1836 marked the beginning of Dr. Beck's most distinguished public service---as Mineralogist of the State of New York--a task in which he was to be engaged for six years, and which was to furnish the state with the first comprehensive survey of its extensive mineral resources. Never before had his keen mind entered into a task so enthusiastically, and not even in his most painstaking endeavors previously had the full value of his early training in exactness and care been so subjected to a practical test.

Secretary of State Dix, in his annual report to the Legislature in the spring of that year, had so convincingly argued in favor of a geological survey of the state, never previously attempted, that that body, skeptical always of the untried, succumbed to his enthusiasm and went so far as to appropriate $104,000 for the purpose. Back of Secretary Dix's suggestion lay the initial impetus of a quietly-waged campaign by T. Romeyn Beck, who, after the passage of the law, set to work on the preparation of the working plan for the study.

The Governor at that time was William L. Marcy, ever an eager advocate of conservation of the state's vast natural resources, whose name is perpetuated in the highest peak of the Adirondack Mountain range. He entered heartily in to the idea, and, as the person in charge of the mineralogical section of the survey, he appointed Dr. Lewis C. Beck, on June 2, 1836.

The survey, besides a general classification of the mineral resources, was to embrace a complete scientific description of them, and a chemical analysis of all soils and their mineral contents. It was, in short, to furnish a basis for all later developments along the same line, and so Dr. Beck regarded it when, without loss of time, he entered upon the actual work entailed on June 24.

This he did with characteristic enterprise, leaving not the slightest detail untouched even before he actually set out on the first of his journeys, which in the ensuing six years took him a total of 14,606 miles around t h e state, and into many parts hitherto unexplored.

His own words best present the picture:

"Before I commenced my examinations in 1836, I had collected and properly registered in a book, all the facts previously published in regard to the Mineralogy of New York.

"After this, the work of each day, whether at home or abroad, was regularly posted up. I felt it my duty to leave on paper from day to day, a full account of my operations, so that, if at any time I should be prevented from continuing the work, all that I had done could be made available in the completion of the plan.

"In all this, I only pursued the mode which I had uniformly adopted in the various researches in which I have been engaged."

And of the feelings with which he began the task, this quotation, taken from one of the dairies made while he was engaged in the survey, may be enlightening:

"I commenced the work with a zeal arising from a fondness for the pursuit in which I was engaged, and with a desire to make my researches useful to the people of the state, who had made such a liberal appropriation for their completion."

It might well be noted that in his reference to the liberality of the appropriation Dr. Beck expressed a sincere appreciation of public support of his task. To him such a sum was to be used as carefully as he would his own money, for he abhorred waste, either of private or public funds, and in making use of the amount which was turned over to him, he was almost penurious at times in an effort to give the people of the state the greatest return for the smallest amount of money. He exercised, with public funds, the same rigid economy which he had with his own--an end much to be desired in these days as well as in the later years of notorious legislative "junkets."

Thus firmly grounded in the task ahead, Dr. Beck, bearing a letter of general introduction from Governor Marcy, set out in June for the first portion of his survey, in the southern tier counties of the state. Assisting him was William Horton, of Orange County. Back and forth they went, touching at places previously little known, and at others better known by association with Revolutionary activities than otherwise. Most of the travelling was done by stagecoach and horseback, for at that time the railroads had not penetrated into the south-central part of New York. By October 1, when inclement weather made it necessary to abandon the survey for the year, Dr. Beck had travelled 2,412 miles in his capacity as state mineralogist.

Although he makes no direct mention in his diaries of the modes of travel at that time, Dr. Beck obviously must have been one of the most extensive travellers on the railroads just at that time being started in the state, and perhaps on the

Erie Canal, completed eleven years before. The old Mohawk and Hudson, it will be recalled, was opened between Albany and Schenectady in 1832, first of the practical passenger-carrying roads in the country.

It would have been of little use in such extensive travels as Dr. Beck was making, but in the following year there was opened the Saratoga and Schenectady Railroad, and in 1836 the Utica and Schenectady, and that must have been of considerable value in speeding up his trips. Successively thereafter there were started the Syracuse and Utica Road in 1839, the Auburn and Syracuse in the same year, and the Auburn and Rochester in 1841,- all during the period in which he was proceeding with his survey. Discovery of his reactions to this new mode of travel would, indeed, be most interesting, but no records as yet found disclose them.

Through with the initial field survey, Dr. Beck again turned his attention to his academic duties, commencing, in October of 1836, a course of lectures at New York University which was to continue for six months. The general subject was "The means, both natural and artificial, by which the human system is protected against injury during atmospheric vicissitudes." In the previous winter, 1835-36, he had lectured at the same institution on "The influence of changes in the atmosphere upon the human system."

He was also continuing at this period with his courses at Rutgers College, and it is interesting to find that while there he had made use of that keen observation for which he was noted in earlier life, by studying the effects of a tornado which swept through New Jersey in the vicinity of New Brunswick on June 19, 1835. Two publications resulted from this study, "Notes on the Tornado," a contribution to the New Brunswick Times, and "Notes on the New Brunswick Tornado, or Water Spout, of 1835," which appeared in two installments in Silliman's Journal in 1839.

No longer the youth of twenty who had unhesitatingly plunged into the unbroken wilderness of the west a score of years before, Dr. Beck, in 1837, found it necessary to abandon temporarily his lectures at Rutgers, but he continued with the mineralogical survey and with his engagement at New York University.

The survey, in that year, took him a total of 3,180 miles around the state, a really tremendous figure in those days, it must have been, and rather wearying to a man of thirty-nine, so careful of attention to every minute detail. However, his enthusiasm for the task continued unabated, and in 1838, relieved through no fault of his own, of the chair at New York University, he even found it possible to return to Rutgers, where he remained on the faculty until the time of his death fifteen years later. With him there had left New York University several other eminent professors who had joined the faculty at the same time four years previously-- all of them feeling that they had been illegally removed by a chancellor who then faced the start of a new term with but a single faculty member.

The unfortunate situation, brought on by an internal dispute among the university authorities over finances, left Dr. Beck, however, the more time to pursue his mineralogical studies, and in 1838 he travelled 2,433

miles in connection with them. In January of the following year he made his annual report to the Governor, then William H. Seward, who later became nationally famous as the Secretary of State under Abraham Lincoln.

The year 1839 found Dr. Beck still hard at work with his survey, which now took him into several western parts of the state not previously explored, for a total journeying of 2,535 miles. During that part of the y e a r passed in New Brunswick in connection with his Rutgers professorship, he prepared and published in Silliman's Journal a paper entitled "Notices of Native Copper, Ores of Copper, and other Minerals found in the vicinity of New Brunswick, New Jersey."

Still a resident of Albany, Dr. Beck was called upon early in 1840 to join with several other eminent medical men in establishing a medical college there, and on April 28 he was elected Professor of Chemistry and Pharmacy at the school, which was denominated the Albany Medical College. It has since become one of the branches of Union University, of which his grandfather, Dr. Romeyn, had been one of the founders at Schenectady.

Associated with Dr. Beck in this enterprise were Dr. Alden March, an earlier associate at the Vermont Academy of Medicine, Dr. Thomas Hun, forerunner of a distinguished line of Albany physicians, and others of equal prominence.

The time not passed at this new institution and at Rutgers Dr. Beck devoted to a continuation of his survey. Early in the year he remained in Albany, classifying the tremendous collection of minerals brought back from his earlier trips, while later in the summer he started out again for the western section of the state. On this trip, he stopped off at Syracuse for some time to discuss with the superintendent of the salt works there some difficulties which had developed in the manufacture of the product. It was fifty years since the first attempts had been made to develop a practical use for the brine found so abundantly in that territory, and it was not unlikely that the supply was beginning to run a bit low, although it took eighty more years for the salt operations in that vicinity to be abandoned entirely.

Dr. Beck, in 1841, divided his time again between the two colleges and the survey, travelling in the pursuit of the latter 1,418 miles,-- the final journey.

At last he had completed the field work, and in 1842 he devoted every moment not occupied with academic duties to the preparation of the final report which was to incorporate the results of that and the intensive study which he had given to the subject at home. Months were devoted to the task, an arduous one at best. Finally it was done, and late in 1842, he turned over to the Legislature and to Governor Seward the report which was published as a state document, bearing the title:

"Mineralogy of New York, comprising detailed descriptions of the Minerals hitherto found in the State of New York, and Notices of their Uses in the Arts and Agriculture."

In final form, it was a volume of 536 quarto pages, with many quarto cuts, besides 533 woodcuts showing the crystalline forms of the minerals described. The report consisted of two parts-- the first, Economic Mineralogy, and the second, Descriptive Mineralogy.

The work, obviously, was hardly of a popular character, and so received less attention publicly than had his report on the cholera, but among scientists, it was accorded the greatest favor, and this was the greatest reward for which its writer could hope.

Reviewing the Mineralogy nearly a century later, one cannot help but be impressed particularly by one feature, and that is the significant thanks which Dr. Beck gave to Providence for having been able to complete the document. One would have to search far among state documents of the twentieth century for a similar allusion.

It follows:

"I desire to give thanks to a kind Providence, for having preserved my health and life amidst many dangers and exposures. And if the work, which was the result of so much solicitude, shall be in any degree useful to my fellow-men, to His sustaining power must all the merit be ascribed."

In that brief paragraph Dr. Beck brought out another characteristic which contemporaries found most notable, his deep religious devotion. He had become a member of the Reformed Dutch Church in 1831, but before then, and after, he never forsook the teachings and principles instilled by his mother and her clergyman father. In all of his busy life, Dr. Beck found time to write some ten or twelve manuscripts of a religious nature, which those who came after him found neatly done up in a volume entitled "Religious MSS." He apparently had none of that disdain for religion which some later scientists have found it to their liking to disseminate.

The titles of some of the manuscripts are significant:

"Claims of Religion upon Science," "Occasional Thoughts, No. 1," "Thoughts, No. 2," "Sketches of Sermons, No. 1," "Sketches of Sermons, No. 2," "Sketches of Sermons, etc., No. 3," "Sketches of Sermons, No. 4," and "Select Scraps." Also of especial interest to a people a century later: "Brief of an Address on Temperance and Intemperance," "Temperance the Work of the People," "Intemperance the Grand Obstacle to the Advancement of Knowledge and Religion."

The cause of temperance did not occupy the attention of the people of the United States until many years later, so it can be assumed from these that Dr. Beck might properly be termed a pioneer in this field, although apparently he found it not advisable or timely to throw his energies into a movement in that direction.

With the completion of his Mineralogy, he was to begin the final phase of his career. He was now forty-four years of age, a slight figure,

but with an elastic step and supreme confidence that bred confidence in those about him. His fame as a scientist was spreading wide. He was made a corresponding member of the Boston Society of Natural History on June 1, of 1842, he had been for two years holder of a similar membership in the National Association for the Promotion of Science in Washington, D. C.

He also was a resident member of the New Jersey Historical Society, to which he had been elected in 1840, and he was on the rolls of many other scientific and similar societies, domestic and foreign. He was now passing the greater part of his time in New Brunswick, going to Albany only to deliver the annual lectures at the Medical College.

The record of the ensuing half dozen years is best found in the titles of the publications which he produced, as follows:

"Notices of some Trappean Minerals found in New York and New Jersey," Silliman's Journal, 1842.

"On some Pseudo-morphous Minerals of the State of New York," published in the annual report of the Association of American Geologists and Naturalists, 1843.

"Remarkable example of the Force of Expansion and Contraction, exerted by bodies when subjected to alternations of Temperature; with a reference to the question whether the freezing points of liquids is influenced by differences in pressure," Silliman's Journal, June, 1843.

"Views concerning Igneous Action, chiefly as deduced from the Phenomena presented by some of the Minerals and Rocks of the State of New York," Silliman's Journal, March, 1844.

"Adulterations of various Substances used in Medicine and the Arts, with the means of detecting them; intended as a Manual for the Physician, the Apothecary, and the Artisan," New York, 1846.

The publication of the latter volume, the second which might be termed a text-book, the first having been his Chemistry of 1831, brought Dr. Beck face to face with a renewed demand for revision of his Botany, and so, in 1848, just fifteen years after the publication of the original volume, he produced the second.

The title was essentially the same: "Botany of the United States, north of Virginia; comprising descriptions of the Flowers and Fernlike Plants hitherto found in those States, etc."

This was Dr. Beck's last formal publication, but even while he was working on it, he also was engaged in another study of no little value at just that time--into the breadstuffs of the United States, and their relative value to those produced in other nations.

Early in 1848 he was commissioned by Edmund Burke, United States Commissioner of Patents, to undertake such a research, and under date of December 15 of that year, from New Brunswick, he made his first report to the Commissioner. The initial researches were directed particularly at wheat and wheat flour, as the basis of the greater part of the breads then in use, and it was with these that the first report dealt.

The scope of the work, and the earnestness with which Dr. Beck had undertaken it, may best be judged from his covering letter in transmitting the report to the Federal official. It follows, in part:

"Sir: I beg leave to submit, in as concise a manner as possible, the results of my researches in regard to the breadstuffs of the United States since April last. The work has been prosecuted in accordance with the instructions which I have received from you; and I hope its execution, thus far will commend itself to your favor and to that of the public. Being impressed with its importance, I have spared no pains to prepare myself for the faithful discharge of the trust with which you have been pleased to honor me.

"I deem it proper to state distinctly that my constant aim has been to render this investigation useful. My object has been to show in the simplest manner, and with as few technicalities as possible, how the value of the various breadstuffs may be determined, their injury guarded against, and their adulterations detected.

"Whilst I am by no means insensible to the importance of accuracy, and yield a willing homage to those who are engaged in minute and careful ultimate analyses, I supposed that the purpose which you had in view would be best accomplished by the employment of such processes as may be easily understood and even repeated by all those who feel sufficient interest in the subject to read the description which I shall give of them.

"I concur entirely in the remarks made by a reviewer of the first reports on coals suited to the (British) steam navy, 'that the neglect of government to aid science is due, in a great measure, to the mistaken views of scientific men. They have too often overlooked or disregarded those matters which have a practical tendency, which politicians alone consider of importance.' 'Men engaged in maintaining the balance of power and regulating the complicated machinery of a great commercial and manufacturing commonwealth, however capacious their minds, cannot be expected to entertain the theoretical views of the philosopher, who sacrifices his knowledge of the world to his love of science.'

"I thought it proper thus to announce the plan which has been adopted in these researches, to render them useful to the many, without attempting to make additions to the already accumulated stores of the few. As the people, through their representatives, have furnished the means for carrying on this work, they are entitled to receive all of the benefits which are to be derived from it. x x x"

The report, embracing not only descriptions, but also comprehensive tables of analyses of domestic and foreign wheats, was published in 1849 by Wendell and Van Benthuysen of Washington, D. C., apparently the government printers at the time.

Dr. Beck had expected to continue this research, but witha change of administration at Washington, and the appointment of a new Commissioner of Patents, he found the task not to his liking, according to rather bitter comments in his diary. Whereas Mr. Burke had entertained broad views as to the usefulness of such an invostigation, apparently his successor did not, and of the latter Dr. Beck reminisced with rather a bit of sarcasm on the lack of public-mindedness of some public officials.

Relieved of the necessity of continuing this work, Dr. Beck turned his entire attention to his teaching at Albany and New Brunswick. His health began to fail, although his physical reserve was great, and so he persistently kept at his work. He still maintained his connections with scientific organizations, two new memberships coming to him in 1851--an acting in the Natural History Society of the State of New York in March, and an honorary in the Medical Society of New Jersey in April.

In the latter month his brother, Dr. John Brodhead Beck, died, and this apparently hastened Dr. Lewis Beck's death, for now, of the five brothers, only two remained, Lewis, the youngest, and T. Romeyn, the oldest.

Dr. T. Romeyn Beck was engaged, at this time, in a task which might be regarded as indirectly a tribute to the efficiency of his younger brother years before in carrying out the mineralogical survey of the state. The Geological Survey, of which Lewis Beck's work had been a part, had been protracted far beyond the period for which the original appropriations had been made, various claims had arisen, and the whole situation was in that unfortunate state in which many public works, even then, seem to have ended.

Apparently not all of the workers had had the same sense of duty to the public that the State Mineralogist had developed, and the Legislature of 1851 was given the task of straightening out the matter. Dr. T. Romeyn Beck, as Secretary to the Board of Regents and one of the original sponsors of the survey, was chargod with the task of making a final estimate of the cost, and under his supervision and that of a commission named by the Legislature, the survey finally was carried to completion.

During the winter of 1852-53, Dr. Lewis C. Beck became more and more feeble, although he insisted on continuing his teaching at the Albany Medical College. In February, 1853, he was asked to deliver a lecture in New York for the benefit of Hope Chapel, then struggling under a heavy debt, and he readily acquiesed, though against the advice of his friends and relatives.

Working steadily for several days, he wrote out the address, on the subject "Sir Humphrey Davy and His Times," but on the night of the meeting, was prevented from attending by a violent winter storm. It turned out to have been his last effort in behalf of others, for he became ill shortly

thereafter, and at noon on April 20, 1853 died at the home of his brother, T. Romeyn Beck.

Surviving, besides his brother, mother and wife, were six of the nine children born to them, three sons and three daughters. They were T. Romeyn Beck, who became a professor at Hope College, Holland, Mich., and later a Dutch Reformed missionary to Japan; Sidney Smith Beck, a mining engineer, who strangely disappeared on a trip to South America some years later and never again was seen; Louis Dubois Beck, an attorney in New York; and Katharine T., Annie Tucker and Harriet Louisa Beck.

Katharine died in the 80's, while Annie T. Beck was married to the Rev. Elbert Nevius Sebring, a Dutch Reformed clergyman, and had one son, Lewis Beck Sebring, who took up his residence in Schenectady, N.Y., the old home of his Romeyn and Beck ancestors.

Harriet Louisa Beck was married to the Rev. Samuel James Rogers, also a Dutch Reformed minister, who, after serving several pastorates in the East, moved to Minnesota and later settled in Minneapolis, Minn. They had two children, Helen L. Rogers, who never married, and Herman F. Rogers. The third generation from Dr. Lewis C. Beck included three sons, Lewis Beck Sebring, Jr., the son of Lewis Beck Sebring of Schenectady, and Harold N. and Donald James Rogers, sons of Herman F. Rogers of Minneapolis.

Dr. Beck was buried in the family plot at Rural Cemetery, Albany, with honors from scientific and other organizations befitting the service he had rendered.

In conclusion, there could be no more appropriate words than those of Dr. Alden March, an associate of thirty years, describing from personal experience the sort of person Dr. Beck was. In his sketch of Dr. Beck, in "Lives of Eminent American Physicians and Surgeons of the Nineteenth Century," edited by Dr. Samuel D. Gross, and published in Philadelphia in 1861, Dr. March says:

"Industry, honesty, and frankness, regularity, neatness, and economy, were conspicuous in all the positions of life it was his lot to occupy. His literary and scientific labors fully attest his character for industry. During the lecture term he was constantly engaged in the laboratory, either in superintending or in making the necessary manual preparations for his lectures. In his studies his mind was deeply absorbed in the pursuit of the object before him. Even his countenance indicated the hard labor of his mind.

"His honesty was shown in all his business transactions, whether with the public or with individuals. He never availed himself of any position of place or power to speculate or to enrich himself at the expense of the public or of individuals. In all frankness he did not hesitate to express his disapprobation of any measure or business transaction that he could not conscientiously approve and sustain.

"And in his case firmness was so closely united to frankness, that, whenever he openly took a position, he was not easily moved from it. Although,at the latter part of his life, he was not in the enjoyment of good health, yet during his lecture term in our College (Albany Medical), his regularity was proverbial. I uniformly found him in his laboratory early in the morning,and when the lecture hour arrived he was always ready. It was in and out of the laboratory, in the condition of his room and apparatus, books and papers,that order and neatness prevailed. His chemical and philosophical experiments were uniformly neat and successful. He was an economist in the broadest sense of the term; in the employment of his time, in the management of his domestic affairs, and in his expenditures in the lecture room. He did not use chemical tests grudgingly on the one hand, nor prodigally and wastefully on the other. In the management of his laboratory, it is believed that he studied the best interests of the College and his colleagues.

"To give some idea of the estimate placed upon Dr. Beck's instruction, and his devotion to the cause of science even to the last, I shall quote the language of one of his old pupils, a graduate of, and now a professor in the Albany Medical College, (Dr. J.V.P.Quackenbush):

"'Deeply absorbed in the subject which he taught, and persuasive in his manners, he riveted your attention to his remarks, in a way you could not resist. He made you feel that it was his desire that you should learn what he taught; and it was this that made his class ever willing and attentive.'"

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CLASS of 1817

LEWIS C. BECK

According to the July 1817 minutes of the Trustees, Lewis C. Beck was granted the degree of A.B. in 1817. The Registration Books from 1810 to 1817 have been checked through and no record could be found of his registration on entrance.

From: Trustees' Minutes of 1817.

1817 LEWIS C. BECK

The Vermont Statesman says: "We are happy to learn that Lewis C. Beck, M.D., of Albany, an eminent lecturer, has been appointed Professor of Chemistry, Botany, etc., in this institution (Vermont Academy of Medicine).

Albany Gazette
August 29, 1826

Lewis C. Beck.

Member Philo Enterpean Soc. U. College 1815
Philomathean Soc. Union College
Lyceum of Nat. Hist July 1817
Hon. member My. Hist. Soc. 1821
Hospital surgeon My State July 1, 1823
Berkshire Medical Institution, Lyceum of
Nat. Hist Sept. 13, 1824
Soc. Linneaan, Paris. 1826
Kappa alpha Phi Soc.
Hon. member Soc. Nat. Hist. Rutgers Col. 1831
Northern Ins. + acad. of Fine Arts, Albany 1831
My. State cholera agent Bd. of Health 1832
Cor. Mem. acad. Nat Scienes of Phila. Pa. 1833
Life member Am. Bible Soc. 1835
Cor-member Nat. Ins. for Promotion of Science 1840
Boston Soc. Nat. Hist. 1842
Member N. Y. Hist. Soc. 1840
My. State Agricultural Soc. 1849
Nat. Hist Soc. State of My. 1851.

1817 LEWIS C. BECK

He (Torrey) introduced Collins to Dr. Lewis C. Beck, his friend, and "an arduous young botanist," who was on his way to Schenectady to settle in St. Louis. p. 39

Lewis C. Beck in his "Botany of the Northern and Middle States" accepted the system with minor modifications. p. 86

Dr. Lewis C. Beck who was working on a synopsis of "Ferns & Mosses of the United States" and a "Botany of the Northern and Middle States." p. 88

John Torrey
Andrew Denny Rodgers III
Princeton University Press
1942

CLASS OF 1817

LEWIS C. BECK

By Mrs. Catharine E. Van Cortlandt

Lewis C. Beck was the younger of the brothers so identified with the medical and scientific history of their native state. It has been well and truly said that "there never was a great man, the elements of whose greatness might not be traced to the original characteristics or early training of his mother." This was eminently the case with these brothers. Their mother possessed a well balanced mind, and had received no common training. Mrs. Beck was the only daughter of the Revd. Dr. Derick Romeyn, Professor of Theology in the Reformed Dutch church, a man of great learning and piety; he twice refused the Presidency of Queen's College, New Jersey, and was the founder of Union College in our own state. A Regent of the University, the subject of education demanded and received much of his attention. It was probably owing to this fact that his own children were so well and thoroughly educated; his only son, Dr. John B. Romeyn, was widely known as an eloquent and useful clergyman of the Presbyterian church. Dr. Derick Romeyn was devoted to the cause of liberty, and corresponded with the leaders of the American Revolution, Washington, Clinton, and the other great men of that day, in reference to the cause so dear to them all, becoming by these means obnoxious to the tories in his neighborhood. They charged him with the crime of "preaching liberty," and at one period a reward was offered for his capture. He was pastor of the church in Hackensack when that village was burned by the Hessians, and of Esopus when it shared a similar fate at the hands of the British; his daughter was the companion of his flight from the latter place, and was the inmate of the parsonage at Hackensack where her father and the brave Col. Richard Varick were secreted during the attack. In this school of trial and endurance Mrs. Beck early learned lessons of fortitude and energy. In 1784 Dr. Romeyn was called to the church in Schenectady, and here Mrs. Beck married and here all her sons were born. Left a widow at the early age of twenty-nine, she determined that no exertion should be spared on her part to give her five sons a liberal education, her ardent desire being that each of them should embrace a profession, a desire encouraged by her father and in furtherance of which she had his advice and assistance while he lived. To attain this object however, demanded much self-denial and active exertion. Studying with them most of their lessons and diligently caring for every household duty, the home of their childhood presents a beautiful picture. Her good sense, industry and tenderness overcame all obstacles; she lived to see her sons useful in their generation, and honored by all who knew her worth; she entered into her rest at the age of eighty-five, "a shock of corn fully ripe."

CLASS OF 1817-LEWIS C. BECK--2

Lewis C. Beck was born several months after the death of his father, and was the object of peculiar tenderness to his mother. His early education was received at the grammar school of his native city. During his childhood and youth he displayed evidences of that love of nature that characterized his riper years, and was remarkable even then, for the exquisite neatness and careful manipulation that marked every childish experiment and handiwork. He entered Union College at an early age, and graduated in 1815(?). Immediately commencing the study of medicine with Dr. Thomas Dunlap of Schenectady, a venerable and beloved physician, who survived his pupil several years, dying in 1861

Dr. Beck entered upon the practice of medicine in Schenectady when only a little over nineteen years of age. Abram Beck, the second of the brothers, a man of varied talent and great energy, had the year previous commenced the practice of law in St. Louis, and seeing the opening in that region for men of ability, urged his younger brother to remove thither. In those days the journey was most tedious and trying, but it possessed many advantages for a careful observer. Nothing seemed to escape the eye of that youthful traveler, and he acquired an accurate knowledge of the botany and mineralogy of the country through which he slowly journeyed. On his arrival at St. Louis, he found no advantageous opening for the practice of medicine, a fact that seems to have caused him little regret, for in his journal, he writes of having immediately commenced to make himself acquainted "with the natural productions of the region, and in making collections for some publication that might bring them into notice. "I was," says he, "the more desirous of doing this as it seemed to fall in with my previous pursuits." He also amassed materials for an account of St. Louis, so rich in historical reminiscences; the mass of information gathered was carefully selected and from it was formed The Gazetter of Illinois and Missouri. This work was published in 1822, but never received the public attention it merited. It was a work demanding and receiving great care and neatness, the maps and engravings being executed in the best manner, but probably owing to a want of energy on the part of the publishers was little known. In December, 1820, Dr. Beck left St. Louis for home on professional business for his brother, this time making the journey on horseback; a mode of traveling allowing a most careful and extended observation of the country. He reached Washington in season to hear the discussions on the famous Missiuri question, prior to the passage of the Missouri compromise, witnessing the inauguration of President Monroe. The succeeding year Dr. Beck resided with his brother, Dr. T. Romeyn Beck, at Albany, busily engaged upon the Gazetteer.

The death of Abram Beck obliged him once more to visit St. Louis, but he had finally at the solicitation of his mother given up "the prospect of successful adventure in a part of the country which seemed to promise a great reward to industry and enterprise, the rich harvest to which its natural history presented, and which I had as it were just begun to gather, made me regret the necessity which seemed laid upon me to return." The manuscript narrative from which these slight notices of Dr. Beck's western tours are drawn, impresses the reader, most forcibly with the sagacity and forethought of its author. The very sites named by him as suitable localities for sities and towns, in the then almost uninhabited region, have since been

chosen by the pioneer builders of the great west, and he lived to see his anticipation fully realized. On his return to Albany he commenced anew the practice of medicine. He had, however, the same dislike to the practice that induced his brother to resign it, although like him, pursuing its study with zeal. Two papers written at this time for the Medical and Physical Journal, of which his brother Dr. John B. Beck, was one of the editors, show his attachment to his profession. They are entitled "Facts relative to a disease generally known by the name of sick stomach, or milk sickness;" and "An account of the small pox, modified small pox and chicken pox, which prevailed in the city of Albany during the months of February, March, and April, 1824, with remarks on the identity of these diseases, and upon the anti-variolous power of vaccination." In 1823, the Albany lyceum of natural history was established, in which he took a deep interest, devoting much time to the classification and arrangements of its minerals. This Society held its meetings in one of the rooms of the Albany Academy, and in 1828 it, together with the Society for the promotion of useful arts in the state of New York, was merged in a new association called the Albany Institute. Of the thirteen original officers of the Institute but four survive. The Hon. Peter Gansevoort(Union 1814 ?) Joseph Henry, Richard Varick De Witt (Union 1817), and George W. Clinton.

The venerable president, the patriot and patron of science and literature, Stephen Van Rensselaer; the scholar and man of science, the friend of Washington, Simeon De Witt; the brothers T. Romeyn and Lewis C. Beck, M. Henry Webster (Union 1822 ?), Wm. Mayell, Henry W. Snyder, Wm. Cooper, all have passed away. Many members of the Institute must remember well, the energy and enthusiasm of the brothers and their desire that the home of their choice, Albany, should become in the words of the elder, "A focus in which shall be concentrated all the numerous and diversified productions of our state. Nothing is wanting but a proper devotion of that portion of our time, which can be prudently alloted to it; and we should recollect that we are under peculiar obligations to endeavor to effect this." How well they fulfilled these obligations many can attest; none but those whose privilege it was to see their daily life, can know in the fullest extent, their unceasing industry, and generous self-devotion to the cause of humanity, and the improvement of mankind. Before the institute, Dr. Lewis C. Beck read a number of papers mainly upon the botany and mineralogy of New York. In 1824 he delivered a course of lectures on botany at the Berkshire Medical Institution, and later in the same year received the appointment of junior professor of botany, mineralogy, and zoology in the Rensselaer school; a school planned by Prof. Amos Easton and supported for many years by the liberality of the patroon. Dr. Beck remained in his school until 1829, his professorship being changed the year previous, to that of chemistry and natural history.

In 1825 he married Hannah Maria, the daughter of Major Israel Smith of Albany. This most estimable woman still survives him. During the summer of the succeeding year he was appointed professor of botany and chemistry in the Vermont Academy of Medicine located at Castleton, and in 1826 he delivered a course of lectures on chemistry at Middlebury College, Vt.; and also a short course on botany at the Western College of Physicians and Surgeons, Fairfiled, N. Y.

During this period Dr. Beck's pen was not idle. Many interesting and useful articles were from time to time published in Silliman's Journal, in the New York Medical and Physical Journal and the Transactions of the Albany Institute. Among the most important of these are the "account of the salt springs at Salina, and a chemical examination of the water," and an article on "the nature of the compound known as chlorides of soda, lime, etc., and their uses as disinfecting agents." About this time the Hon. Joseph Henry, the distinguished secretary of the Smithsonian Institution, with Dr. Beck, published a scale of chemical equivalents, an improvement upon the original instrument constructed under the direction of the celebrated Dr. Wollaston; Prof Henry arranging the divisions and furnishing the account of the mathematical construction, Dr. Beck arranging the substances according to their atomic weight, and preparing the copy for the engraver, a labor needing all his accuracy and exceeding neatness. During the intervals of his lectures while residing in Albany, he devoted much time to the study of the ferns and mosses of the United States. After more than a year of labor he relinquished the idea of publishing a work on the subject; finding no publisher willing to incur the risk of venturing on a branch of botany so little know and studied at that time. Dr. Beck did not consider his time lost, preparing him as it did for labors of a similar kind. It was also the means of making him acquainted with an ardent fellow traveler in the walks of science. This was the Rev. Lewis De Schweinitz a Moravian clergyman of Bethlehem, Penn. Seeing Dr. Beck's paper on ferns and mosses in Silliman's Journal, Dr. De Schweinitz wrote to him, proffering most valuable assistance, and eventually transmitting to him his extensive collection for examination.

In 1830 Dr. Beck was elected professor of chemistry and natural history at Rutgers College, New Brunswick. He did not, however, enter upon his duties until the ensuing year. Remaining still a resident of Albany, he was busily engaged upon a manual of chemistry intended as a text book for colleges and medical schools. In the winter of 1830-31 he, in connection with Dr. T. Romeyn Beck and Professor Henry, delivered a popular course of chemical lectures at the Albany Academy.

In 1832 the Asiatic cholera appeared upon this continent; and so intense was the alarm felt at the approach of this dreadful visitant, that the governor of the state, Enos T. Throop, convened a special session of the legislature to devise such measures as might be thought necessary to prevent its spread. By special act of this body, Governor Throop was clothed with extraordinary authority to meet any contingencies. Dr. Beck received the appointment of agent to visit the northern and western frontiers of the state, and to procure all possible information in relation to this terrible disease. He was also charged with the duty of arranging with all local boards of health, to procure complete statistics of its ravages. On his return to Albany he presented a full and valuable report on the nature of the disease, its geographical march, its causes, its treatment and the sanitary regulations needed to arrest its progress. The report was published in the transactions of the New York State Medical Society, and republished in the Edinburgh Medical and Surgical Journal. During the same year, Dr. Beck

wrote a most valuable paper of the commercial potash of New York, He had been chosen by the legislature to examine the process adopted for manufacture of potash, and to ahalyze samples with a view to protect the consumer against negligence and fraud on the partof the manufacturer. This paper appeared in Silliman's Journal. In 1833 Dr. Beck resigned his professorship in the Vermont Academy of Medicine, and during the same year published a volume on the botany of the northern and middle states; dedicating it to his friend, De Schweinitz.

The following year he received an appointment as professor of chemistry in the University of New York, which position he held until 1838, when all the professors with a single exception were removed by most arbitrary action on the part of the council and chancellor.

The Hon. John A. Dix, then secretary of state, presented in 1836, a report to the legislature, setting forth the importance of a geological survey of this state, and a liberal grant of more than one hundred thousand dollars was appropriated for this object. Dr. T. Romeyn Beck was one of the originators of this plan, and ardently supported it. William L. Marcy, the governor, a man of large views and comprehensive mind, forwarded this grand work. Lewis C. Beck received the appointment of mineralogist to the survey, including in its duties, a scientific description, and chemical analysis of all soils and minerals. To this work, so congenial to his tastes, he gave seven years of arduous toil. In his own words: "I commenced the work with a zeal arising from a fondness for the pursuit inwhich I was engaged, and with a desire to make my researches useful to the people of the state who had made such a liberal appropriation for their completion." Dr. Beck's management of the portion of the survey committed to his charge was marked by his usual industry, rigid economy, and great devotion to the public interests. At the close of each day, the work was regularly posted up, so that if another hand should be obliged to take it up, his labor would be available for its completion. This was characteristic of the man, and his incorruptible integrity. He dealt with the state as he dealt with individuals; scorning to overreach or misappropriate a farthing not rightfully needed for this purpose. Before the completion of his great work, Dr. Beck accepted the professorship of chemistry and pharmacy in the Albany Medical College, and delivered a course of lectures each year until his death. These lectures with his duties at Rutger's College, New Brunswick, where he now resided, would have fully occupied all the time of an ordinary man. With unwearying industry, he was preparing a new edition of his botany for the press, and a most valuable and useful book for "the physician, the apothecary and the artisan," on "the adulterations of various substances used in medicine and the arts, with the means of detecting them." Added to these were papers for Silliman's Journal , and an elaborate report for the commissioners of patents on the breadstuffs of the United States, and their adulterations. But all this labor was beginning to tell upon him; and for several years before his death, the slight form grew slighter , and the elastic step was slower. Still he worked on. Like his brother, Dr. John B. Beck, who had gone before him but a little while, and the beloved elder brother who was soon to follow them , he labored for the good of others,

and for the furtherance of the object that they all had so much at heart. Not for the position or for fame they labored, but for the good of mankind; content to wear out, but not to rust out. Each died at his post, believing that their work was a life work; not to be laid down until the Master saw fit to call them.

It was fitting that the last literary labor of Lewis Beck should be in aid of a needy church. He was to deliver a lecture in a neighboring city, the subject, Sir. Humphrey Davy, and his times; but a storm prevented its delivery. Feeble as he was, the preparation was too much for him, and no doubt, hastened his death.

The winter of 1852-53 found him as usual at Albany, faithfully lecturing to his class; but his health gradually declined until April, when he suddenly grew worse, and after a few days suffering he died on the 20th of the month, in the 55th year of his age. His sun went down at noon, but he accomplished more than many a man who,lives out his three score years and ten! Who can estimate the value of such a life? The many young men who have from time to time been privileged to listen tomhis teachings, can attest how reverently he taught them to see the Creator's hand in his works, and can bear witness that in those teachings, science was never made irreconcilable with religion, but rather her handmaid. A Christian man, he taught as such a man should teach. The secret of the thorough respect those puplis felt for their teacher, was the knowledge on their part, boys as some of them were, of his honesty of purpose, and his respect for them. Does this expression seem misplaced? Respect for boys? It is an eminently proper expression. If more teachers felt this, boys would not be troublesome fellows they usually are deemed, and not unjustly. In the language of an old pupil, "Dr. Beck made you feel that it was his desire, that you should learn what he taught." They felt this, and even to this day, show it whenever an opportunity occurs, of giving their testimony to his fidelity. The notice of his death in the journals of the day brought swift payments of long unsettled accounts for instruction from those whose very names, perchance, had been forgotten by their teacher, and with them heartfelt tributes of respect to his mourning widow.

Six children, ofthe nine born to him, survive. The eldest son, T. Romeyn Beck, is professor in Holland University, Mich.

The five brothers, and that noble mother, a second Cornelia, have all gine to their reward; but the memory of what they did for their fellow men will not soon persih. A few survivors here and there still recollect the evenings at the old Academy, after the lectures or the meetings of the Institute were over, and the gathering about the hearth to discuss matters of science and humanity, deeming nothing to small or mean, for revernent administration, that their Creator, had made. Their keen interchange of thought, their genial companionship was not disturbed, but enhanced by the presence of the mother, ever near; her keen blue eyes kindling as she listened to the noble themes of discussion, with her clear judgment and well stored mind; her guests were welcome. "Having served their generation, they fell on sleep." What nobler eulogy can be written of them than those simple words of Holy Writ! We leave them to their

hallowed rest, and, remembering how they served their generation, letbus take courage and humbly endeavor, each one of us, in our appropriate sphere, to do what our hands find to do for our fellow man. "Then, whether in the morning of life, or at its fevered bustling noon-day, or in the declining hour we depart, our memories will be cherished, and our names implore the passing tribute of a sigh."

FROM Annals of the Medical Society of the County of Albany-1806-1851.

Sylvester D. Willard, M. D.

J. Munsell Albany 1864.

CHEMISTRY LABORATORY DEPOSITS

Students who have elected or are required to take Chemistry laboratory courses should pay deposits in accordance with the following schedule:

Chemistry 1, 2, 3—General Chemistry	$10.00
Chemistry 11—Quantitative Analysis	15.00
Chemistry 12—Organic Chemistry	15.00
Chemistry 21—Physical Chemistry	15.00
Chemistry 22—Physical Chemistry	15.00
Chemistry 32—Research	15.00

Consult the Dean if you are in doubt as to which Chemistry laboratory course you are taking.

Be sure to give Chemistry course numbers when filling out both of the above coupons.

20 pp pmaphlet on Beck said to be written by Sebring.

Ask Lewis B. Sebring, if desired.

Beck, Lewis Caleb. 1817

1. Manual of Chemistry: containing condensed view of the present state of the science, with --- references to more extensive treatises, original papers, etc. Albany Webster & Skinners 1831. XII (13) 458 p.

2. Mineralogy of New York; comprising detailed descriptions of the minerals hitherto found in the State of New York, and notices of their uses in the arts and agriculture. Albany. W & A. White & J. Visscher 1842.

Beck. Lewis C. 1817

3. **BOTANY:** Beck (Lewis C.) Botany of U. S. North of Virginia; comprising descriptions of flowering and fern-like plants hitherto found in those states. 12mo, pp. 544, cloth. New York, 1848. $2.75. 38

no

For sale by The Arthur H. Clark Co., 40

4. Botany of the Northern and Middle States. Albany 1833.

AK

5. An Account of the Salt Springs at Salina, N. Y. 1826.

no

Mar 1-53

Helmer L. Webb, left, college librarian, receives an original letter written by Thomas Jefferson in 1824, given to the college by Lewis B. Sebring, Jr., formerly Director of Public Relations at the college. Mr. Sebring is the great grandson of Dr. Lewis C. Beck, a 19th century scientist and gazetteer who received the letter from the President. The presentation marks the centennial anniversary of the death of Dr. Beck, a graduate of Union College, class of 1817. In an excellent state of preservation, the letter will be placed with other Union College treasures in the Nott Memorial Library.

1817

Lewis C. Beck, M. D., Professor of Chemistry

and Botany.

(See prospectus of University of New York in folder of James M. Mathews, 1803.)

1817 LEWIS C. BECK

Author: Contributions towards the Botany of the States of Illinois and Missouri.

In American Journal of Science, vol. 10, p.257 1826.

1817 LEWIS C. BECK

MARRIED: On Monday evening, the 17th inst. by the Rev. Dr. Chester, Lewis C. Beck, M. D., to Miss Hannah Maria Smith, daughter of Mr. Israel Smith, merchant, Albany of this city.

Albany Gazette
October 21, 1825.

1817 LEWIS C. BECK

DIED: In Albany, on the 20th inst, Lewis C. Beck, M. D., of New Brunswick, N. J., in the 55th year of his age. Prof. Beck spent his earlier years in, and was, we believe, a native of Schenectady.

The Schenectady Cabinet
April 26, 1853.

1817 LEWIS C. BECK.

Gazetteer of the States of Illinois and Missouri, by Lewis C. Beck.---This is the title of a book we have recently looked through with great satisfaction and instruction. It differs very materially and advantageously from the ordinary compilations which have hitherto been palmed upon the public as descrptive of our western states. It is the work of a man of education, of intelligence, and observation, and abounds with such views of the country, the whole of which almost he traversed in person, and such facts connected with its history and present condition as might be expected from a person thus endowed and qualified. He is, moreover, a son of New York, and that is getting to be a title to consideration and attention, and when united (as in this instance it is) with so many recommendations, it cannot fail of its effect. From New York American.

Albany Argus
August 15, 1823.

CLASS OF 1817

LEWIS CALEB BECK

Lewis Caleb Beck, naturalist, was born in Schenectady, N. Y., October 4, 1798, the son pf Caleb and Catherine Beck. After attending the Schenectady grammar school, he graduated A. M., 1817 from Union College in 1815(?) and took up the study of medicine. He was licensed to practice medicine by the State Regents at Schenectady in 1818. His interest in botany was soon evident, and he discovered a new species of flowering plant near Schenectady, described by Torrey as Bidens Beckii.

In 1820 he moved to St. Louis where he resided until 1822. He made an extensive collection of the plants in the vicinity of St. Louis and later published a list of his collections there (Amer. Jour, Sci. & Arts, 1826, vol. x: 257-264; 1827, vol. xi: 167-182; 1828, vol. xiv: 112-121. Among the several new species he found was the Dwarf Bluet (Houstonia minima. Beck).

In 1822 Dr. Beck moved to New York state, settling in Albany, and residing there during most of the remainder of his life. He held positions as professor of botany, chemistry or natural history, up to the time of his death, in the Rensselaer Polytechnic Institute at Troy, N. Y., Vermont Academy of Medicine; Rutgers College at New Brunswick, N. J., and the Albany Medical College. New New Brunswick, he discovered Lathyrus glaucifolius (now known as L. ochroleucus). His first publication was and "Illinois and Missouri Gazeteer," that appeared in 1823.

He was well known in bitanical circles and was the author of a "Manual of Botany of the United States North of Virginia" (1848) of which two editions were issued. He also published a number of botanical papers and a "Manual of Chemistry " (1831), which passed through four editions. A full list of his writings may be found in a memoir by Alden March in S. D. Gross' "American Medical Biography."

Soon after returning to Albany he married Hannah Maria, a daughter of Israel Smith of that city and they had seven children. During the year 1836 he was a member of the geological survey of New York State, embodying the results of hos exploration in a book on the mineralogy of New York, published in 1842.

In Albany he seems to have been well acquainted with Capt. James Eights, who accompanied the Fanning "Voyage of Discovery" to the South Sea Islands in 1829, because the herbarium of Dr. Beck, acquired by the state and now in the state herbarium, contains a number of plants collected by Dr. Eights on Staten Island, South Shetland and other South Sea places. He was also a friend and correspondent of Asa Gray and his herbarium contains numerous specimens contributed by Dr. Gray.

He died at Albanym April 20, 1853.

By H. D. House.

Emin. Amer. Phys. and Surgs. S. D. Gross.
Annals Med. Soc., County Albany, Miss Cath. E. Van Cortland
Tr. Med. Soc., New York, 1854, J. V. C. Quackenbush.

FROM American Medical Biographies

Howard A. Kelly and Walter L. Burrage

The Norman, Remington Company Baltimore 1920.

1817 LEWIS C. BECK

Lewis Beck

A younger brother (of Romeyn Beck) the local botanist and a member of the Academy faculty, was also a close friend of Henry, although it is doubtful whether he exercised the same influence as Romeyn. p.18

A novelty was introduced in the insulation of the copper wire which betokens Henry's desire to strive after economy. The silk ribbon used to wrap the coils had become a matter of considerable expense when long wires were used. At the suggestion of Dr. Lewis Beck it was decided to wrap the coil with linen thread. Beck had also attempted to avoid the cost of copper wire, and to save the labor of winding it by using iron wire, which was available commercially ready wound. He found, however, that the resistance was too high. His suggestion to wrap the copper wire with linen thread was gratefully adopted and found to answer requirements. p. 58

Joseph Henry
His Life and Work
By Thomas Coulson
Princeton Univ.Press.
Princeton
1950

1817 RICHARD VARICH DE WITT

There might be found from day to day through the winter (1823-24) earnestly engaged in experiments upon steam and upon a small steam engine, and in chemical and other scientific investigations, two young men, both active members of the "Lyceum" then very different in their external circumstances and prospects in life; the one was Richard Varick De Witt the other was Joseph Henry p. 20

Arrangements were made for the journey (to Europe) in company with Richard Varick DeWitt, his old friend of the Albany Institute.....

Henry's preparations for the journey were ~~made~~ begun in November, 1836, when he went with DeWitt to New York. In the following month they set out for Washington, where they proposed to obtain letters of introduction. p. 112

Meanwhile Torrey had been commissioned to book passages for the travellers. Early in February he reported: "I have taken state rooms for two passengers in the splendid ship Wellington which sails for London on the 20th inst. p.113

Footnote p. "Son of Simeon DeWitt, Chancellor of Board of Regents of the Unive rsity of the State of New York,

Joseph Henry
His Life and Work
Thomas Coulson
Princetin Univ. Press
Princeton
1950.

1824 STEPHEN ALEXANDER

Stephen Alexander, Joseph's cousin, was a delicate and sensitive youth who, at the age of eighteen had graduated from Union College with high honors in mathematics and astronomy. He was to be a teacher at the Academy for a few years. Since they had kindred interests, a close intimacy sprang up between the two cousins. Stephen was to follow Henry to Princeton, and eventually became a professor of astronomy there. The cousins conducted several investigations together. p.43

(Henry) lectured in astronomy, a subject in which he undoubtedly had improved his knowledge through association with Stephen Alexander, who had accompanied him to Princeton where he was entered as a student of theology. p.104

In 1845 he began a series of observations on the heat radiation of sunspots. He was aided in this work by his brother-in-law, Stephen Alexander, who had withdrawn from the Theological Seminary and had joined the faculty of the college. p.166

Joseph Henry
His Life and Work
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Princeton Univ. Press
Princeton
1950

1825 ALEXANDER S. ALEXANDER (Joseph Henry)

(Joseph Henry) entered upon his academic duties in September, 1826. His appearance as a member of the staff of such a highly reputable institution evidently aroused a feeling of family pride among his relatives for it prompted one to write him this congratulatory letter.

Rochester
February 11, 1827.

Cousin Henry:

Surprise is one source of pleasure, an effect this letter may possibly produce since the long silence betwen you and me has never been interrupted by any paper communication. All the merit these lines cam claim will be perhaps to produce an echo.

I write to tell you I have seen an extract from your inaugural address and the only reason I was not more delighted was that I could not see the whole production which is worthy of the Professor, a feast to the men of intellect as well as to the man of taste. From what I could gather from the Argus I must congratulate you on its success at the time of its delivery before a learned and polite auditory. May your professorship be as splendid as its commencement was brilliant....Let me exhort you not to give yourself exclusively to the dry bones of diagrams but consider that you were partly made for your friends and social intercourse.

Yours most affectionately,

Alexander S. Alexander.

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When the telegraph he (Morse) built failed to operate he realized his technical shortcomings and consulted a colleague, Leonard Gale, professor of chemistry at the College of New York. Gale instantly saw Morse's errors and recommended a thorough study of Henry's paper on the transmission of electrical impulses over a long wire which had appeared in Silliman's Journal. This paper and further assistance from Gale set Morse on the right track. p. 128

Once Professor Gale had set him on the right path, Morse sought Henry's counsel..... p. 215

Professor Sears C. Walker of the Coast Survey had been engaged in writing an official report upon the value of the telegraph in geodetic survey. In order to obtain suthentic material upon the development of the telegraphic system in this country he called a conference in his office which was attended by Morse, Gale and Henry. During the course of this meeting Morse made the extraordinary statement that until he had read Henry's paper in 1847 he was unaware that the professor, while at Albany, had preceded him by two years in the discovery of the telegraph.

Leonard Gale interposed to remind him that he had introduced him to Henry's work in 1837. To this correction Morse offered no comment. p. 218-219

Shortly after the conclusion of the O'Reilly case, Leonard Gale complained in a letter to Morse that Henry was as frigid as a polar bear toward him. There was some reason for this change of attitude.

In his testimony in that case Gale had made a blunder which can only be attributed to the diligent coaching he had received from Morse's legal counsel. He must have been so thoroughly drilled in his answers, so indoctrinated with the impression he was to convey, that he became confused. Otherwise he would never have testified as he did, that the first time he saw Morse's telegraph it was operating satisfactorily. This was to ignore the reason why Morse had sought his advice, and why he had suggested that Morse study Henry's paper describing the intensity battery and magnet.

Gale late corrected this error. p. 224.

The most injurious of these supplementary documents came from Professor Gale. Henry did not doubt Gale's veracity. He was convinced that the erroneous statement on the witness-stand had been made in confusion created by the suggestions and ambiguities offered by the lawyers in their questions to witnesses. Accordingly, Henry had written to Gale begging him "to state definitely the condition of the invention when he first saw the apparatus in the winter of 1836."

Gale's reply left nothing to be desired. He wrote:

...The sparceness of wires in the magnet coils and the use of the single cup battery were to me, on the first look at the instrument, obvious marks of defects, and I accordingly suggested to the Professor, without giving my reasons for doing so, that a battery of many parts should be substituted for that of a single pair, and that the coil on each arm of the magnet should be increased to many hundred turns each; which experiment, if I remember aright, was made on the same day with a battery and wire on hand, furnished I believe by myself, and it was found that while the original arrangement would only send the electric current through a few feet of wire, say 15 to 40, the modified arrangement would send it through as many hundred. Although I gave no reasons at the time to Professor Morse for the suggestion I had proposed in modifying the arrangements of the machine, I did so afterwards, and referred in my explanations to the paper of Professor Henry, in the 19th volume of American Journal of Science, page 400 and onward..

At the time I gave the suggestions above named, Professor Morse was not familiar with the then existing state of the science of electro-magnetism. Had he been so, or had he read and appreciated the paper by Henry the suggestions made by me would naturally have occurred to his mind as they did to my own. ....Professor Morse expressed great surprise at the contents of the paper when I showed it to him, but especially at the remarks on Dr. Barlow's results respect telegraphing, which were new to him, and he stated at the time that he was not aware that anyone had even conceived the idea of using the magnet for such purposes. pp.230-231.

Joseph Henry
His Life and Work.
By: Thomas Coulson
Princetin University Press
Princeton
1950.

1826 THOMAS HUN

Henry arrived in Paris on May 10.

By good fortune he met Thomas Hun, a friend of Albany days, who was residing in the Latin Quarter while studying medicine. Hun's services as an interpreter were promptly enlisted. In later years, when he was a well-known medical practitioner, Hun used to boast facetiously that he had been "mouthpiece to his majesty, Joseph Henry." p. 121

Joseph Henry
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Princeton
1950.

1826 ORLANDO MEADS

Dr. Orlando Meads gives an interesting accoubt of Henry in these days on an address read before the Albany Institute:

"When a boy in the Albany Academy in 1823-24, it was my pleasure and privilege, when released from recitations, to resort to the chemical laboratory and lecture room. There might be found from day to day through the winter engaged in experiments upon steam and upon a small steam engine, and in chemical and other scientific investigations, two young men, both active members of the "Lyceum," then very different in their external circumstances and prospects in life; the one was Richard Varick De Witt (Union '17) the other was Joseph Henry, as yet unknown to fame, but already giving promise of those rare qualities of mind and character which have since raised him to a very high rank among experimental philosophers of his time.

"Chemistry was at that time exciting very great interest, and Dr. Beck's courses of chemical lectures, conducted every winter in the lecture room of the Academy, were attended not only by the students, but by all that was most intelligent and fashionable in the city. Henry, who had formerly been a pupil in the Academy, was then Dr. Beck's chemical assistant, and already an admirable experimentalist, and he availed himself to the utmost of the advantages thus offered, of prosecuting his investigations in chemistry, electricity, and galvanism." p.20

Joseph Henry
His Life and Work
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Princeton
1950.

ELIPHALET NOTT

The town of Albany had a good school, the Albany Academy, which Dr. Nott, president of Union College, described as a "college in disguise." p. 16

From the outset the obstacles to success loomed larger and solider than they had when viewed from Princeton. On the day after Christmas he wrote a letter to President Nott of Union College reflecting the doubts which had crept into his mind.

"Please accept my thanks, he wrote, for your kind congratulations on my appointment to the office of Secretary of the Smithsonian Institution" etc. p.182

Joseph Henry
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Princeton
1950.

1807 T. ROMEYN BECK

As the General (Stephen van Rensselaer) was head of the Academy's Board of Trustees, it was natural that he should apply to its principal, Dr. Romeyn Beck, to redommend sone one for the post (as tutor for the General's children). Beck had been impressed by Henry's earnestness and determination, and gave him such a high recommendation that he was appointed to the vacancy. p. 17

At this time, attendance at philosophical and scientific lectures had become a fashionable pastime, and Romeyn Beck's chemical lectures drew large audiences to the Albany Academy. This might have enabled his assistant, Joseph Henry, to extend his social acquaintances, for he had to arrange Beck's apparatus. p. 19

In the spring of 1826 Dr. Beck informed him (Henry) that the chair of Mathematics and Natural Philosophy at the Albany Academy would soon by vacant and that Henry would be appointed to fill the post. p. 24

The Regents of the University of the State of New York who supervised the educational establishments, promoted a a system of meterorological observations by distributing a number of thermometers and wind guages. The observers were requested to devote special attention to the study of weather conditions of those days when the behavior of domestic animals and wild birds showed a departure from the normal. Having enlisted a corps of observers, the Regents soon found themselves burdened with a mass of unrelated data.

In 1827 Simeon de Witt, chancellor of the Board of Regents, concluded that this material required tabulation and correlation. He engaged Dr. Beck to undertake the work, and Beck recruited the aid of Joseph Henry..... p. 30

Joseph Henry
His Life and Work
By Thomas Coulson
Princetin Univ. Press
Princeton
1950.

1817 Lewis C. Beck

See Rederences to
Asa Gray 1810-1888
A. Hunter Dupree
The Belknap Press of
Harvard University
Cambridge, Mass 1959

pp. 16, 17, 22, 51

LEWIS C. BECK 1817

Excerpts from ASA GRAY 1810-1888 by A. Hunter Dupree (The Belknap Press of Harvard University, Cambridge 38,Mass.) (1959)

pp.15 - 17

"Collecting plants was Gray's first sustained effort in science. Since he had open to him no formal course in botany, this was a good way to begin. By gathering and naming the plants around him he could gain not only a rough knowledge of local flora but also some sense of which plants were common and which were either undescribed or imperfectly understood---"interesting" the botanists loved to call such oddities. Also, the duplicates of local plants could be used to good advantage in trades with other workers, serving as the currency which bought wider horizons in the form of books and specimens from distant places. Plants pressed between blotters until dry and mounted in some convenient way form a permanent record and are thus an essential part of the apparatus of botany. Each worker prided himself on his herbarium, as the collections are called, and attempted to add as many plants as possible. Such specimens were even in 1830 comparatively easy to send long distances wrapped in small parcels or even folded in newspapers.

"Gray hardly missed formal classes in botany, for he had the help and encouragement of Dr. Hadley from the beginning. But there was a limit to the direct instruction that Hadley with his few months' training in New Haven could give. He performed a far greater service to Gray by putting him in touch with the more active workers. "At Professor Hadley's suggestion I opened a correspondence with Dr. Lewis C. Beck of Albany, the leading botanist of the region".

"Dr. Beck, who sometimes gave a course of summer lectures in botany at Fairfield, was one of a number of men interested in science in the neighborhood of Albany. He had at one time taught with Amos Eaton at Troy and was in 1830 teaching at the Albany Academy.[37] Gray probably began sending him plants in 1829 and received in return both specimens and the names of plants about which the inexperienced collector had doubts. In May 1830, Dr. Beck wrote to Gray at Bridgewater, "Your plants have interested me very much & I should think your locality a fine one. I wish you would take up the mosses of your region." Mosses were not flashy enough for a very young man, but Beck furnished some food for thought on other unsolved problems, one of which stayed with Gray for the rest of his life. "Solidagos & Asters vary so exceedingly that I hardly dare pronounce on many of them. They do not appear to have been well studied by any of our botanists....." Thus Gray had found the great family of the Compositae and began to gather the experience with its unusual complexities which ultimately made him an authority on it.[38]

"Since he spent most of the time he could spare from medicine on botany, Gray did not take long to catch up with Dr. Beck in output if not in experience. The naturalist, amid his galaxy of separate sciences, was breaking down under sheer weight of work. Beck with the best of intentions nevertheless had to stall in furnishing aid. "I hope you extend your charity to me for seeming neglect, when I state that ..... I have been incessantly occupied in lecturing & in superintending the publication of a Manual of Chemistry which is just completed."[39] Gray was on the lookout for new friends and new opportunities.

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37. Ibid.; "John Torrey," Scientific Papers, II,362
38 Gray to Torrey, Jan 23,1833, Letters, I, 40-41
39. Asa Gray, New York, to N. W. Folwell, Oct. 4, 1834, from a copy furnished by Mrs. D. W. Brown, Romulus, N.Y.

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pp.15- 17

"In the summer of 1830, Dr. Trowbridge needed medical books and in sending his apprentice on the errange he gave Asa his first glimpse of New York City. He drove in a wagaon, "with my own hose, ninety miles to Albany, thence by steamer to New York over night; one night there, and back next day by boat to Albany, and so driving back to bridgewater...." Stopping at the Albany Academy he saw Dr.Beck and also a grave-looking man who I was told was Professor Henry, who had just been making a wonderful electro-magnet." Both Joseph Henry and the magnet would make a mark."

p.22

"Before he had been many months in the pleasant and worldly atmosphere of Bridgewater, Gray's ambitions wandered from medicine back to his love of botany. "It is a very healthy time with us. I have only a small business in the medical line for which I am very thankful as I want all the time I can get. Dr. Tro will be at home in a week or two when I shall be even more at leisure." Meanwhile his correspondence with Dr. Torrey flourished. "He promises to send me a first rate mixroscope etc------." Nor had Dr. James Hadley forgotten his prize student. For some years Hadley and Dr. Lewis Beck had given a summer course at Fairfield, charging six dollars per pupil for a series of chemistry lectures and four dollars for similar instruction in botany. In the summer of 1831 Beck could not be there and Gray received his place through the influence of Hadley, a young doctor names William Mather taking the chemistry. Gray occupied himself the whole spring in blocking out the thirty lectures and "preparing plates,etc." ..... "

p..51

"The grand objective of the new textbook was to supplant Eaton's type of instruction. In 1835, ten of forty-two academies of New York State used Eaton's Manual, and twenty-two used Mrs. Almira Hart Lincoln Phelps' text in some edition. Mrs. Phelps, the sister of Emma Willard, taught in Troy, New York, and pioneered in a remarkable series of science textbooks suitable for women. Her botanical information came directly from Eaton. The remaining ten schools scattered their choices among, Beck, Comstock, Jacob Bigelow, or Peter Parley.[90]"

90. Regents of the University of the State of New York, Annual Report (Albany,1836) 40

1817 LEWIS C. BECK.

Was born at Schenectady, N.Y.,October 4, 1798; died at Albany, N.Y., April 21, 1853. Was a brother of John B. and Theodoric Romeyn Beck. He graduated at Union College in 1817. Was admitted to the practice of medicine at Schenectady in 1818; he resided in St. Louis in 1820-21, and afterwards settled in Albany. He was appointed Junior Professor of the Rensselaer School before it opened, November 5, 1824, to give full courses of demonstrative lectures on chemistry, botany, mineralogy and zoology, and resigned September 1, 1828. He was professor of botany and chemistry in the Vermont Academy of Mediciane 1826-32; gave a course of lectures (chemical) at Middlebury College in April, 1827; was mineralogist of the surtey of New York in 1837. In 1830, he was professor of chemistry and natural history in Rutger's College, N.J., and at the time of his death was professor of chemistry in the Albany Medical College. He published "Account of the Salt Springs at Salina," 1826; "On Adulterations," 12mo.New York, 1846; "Botany of the United States," and of the "United States North of Virginia," 12mo, 1848; "Mineralogy of New York," quarto, 1842; "Illinois and Missouri Gazetteer," octavo, 1823; "Chemistry," 1831. For a complete list of Dr. Beck's writings , see Memoir by Dr. Alden March, in "Gross's Medical Biography."

Biographical Record p. 133
Rensselaer Polytechnic Institute
Henry B. Nason, Editor
Troy. 1887

of

1817 Lewis C. Beck

Lewis C. Beck, afterwards a mineralogist for the State of New York, came from Rensselaer to teach Chemistry.
p. 44

He was one of the seven members of the faculty to be discharged.in 1838. (See under Proudfit, Class of 1821)
p. 50

History of N.Y.U.
Theodore Francis Jones

1817 Lewis C. Beck

Lewis C. Beck, afterwards mineralogist for the State of New York, came from Rensselaer to teach Chemistry.

New York University p. 44
1832 : 1932
Theodore Francis Jones, editor
N.Y. Univ. Press
1933

DR. LEWIS C. BECK 1817

Died: In this city, Wednesday evening, Dr. Lewis C. Beck, Professor of Chemistry and Natural History at Rutgers College, New Jersey, and of Chemistry in the Albany Medical College.

1853

Prof. Pearson's Scrap Book p. 77

NEW YORK UNIVERSITY

OFFICE OF THE REGISTRAR

WASHINGTON SQUARE, NEW YORK

May 26, 1924

Mr. Charles N. Waldron, Secretary
Graduate Council Union College
Schenectady, New York

1817

Dear Sir:

I find a record of Dr. Lewis C. Beck as professor of chemistry from 1834 to 1838. He is credited with an M.D. degree. The only other record that I have of Professor Beck are some items from the first bibliography of the faculty. I give you below these items.

Beck, Professor Lewis C.
Manual of Chemistry.

1842. Mineralogy of the state of N.Y.; comprising detailed descriptions of the minerals hitherto found in the state of N.Y., and notices of their uses in the arts and agriculture. (This is Part III. of the Natural History of N.Y.) Albany. (Thurlow Weed, printer to the state.) 4 to, pp. 536 and eight additional plates.

1848. Botany of the United States north of Virginia; comprising the descriptions of the flowering and fern-like plants hitherto found in those states, arranged according to the natural system. N.Y. (Harper and Brothers.) 12mo, pp. 480.

Yours very truly

Jean B. Bauer

Assistant Registrar

JBB:EP

Lewis D. Beck, M. D. Professor of Chemistry and Natural History--at Rutgers College, Union 1817.

From: Notices in a newspaper in 1833.

CLASS OF 1817

LEWIS CALEB BECK

Son of Theodoric Romeyn Beck(Union 1807), was born in Schenectady October 4, 1798 and died in Albany, April 20, 1853. He was graduated at Union College in 1817, studied medicine, and began the practice of it in Schenectady in 1818. During 1820-21 he resided at St. Louis but soon returned and settled in Albany. He was successively Professor of Botany in Rensselaer Polytechnic Institute (1824-29); professor of botany and chemistry in the Vermont Academy of Medicine (1826-32), professor of chemistry and natural history at Rutgers College(1830-37 and 1838-53), and professor of chemistry and pharmacy at Albany Medical College (1841-53). He also delivered a course of chemical lectures at Middlebury in 1821, and was appointed mineralogist to the geological survey of New York in 1837. His published works include

"A Gazetteer of Illinois and Missouri" 1823
"An Account of the Salt Spring at Salina,N.Y." 1826
"Manual of Chemistry" 1831
"Mineralogy of New York" 1842
"On Adulteration" New York 1846
"Botany of the United States North of Virginia" 1848

"Mineralogy of New York" is probably his most important contribution to scientific literature.

FROM Appleton's Cyclopaedia of American Biography.

1830 LEWIS CALEB BECK, A.B. (Union, 1817), A.M. (Union), M.D. *1853
Born at Schenectady, N. Y., Oct. 4, 1798.
Professor of Botany, Rensselaer Polytechnic, 1824–29.
Professor of Botany and Chemistry, Vermont Academy of Medicine, 1826–32.
Professor of Chemistry and Natural Philosophy, Rutgers, 1830–53.
Professor of Chemistry and Pharmacy, Albany Medical College, 1841–53.
Died at Albany, N. Y., Apr. 20, 1853.

1830 ↓ appl's. to Faculty at Rutgers

Rutgers Cat. p. 37.

LEWIS C. BECK, 1817, a resident of Albany, N.Y., was a member of the Philomathean Society. (Died: 1853)

Philomathean Catalogue 1830.

CLASS OF 1815

LEWIS CALEB BECK

(1798-1853), naturalist, was born in Schenectady, N. Y., October 4, 1798, the son of Caleb and Catherine Romeyn Beck. After attending the Schenectady grammar school, he graduated A. M. from Union College in 1815 and took up the study of medicine. He was licensed to practice medicine by the State Regents at Schenectady in 1818. His interest in botany was soon evident, and he discovered a new species of flowering plant near Schenectady, described by Torrey as "Bidens Beckii."

In 1820 he moved to St. Louis where he resided until 1822. He made an extensive collection of the plants in the vicinity of St. Louis and later published a list of his collections there (Amer. Jour. Sci. & Arts, 1826, vol. x: 257-264; 1827, vol. xi: 167-182; 1828, vol. xiv: 112-121). Among the several new species he found was the Dwarf Bluet (Houstonia minima. Beck). In 1822 Dr. Beck moved to New York state, settling in Albany, and residing there during most of the remainder of his life. He held positions as professor of botany, chemistry or natural history, up to the time of his death, in Rensselaer Polytechnic Institute at Troy, N. Y.; Vermont Academy of Medicine; Rutgers College at New Brunswick, N. J., and the Albany Medical College. Near New Brunswick he discovered "Lathyrus glaucifolius (now known as L. ochroleucus).

His first publication was an "Illinois and Missouri Gazeteer," that appeared in 1823. His principal medical work was his report to the government, on cholera, N. Y. (1832). He was well known in botanical circles and was author of a "Manual of Botany of the United States North of Virginia" (1848), of which two editions were issued. He also published a number of botanical papers and a "Manual of Chemistry" (1831), which passed through four editions. A full list of his writings may be found in a memoir by Alden March in S. D. Gross' "American Medical Biography."

Soon after returning to Albany he married Hannah Maria, daughter of Israel Smith of that city and they had seven children. During the year 1836 he was a member of the geological survey of New York State, embodying the results of his explorations in a book on the mineralogy of New York, published in 1842.

In Albany he seems to have been well acquainted with Capt. James Eights (q.v.), who accompanied the Fanning "Voyage of Discovery" to the South Sea Islands in 1829, because the herbarium of Dr. Beck, acquired by the state and now in the state herbarium, contains a number of plants collected by Dr. Eights on Staten Island, South Shetland and in other South Sea places. He was also a friend and correspondent of Asa Gray and his herbarium contains numerous specimens contributed by Dr. Gray.

He died at Albany, April 20, 1853.

H. D. House.

Dictionary of American Medical Biography
Kelly & Burrage

p. 86

Lewis Caleb Beck 1817
GB

Lewis Caleb Beck 1817 A.B.