



FREDERICK BREDEL

FREDERICK BRENDDEL,  
THE PIONEER BOTANIST OF PEORIA

BY

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*Peoria, Illinois*

Let us look back one hundred eleven years. James Monroe, our fourth president, was then in office and the great Napoleon was still a prisoner on St. Helena.

It was on January 20, 1820, that to the house of Brendel, Mayor of Erlangen, Bavaria, was born a son, soon after to be christened in the Lutheran Church with the name of Frederick.

The Brendels of many generations had lived here, honored and respected, a people of culture and refinement, whose sons began their education with the distinct understanding that there was no stopping-place until they had earned a diploma and college degree at the University of Erlangen.

The Mayor was widely known as the owner of the wagon works of the city, where the great freight wagons were built for transporting the products of German factories to all parts of Europe in the days before steam locomotives.

The boy was sent to common school at the age of six and the next year began what he was pleased to call "a seven-year fight with Latin."

He was also sent to Sunday school, but "the boy is father of the man" and we are interested to find that little Frederick preferred listening to the skylark and the amsel rather than to homilies and slipped away to the woods; but played safe by waylaying a less daring chum, and getting the Golden Text and the gist of the lesson before going home.

The fields and woods were the very breath of life to him and it is little wonder that his playmates nicknamed him "der Wilde," or the wild one. I am sorry I have not the details of those early years, for I feel sure they would be as entertaining as the escapades of the "Madman" of "Tom Brown's School Days."

As a boy he collected plants and frequented the lectures of the venerable Koch, author of *Flora Germanica*, in the summer semester of 1840, and took part in the Saturday excursions under his direction. With good health and alert mind the days quickly passed, and at nine-

teen he entered the university of his native city to come forth with high honors as an M. D., August 21, 1843. From 1846 to 1848 he was assistant physician of the surgical department of the city hospital at Bamberg, but lost the position because of his radical political activity.

When he was thirteen years old an incident occurred which made a deep impression on his mind. There was a secret democratic movement on foot against the monarchy and a group of young men were arrested and some of them executed; among them one who had been staying at the house of the mayor. To the boy they were martyrs and heroes, suffering for a great cause.

Then came the political uprising of 1848, and young Brendel, whose feelings were too strong to be hidden, was brought before the court and accused of editing a seditious paper. "If I *were* guilty I would not answer "yes," for the law does not require me to convict myself; it is your privilege to prove it to me if you can," said the young doctor. He was reprimanded and refused permission to practice medicine unless he chose to show himself loyal to the monarchy and was given to understand that the country would be better off without people of his belief. So on March 2, 1850, he embarked for New York, as Engelmann, Lindheimer, and many others of Germany's finest young men had already done.

The voyage of forty-six days on the *Elizabeth Dennison*, an American sailing vessel under Captain Spencer, brought him to New York where he was met by Eberhard Faber, the pencil manufacturer.

The first book he bought a few days after landing was a copy of the second edition of Beck's "Botany of the Northern States" and his first plants, collected north of Hoboken, were *Cornus canadensis* and *Saxifraga virginensis*.

After a brief stay here he journeyed westward, botanizing at Albany, Niagara Falls, Sandusky, Cincinnati, and St. Clair County, Illinois, collecting about five hundred species.

During the next year he collected nearly all the vascular species that occur in St. Clair County and St. Louis, and began an acquaintance with Dr. Engelmann, which continued up to the time of Dr. Engelmann's death.

Two years later in company with Dr. Feinse, he moved to Peoria, arriving there February 11, 1852. Dr. Brendel made his home in what was then a very suitable part of the little city, on Water street, with his office in the same building. Later he moved his office to Mathie's Drug Store at the corner of Bridge and Water streets.

It was the custom of that time to write code prescriptions to be filled by the apothecary. Here he led the life of a typical country

doctor in the days before telephones, when half the country roads were only trails and people came post haste on horseback and the doctor held himself ready to dash away at any minute—day or night, rain or shine.

He stood at the head of his profession both as a physician and surgeon, but it was in a day when home-made herb teas and drug store patent medicines were kept in every home to save expense, so I have no doubt the good doctor had many an hour of undisturbed study.

On Sundays with his large tin vasculum he was away to the hills or bogs collecting plants and studying the mystery of life in all its forms.

He was familiar with seven languages and spent a large part of his income on scientific books from all parts of the world. His library contained more than two thousand volumes, ranging from the large folio of L'Heritier on *Cornus* printed in 1788, or Persoon's little *Synopsis Plantarum*, no larger than a prayer book, printed in double columns in 1805, to the later-day reprints of short articles sent him with the autographed compliments of the authors. These latter were carefully bound by his own hands.

In 1855 he began recording the daily temperature, the rainfall, and other meteorological items. This record was faithfully kept for fifty years. Fuller, of the local weather bureau, records that the doctor while ill and lying day after day apparently unconscious would rouse regularly near the observation hour and direct the nurses to read the thermometers.

He was elected vice-president of the Illinois State Natural History Society at Bloomington, June 30, 1858.

In 1860 he collected in the southern counties—Jackson, Union, Pulaski, and Alexander—specimens of such woods as are not found further north, forming a nearly complete collection of Illinois woods which was exhibited at the state fair in Jacksonville the same year.

His general herbarium contained about eight thousand species, many of them represented by specimens from several localities, and in addition to this he had a separate collection of Illinois plants containing the species mentioned in "Flora Peoriana."

It was largely by his efforts that the Peoria Scientific Association was organized, April 17, 1875, with the doctor as vice-president. In ten years, Dr. J. T. Stewart, his able companion, records, one hundred sixty-seven papers had been read, the museum contained more than ten thousand specimens, and the library one hundred and fifty volumes. During this tenth year no less than seven thousand seven hundred visitors had inspected the collections.



The Pentstemon Society, a happy group that met in the woods to enjoy life in the springtime, the German library, and the German school were all promoted by the doctor and his close associates of the Scientific Association.

One day in early autumn he set out alone on foot among the bogs of the Illinois river bottom to gather seed of *Lobelia cardinalis* for friends in the Fatherland. In the tall timber, twilight comes early, and becoming lost he floundered among the hummocks until nearly exhausted. At last he spied a light in a farm house at the foot of the bluffs and finally long after dark managed to reach it.

His family after a sleepless night were overjoyed to see a farmer's wagon come up the street bringing their beloved father to them once more. His first words were, "Did you remember to read the thermometer?"

Another incident which has been related to me tells of his being called away from an interesting specimen to attend a country patient. The doctor walked in the front door and on out the back, got into his buggy and started for home. If I laughed when I heard this it was not at the dear old man but rather at the consternation of the patient's household.

More and more as he grew older the importance of the eternal truths of science and the insignificance of mere temporal matters grew upon him.

In 1887 the results of his years of study of the local plant life were published as "Flora Peoriana," recording the presence of eight hundred thirty-five species and varieties of native vascular plants, as well as mentioning all introduced species and listing the mosses and hepatics. Many of the species are now extinct, and none of us have been able to add any considerable number to the list. Of the few unrecorded ones I have found I would not wish to boast; it would please me better to discover a later record in some unexpected place or an herbarium specimen labeled in his handwriting in some old collection.

"Flora Peoriana" is no mere checklist, but beginning with the climate, topography, and geology, the author discusses the flora of the prairie, the woodland, and the swamp; considers the introduced plants and the cultivated species. He then analyzes and compares order by order our flora with that of other localities and shows the distribution of these same species in other states and finally lists all Illinois species not yet found within the Peoria region.

His herbarium is now at the State University. His books are scattered; some the family still treasure, I myself have a few, some were loaned and never returned.

I wish the local Academy might feel it their duty to raise funds to acquire all that may still be available of this valuable library. I would gladly donate the half dozen volumes which I have.

Of his collections of other branches of Natural History—insects, reptiles, and mollusca—all we can say is that they are gone.

His immense file of correspondence with letters from practically every American scientist of the nineteenth century has been burned.

As I have gone about searching for items for this paper, the remark heard most often is, "He was a great man—greater than we realized; he was not properly appreciated."

He modestly held to the belief that the making of new species should be left to the professional scientist and so far as I have been able to find he never once published a new species or had one named in his honor.

He was a physician and surgeon of note, an all-around naturalist of the first rank, a nature guide before the National Parks were organized, a meteorologist before the Government began its records, and as an agrostologist of the U. S. Department of Agriculture recently expressed it, he was an ecologist before that word was invented.

That he was a poet as well we cannot doubt as we read his description of the woodland:—(Vol. III Trans. Ill. State Agr. Soc.)

"It is a singular charm, to roam in a mighty forest, now below the green dome of transparent foliage, the lofty home of a melodious chorus, diffusing a magic light over the flower covered ground; now below the darker shelter of a thick, leafy roof, where the mossy stone checks the murmuring rivulet, or the woodpecker's monotonous thump only interrupts the solemn silence.

"Upward winds our path; we proceed to the platform of a steep rock. How delightful a scene opens to our view below! The rocky walls rise above an ocean of manifold shaped foliage, resplendent in fall-time with a variety of brilliant different colors and shades; a broad stream winds through the valley, reflecting on its silvery sheet the forms of the bordering willows or the houses of a peaceful village, or the smoking factories of a noisy city, on the background of which stretches the wide prairie, crossed by roads and checkered with farms and small groves.

"The horizon bounds a line of wooded bluffs. Everywhere a variety of points for the eye to rest on.

"A treeless plain fatigues the eye; a wilderness of naked rocks arouses gloomy sentiments; but the woods embellish the landscape as the curling hair does the child's blooming face.

"To rob a country of this ornament, manifests a want of good taste. To destroy entire forests of useful trees proves an abundance of damnable heedlessness, which does not care about the future, and has been repented in many cases when too late."

The doctor married Miss Elizabeth Miller in 1861 and of their twelve children one son and six daughters were living at the time of his death August 10, 1912.

At his own request his body was cremated.

From the doctor's pen we have the following:

In Gerhards, "Illinois as it is," 1857, 3 maps which show geological formations, population, and distribution of forests and prairies; also a chapter on "Climate, Soil, Plants, and Animals." In the Transactions of Illinois State Agricultural Society, Volume II, 1856-57, "Historical Researches upon Cultivated Grain Fruits in the State of Illinois," and also in Volume II, "An abstract of Meteorological Observations for the year December 1, 1855 to November 30, 1856." In Volume III (1857-1858) of the same "Transactions" are, "Additions to Lapham's list of the Illinois Flora—79 species," followed by a list of 27 species of mosses found in the vicinity of Peoria, and also "Trees and Shrubs of Illinois," and "The Oaks of Illinois," with 10 plates. Volume IV contains "The Trees and Shrubs of Illinois" (continued), with 10 plates of which the doctor writes, "Disgusted by the bad execution of very good drawings by a probably cheap artist, I did not continue any more."

The Transactions of Illinois State Natural History Society includes a paper on "The peculiar growth of the Water Lily *Nelumbo lutea*," read before the society in June, 1860, and illustrated with one plate.

In the American Naturalist, May-June, 1870, is the article, "Nomenclature and Classification of American Oaks," an extract from which was published in the Entomologist and Botanist, St. Louis, July and August, 1870.

"The Tree in Winter," illustrated with four plates, was published in Bulletin 1 (1876) of the Natural History Survey of Illinois, and "Historical Sketches of the Science of Botany in North America from 1635 to 1858," appeared in the American Naturalist in December, 1879.

The Bulletin of the Scientific Association of Peoria in 1887 contained "The Climate of Peoria," read September 24, 1886, and "Immigration of Animals and Plants," read September, 1886.

In the Secretary's report for the year ending May 1, 1886, it is recorded that Brendel presented two other papers on "Grasshoppers" and "Early French Settlements in the Western States," which were

probably never printed. "De Floren Gebiete Nordamerikas," was published in the *Zeitschrift für die gesammten Naturwissenschaften*, Vol. 41 (1873).

"Flora Peoriana" was originally written for "Flora," a German periodical of Ratisbone, but the editor although willing to publish refused to include the meteorological part which the doctor considered essential, so the manuscript went on to Budapest where it was published in German in 1882. Engelmann took his friend to task for not publishing it in English, so Doctor Brendel rewrote it and had it printed by J. W. Franks and Sons in Peoria in 1887.

To Doctor Brendels' eldest daughter and her husband, Mr. Emil Wagishauser, with whom the doctor made his home in his declining years, the writer is indebted for most of the facts recorded here.