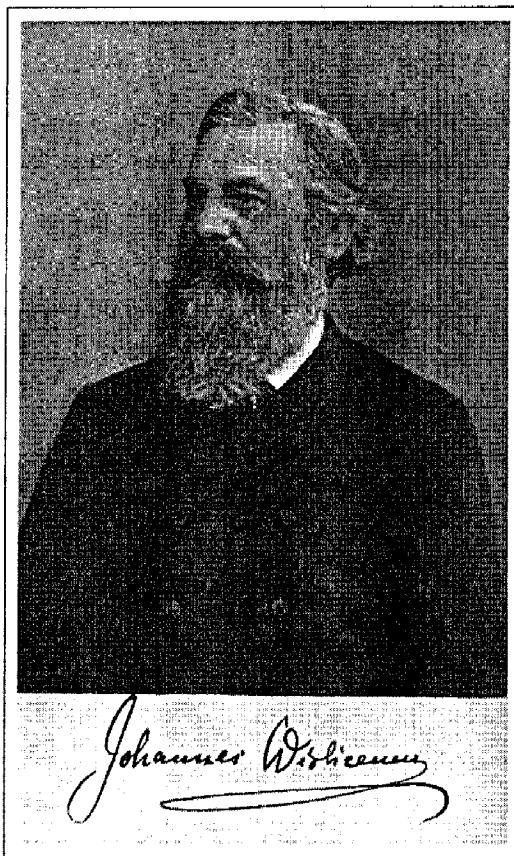


## THE YOUNG JOHANNES WISLICENUS IN AMERICA

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JOHANNES WISLICENUS (1835-1902) was born in Klein-Eichstedt near Halle, the eldest son of Gustav, a Lutheran minister. He began his studies in chemistry at Halle under Professor Wilhelm Heintz (1817-1880) in 1853 and resumed them between 1857 and 1859. He transferred to Zürich, where he earned his Dr. Phil. under Georg Städeler in 1860. Only one year later he made his *Habilitation*. Wislicenus developed an impressive professional career as chemist, educator, and administrator. He was a chemistry faculty member at the Technische Hochschule (later Eidgenössische Technische Hochschule) in Zürich 1860-1864 and at the University of Zürich 1864-1872, holding both positions simultaneously for part of that period. Then he moved to Würzburg, where he remained from 1872-1885, and finally to Leipzig, from 1885 until his death in 1902. At both Würzburg and Leipzig Wislicenus served as University Rektor. He was instrumental in the founding of chemical societies in Zürich, Würzburg, and Leipzig and served as president of the Chemische Gesellschaft in 1889. In 1898 he was awarded the Davy Medal by the



Chemical Society of Britain. Two of his sons earned doctoral degrees in chemistry under his tutelage: Wilhelm (1861-1922) at Würzburg in 1885 and Johannes (1867-1951) at Leipzig in 1892. Two biographical accounts of Wislicenus' life were written by chemists (1,2). A biographical sketch of Johannes by his son Wilhelm (3) includes some of the same information.

When this writer first became aware of Wislicenus' illustrious career as a chemist, he was struck with the number of English-speaking students who completed doctoral dissertations under his direction at Würzburg and Leipzig between 1878 and 1898 (4). It exceeds the number of any other German chemistry professor, including Wöhler, who was a popular mentor a few decades earlier. Among his progeny was William Henry Perkin, Jr., one of his biographers, who earned his doctorate at Würzburg in 1882. An explanation was sought for the apparently strong attraction to Wislicenus on the part of foreign graduate students. To be sure, his name is less familiar to current chemists and historians of chemistry than that of Liebig, Wöhler, Bunsen, and

others. Probably his major contribution to chemistry was the promotion of the idea of tetrahedral carbon through his encouragement of a translation of the Dutch edition of van't Hoff's book into German and the design of experiments to test van't Hoff's hypothesis. He can be viewed as one of the earliest of chemists to take a physical-chemical, mechanistic approach to understanding some chemical transformations (5). Yet these accomplishments received only modest recognition during his lifetime and, in fact, were scorned by Hermann Kolbe (6).

For a German chemist in the 19th century, one unique aspect of Wislicenus's life was a two-year residency in the United States, when he was still a very young man. The possibility presented itself that this experience, which might have exerted a lasting impression, may have rendered Wislicenus, later a Professor of Chemistry, particularly sympathetic to young, aspiring chemists who, like himself, found themselves in a foreign land, grappling with a foreign language, and seeking 'parental' guidance.

What about Johannes' two-year stint in America? Why did he go, and what were his experiences? The events leading up to the migration to America are described in an account by his father Gustav and also summarized in the biographies by Beckmann (1) and Perkin (2). Gustav, the father, was a liberal Lutheran minister, who had been jailed for a time before his marriage because of his radical religious views, which he expressed freely. In 1853, with his publication of a book entitled *Die Bibel im Lichte der Bildung unserer Zeit* (7), he was charged with undermining religious principles and violating the infallibility of the Bible. Realizing he would not be able to avoid incarceration, he fled Germany for England, where he awaited



Eben Norton Horsford

the arrival of his wife and eight children: nine individuals who had to dispose of their German household belongings and arrange passage to England, the 18-year-old Johannes, the eldest child, making the arrangements. Johannes himself kept a detailed account of his experiences between 1853 and 1856 in a diary, which is often quoted in the biographies by Beckmann and Perkin (8). Once reunited, the family of ten set sail for New York from Liverpool on a three-masted sailing ship, the *Guiding Star*, in October, 1853. A fierce storm along the coast of Ireland destroyed the middle mast. When a cholera epidemic broke out on board, Johannes aided the only physician as interpreter. By some turn of luck, none of the Wislicenus family became ill. After a hectic experience, the ship finally landed in Belfast before being towed back to Liverpool. Eventually the family set sail in November on the mail ship, *Niagara*, headed for Boston, where they landed after two weeks on December 9, 1853. Gustav Wislicenus sent accounts back to his free congregation in Halle. These letters, eventually published as a book entitled *Aus Amerika* (9), portray a rather detailed account of the family's experiences in the New World, including their harrowing sea passage.

The family took up residence in Roxbury, outside Boston, in a house they rented for \$9 a month. Gustav describes the freezing winter of 1854; their association with several Germans; his preaching, which he resumed promptly; attending anti-slavery meetings, often with son Johannes; and a trip to New York, which had been their original destination on the *Guiding Star*.

While the father endeavored to earn a living by preaching and writing, young Johannes somehow secured a position in the Harvard laboratory of Professor Eben Horsford (1818-1893), where he worked six days a week doing iron and meteorite analyses, beginning in March, 1854. His pay was \$1 per day, and he found the work uninspiring, according to a quote from his diary, in which he pined for his home: "Oh, Deutschland!" he wrote, three weeks after beginning his laboratory position. Because the trip from Roxbury to Harvard required one and one-half hours, Johannes took up residence in Cambridge. He became a leader in a gymnastics club and also joined a chorus of fellow Germans.

By May of 1854 the family had moved to West Hoboken, New Jersey, while Johannes stayed behind to continue his Harvard laboratory work for another month. Then, after a scant four months as analytical technician in Horsford's laboratory, Johannes followed his family to New Jersey. His father had already established a private school, and Johannes helped in teaching some of the children while he sought more gainful employment.

To this end he wrote to Horsford in July, 1854, requesting a letter of recommendation (10). An earlier request in late June apparently never reached Horsford, much to Wislicenus's dismay:

I requested you to send me as quick as possible the testimony about my working in Your laboratory, which You promised to be in my possession some days after I left Boston. Now I want it most hastily, because a Professorship for Chemistry in the New York Mechanics Institute has been offered me...

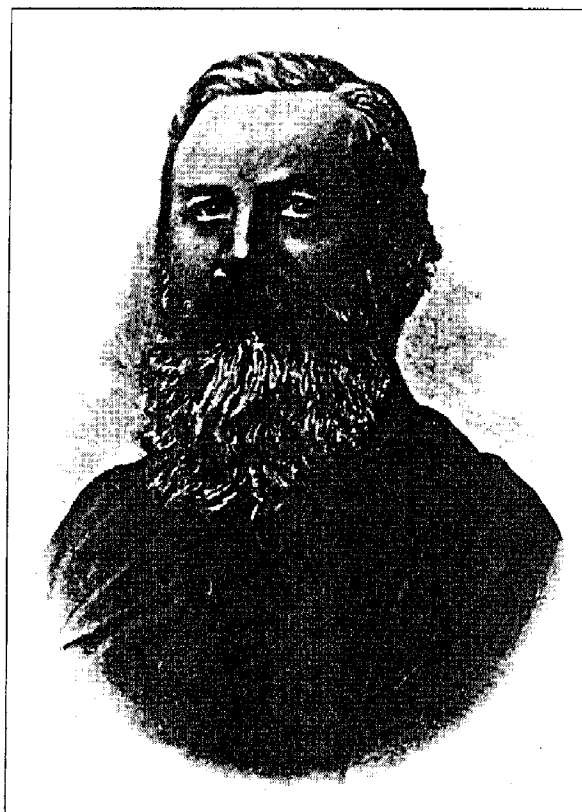
Late in July Wislicenus wrote to Horsford, confirming that he had secured the 'Professorship' at the Mechanics Institute and expected to begin lecturing on practical chemistry in September, 1854. He asked Horsford for the titles of books, particularly on tanning, dyeing, and metallurgy.

The Mechanics Institute had been established in 1820 by the General Society of Mechanics and Tradesmen, an organization which exists to this day, with offices on West 44th Street in New York City (11). The Society Library is in possession of a list of 'lecturers' at the Institute during the span 1835-1868; but, unfortunately, the period 1854-1857 is missing (12). From Johannes' own account in his diary, quoted by Beckmann, he first lectured to a class of 100 on "Chemical Uses of Wood" and later held lectures on tanning. He balanced his responsibilities for lecturing in the evening at the Mechanics Institute with analyses of bark, which he carried out in a factory in Newark in the daytime. He described this work routine in a letter to Horsford dated July 26, 1854 (10). In a fourth letter (13) to Horsford, Wislicenus explains that he was encouraged by a Mr. Detmold, President of the New Jersey Tire Company, to purchase apparatus from the widow of the late Dr. Enderlyn and to set up a chemical analysis business. This caused no end of anxiety, for, as he said to Horsford (13):

...In Germany I scarcely thought of making money. Now these happy days are gone; not for knowledge I work, but only for bread, and the love of science had to succumb to the mere necessities of life....

According to the account in his diary (quoted by Beckmann), Wislicenus had been promised \$80 for a set of analyses but only received \$60; in another instance the expected \$40 amounted only to \$25.

In these letters Wislicenus portrays a distinct disillusionment with the American life, mixed with homesickness for his beloved Germany. Nevertheless, by January 1855, he had been appointed "Professor" at the Mechanics Institute and so had a secure position, if only part-time.



Johannes Wislicenus

In the summer of 1855 Johannes composed a lengthy letter (14) to Luise Rade, a friend of his and of his sister Klotilde. [The use of *Freundin* implies more than just a family acquaintance.] It is a love letter of sorts, in which he reminisces on good times they had enjoyed in Germany; but then he proceeds to describe some of his experiences in New York, most notably his participation in a German songfest held in Manhattan in June, 1855. It must have been a gala affair. He reported that 1,500 German singers disembarked one evening at the Battery and then formed a flag-waving, jubilant procession up Broadway to City Hall. Much to his own delight, Johannes was reunited with some of his acquaintances from Boston, from whom he had departed just a year earlier. The concert was held the following evening in the Metropolitan Theater. Johannes enumerates all the offerings presented by the massive chorus and orchestra, from the opening with Wagner's *Rienzi* overture to a final selection by the New York Singing Club. Later in the week 40,000 attended a picnic in Elm Park.

...There was a great deal of singing and playing of music, dancing, eating, drinking, joking, laughing, chatting, handshaking. All was happy and optimistic, and no one caused any kind of disturbance for which to be ashamed. Among the 40,000 people who were present, I saw no one inebriated; and the only

ones arrested were American pickpockets..That was the wonderful New York singing festival, a genuine German festival!..

In the spirit of his euphoria over the German song festival, Johannes advances a prophetic remark:

...What celebrations we shall hold in Germany, as soon as we have the opportunity. The Germans, so similar to the Greek people, will revive the Olympic Games...

Although the Olympic Games were indeed revived, largely through the efforts of the French, they were nevertheless reinstated—40 years after Wislicenus's suggestion. There is some irony in the fact that Germany's role in the Olympics, however, has been shrouded with misfortune: the 1916 games were canceled during World War I; the 1936 Olympics are identified with the rise of Hitler; and the Munich Olympics in 1972 are remembered more for the massacre of Jewish athletes than for the gold medals.

His homesickness and loyalty for Germany are expressed again and again in this outpouring to Luise. He deplores the fact he has found no such magnificent evening sky nor any such beautiful woods as in his homeland. He describes the Catskills as "...tall and thick but otherwise neglected;...the restful beauty of our woods is totally lacking; one sees only a jumble of everything straight, tall, or downfallen trees..."

In August of 1855 Johannes traveled to Brattleboro, Vermont, to visit the Wesselhoeft family. From there he went with Conrad Wesselhoeft to Boston. In the last known letter written to Horsford (13), which Johannes began in Hoboken on February 22 but finished on March 10, 1856, he offers condolences to Horsford on the death of Horsford's wife, who had passed away in 1855. He then goes on to express his consternation over Horsford's purported low opinion of Wislicenus:

...It has given me great affliction to hear some friends in Boston, and chiefly Mr. Schenkl when he for the last time came to New York, say what an idea you seem to have formed on my long silence to you. Mr. Schenkl, on the authority of Mr. Hoffmann I believe, has spoken at a public place on severe judgements (sic) which you had pronounced on my 'ungratitude' towards you...

Wislicenus describes his attempt to make amends with Horsford during his visit to Boston:

...I went to Cambridge to beg you personally for pardon if the rumor should prove true. In Main Street I found you standing on the sidewalk together with

another gentleman. When I came near to you, you and I only turned the head and looked at us (my friend Conrad Wesselhoeft being at that time with me), but momentarily (sic) you went away taking your way through the college grounds. My hopes vanished. I passed by the laboratory without calling in. Two days after I left Boston with the most painful feeling, and arrived home with remorse that I nevertheless had been at your house and spoken to you...

Although Johannes closes his letter with a promise to write Horsford again soon, there is no record of any further correspondence from the young chemist.

By May of 1856 conditions had changed sufficiently, that the entire Wislicenus family returned to Europe—not to Halle, however, where they were not welcome, but to Zürich, where Gustav, his wife, and several of the children remained. Johannes resumed his chemistry studies in Halle but eventually was awarded the doctorate in Zürich. Johannes faced several difficult obstacles in his career; yet he must have rejoiced in the return to his beloved country. He seldom made reference to the 'Wanderjahr' in America, perhaps because it conjured up painful memories. It seems he did not keep up communication with Horsford, anyone associated with the Mechanics Institute, or with the analytical laboratories where he worked in New Jersey. Horsford makes no mention of the young Wislicenus in his correspondence with Liebig (15). It is as if the two-year period in America were a bad dream for Johannes Wislicenus, which he blotted from his memory.

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