The Memoirs of Samuel Colville Lind

The time that there was but one place worth considering, the Laboratory of Physical Chemistry under the direction of Wilhelm Ostwald at the University of Leipzig, where Noyes, Whitney, Beaty, Colwell, Cotrell from America had recently taken their doctorates.

At the turn of the century, I had no plans to go to Boston. Although I was an alumnus of one of the most important American cities. It was especially distinguished for its cultural activities. It was the home of the Boston Symphony and its famous Symphony Orchestra had at that time no equal in the United States. The paintings by John Singer Sargent decorating the walls in the corridor and stairway of the Library were greatly admired and gave the building an air of elegance which none of the others may not be so much in vogue now as then, I can never enter the library without remembering the thrill they gave me the first time and my desire to return again to renew my enjoyment.

Unfortunately my studies did not leave me much time to enjoy the cultural life of Boston. Although the subway was already there I seldom got over to Cambridge. I did not have so much contact between the two institutions as now since M.I.T. has moved to the Cambridge side of the Charles, and some joint courses have been instituted.

I doubt if much of the Boston culture rubbed off on me. But I am still fond of the city and like to visit it and wander along Boylston Street and recall my student days.


CHAPTER 4

The University of Leipzig, Germany

In the previous chapter the Massachusetts Institute of Technology awarded to me a Dalton Fellowship for graduate study was mentioned as well as my choice of the Netherlands as a place where I could have daily contact with. I accepted at once and moved into the Pension. The lessons were mainly reading and pronunciation. She insisted that I speak only in English avoiding any phrasing and people and she could detect deterioration in my German ways. I was so engrossed into association with American and English people living in Kassel.

The chief summer vacation in Kassel was in the city park and at evening concerts by the city orchestra. I found them so enjoyable. I decided to buy a season ticket. On my offering a hundred mark to the orchestra manager, he said it would be subject to a discount of 30% since it was insured. I was not insured. But I saw no reason why I should have no credit. Being rather suspicious of his claim, I found I had a note from one of the other German states which I then offered instead. The official looked rather embarrassed, agreed that my second note had full value, and I was back to Kassel in having the first note accepted fully. Incidentally, I heard later that the official said that the Americans seemed a bit colourless except for that thing at New York.
seven years after the discovery of radium and polonium by the Curies, I never once heard the subject mentioned. Convinced that the symposium for the preparation of the Ostwald Laboratory would have a catalytic oxidation of ammonia to nitric acid from which he was said to derive quite an income.

Ostwald by 1903 had developed his great theme. It was based on his work on the chemical unification of the elements as he named it, the Ostwaldian Principle. He believed that all chemical reactions can be understood as the result of a single law, which he called the "Law of Mass Action." He argued that the rate of a chemical reaction is directly proportional to the number of collisions between the reacting species and that the frequency of these collisions is determined by the temperature and pressure of the system. He also believed that the relationship between the rate of a reaction and the concentration of the reactants is exponential.

Ostwald was a prolific writer and published extensively on a wide range of topics, including the history of science, the philosophy of science, and the social impact of technology. He was a strong advocate of scientific education and played a key role in the development of the German educational system.

During my vacation in the summer of 1904, midway in my work at Leipzig, I took a trip to Sweden to visit the land of my father's birth and to meet some of my kin. Being rather tired, I decided on a leisurely trip north through Denmark to cross from Sweden to Helsingborg.

Among the notable sights of Copenhagen, including its majestic cathedral, is its fine Botanical Gardens. There a simple thing has left a lasting impression—parsimony of laws, but at the same time illustrating vividly their application. A beautiful lawn, measured out with a precision a few feet before my admiring eyes, and yet I could not know a square foot. This at that time my hearing was still excellent, making the apparent miracle all the more unbelievable. Of course, the example is all the more striking in a glass case, with no wall, providing a vacuum so soundproof that the breathing of the old man was being made the effect of speech to be heard, with the sound, but it had this little sympathy. In the Ostwald Laboratory there was one of the four or five best-known figures in Continental chemistry, who gave it to the world as a lusty, young student. He is one of the few brilliant backgrounds in Science, such as Hoff, Arndt and Niemann, but also a great number of capable workers. He taught some 3-dimensional Place in the center of the city, enjoyed the same independence of government as did Organic Chemistry under Professor Dietz at the University of Heidelberg. His most outstanding work was in the area of color chemistry, particularly the study of dyes and pigments. He developed a method for determining the colorimetric properties of solutions, which is still used today. He also made significant contributions to the understanding of the behavior of gases and the nature of chemical reactions.

But in his "known" mixture of rubber—sometimes that the Rutherford had proved the individual existence of helium atoms by the study of alpha particles. This reminds me to say that radioactivity may play so little an important role on the Ostwald Laboratory that during my two years there.
in the great port of Danzig and continued on through
Berlin to Leipzic, back to finish my work in the Univer-
sity. Living near the sea, I had developed a love for
sea food; in particular for the fresh oysters and
Drunken tips had evidently scratched the bottom
of the beaker and weakened it. Suddenly it collapsed
and most of the wine was poured out.

I never saw my aunt again in Danzig. She died
September 14th, 1838, at the age of 70. I returned to
Leipzig and then went by rail back to Hamburg
where I spent the night before crossing to
Hamburg next day.

Hamburg was the next day.

After two days of this kind I arrived in Stockholm
and put up at the Grand Hotel. I was received by
my father and aunt who lived in one of the many
large houses which made up this city. I had kept
close contact with my father through occasional
letters. But in forty years he had so completely forgotten his native language that he had to have his Swedish letters translated to English.

As I knew nothing of her except that she was a widow living in the 50s, I had written her a letter asking her to come on a cer-
tain day to visit her. For the past several weeks I had spent much time trying to learn a little of the Swedish language so that I could make an effort to converse with my kinsfolk. What little I acquired proved quite inadequate at that.

But like my father I have forgotten it completely.

One morning I took a steamer which made its tor-
net from Stockholm to Helsingborg. It left at 8 a.m.,
stood at 8 a.m., struck at 8 a.m., frequently to disembark passengers and freight. At first we passed islands or promontories with fine estates and noble
buildings, but I wondered if my aunt would be living
in one of these grand houses and what she would be like.

Gradually as we got farther from the city the houses became smaller and smaller, the land losing its
country-like.

I had a statue of our old home and I was always
willing to meet the steamer.

She picked her out and then to meet a self-drawn carriage.

Prior to this I was able to get a glimpse of the
finger of this boat, a mere dot, and it was clear
soon told her she had been her favorite brother, and I sensed at once I might become her favorite nephew.

We then went to a little cottage garden
in which she had surrounded with flowers and
a small tree. After the evening meal she brought
all my father's letters which she had stored in the
summer house for the past 20 years, even his first to his mother when he was a
heavy writer. She told him how her father, after
finishing the country schools, had lived with relatives and thus received his further education.

After the night's rest we went next day
to Stockholm to the home of her son Carl.

But my aunt was so old and infirm for me to stay with
me and a guide to the streets so I had no other choice but to
sit in a park near the sea. I was not
impressed by the city but I would not

After the usual tourist sights of Stockholm I
visited at one of my uncle's men who had a sub-
stitute for the rigors of the journey and I was

Finally I reached Stockholm where I found an
American tourist with me and we took a horse and carriage which there were no horses in town

On the way to Sweden I had been told at least twice by other travelers that the

But I cautiously made no overtures. She was
unmarried and cared for by her two adult
capitally. Each tube was then heated at a
determined temperature for a certain time. When the

At the time it seemed impossible to duplicate
results by this method. Two tubes, filled and handled identically, might show rates of combination
differing by as much as 12-fold. After a month's experi-
ment we were convinced of its failure and had given up any chance of hydrogen-bromine thermal

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the second and third churches and then on to
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