Notes from the Oesper Collections

Professor Norton Gives a Lecture

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Thomas Herbert Norton (figure 1) was Professor of Chemistry at the University of Cincinnati from 1883-1900 and was the second person to hold that position, the first being Frank Wigglesworth Clarke, who had served from 1874-1883. Norton had a long and varied career as an industrial chemist which bracketed his 17-year tenure at the University of Cincinnati, and the details of that career have been documented elsewhere (1). Rather our purpose here is to reproduce and annotate an unique document related to Norton's reputation as a teacher during his sojourn in Cincinnati.

The Cincinnatian – the student yearbook for the University of Cincinnati – did not begin publication until 1894, or nearly 20 years after the founding of the school and nearly a decade after Norton's arrival. However, a perusal of its initial volumes quickly reveals that by the 1890s Norton's introductory chemistry lectures had acquired a certain reputation among the students – a reputation characterized by two notable traits.

The first of these was the length of the lectures and the amount of reading and laboratory work assigned. The typical present-day freshman can barely tolerate sitting still for a 50-minute lecture, but Norton's students were required to put up with two-hour lectures. Thus the 1897 Yearbook complained of:

... the miseries undergone while compelled to listen and copy for two hours at a time without daring to move or speak ... [and] ... the cruelty imposed by the laboratory work necessary to confirm the statements made during the lectures, and last, but not least ... the inhuman treatment to which the pupils of the scientific course of the University of Cincinnati are subjected.

The second trait was Norton's reputation for peppering his lectures with outrageous puns and jokes. This behavior had inspired the 1895 Yearbook to publish a series of student cartoons based on chemical puns and the 1898 Yearbook to comment that:

Professor Norton is one of the wittiest men we ever met. He has a large supply of jokes on hand, with which he entertains the chemistry classes every year. The freshman are in a position to appreciate this entertainment, for they are hearing all these jokes for the first time. Lest, however, the continual repetition of the jokes should become wearisome to any student, the Professor has this year added a new one to his list, for the especial delight of his seniors.

Figure 1. Thomas Herbert Norton (1851-1941).

However, by far the most detailed satire on Norton's lecture style was published in the 1897 Yearbook under the general title of "Off Hours with Great Men" and is reproduced in full below (2). The satire requires very little annotation for the modern reader. The "Mr Smalley," who is repeatedly referred to in the asides, was an MIT graduate named Frank Newell Smalley, who served as Norton's lecture assistant for 1896-1897. As for the other names mentioned in the asides (the Driehaus twins, Miss Sayler, Nieman, Schlemmer, and Faulkner), all refer to actual members of the Class

of 1900. In the few cases where I was able to associate certain references within the satire with actual photographs, I have indicated these by inserting the proper figure number within the body of the text using square brackets and have reserved the accompanying annotation for the figure caption itself.

"Off" Hours with Great Men

– Professor Norton –

About every other day of the week a large crowd of Freshmen, armed with formidable notebooks, and pencils as sharp as a joke in the Nicotine Club [figure 2], gather about the door of the chemistry lecture room [figure 3]. After a short delay Mr. Smalley cautiously opens the door and flees before the incoming tide. A rush is made for the best places, and every one is dissatisfied because each place is worse than the others. The patent fold-up-when-wanted-open seats are adjusted, causing several Freshmen to go upon exploring expeditions to the floor. Professor Norton has carefully closed every opening which might let out any of the Vale of Gehenna odors which he is about to compound; hence the air within has seen better days. As it is the ambition of the engineer to burn as much coal as possible in a given time, the thermometer has serious thoughts of keeping on to the third floor in its upward course. With malice aforethought, Smalley lights a row of Bunsen burners and pokes up the fire. All at once Professor Norton appears from some mysterious place, and after bowing to the tumultuous applause which he does not receive, he begins his lecture as follows:

Today, gentlemen, we take up the subject of metals. According to my instructions of the last lecture, you have doubtless learned all there is to know on the subject, so that this lecture will be only a refreshing exercise. The most eminent chemists, including myself, are divided on this subject of metals — some are bimetalists and some are monometalists.

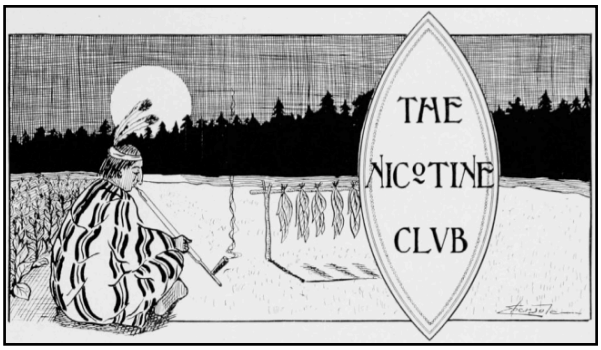

Figure 2. The Nicotine Club, as suggested by its name, was an all-male student society devoted to smoking and witty conversation, and of which Norton was an honorary member.

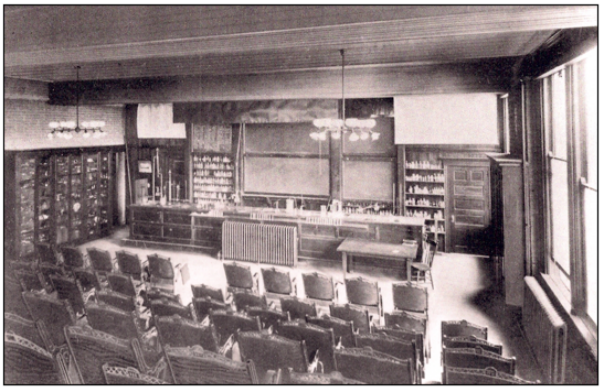

Figure 3. Norton's lecture hall on the first floor of the newly constructed Hanna Hall. Note both the fold-up chairs and the steam radiators located in front of the lecture bench and under the row of windows, both of which are commented on in the satire. The "mysterious place" from which Norton appeared, would have been the prep room located behind the blackboard and entered through the doors on either side.

Nobody laughs, upon which Professor Norton looks disgusted, and continues:

All the metals are bases, except those which are acids. In this connection I might remark that a good ball player ought to make a good analytical chemist, as he can always get his base.

The Driehaus twins fall into fits and are carried out. The Professor renews his lecture:

When a man is high-spirited we say he is full of mettle, and after he has called a well-armed Montana cowboy a liar, we also say he is full of metal.

The Bunsen burners go out and a window cracks. The Professor progresses:

However, this has little to do with the lecture, but those are my standard jokes, and you are not the first class that has heard them.

A voice is heard, asking how the Professor has lived to tell them again; but that individual keeps right on undisturbed:

As a general thing, metals are found in nature, either as ores or in a free state. I remember a man who discovered some iron ore in Pennsylvania before the war;

and thought it was the pure metal because he found it in a free state.

Four test tubes break, and the clock stops with a hoarse noise, but the Professor keeps up his villainous work:

We might call the metals stages, because the acids act upon them. All metals have a certain specific gravity – some more, some less – but after I make a funny crack they all lose their gravity.

Two Freshmen show how true the remark was by falling out of their seats. The Professor resumes his talk:

Metals are divided into two classes—common and rare metals. It is a strange coincidence, which I could never explain, that the common metals are always the most plentiful, while the rare metals are always exceedingly scarce. Metals are generally found in groups, though in some countries they are found in mines. Metals are very heavy, as can readily be shown by dropping a fifty-pound iron weight on your toes.

Miss Sayler faints, and Sam Nieman gets out through the window. The Professor keeps right at it:

Metals have what is called chemical affinity for certain substances. I remember, several years ago, that a young man and lady graduated from McMicken after taking the chemical course together. Some months after they had left the University I heard that they were married. Meeting the young man one day I asked him what impelled them to the rash act. He explained it by saying that they had a chemical affinity for each other.

Smalley is observed to gasp, and hastily drinks some hot water. The Professor proceeds:

Having told you all I don't know about metals, we will proceed to a few experiments. I have here a common lead pipe. When I strike it with the hammer I hold in my hand, you will observe that I am "hitting the pipe."

Schlemmer calls for help before he falls. The Professor never stops:

In a test tube here, I have some powder – nickel sulphate. If, now, I add some acid, it immediately dissolves and forms a solution which, unlike myself, is green. This is not a ten-cent solution, nor a fifteen-cent one, but a nickel solution – I don't mean the ordinary nickel solution, which I suppose you know is much more popular.

The plaster commences to fall from the ceiling, but the Professor talks on without noticing this:

In this small bottle I have a mixture of ten parts dynamite and five parts gunpowder. We will ignite it and observe the effect.

Some of the class crawl under seats and some jump through windows, while the Professor, wrapping a towel around his arm, and aiming the bottle at the helpless girls, touches it off. Nothing happens, and he looks disappointed, but keeps on with his flow of speech:

I suppose the assistant was somewhat careless in mixing it up. The assistant last year put in a little too much dynamite, but fortunately, he tested it himself beforehand. We never found all of him afterwards, but there was enough with which to have a decent funeral, anyhow.

Smalley falls into a trance. Professor Norton fires ahead:

We will now proceed with the next. If to this solution I have here we add a little acid, we will obtain a bright yellow precipitate.

He adds the acid, and a brilliant green color results. He talks on:

This yellow precipitate is, as you see, highly characteristic. This is not quite the exact shade of yellow, but it is sufficiently close, and, as my little boy Boonsen, says, "It all comes out in the wash." Boonsen, by the way, is somewhat of a chemist himself, and takes after his father. Sometimes his father takes after him with a strap, but that does not concern this story. Boonsen had a little dog, which he named Barium. One day Boonsen and I went out into the yard, and there lay the poor canine, stiff and cold in death. "Alas!," cried I, "What will we do with Barium now Boonsen?" "Why, papa," said he, "We must Barium!"

A terrible scene ensues. The members of the class writhe and swear in their awful agony, but the Professor continues his strain unmoved:

When an acid is added to a metal, the resulting substance is called a salt. When the action is very violent, it is called assault and battery. When a salt is thoroughly dry, it absorbs water greedily, but when an old sea salt is thoroughly dry, he absorbs beer greedily.

Faulkner is carried out groaning. The Professor does not pause:

Figure 4. The "old laboratory" refers to the chemistry laboratory located in the attic of the original university building on the side of the Vine Street Hill, which housed the University from 1875-1895, when it moved to its present location in Burnet Woods. As may be seen from this photograph, the original building (in the distance to the left of the large chimney) was indeed located just up the hill from the Christian Moerlein brewery.

I remember when we were in our old laboratory [figure 4], one of the boys inhaled a noxious gas and fell senseless. I quickly carried him to an adjacent brewery and filled him up with beer, upon which he immediately revived. The next day every young man of the class was carried senseless to the brewery. Some did not have their right senses when they came out.

Great applause from the rear. The Professor plunges onward:

Gentlemen, we have now finished our lecture on metals. We will meet tomorrow at the usual hour, and you will prepare the next two hundred and fifty pages of your textbook. I desire to ask the members of the class to be present in the laboratory on Wednesday, at 7:30 am, and work until 6:30 pm. You will perform the next one hundred and twenty experiments. On Thursday I will have an examination on the subjects and jokes thus far studied. Gentlemen, good evening.

Joe [figure 5] comes in with a wheelbarrow and carries out the class. Smalley comes out of his trance and hurriedly escapes.

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Figure 5. Joseph Frey, the University of Cincinnati janitor during the 1890s. Referred to simply as "Joe" in the yearbooks, he appears to have been a favorite UC character among the students.

Reference and Notes

1. W. B. Jensen, "Thomas Herbert Norton," *CINTACS Newsletter*, **1987**, *25(1)*, 8-10: *Ibid*., **1987**, *25(2)*, 6-11. Copies available upon request.
2. Anon., *The Cincinnatian*, **1897**, *4*, 157-160.