The History of the ACS and the Northeastern Section

NESACS Centennial History Part 1 - The Start

In the February issue we presented abbreviated accounts of the history of the ACS and the Northeastern Section. From time to time we will publish excerpts from the original articles in the 1973 NUCLEUS, during the Section's Diamond Jubilee year. The following is excerpted from the January issue and was written by the late Robert D. Eddy, Professor of Chemistry at Tufts University.

Under the heading Seventy-Five Years with the Northeastern Section Eddy makes some introductory remarks about the plans for publication of the story in the 1973 issues of The NUCLEUS and he indicates the help he has received and the sources he has consulted. The following is the verbatim text from the January 1973 issue:

Our story is not just a dry summary of events and their dates. It is a story of the lives, and the dreams, and the accomplishments of people. They are the giants upon whose shoulders we all stand. How many of our members have been much-loved teachers to generations of students? How many of these students have picked up the torch, and have become the leaders of their own, new, generation? How many of our officers have served the Section organization with distinction, and have then stepped upward to make a permanent mark on the national scene? How many of our speakers, and medalists, have won acclaim, both nationally and internationally, for the brilliance of their scientific efforts? The answers to these questions are not trivial: they demonstrate better than anything else could that we have a glorious past. May we cherish it, and take heart from it, and build upon it to fashion a similar, glorious future.

Though many of our records are couched in the terse, undemonstrative prose of the busy scientist, they are not dull. A love of fun, a love of life and a heart-warming humanness keep shining through. Can you imagine a Section meeting, where the audience welcomed its speaker by breaking forth in song? Did you ever hear of the great Mass Marathon Run? It was staged at a joint outing (with the Rhode Island Section) "under the incentive of a sudden and very moist shower" as the soggy participants covered the few hundred feet from the baseball stands to the Club House. Do you know about the "First Quadrennial Leap Year Party" of February 1924? It was perpetrated at the American House (wherever that was) with singing and dancing. About one hundred and fifty members and guests were entertained with a pantomime, presented by a bevy of Simmons girls. And some unscrupulous soul accumulated a tidy profit by distributing, in exchange for ten cents, copies of an underground newspaper called The Nude Lâil Cuss. And when it was all, over, the exhausted revelers had to rush to catch the late train home.

Because there is so much of interest to report, not only about the early years of our Section, but of the national events that preceded its formation, we shall spend much of the first installment in setting the stage. Later on, we can build upon this base to focus

more carefully on the individuals involved, their accomplishments, and the effect that their work has had on later generations.

The Organization of the Northeastern Section

Note: We have since received via email some information that differs from that presented below. If you are interested in reading it, go to the ACS History Rebuttal page.

The first page in the Secretary's book bears the date: February 4, 1898, but this was not the beginning. The American Chemical Society was founded more than twenty year before that, on April 12, 1876. Nor was that a starting date, either, Most observers agree that the real beginning of everything was a suggestion made by Dr. H. Carrington Bolton of the Columbia College School of Mines in April 1874. He wasn't thinking about forming a society at all: serendipity was in charge of things then, even as it is now. What Dr. Bolton wanted to do was to somehow commemorate the discovery of oxygen by Joseph Priestly, one hundred years earlier. It was on August 1, 1774 that the good Doctor Priestley had heated his "mercurius calcinatus per se" with a twelve inch burning lens and for the first time had released some "dephlogisticated air". Because this discovery, followed by Lavoisier's quantitative treatment of it, had led to the oxygen theory of combustion and the subsequent development of all modern chemistry, Dr. Bolton thought that the centennial deserved some sort of observance. After all, because of his rashly liberal views, Dr. Priestley had been driven by an unruly mob from his home and his laboratory in Birmingham, England. He fled with his family to the United States, and so became an American chemist, by adoption, if not by birth.

Enter a woman chemist. Professor Rachel L. Bodley of the Women's Medical College of Pennsylvania proposed that the centennial celebration should be held at Northumberland, Pennsylvania, where Dr. Priestley had lived and where he was buried. This suggestion was immediately adopted, and plans went forward for a three-day meeting beginning on July 31, 1874. This was the sequence of events that brought seventy-seven of the most influential American chemists, some with wives and children, together in a peaceful little village in the valley of the Susquehanna. There was no hotel there: the participants were quartered overnight by the villagers, some of whom were direct descendants of Joseph Priestley, himself. Historical papers and technical papers were presented in the tiny public schoolhouse. Cablegrams were exchanged with Birmingham, England, and the commemorative exercises were held beside Priestley's grave. It was a remarkable affair. The friendliness and fellowship and excitement were so great, that there was a strong sentiment to carry on with such meetings. On the second day, the Centennial Day, to be exact, a group met to consider the feasibility of forming a national American Chemical Society with this purpose in mind. There were pessimists present, but nearly everyone went home with great hopes, expecting that a society would soon be formed.

Unaccountably, there was a two year delay, but the plan would not die. Professor Charles F. Chandler, also of the Columbia School of Mines, who had presided at the Centennial Program, finally set thing moving again. He uncovered more than one hundred chemists

in New York and nearby cities, whose work and training rendered them eligible for membership in a chemical society. With seven confederates, he finally sent out a notice for an organizational meeting to be held April 6, 1876. That meeting was called to order with thirty-five chemists present, and the Society began operations.

Naturally, a society created in this way was a New York based organization. It had non-resident members, but the monthly meetings were held in New York, and there were not many benefits for the out of towners. A Journal was published, but few cared to submit papers, and the Society was most successful as a local organization. Small wonder that other quite similar local organizations sprang up in other parts of the Country. There was a constant agitation to get a truly national organization going: for a while it seemed likely that some of these upstart outsiders might be strong enough to take over. But the New York group had the name and they had the charter and it was apparent that the best solution was to put some new direction in this ineffective organization. The turnabout came in 1889, when the officers sent out a letter asking for suggestions as to the best way that the Society could become more useful to their non-resident members.

Upon receiving this letter, Professor Charles E. Munroe, of Newport, Rhode Island, a charter member, sat down and wrote a detailed and lengthy response. He viewed, quite critically, the situation as it existed for outsiders, and made a number of valuable suggestions. These included the ideas that local Sections should be formed, and that General Meetings should be held outside of New York. Others had independently proposed the same ides, or at least concurred in them, so on June 6, 1890, the Constitution was changed to legalize such practices. One would have thought then that immediate action would have been taken, but that was not the case. According to Professor Munroe's article in the Fifty-Year History, the Directors waited until July 22 of that same year to decide that (1) there would be e General Meeting outside of New York, that (2) it would be two weeks hence, August 6 and 7, 1890, that (3) it would be in Newport, R.I., and that (4) Charles E. Munroe would be in charge of arrangements! Then they let him know. Instead of collapsing under such summary treatment, he scrambled around, firmed a local committee of fourteen and began to make plans. His colleagues included a couple of Harvard Professors with summer residences in the area, some army and navy officers stationed nearby, the local high school principal, the secretary of the Newport Natural History Society, and a few younger chemists working in the area.

This group put together a remarkable program without any idea who, or how many, would attend. As a matter of fact, until the final day, when the Fall River Line boat from New York came plowing into its Newport berth, the only registrants known to be coming were the three guests whom Professor Munroe had invited to stay at his home. However, there proved to be a large and congenial group aboard, headed by Professor Chandler himself, and the meeting got off to a great start. Rhode Islanders from Providence and Kingston appeared, and there were distant visitors from Medford, Cambridge, New Haven, Ithaca, and points even further afield. Seventeen papers, covering almost every possible branch of chemistry were presented. The U.S. Naval Torpedo Station permitted an inspection of its laboratories and workshops, and its personnel presented an extensive series of demonstrations of high explosives. Not to be outdone, the personnel of the U.S.

Naval Training Station put on a parade honoring their distinguished guests. On the second day of the meeting the registrants had their choice of relaxation: they could take a leisurely tour of Newport Harbor in the inspection launch, or they could select a thirty mile run around Conanicut Island in the high speed torpedo boat, "Stiletto".

With this successful venture completed, the chemists of Rhode Island wasted no time in getting behind Professor Munroe, and his colleague, Professor John Howard Appleton of Providence to form the Rhode Island Section. Their charter was granted on January 21, 1891, a full nine months before the New York group could get around to applying for its own local section charter on September 30, 1891.

By present day standards, the Northeastern Section is an old Section, but it is actually the eleventh in line. When it was formed, it immediately won a position as one of the larger and more influential Sections, but there is nothing in the record to tell us why it was seven years behind the leaders. This is particularly hard to explain, because the tenth General Meeting was held in Boston and Cambridge on December 27-28, 1894. This should have been a stimulus, but if one remembers how Professor Munroe, with only two weeks notice, had put together the first General Meeting, one can concede that perhaps this was not as demanding as it would seem to us now. However, the seventeenth General Meeting was also held in Boston. Its date, August 22-23, 1898 is close enough to the February 4, 1898 birthdate of the Section to suggest that there may have been a connection. Perhaps the organizers learned something from their 1894 experience.

Here follows a speculation why the Boston and Cambridge chemists were slow to organize under the banner of the American Chemical Society, material which has been covered extensively in the articles by David Adams and Myron Simon in the February, 1998 "Centennial Issue" of the NUCLEUS.

Our records begin:
Friday Evening, February fourth (1898) about one hundred and fifty chemists met at the Parker House to establish a local section of the American Chemical Society.

The date 1898 was added later, with a caret by a different hand and in a differently colored ink. However, there can be no doubt concerning it, for the Treasurer’s records are carefully dated. A remark attributed by the Secretary to the newly elected Treasurer ö that he "already had about ninety dollars" is corroborated by the Treasurer in the very first entry. On the very first page of his book we find

Feb. 26, 1898. Drew $90.61 from account of $91.61 with the North End Savings Bank, Book#13384, which had been made from the unexpended balance of the subscription raised to entertain the American Chemical Society at the Tenth General Meeting held in Boston, Dec. 27-28, 1894. Paid therefrom for this book, $ 1.75. Deposited with Metropolitan National Bank, $88.86

The Secretary’s minutes then go on to tell us that Henry P. Talbot of M.I.T. (in Boston then) was elected Temporary Chairman. He appointed H.J. Williams of Boston · to be

Temporary Secretary. Under their direction the group first voted that they should be governed by a President, Vice President, Treasurer and Secretary, and by an Executive Committee. Then began an election to fill these offices. Arthur A. Noyes of M.I.T. was chosen to be the first president. Once he had been elected, he took the chair and presided over the selection of L.P. Kinnicutt of Worcester (Polytechnic Institute) as Vice President, Willis R. Whitney of M.I.T. as Secretary, and B.F. Davenport of Boston· as Treasurer.

Then follow some details of the nomination and election of the Executive Committee. ·The winners were John Alden of the Pacific Mills in Lawrence, H. Carmichael of Boston, Arthur D. Little of Boston, John Shaw of Boston· and H.P. Talbot.

The remainder of the paper has been covered in detail in the article by Myron Simon in the February 1998 issue.

NESACS Centennial History Part 2 - Early Years

Continuation of the account begun in the March 1998 issue. Reprinted in part from the March 1973 NUCLEUS, written by the late Robert D. Eddy. (Material which was covered in the articles "Founding of the Section" by Myron S. Simon and "The First Seventy-Five Years" by Edward R. Atkinson has been omitted, as indicated by "·"and/or by a summary in italics)

The Early Years of the Northeastern Section

(1898-1930) Once the organization meeting had adjourned, it was up to the newly elected Executive Committee to act. The Committee's records have been kept in a separate book which, for the most part, summarizes the efforts of the groups to arrange attractive programs. It also gives the names and addresses (not always business connections) of the first members. This record is all the more interesting, because it lists proposals for possible speakers with their topics, as well as those which were actually scheduled. These reflect the wide scientific concerns of the group and, in themselves, provide a valuable record of the new chemical theories and industrial processes which were then uppermost in everyone's mind. For example, we learn that at this first Executive Committee Meeting, held on February 25, 1898, L.P. Kinnicutt asked for permission to withdraw his paper "Some New Methods of Sewage Treatment Now Being Tried in New England" because it would be published before the next meeting. Also, Arthur D. Little asked for permission to postpone his paper on "Viscose" because he was having difficulty in getting samples for demonstration. These two papers must have been the ones announced for the first meeting and were postponed, because the Committee minutes go on to say that Arthur A. Noyes and John Alden were asked to substitute. There follows an account of the papers at the next several meetings, summarized in the 1998 Centennial Issue)

In returning to the first Executive Committee meting, we note that it voted to suggest to the Committee on By-Laws, that regular meetings should be held on Fridays, from October to May, inclusive. Apparently the body could not make an unequivocal decision about the name, for, after rejecting a proposal that the name be either "the Boston Section", the Committee voted to propose to the membership that the name be either the "Massachusetts Section" or the "North Eastern Section"·

In the minutes of the second regular meeting, the same Secretary twice writes "Northeastern" as one word, the name finally chosen by the members·

One might have supposed the name would have been defined by the Charter. Perhaps it was but we do not possess this Charter; it is known to have been lost some time before our Fifty-Year Celebration, for at that time an extensive effort was made to find it. There is nothing in the minutes to indicate its date, other than the fact that it was granted sometime between the first and second regular meetings. However, published dates from many different later sources all refer to the chartering of the Section on March 7, 1898. Either this date was faithfully copied while the Charter was still at hand, or some records in the National Office have kept the date available for us. It was Monday, more than two

weeks before the Friday, March 25, 1898 date of the second regular meeting.

There are other lapses in the records, undoubtedly because they were written by busy people, who did not expect them to be so carefully scrutinized seventy-five years later. Another instance, is the fact that neither the secretary nor the treasurer considered it necessary to sign their reports. We would not have been so sure of who they were if the secretary had not listed the results of the first election in his report, and the treasurer had not verified this list with the note that Check #7 was paid to "Willis R. Whitney for Sundries as Secretary" and that Check #20 was paid to " F. Davenport, Treas."

The treasurer's book is full of names, names of people who contributed money in support of the approaching General Meeting, and the names of people who were being reimbursed for their out-of-pocket expenses. But if you are looking for a genuine signature, you have to turn all the way back to page 7. Prophetically enough, the first one is the signature of James Flack Norris. On November 23, 1898, we find his name, followed by that of William H. Walker, subscribed to the statement: "The above accounts examined by the auditing committee, and found to be correctly cast and properly vouched". Norris was only 27 years old at the time, an Instructor of Organic Chemistry at M.I.T., with his Ph.D. but three years old. Yet, here at the very beginning, we find him taking a responsible part in the affairs of the Section. Not only that, he revealed more than a casual interest in our financial well-being.

To complete our discussion of the events of that first spring, we find a lot that is worthy of our attention. Quoting some of the entries at random may be as effective a way as any to establish their significance. Reflect on the following:

From the Executive Committee's Minutes:

Feb. 25: "The meetings are to begin at 8 o'clock, sharp·"

March 25: "The President reported a letter from the Membership Committee of the Society stating that the custom to admit undergraduate students to associate membership only·. He (the President) was directed to continue his efforts to attempt to have 4th year students as members."

April 27: "Prof. Kinnicut invited the Section to hold its May meeting in Worcester, and it was decided to accept the invitation, subject to the approval of the Section."

May 21: "The Executive Committee requested the following members of the Section to serve as a Committee on Arrangements for the August meeting of the American Chemical Society, the same to have power to increase its membership." There follows a list of twenty-four names.

From the minutes of the Regular Meetings:

April 29: "Mr. H.P. Clark, Chemist of the Mass. State Board of Health, Dept. of Water

Supply and Sewage, presented a paper on "Sewage and Sewage Purification"· Dr. S.P. Mulliken

Then presented a paper on the "Qualitative Detection of the Elements in Organic Compounds." The invitation to hold the May meeting at Worcester, was received by the Section and was accepted."

Then follows a detailed account of the May 17 meeting, which has been described in Simon's February 1998 article.

The only solid information we have concerning the General Meeting of August 22,23, 1898 is obtained from the treasurer's reports. The minutes of the executive Committee list the 24 members of the committee as we have already noted, but they say nothing further. Page 15 of the minutes of the Regular Meetings is bravely titled "Report of Secy. of Committee of Arrangements for the Summer Meeting of the American

Chemical Society" but the remainder of the page is left completely blank. The minutes of the regular meeting of October 21, 1898 tell us that such a report was read and accepted, so it was undoubtedly kept on a separate sheet of paper which was subsequently lost. The same minutes also refer to separate votes extending thanks to the secretaries of subcommittees for their summer's work, to those Corporations which permitted plant visits, to those who donated funds and to Dr. Thorp for his work during the Summer. These remarks are far too general to be of any help.

Part of page 2 and all of page 4 of the treasurer's records give us the names, with amounts subscribed, of those who contributed to the Entertainment Fund for the General Meeting. Most of these were members who furnished amounts varying from $ 5.00 to $15.00. A few interested businesses donated amounts up to $25.00. A summary states that $509.20 had been given (by about 30 donors and $115.00 had been received as the proceeds from the sale of 46 dinner tickets) so we can see that the expenses for the meeting were paid for almost entirely by the generosity of the most active Section members. · All of the meeting expenses added up to $614.87, ·netting a profit to the Section of $9.33·Our treasurer notes that ·he paid Check 314 $7.70 to Henry P. Talbot for "Sundries as Sect. Of Local Comm." If it hadn't been for the generosity of the Secretary of the Committee who returned the check, that General Meeting would have been carried out with an excess of income over outgo of exactly $1.63.

Now that the Section has been established and has attracted nationwide attention, we must hurry through the next years of action, merely hinting at some of the more significant items. Then follows a listing of speakers and topics, some of which were recounted in Myron Simon's article.

At first it was thought that there might have been a predecessor to the NUCLEUS, but we are set straight by the Executive Committee Minutes for its meeting of December 17, 1901.

"It was decided that reports of the monthly meetings be inserted in *Science* and in the *Journal of the Society.*

These printed minutes differ from the earlier hand-written ones, in that they describe quite fully, the substance of the papers presented. By an unexpected coincidence, the first such printed report was on a paper by the man who had been so instrumental in getting things started more than twenty-five years earlier; Prof. Charles F. Chandler of Columbia College. He talked on "The Electro-Chemical Industries at Niagara Falls." [See also, The NUCLEUS, 1998, 76 (7, April), 19]

Then follows a recounting of votes taken on financial matters, recommendation to adopt the metric system, etc., which have been recounted in Edward R. Atkinson's article in the Centennial Issue.

And so the records go. There is evidence of hard times and of easy times, of busy times and relaxed times, of serious thought and utter frivolity. Our present concerns with the economic plight of the chemist, [remember, this was written in 1973] with ethics, with licensing, with the effects of our stresses on the environment, with the application and mis-application of scientific knowledge these have all been foreshadowed. One can wish for the time to pore over these pages carefully, to extract from them, and from the loose newspaper clippings and the accompanying song sheets, the many messages they contain. The years these pages cover, represent, among others, the years of World War I, and we find our group worrying about potash and the dyestuff industry and about war gases and gas masks.

In conclusion, Eddy recounts the occasion of the speaker of the evening being greeted with a rousing song of Charlie Parson's Song, quoted in Atkinson's Centennial Issue article, p. 10.

NESACS Centennial History Part 3 - 1974 to Now

In 1974 the Section had its first woman chemist as Section Chairman, Phyllis Brauner, who is still very active in the Section. Since then six additional women chemists have served in that position.

In October 1968 our Section hosted the first Northeast Regional Meeting (NERM). Much work went into the various arrangements for the meeting. Aside from the technical part of the program, one event stands out in my memory: For the formal evening reception we had reserved the music room in the Gardner Museum for the reception, the rest of the museum to be open for viewing. When my wife and I arrived at the appointed hour for the start of the reception, the museum appeared to be ominously dark. I thought at first that we had made a mistake and had come on the wrong day, but then a guard came out with a flashlight, informing us that the Boston Edison Company was working in the next street and had turned of the power "for a while". Without light, we were not allowed into the upstairs exhibition rooms, but we could gather under the arches surrounding the garden court. Mrs. "Jack" Gardner's house was built by her, copying a Venetian palace, except that the garden court which would be open to the sky in Venice was closed off with a glass roof for the harsher Boston climate. We had also engaged a small chamber group of Boston Symphony players to provide the musical background for the reception. Alas, the pianist could not show his art, because the grand piano could not be moved onto the small balcony overlooking the garden court. There three musicians held forth with candle-light, playing mostly impromptu because the planned pieces with piano accompaniment could not be performed for lack of the piano part.

As time went on, the caterer started serving champaign while we chatted standing under the arches surrounding the court. As we were ready to close the event, the lights came back on, and we could view the galleries and continue the reception in the proper setting. I am sure that this event has remained in people's memories much better than a reception that had gone off exactly as planned.

Perhaps the greatest scientific story in the Section lies in the work and recognition received by some of its members. Nobel Prizes in Chemistry were received by the following members of the Section:

1914 Theodore William Richards (Harvard).
1965 Robert B. Woodward (Harvard)
1976 William N. Lipscomb (Harvard)
1980 Walter Gilbert (Harvard)
1981 Roald Hoffmann (Harvard and Cornell)
1986 Dudley Herschbach (Harvard)
1990 Elias Corey, Jr. (Harvard)
1993 Richard J. Robert (N.E.BioLabs) (Physiol. Or Medicine)
1993 Philip Sharp (M.I.T.)(Physiol. Or Medicine)
1994 George AA. Olah (Dow/Framingham)
1995 Mario Molina (M.I.T.)

This scurrilous pun is almost, but not quite as low as it sounds. The NUCLEUS was only one month old at the time, and must have seemed to many to be a naked little baby, entirely at the mercy of the elements. No copy of this sheet has been preserved, but from the published howls released by the Editor of the NUCLEUS, it must have resembled the Police Gazette more than it did the Atlantic Monthly. If the incident proves anything at all, it shows that the Editor of the NUCLEUS has always had to bear more than his share of vilification.

[added by the editor] Rachel Bodley six years later resigned in protest after hearing about the infamous "Misogynist Dinner" from which ladies had been excluded, at the 1980 Boston meeting. But that is another story, to be told at another time.

Whatever happened to that $1.00/ that was left behind? Has it been out at compound interest all these years, waiting until now to become a secret answer to the annual anguish of today's Budget Committee? Perhaps, but there is no "North End Savings Bank" listed in the latest Boston Telephone Book [that was in 1973].

There is no Metropolitan National Bank in the Telephone Book, either.

Here, in the first two paragraphs, we have ample evidence that extraordinary teachers have always been concerned with the Section's affairs. Dr. Talbot's text: "Quantitative Chemical Analysis" was first published in 1897. This text, first revised by him, and later revised by our own Leicester F. Hamilton and Stephen G. Simpson, has gone through twelve editions [by 1973]. Dr. Noyes' text: "Qualitative Chemical Analysis" was also first published in 1897. This has been through ten editions, the most recent being a revision by Ernest H. Swift of the California Institute of Technology. The Macmillan Company, publisher of both texts, has continuously listed them prominently in its catalogue right up to the present day.

It is important to note that this election was just the beginning of service to the ACS for many of those elected. Noyes was President of the National Society in 1904, Kinnicutt was Chairman of the Section in 1901, Whitney was President of the Society in 1909, Little was Chairman of the Section in 1899 and President of the Society in 1912 and 1913, Alden was Chairman of the Section in 1900 and Talbot was Chairman of the Section in 1916. One of the losers in the election, J. Russel Marble of Worcester, was Section Chairman in 1913.

If the By-Law Committee accepted this plan, it did not last beyond the first year. During the next five years, the meetings seem to have been held on every day of the week but Sunday, with no explanation given for the random pattern. Furthermore, there was a June meeting (a plant trip to the New England Gas and Coke Company) in 1899, on the tenth, a Saturday. From 1903 to 1939, there seems to have been a definite predilection for Friday. The present plan, of reserving the second Thursday of the month for Section meetings, was begun on October 12, 1939. It has been continued, with less than a half-dozen exceptions, uninterruptedly from that date.

Samuel Parsons Mulliken, 1887 graduate in Chemistry from M.I.T., Ph.D. Leipzig, 1890. Author of "Identification of Pure Organic Compounds", first published in 1904, revised by our own Ernest H. Huntress in 1940). Dr. Mulliken's first son, Robert Sanderson Mulliken, was awarded the Richards Medal by the Section in 1960. [See also the article "Samuel P. Mulliken", in The NUCLEUS, 1997, 75 (5, April) 11-16., ed]

Although there is an F.H. Thorpe) (M.I.T.) and an E.E. Thorpe (711 Boylston St., Boston) among the list of members, the treasurer identifies the right man for us. He paid check #15 to F.H. Thorp for "Sundries as Assist. Sect. Local Comm." So we know who did the bulk of the work for that meeting. It was the low man on the totem pole.

by Arno Heyn