

The NUCLEUS

Summer 2003 - Text Summary

Lloyd D. Taylor

1933-2003

Lloyd Taylor was my friend. He was the friend of most of the people he met, because Lloyd had the qualities which made people want to be his friend. I came to know him when he joined the Polaroid Corporation 45 years ago.

Lloyd had strong loyalties. He graduated from Boston Latin School in 1950 and never forgot that his Latin School years had opened the doors to him for a professional life. We talked often about one BLS master or another under whom we both suffered, years apart. He continued his education at Boston College, graduating in 1954, and going on to graduate work in organic chemistry at MIT. As far as his education went, he regarded himself first of all as a BLS boy.

Another love of Lloyd was visiting Nova Scotia, where his parents had come from, and where they returned in later years. He and Marianne honeymooned in "Novy" and vacationed there for years.

He came to the Research Division of Polaroid straight from MIT in 1958, with a freshly minted PhD degree, the last awarded under the supervision of Professor Avery Morton. He spent his entire scientific career at Polaroid, being promoted to manager of the Polymer Laboratory in 1969, Technical Director of Polymer Science in 1978, Director of Chemical Research as well as Senior Research Fellow, Polaroid's scientific ladder's equivalence to vice-president, in 1980. He retired in 1993, but stayed on as a consultant (President of Chemsociates, Inc.) until ill health finally ended his scientific career.

Polaroid had a very strong polymer chemistry department under Lloyd. He was always approachable and friendly. He had the quality of being interested in whatever others were interested in, was honest and free with his opinions, always valuable, and never afraid to say "I don't know" when in doubt. His counsel was sought by employees at every level in Research, including Dr. Land. His chemical memory was exceptional and amazed all those who worked with him. Many coworkers can tell anecdotes about Lloyd's remembering what everyone else had forgotten, sometimes memories crucial to rescuing a project or a product.

Instant photography film products benefited from his interests in the temperature dependence of complex polymeric systems, critical phenomena in polymer solutions and mass transfer phenomena. As an organic chemist he conceived and devised syntheses of novel monomers and polymers, and blocking groups which, under the influence of various conditions, would release reagents in an image-wise fashion. He published 45 papers and was awarded 103 US patents. When the company set up a Polaroid Technology Hall of Fame in 2000, Lloyd was one of only two awardees in the highest, Platinum, category.

Lloyd chaired the Northeastern Section of ACS in 1987, chaired the Gordon Research Conference on

Polymers in 1988, received the Boston College Alumni Award for Science in 1982 and the Polymer Pioneer designation by Polymer News in 1992.

So much for the bare facts of this man's life. They don't really tell you what he was really like. They don't tell of his marriage to Marianne Cassie while still a graduate student at MIT, nor of their three children, and the grandchildren and the warm family ties. They don't let you know how unassuming he was. Nor do they tell you of the pleasure younger chemists found in working under his supervision, nor of the lunchtime hearts playing and the weekend fishing trips, nor of the highly developed sense of right and wrong that made him the conscience of the company of scientists around him.

He was a bright, funny, serious man, and he is irreplaceable.

M.S.S.

Next Meeting

September 18, 2003 (Note this is the THIRD Thursday because the usual date conflicts with the New York National ACS Fall Meeting.)

Merrimack College, N. Andover, MA (Rte. 114/125); Sakowich Student Center, 2nd. Floor, Murray Lounge

Evening Speaker: Dr. Patrick D. McDonald (Waters Associates)

Evolution of HPLC: An Insider's View

NEACT Summer Conference

August 4-7, 2003

Sacred Heart University

Fairfield, CT

Culinary Chemistry

Keynote Addresses by Dr. Guy Crosby *You Are What You Eat*

And *The Chemistry of Flavor-Taste and Smel*. Workshops leader and

other speakers: Jerry DeMenna, Tamara Sachs, Jeff Gains, Steve and Kathy Siok, Babu George, Linda Farber, Joseph Janowicz, Patricia Redden, Stephen Hauville

2003 Timm Award to Drs. E and James Magyar (Rhode Island College)

Registration information:

Judith Kelley, 781-862-5469

Judith_Kelley@uml.edu

Program and forms are on the NESACS.org website.

Education Night, May 8, 2003

Awards Meeting at Boston University

Forty-Fifth Annual Avery A. Ashdown High School Chemistry Contest

STUDENT SCHOOL TEACHER/ADVISOR

First Place ö The Simmons College Award

Ziliang Lin Brookline H.S. Reen Gibb

Second Place (tie)

Vineel Kankanala Phillips Academy Temba Maqubela

Adam Rosenfield Lexington H.S. Judith Scott

Fourth Place

Lauren M. Forbes Acton-Boxborough

Regional H.S. Carol Murphree

Fifth Prize (tie)

Fifth Prize (tie)

Evan M. Hoke Wayland H.S. Jay Chandler

Douglas Hammond Malden Catholic H.S. Francis Halas

Honorable Mention ö First Year

Ryan Davis Phillips Academy Kevin Cardozo

Andrew Hsiao Phillips Academy Paul Cernota

Li-Mei Lim Lexington H.S. Judith Scott

Yao Liu Lexington H.S. Janice Compton

Sunny Lou Wayland H.S. Jay Chandler

Matthew Tai Cambridge Rindge &

Latin Marian Levinstein

Jason Whittaker Wayland H.S. Jay Chandler

Honorable Mention ö Second Year

Caitlin Donovan Wayland H.S. Jay Chandler

Akshay Ganju Brookline H.S. Reen Gibb

Jonathan Hessney Brookline H.S. Reen Gibb

Alex C. Liu Acton-Boxborough

Regional H.S. Carol Murphree

Laura Schoenherr Phillips Academy Leslie Ballard

Sean P. Sullivan Acton-Boxborough

Regional H.S. Carol Murphree

The Philip L. Levins Memorial Prize

Brian Murphy UMass Dartmouth Prof. Catherine Neto

2003 Undergraduate Research Scholars

James Flack Norris and Theodore William Richards Scholars

Boston College

Pasha Mirazimi Prof. Udayan Mohanty

Development of Models for the Dynamics of Oligomeric DNA

Through Solid State Nanopore Channels

Bridgewater State College

Travis R. Pribusauskas *Synthesis of Solvated Molybdenum Clusters from Molybdate* Dr. Steven Haefner

Harvard University

Rozalina Grubina *Assembly of a Cyclic Small Molecule Library Using DNA-Templated Synthesis* Prof. David R. Liu

Stonehill College

Kristin M. Felice *Modeling of the Zn²⁺ Coordinated Sites Zinc Metalloenzyme Using Peptide Phage Display* Prof. Marilena Hall

NESACS Undergraduate Grants-In-Aid

Boston University

Ustin Towigny Prof. Warren Giering
Warren Ansaldo Prof. Alfred Prock
Andrew Pagano Prof. Alfred Prock

University of Massachusetts Dartmouth

Toni Lamoureux Prof. Catherine Neto

Dr. Phyllis A, Brauner Memorial Book Award

Merrimack College

Christopher Crafts Prof. Stephen Theberge

Project SEED

Northeastern University Mentor: Dr. Patricia A. Mabrouk

Xi Sheng Zheng Charlestown H.S.
Xiang Guo Charlestown H.S.

Stonehill College Mentor: Dr. Cheryl Schnitzer

Mark Logan, Jr. Apponequet Regional H.S.
John Silva Brockton High School
Thuc Pham Newton Country Day School
Bao Truong Quincy High School
Songkhla Nguyen Rockland High School

The Theodore William Richards Award for Excellence in Teaching

James Miller Bishop Brady High School
Ralph Sherwood Chelmsford High School
Coretta Tam Newton Country Day School

Aula Laudis Society

Jean Avery Chatham High School
Jay Chandler Wayland High School
Mary Curtis (Retired) Belmont High School

Anne Woodward Lowell High School

NESACS Election

Results of the recent election

*=elected; ##=Councilor, 3 years

#=Alternate Councilor, 3 years

Chair-Elect

*Amy E. Tapper 411

Ernest V. Groman 196

Secretary

*Michael Singer 535

Trustee

*Joseph A. Lima 534

Councilor/Alternate Councilor

Catherine E. Costello 397

Dorothy J. Phillips 353

Julia H. Miwa 333

Patricia A. Mabrouk 320

Michaeline F. Chen 316

Arno H.A. Heyn 306

Alfred Viola 269

Howard R. Mayne 258

Barbara G. Wood 257

Wallace J. Gleekman 239

Michael Singer 235

Lowell H. Hall 201

J. Donald Smith 190

Mark Froimowitz 180

David Warr 143

Director-at-Large

*Sarah A. Iacobucci 364

*Stephen Lantos 271

Henry Brown 234

Robert S. Umans 193

Nominating Committee

*Dean E. Wilcox 311

*Patrick M. Gordon 278

Myron S. Simon 266

Donald O. Rickter 237

Esselen Award Committee

*William Klemperer 386

*Robert S. Langer 370

Mukund S. Chorghade 216
 Martin Idelson 165
Richards Medal Committee
 *Stephen J. Lippard 375
 *Gary R. Weisman 280
 Amir H. Hoveyda 245
 Thomas D. Tullius 232

Note: After ballots were printed the Section was notified that for 2004-07 we would have a total of 14 Councilors and 14 Alternate Councilors (up from 12 each, currently). Consequently the Directors voted to elect 5 Councilors and 5 Alternate Councilors in the 2003 election and, in accordance with the provisions in the Section and ACS documents, to fill the remaining vacancy by advancing to Councilor, for the rest of the term (2004-2005), the highest ranking Alternate Councilor, Truman S. Light. As a result of this shift and the election of current Alternate Councilors with other terms to the 2004-2006 term, resulting vacancies in Alternate Councilors for the terms expiring December 2004 and 2005 are to be filled at the next Board Meeting.

Michael Singer, Secretary

NESACS News

The James Flack Norris and Theodore William Richards Undergraduate Summer Research Scholarships

The Northeastern Section of the American Chemical Society (NESACS) established the James Flack Norris and Theodore William Richards Undergraduate Summer Scholarships to honor the memories of Professors Norris and Richards by promoting research interactions between undergraduate students and faculty. Research awards of \$3250 are given for the summer of 2003. The student stipend is \$2750 for a minimum commitment of ten weeks of full-time research work. The remaining \$500 of the award can be spent on supplies, travel, and other items relevant to the student project.

The 2003 scholarships have been awarded to:

Kristin M. Felice, Stonehill College; *Modeling the Zn²⁺ Coordination Sites of Zinc Metalloenzyme Using Peptide Phage Display*; Prof. Marilena Hall, Advisor

Rozalina Grubina, Harvard University; *Assembly of a Cyclic Small Molecule Library Using DNA-Templated Synthesis*; Prof. David R. Liu, Advisor

Pasha Mirazimi, Boston College, *Development of Models for the Dynamics of Oligomeric DNA through Solid State Nanopore Channels*; Prof. Udayan Mohanty, Advisor

Travis R. Pribusauskas, Bridgewater State College, *Synthesis of Solvated Molybdenum Clusters from Molybdate*; Dr. Steven Haefner, Advisor

Award winners are required to submit a report of their summer projects for publication in *The*

Nucleus. They are also required to participate in the Northeast Student Chemistry Research Conference (NSCRC) in April 2004.

Congratulations to these fellowship recipients.

Awards Received

Three students in our Section have received 2002-2003 Bristol-Myers Squibb Graduate Fellowships in Synthetic Organic Chemistry, as announced by the company in *C&ENews*, April 21, 2003 (their advisors in parentheses):

Johann Chen, M.I.T. (Prof. T.F. Jamison),

Sylvia Degrado, Boston College (Prof. A.H. Hoveyda)

Philip Hogan, Harvard (Prof. A.G. Myers)

Other Awards:

Jinsang Kim, recent MIT graduate, has received the award of the ACS Division of Polymeric Materials: Science & Engineering.

Charles M. Lieber, Professor of chemistry and chemical biology, Harvard, has received the *Harrison Howe Award*.

X. Sunney Xie, Professor of chemistry and chemical biology at Harvard has received one of two 2003 *Raymond and Beverly Sackler Prizes in the Physical Sciences*.

Our congratulations to these award recipients.

Plaintiffs Denied Review

On June 23 the U.S. Supreme Court denied without comment the petition to review its 1953 finding in the case *United States v. Reynolds*. This has been a landmark case concerning the right of the government to withhold information based on national security concerns. As recounted on p. 8 in the May 2003 issue of this publication, the current petition was based on the recent discovery that the government had apparently defrauded the Court in claiming national security concerns. One of the men killed in the 1948 U.S. Air Force plane accident, was William Brauner, husband of the late Phyllis A. Brauner. The Philadelphia law firm is considering other options for reopening the case.

Information received from Susan Brauner and from WBUR news.

Nominations

Gustavus John Esselen Award for Chemistry in the Public Interest

The Northeastern Section (NESACS) is inviting nominations for its prestigious Gustavus John Esselen Award for Chemistry in the Public Interest. This award is given annually to a chemical scientist, whose scientific and technical work has contributed to the public well-being and has thereby communicated the positive values of the chemical profession. The significance of this work should have become apparent within the five years preceding

nomination. The awardee shall be a living resident of the United States or Canada at the time of the nomination.

There is no limitation to the field of chemistry. The selection committee focuses on the general public recognition of the work, as well as its scientific/technical significance.

The Award consists of a bronze medal and the sum of \$5,000. Travel expenses incidental to the conferring of the award will be reimbursed. The award will be presented at the April 15, 2004 meeting of the Section. The Awardee is expected to deliver an address related to the work for which the honor is conferred.

Nominations shall include the names of two co-sponsors, a biography of the nominee, a description of the work which has been recognized as communicating the positive values of the chemical profession, along with copies of pertinent articles and popular news and feature articles indicative of public interest. Joint nominations are acceptable.

Nominations Are Due October 15, 2003.

Award recipients will be notified by February 1, 2004.

Nominations shall be directed to:

*Dr. E. Joseph Billo, c/o Karen Piper
19 Mill Rd., Harvard, MA 01451.*

Inquiries may be made to Dr. Billo, e-mail: joseph.billo@bc.edu; Tel. (617) 552-3619; or Karen Piper: Tel. (978) 456-8622

NESACS News

NESACS/YCC-GDCh/JCF Exchange 2003*

By Lauren K. Wolf (Boston University) and Jarred Blank (Boston College)

Did you ever wonder where the triangular gadget in the American Chemical Society logo originated? Interestingly, we found out during a trip to Germany.

During the week of February 23, 2003, we had the honor of participating in the third annual exchange program between the Northeastern Section of the American Chemical Society (NESACS) and the German Chemical Society, Gesellschaft Deutscher Chemiker (GDCh). We and ten other graduate and undergraduate chemistry students from universities in Massachusetts and New Hampshire were chosen to participate in this year's program, held in Munich and Dresden. This exchange offers students the opportunity to present research in an international forum, to learn about career possibilities in Germany and the United States, to explore foreign culture, and to make international contacts.

The first of these contacts was made upon landing in Munich. There, we were greeted by our hosts, Nils Lessmann and Sebastian Sonntag, the heads of the German Younger Chemists Committee (Jungchemikerforum), and by Dr. Kurt Begitt (GDCh). After escorting us to our hotel, Nils, Sebastian, and a number of other students from the Munich area

took us on an introductory walking tour of the city center and the Ludwig Maximilian University. But no introduction to Germany would be complete without a trip to a beer hall. So that evening, we all relaxed and recovered from our jet-lag at the Munich Hofbräuhaus over delicious beer and pretzels, gearing up for the rest of our busy week.

And busy it was. During our first full day in Munich, we visited the Munich Technical University. There, we were treated to a tour of research laboratories and shown some of the latest technology for the study of reaction kinetics using ultra-fast methods. The Technical University in Munich is also home to one of the only 900 MHz NMR instruments in the world. We were given a tour of the special facilities designed for this enormous NMR and learned about the machine's capabilities.

Later in the day, we attended an International Career Symposium at the University with our hosts and other German students from the surrounding area. The symposium focused primarily on career opportunities in both Germany and the United States, as well as the availability of funds and fellowships to make exchange possible. Our current NESACS chairman, Dr. John Neumeyer, gave welcoming and introductory remarks in both German and English. Dr. Elsa Reichmanis, ACS 2003 President, had been invited to the symposium and discussed the importance of research collaborations and teamwork between Europe and the United States. Dr. Stefan Buchholz from Degussa AG (Düsseldorf) spoke about various international careers with Degussa. Dr. Amy Tapper, chair of the NESACS Younger Chemists Committee (YCC), provided insight into the younger chemist's transition from academia to industry. Dr. Hans-Achim Wagenknecht discussed academic research in Germany and the process of Habilitation (Germany's equivalent to the tenure process). Finally, Dr. Christian Schfer from the German Academic Exchange Service (DAAD) in Bonn encouraged American scientists to study in Germany and discussed fellowships available from Germany to make this possible.

That evening, all of the speakers accompanied our group to a Degussa-sponsored dinner at a Bavarian restaurant where we enjoyed platters of meat, fine wine and apple strudel. The dinner was a great opportunity to network with some of those participants in the day's symposium.

The next day, our hosts escorted us to the Deutsches Museum, a famous science museum located on an island in the middle of Munich. There, we received a tour of one of the largest collections of historical chemistry artifacts in the world. Dr. Elisabeth Vaupel took us through a series of exhibits designed to replicate early chemistry laboratories. Here, we saw replicates of original distillation glassware in an early alchemist's setting. In Lavoisier's replicate laboratory, we viewed the apparatus that was used to separate hydrogen and oxygen from water. In addition, we were shown a massive magnifying glass, used during Lavoisier's time to focus sunlight to a fine point and heat reactions.

The more modern replicate lab of German chemist, Justus von Liebig, contained the answer to the previously posed question. It contained versions of fume hoods and bench tops that revolutionized chemistry in the 19th century, as well as a little piece of glassware called the Kaliapparat. This five-bulb apparatus, invented in 1831, allowed absorption of carbon dioxide generated by combustion. This, in turn, allowed the first determination of carbon in a sample

by weight^[1]. One of the founding members of the ACS, J.L. Smith, studied with Liebig and suggested incorporation of the monumental Kaliapparat into the ACS logo we have today.

Armed with knowledge and ready to learn more, our group took a bus trip the following day, past the Bavarian Alps, to Burghausen, a city that boasts the longest existing castle in Europe. It is also home to one of the world's largest producers of silicon-based products, Wacker Chemie GmbH. Upon arrival at Wacker, we were treated to a breakfast of traditional Bavarian Weisswurst, or white veal sausage, followed by a series of tours and lectures. The history of silicon wafers, their use in computer chips, and the Wacker production of these wafers worldwide were highlighted. We learned about the process of wafer production, beginning with raw silica and finishing with the polished end-product.

Wacker then gave us a tour of the actual wafer production area, the Siltronic facility. Here, we viewed the areas in which raw silica smelting takes place in huge crucibles and the instrumentation with which wafer cutting, polishing, and cleaning is carried out. The grand scale of these facilities was paralleled only by the rest of the gigantic Wacker production plant, home to approximately 10,000 employees, which we also later toured.

After our impressive day at Wacker, our group traveled to the Munich airport for transportation to Dresden in order to participate in the Euregionale 2003. This conference, much like our own Northeast Student Chemistry Research Conference (NSCRC), provides students with the opportunity to present their research to peers and attendees, getting feedback and gaining presentation experience. However, while the NSCRC draws students from the New England area, the Euregionale draws students from various European countries, including the Czech Republic, Slovakia, Poland, and of course, Germany.

After exploring Dresden on our own the next afternoon, we arrived at the University of Technology Dresden ready for the start of the Euregionale conference. It began with introductory talks about the history and research of both the Technical University and Degussa, the main conference sponsor, by Prof. Dr. Mehlhorn and Prof. Dr. Wolfgang Leuchtenberger respectively. They set the stage for the night's poster session, the first of the conference. The discussions of outstanding research started by the conference participants at the poster session were continued during the buffet dinner that followed.

Such networking among the Euregionale attendees continued during the remaining two days of the conference. Communication and socialization were at their height when the Jungchemikerforum (JCF) hosted a celebratory party full of food, drinks, and dancing. The days of the conference were filled with interactive student talks and poster sessions covering a wide range of chemistry. Students gave presentations on everything from research in atmospheric mercury concentrations in Antarctica to studies on the production of aromatic amines in cigarette smoke to the "wonderful world" of liquid crystals. All of the students from the U.S. participated and presented research during this time; four of us were selected to give talks, while the other eight presented posters.

Our group fared well during the conference presentations. On the final morning, cash prizes were awarded to the best oral and poster presentations under the headings life and material science. We won nominations in three of the four possible categories.

Following the conference, we were rewarded for our hard work and taken on a formal

sightseeing tour of Dresden by our hosts. During our tour, we learned about the war-torn history of the city nestled on the River Elbe and saw for ourselves the destruction that was wrought during World War II. Many of the buildings there have since been reconstructed and some, such as the magnificent Frauenkirche (Church of our Lady) are still being rebuilt. Other sights on our tour included Dresden's famous Semperoper, the 24,000 Meissen porcelain tile, 300-foot long mural "Procession of Princes" (Fürstenzug), and the Zwinger Museum.

After being overwhelmed with so much rich history and tradition, it was time to make history of our own. That evening, our group attended a farewell dinner in downtown Dresden hosted by the GDCh. Here, we said a heartfelt goodbye and gave many thanks to our wonderful hosts and friends over a traditional German meal before returning to the U.S. the next morning.

What we've learned is that in many ways, the NESACS/YCC-GDCh/JCF exchange program can also be symbolized by the Kaliapparatus. Our two societies have many common bonds and we still have much to learn from one another. The contacts we've made in Germany will last a lifetime. As we've learned from history, the benefits of fostering this relationship between our societies can be vast. The exchange program can help make this all possible.

Since returning from Germany, Lauren has taken over the position of Northeastern Section YCC chair and has joined the steering committee to plan the fourth exchange to be held in Boston in the spring of 2004. Jarred has decided to do post-doctoral work in Germany after he finishes his degree in December of this year. Lauren, Jarred and all of the other U.S. students who participated in this year's exchange would like to thank NESACS for sponsoring this trip and giving them such a fantastic experience.

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Book Review

Tuxedo Park, by Jenet Conant (Simon & Schuster, 2002), 330 pp., ISBN 0684872870, \$26.00

Reviewed by Jane A. Roman

Department of Chemistry

Regis College, Weston, MA

In the early chapters of this book, Jenet Conant, granddaughter of James Conant former President of Harvard and esteemed scientist, describes brilliantly the life of Alfred Lee Loomis, philanthropist, scientist and Wall Street tycoon. Prompted by the mysterious circumstances surrounding the suicide of her granduncle, William Richards, son of Nobel laureate Theodore William Richards, Jenet using her granduncle's notes and letters, wrote this biography, which is a small but significant chapter in the history of American science.

Her accounts of Loomis depict his relationships with many Nobel Laureates in science and also detail an illicit love affair Loomis had with M anette Hobart, the wife of Garrett A. Hobart III, his protégé and secretary at Tuxedo Park. The setting for most of the book is the region of Tuxedo Park in Orange County, New York where Loomis established a research laboratory, funded solely by his personal fortune. Very important discoveries in radar detection, atomic fission, and other wartime inventions that led the allies to victory over the Germans were made there.

Because the circumstances surrounding her granduncle's death and the hush-up carried out by her family were indicative of the gentry at that time, Ms. Conant was prompted to reveal in her novel

the relationship her granduncle had with Loomis in Tuxedo Park. From his papers and letters, she describes how Richards and his friend at Princeton, George Kistiakowsky, came to work at Tuxedo Park, often referring to it as a private scientific playground in the Ramapo Mountains. This area known as Tuxedo Park was originally developed by Pierre Lorillard, the tobacco king as a private lakefront where the rich and famous came to vacation in the forty-room cottages. Alfred Loomis owned several houses near the lake. As an eccentric and, in general, a socialite misfit, Loomis bought one stone mansion, known as Tower House and there set up his elaborate laboratory in 1926. Here, he was free to pursue his avocation in physics, chemistry, psychology and many other ventures while he entertained and invited many eminent scientists of the day to spend long weekends, holidays, and summers as his guests. During that time Loomis and his guests, the most remarkable group of young scientists, developed and transformed their fields of science in ways that would alter the course of the war with Germany.

We are drawn into the life of Loomis who was educated in fine institutions, St. Matthew's Academy and Phillips Academy in Andover. Conant paints a picture revealing how by the age of nine he was a chess champion and could play mental chess without a board or pieces in two games simultaneously. After high school he entered Yale, majored in math, and made his mark as a brilliant thinker. After the death of his father, he built a close relationship with a cousin twenty years his senior, Henry Stimpson who advised him to enroll at Harvard Law School. After passing the bar, he went to work as a clerk at the law firm of Wallace and Stimpson; then, in 1912 married a wealthy Brahmin, Ellen Farnsworth of Boston. Loomis and his young bride moved to Tuxedo Park and thus began his ventures into the world of science. Shortly after the outbreak of WW I Loomis entered officers' training corps and then spent the remaining time in the Aberdeen Proving grounds in Maryland where he worked with physicists and astronomers making and testing new weapons for warfare. Here, Loomis displayed inventiveness of mind by designing a new method for determining the velocity of projectiles, known as the Loomis chronograph. This device became a remarkably efficient invention and the standard for the US Army and Navy equipment. While at Aberdeen, Loomis befriended Robert Wood of Johns Hopkins, considered to be the most brilliant American physicist of the time. Somewhat eccentric himself, Wood never completed his Ph.D., but became well known for his work in infrared and ultraviolet radiation that was used during the war for signaling purpose.

After returning from war, Loomis became disenchanted with life as a lawyer and left the law firm to work in his laboratory at Tuxedo Park. Knowing that he needed money to fund his science, he went to an old respected investment house, Bonbright and Co., where he met the young Landon Ketchum Thorne, also a Yale graduate, and bond salesman. Between the two of them they gathered enough money to buy the majority of shares of Bonbright, took control of the business and began specializing in public utility issues and quickly emerged as leaders in both financing and developing the electric power industry. Because of the connections Loomis made at Aberdeen where he met top scientists working on the development of new technologies for the utility business, including bigger and better transmissions lines, Loomis knew that was fertile arena for making money. Using the concept of holding companies, Loomis made way for smaller operators to be bundled into larger integrated systems with now more power to secure loans and issue bonds. Thus, Bonbright and Co. grew from a company near bankruptcy to be one of the leading private investment houses and a Wall Street legend. The Securities

and Exchange Commission eventually adopted his concept of holding companies and other ideas.

In a matter of a few short years, Loomis and his new brother-in-law became very powerful and very prosperous and owned nearly all of Hilton Head Island. At Hilton Head, Loomis spent his vacations riding horseback and classifying wildlife and drawing maps to illustrate the numerous plantations on the island. In a short period of time Loomis then tired of Wall Street, went back to Tuxedo Park and there began a life-long relationship with Wood. Together they would redesign and develop a more powerful oscilloscope than that already on the market, which produced "super-sound waves" with a variety of applications. The results of their findings were published in many journals in the US, Britain and the Continent. What once were the exclusive stomping grounds for the Astors, Juillards and the like, now became a private club for many of the world famous scientists.

In the later chapters, Ms Conant describes the business trips that often took Loomis to Europe; and, on one occasion, a scientific tour he took with Wood. On this tour, Wood introduced him to most of the German physicists of the time, including Walther Nernst and Max Planck. In Copenhagen he met Niels Bohr and in England, Sir Charles Vernon Boys, maker of sensitive instruments. Because Loomis had a fixation with exactness of time and knew about the famous Shortt free pendulum clock, which kept time to one-tenth of a second per year, he decided to buy three pendulum clocks from a famous clock maker E Hope-Jones. When the "Shortt-like clocks" arrived at Tuxedo Park, Loomis installed them in a vault excavated from the solid rock on the mountain on which the laboratory stood. Then with a crystal quartz clock purchased from Bell Laboratories and equipped with the most accurate and reliable and expensive clocks, he collected data by actually measuring infinitesimal fluctuations in time, and proved that there was no such thing as keeping perfect time.

Loomis's scientific investigations followed a pattern where he would set out in one direction only to be distracted and turn towards another. Yet, "Who could have known then that it was fortunate that he would give his imagination such free rein" from his earliest explorations of high frequency sound waves to his chronograph and experiments with quartz crystal clocks - for it would lead him into his research into the nascent field of radar, which would become critical in the coming war.

Early in 1929, Loomis had successfully engaged himself in many scientific inventions and kept a keen eye on Wall Street. He and his brother-in-law helped formulate many large holding companies for the utility industry and all the while unlike most other investment houses never carried large inventories of the securities it underwrote - "which would be the undoing of many of the biggest promoters of the Bull market." Over a period of months, during the frenzy of the Bull market, Loomis and Thorne liquidated all remaining securities and on that fateful Black Thursday, Oct. 24, the "two prudent financiers were caught with their pockets full of money." The mathematical charts similar to the standard biological growth charts Loomis had devised to track the market - timing when to get in and when to get out - saved his fortune.

Shortly after the market crash, Loomis began to dabble into the theories of brain waves. Any visitor to Tuxedo Park was immediately fitted with electrodes and brain waves were measured. Sometimes, the visitor was asked to take a nap with the electrodes attached in a

special room in the basement of Tuxedo Park. In these experiments, Loomis discovered that the brain has several levels on consciousness. Between 1937 and 1939 Loomis and Howard Davis, Professor at Harvard Medical School made major advances in EEG disturbance patterns. It was during this time that the illicit affair began with Hobart's young Belgian wife and it was Richards who began writing his novel about the affair while a guest at Tuxedo Park. Shortly after the novel's completion Richards was found dead, an apparent suicide.

It is doubtful that Loomis ever suffered any misgivings about his friend's death. He had already moved on. He had begun to distance himself from Tuxedo Park and the world events further added to this distance. He had now become obsessed with German artillery and machinery and knew that the Germans were working on nuclear physics. For Loomis this presented an opportunity to further his connections and, prompted by Compton, he began working on microwave technology that led to the development of radar systems. It was during this work that he began a long-term friendship with Ernest Lawrence that was responsible for helping Lawrence fund and build the cyclotron at Berkeley.

All the while, Hitler was invading the countries in Europe and the German scientists were working on nuclear physics. By the summer of 1940, Germany began its relentless air attacks on England. It was then that the British government decided to send Sir Henry Tizard to America on a scientific mission, the purpose of which was to share the secrets that both governments had in the scientific technological developments for use in warfare, but which lacked the final pieces to be of use. Realizing that pulse radar required the missing piece developed by the British, the first resonant cavity magnetron, a powerful source of microwaves for use in radar detection, Loomis met with a team of British scientists in Washington in order to complete the development of the radar system. Little did he know that when he left to meet with the British his days in Tuxedo Park were drawing to a close. By then too, Lawrence was caught up in the excitement as well.

During this time Vannevar Bush, Presidential Science Advisor, and close friend of Loomis, convinced Roosevelt to start the NDRC, where in a central laboratory government and civilian scientists would work together to carry out developments in radar. The site chosen was MIT called the "Rad Lab." As an academic institution it would be a place to gather scientists without attracting attention and they could work faster because the university would advance money for the research. Here they developed the radar systems capable of detecting U-boats, and of searching for and detecting airplanes for air-to air combat. Due to political tensions and constant disagreements at the Rad Lab, Loomis, knowing that the Germans might already be ahead of them, turned his efforts to nuclear fission. The final chapters of the book detail how Lawrence, Seaborg, McMillan, Segre, Compton, Fermi, and Oppenheimer worked collaboratively with little or no administrative roadblocks because of the power and influence Loomis had in Washington due to the presence of his cousin, Stimpson and Vannevar Bush. While a recent book review in the **American Scientist (Nov-Dec 2002)** has questioned the authenticity of the role that Loomis played in the development of nuclear power. The reviewer found Ms. Conant's book an interesting story about the scientific work of Loomis and his important contributions to the world of science.

For those of us "sixty-somethings" who have pursued careers in science and have come to

be lovers of history, this book from the outset gives us the opportunity to glimpse, at first-hand, individuals whose theories and developments we came to learn in our science courses, but whom we often knew little of their personal side. A great read for everyone!

ACS Career Services

At ACS Career Services, we want to help you lessen the impact of traumatic events and make the most of good opportunities. Visit our website to read ACS career publications, check the calendar of ACS career workshops and meetings, and visit links to other resources. Most of our products and services are free to our members and others pay just a nominal fee.

A brief synopsis of our programs is given herein.

Local Section Career Program:

The Local Section Career Program (LSCP) assists local sections in the development and maintenance of local employment and career services.

Employment Services:

Career Resource Center and Employment Clearing House at National and Regional Meetings: Provides ACS members and national and student affiliates with information on current job openings and an opportunity to interview onsite with employers. Free to members

Situations Wanted Ads:

ACS members and national and student affiliates who are unemployed or under 60 days notice of termination, retired members who are looking for part-time employment and have applied for retired status with ACS, as well as student members and affiliates who have not found employment two months prior to graduation, may place free advertisements in C&EN. Call 1-800-227-5558, x6208.

Expert Career Service:

Career Consultant Program: Over 70 volunteer consultants—all ACS members—available to assist you with any aspect of employment and career development: job search strategies, interviewing techniques, career transitioning, salaries, and resumes. Go to chemistry.org/careers, click "Career Resources," then "Career Advice" or call 1-800-227-5558, x4436. FREE.

Telephone Assistance: Access to information about salaries, employment trends, job/career transitions, resume questions, and other career issues at your fingertips. FREE.

Resume Review and Career Assistance:

Expert consultants provide one-on-one assistance, review your resume and discuss various issues concerning your career. Offered at ACS National and Regional meetings. FREE.

Mock Interview Sessions: Tape a practice interview and receive invaluable feedback from our Career Services professionals. Offered at ACS National Meetings. FREE.

Call ACS at 1-800-227-5558

Workshops & Presentations:

These ACS programs are designed to provide assistance in fine-tuning your job search skills and to offer information on the current status of chemical employment opportunities. They are offered at national and regional meetings. Tailored programs are available to local sections, graduate schools, colleges and universities. Presented by specially trained chemical professionals with extensive experience, these programs bring to life the latest information and techniques to help you develop professionally.

Managing an Effective Job Search (3 hours)

Explores successful job search strategies, resume preparation, networking, interviewing, and techniques for making a career transition. The full "Job Search" workshop includes all of the

following modules, which are also available as separate presentations:

• **Employment Trends and Marketability**-What is the job market like for chemical professionals today? How will it evolve in the next decade? Learn about current trends and how to make the most of them to advance your career.

• **Targeting the Job Market**- Learn about the latest trends and understand how to identify the best job for you. Develop networking skills and learn effective techniques for obtaining interviews.

• **Resume Preparation**- Discover the secrets of a winning resume. Focus on your skills and abilities and land that dream job. This session also covers CVs, cover letters and personal data formats for government jobs.

• **Interview Skills**-The key to an effective interview is your ability to demonstrate the match between your background and the position's requirements. We'll show you how to make a good impression.

Cost of Workshops: Full-day- Half-day One-hour

ACS Local Sections, Universities \$600, \$300, \$150 • Non-ACS \$900 \$450 \$300

Visit [www.chemistry.org / careers](http://www.chemistry.org/careers) 3

Workshops are also available on the following topics:

• **Academic Jobs:** • A Ph.D. Is Only the Beginning

• **Ask the Expert About Job-Searching Skills**

• **Career Enhancement for Chemical Technicians**

• **Career Strategies: Critical Steps for Success**

• **Critical Non-Technical Skills**

• **Employment Trends: Opportunities and Challenges for Chemists**

• **Finding Jobs in Small Companies**

• **Finding Jobs in the Biotechnology Sector**

• **Getting a Job: Step One**

• **Interviewing 101: Basic Skills**

• **Interviewing 102: Behavior-Based Questions**

• **Listening Skills: Foundation for Improving Interpersonal Skills**

• **Negotiation Techniques**

• **Overcoming Barriers: Current Issues Facing Foreign-Born Chemists**

• **Resume Preparation**

• **So You Want to be a Consultant**

• **Strategies for Career Transitions**

• **Tough Interview Questions**

• **Writing Excellent Research Proposals**

Workforce Analysis: Annual Salary Survey

Vital for both employers and employees, this survey analyzes the employment and salaries of ACS members who have been working for two or more years. \$250.00 plus shipping and handling and appropriate tax.

Starting Salary Survey: *This survey analyzes the employment status and salaries of new chemistry and chemical engineering graduates—BS, MS, PhD.* \$49.95 plus shipping and handling and appropriate tax.

Current Trends: The big picture on technology, business, economic, R&D, and hiring trends in the corporate, government, and academic worlds. Available online only.

<http://chemistry.org/careers/CurrentTrends2002.html>

Professional and Workforce News: A special report providing current data on degrees and employment in the chemistry labor force—Published three times a year. Electronic version at <http://www.acs.org/careers> Click on "Employment Resources," then "Workforce Analysis."

Salary Comparator:

Let the Comparator help you find answers to your salary-related questions by providing current information applicable to specific employment situations. To get to the Comparator, go to <http://center.acs.org/applications/acscomparator>.

Visit www.chemistry.org/careers

The **Workforce Millennium Series Comprehensive reports** provide the latest research about six areas of the chemical profession. The Millennium Series covers the past decade of tumultuous changes in where and how chemical professionals work. ChemCensus 2000 report covers ACS working members through the past decade. Individual reports focus on special populations of chemists. Academic Chemists 2000, Industrial Chemists 2000, and Women Chemists 2000 are special reports from the ChemCensus data.

Our Publications:

The Chemist's Code of Conduct

Defines a chemist's ethical standards, plus obligations to the public, science, and the profession. FREE.

Professional Employment Guidelines

An in-depth treatment recommending fair practices by both employers and employees as the basis of sound professional relations FREE.*

Academic Professional Guidelines

Provides assistance on special issues of concern to chemical scientists in the academic environment, including the obligations and responsibilities of students, professors, and administrators. FREE.*

Resources for Career Management

Lists reference books, reading material, videotapes, and computer services useful in any job search. FREE.

Career Transitions for Chemists

Discusses personal assessment, salaries, resumes, and networking for laboratory and nonlab careers. \$15.00

Careers for Chemists

Profiles of people who have used their training in chemistry as a springboard to a variety of career options. \$15.00 plus shipping and handling and appropriate tax. (\$25 plus appropriate tax for this title and Career Transitions for Chemists.)

Call ACS at 1-800-227-5558

Library at chemistry.org/careers

The Interview Handbook

Discusses the various techniques and skills needed for a successful interview. FREE.

Employment Guide for Foreign-born Chemists

Provides information on immigration requirements; job searching; evaluating foreign credentials, skills, and experience; culture of the workplace and how to adapt to a new domicile. FREE.

Tips on Resume Preparation Discusses the most successful types of resumes and offers samples of each. FREE.

Targeting the Job Market This publication focuses on the components of targeting the job market: personal assessment, identifying market trends, credentials, conducting research, and networking. FREE.

*Electronic version at <http://acs.org/careers>. Click on "Employment Resources," then "Publications." Visit www.chemistry.org/careers

Coping with Job Loss

Provides detailed information on coping with the emotional, practical, and professional aftermath of termination. FREE.

What a Chemist Should Consider Before Accepting...

A series of 6 brochures, which presents issues to consider before accepting a position: compensation, benefits, tenure, and career growth. For BS, MS, and PhD chemists seeking positions in industry, government, and academe. FREE

ACS On Location!

Local section meeting planners, graduate schools, college & university career centers...ACS Career Services will come to you with career development workshops and programs÷arranged just for you! You provide publicity and basic site arrangements. We do the rest÷ACS Career Consultant, participant materials, Career Services publications. Available to groups of 25 or more Cost to ACS Local Sections: one-hour \$150; half-day \$300; full-day \$600. Cost to non-ACS Groups; one-hour \$300; half-day \$450; full-day \$900. Contact j_viesulas@acs.org or 1-800-227-5558, ext. 6076.

Êwww.cen-chemjobs.org is a comprehensive online recruitment site for the chemical community. Formerly known as JobSpectrum.org, cen-chemjobs.org now includes resources from Chemical & Engineering News Classifieds. ACS members will be able to view the most recent C&EN classified ads that appeared in the print version of the magazine; non-members will be able to view them after two weeks. Job seekers can also post their resume, find career advice, and access the salary comparator.

DCS Web site: <http://chemistry.org/careers>

Inquiries: 1-800-227-5558

To order pubs: 1-800-227-5558, ext. 4600

E-mail: careers@acs.org

Career Services: e_diggs@acs.org

Workshops: j_viesulas@acs.org

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Council Meeting

New Orleans, March 26, 2003

ÊÊÊÊÊÊÊÊÊÊ Seven Councilors and five Alternate Councilors from the Northeastern Section attended the Council Meeting. Only one petition to amend the Constitution and Bylaws of the Society was up for action, but this one was a very important and far-reaching one: Over the years, Divisions and small Local Sections have had a difficult time financially: The per member allocations paid from the national dues were not sufficient to meet the expenses. Since Local Section Dues are voluntary and sessions of Division at both national and Regional Meetings must be open to all Society members, regardless of whether those attending are members of the Division which they are attending or not,Ê funds are inadequate to cover the expenses of good programs, such as having invited keynote speakers.

ÊÊÊÊÊÊÊÊÊÊ This problem had been recognized by a Presidential Task Force on Society Support for Divisions and Local Sections. As a result, extensive amendments were proposed to the effect that 20% of individual membersâ dues to the ACS be distributed to Local Sections and Divisions. The extensive amendments address the details of this distribution.

ÊÊÊÊÊÊÊÊÊÊ Since the funds thus distributed to the Local Sections and Divisions is far larger than what is currently distributed, the proposed amendments would decrease the funds available for other Society needs to the extent of 1-5 M\$ per year. Since the dues are set by a predetermined formula

based on the Cost of Services Index, additional funds are to be raised by a dues surcharge of a few dollars per member, to be determined at a future date.

The amendments to the Constitution will be submitted to the members for approval. The following Council action will be valid only if a majority of members voting approve the constitutional amendments. The Council overwhelmingly APPROVED both the constitutional and bylaw amendments. All NESACS representatives approved these petitions.

Other actions: At every Spring Meeting the Council has to set the next year's dues by either accepting the dues calculated from the Cost of Services Index, or any full dollar amount between the calculated and current dues. The Council unanimously approved the calculated dues of \$120 for 2004, a \$ 4 increase. Also, the Council had to act on a proposed distribution formula, both for Local Sections and Divisions. The formulas proposed by the respective committees also were approved unanimously by the Council.

The Committee on Committees, in after the required 5-year review recommended that the Committees on Technician Activities, on Chemical Safety, and on Minority Affairs be continued, and the Council approved unanimously.

NESACS representatives attended a number of committees: M=member; A=associate, Ch=chair, Co=consultant

Admissions Committee: M. Chen (M)

Chemistry and Public Affairs: D. Lewis (M)

Constitution and Bylaws: A. Heyn (Co)

International Activities: M. Chen (A), C. Costello (M)

Meetings and Expositions: B. Wood (A)

Society Committee on Education: M. Hoffman (M)(including several subcommittees)

NERM Steering Committee: M. Hoffman (M)

In addition, several NESACS members who are not councilors are members or associates of several "Other" committees, but we have no information on these activities.

Board of Directors

Notes of Meeting of February 13, 2003

NOTE: Board Meetings are held on the monthly meeting day at 4:30 p.m. Section members are invited to attend.

Officers' Reports:

Chair: J. Neumeyer announced that James Quick will chair the new Business Liaison Committee. Other members to be David Yesair and Amy Tapper. Ted Light has been appointed Chair of the Professional Relations Committee.

Chair-Elect: F. Fuller-Stanley stated that 70 people are expected at the February Section meeting dinner. She reported briefly on the 2003 ACS Leadership Conference in Washington, DC

Treasurer: J. Piper presented the January financial report which was ACCEPTED.

Archivist: M. Simon is asking for a volunteer to compile an album of photographs taken at meetings. **Councilors:** B. Wood reported that she has been appointed an Associate of the

Meetings and Expositions Committee for 2003. M. Hoffman has been appointed to the Society Committee on Education, and its Subcommittee B:Ê (Colleges/Universities)

Standing Committees:

Bd. Of Publications: The NESACS website is being redesigned. Sam Kounaves has taken over as the new Web Editor. Additional space may be bought.ÊÊÊÊ

Editor: The March issue blueline is being circulated (24 pages). Advertising is keeping ahead of the budgeted amount.

Membership: M. Chen reported that welcome letters have been sent to a total of 1392 new members in 2002.

Budget: J. Piper presented the 2003 budget proposal which had been distributed in January. It was MOVED and VOTED to accept the budget as presented.

Nominating: M. Hoffman presented the slate of nominees (published in the March *Nucleus*). Petitions for additional nominees are accepted until Mar. 23.

Professional Relations: J. Neumeyer announced that Patricia Hamm has resigned as Chair, T. Light has been appointed to take her place.

Local Arrangements: M. Burgess urged those planning to attend dinners to make reservations.

Other Committees:

Business Liaison: J. Quick reported that the goal was to raise at least \$8000 in corporate donations during 2003. He urged other groups within the Section to coordinate fundraising activities with the Business Liaison Committee.

Continuing Education: A. Viola stated that the next Short Course will be presented May 19-20: LC/MS fundamentals and applications.

Summerthing: W. Gleekman reported that tickets have been reserved for two Red Sox home games: April 17 (Tampa BayÊ Devil Rays) and May 15 (Texas Rangers). These tickets are discounted from the regular \$37 to \$27.

Old Business: J. Piper MOVED for the Budget Committee that the SectionÊs Local Section Dues by set at 13% of the ACS dues (rounded to nearest \$). This will make 2004 dues \$15. PASSED.

New Business: D. Phillips announced that E.A. Hopkins is being nominated for the new ACS Volunteer Service Award, with supporting letters from M. Strem, D. Lewis, and J. Schoffner (Chicago Section).

From the minutes of M. Singer

Notes of Meeting of March 13, 2003 OfficersÊ Reports:

Chair: J. Neumeyer reported that the new Chair ofÊ the Nat. Chem. Week Committee is Kirsten Jankovic of Emmanuel College. The YCC one-week exchange visit to Germany was taken by twelve students and eight Board members. Planning for the 2004 exchange visit by the German Chemical SocietyÊs student and faculty representatives will have to be done soon.ÊÊÊÊ He also announced that Paul Anderson, ACS Past President will be the October 2003 meeting speaker.

ÊÊÊÊ **Chair-Elect:** J. Fuller-Stanley stated that 63 people had reserved for the dinner tonight at the Wellesley College Club, three had canceled because of the snowstorm.

Treasurer: J. Piper presented the financial report for February which was ACCEPTED.

Standing Committees:

Bd. Of Publications: P. Gordon stated that the Board is looking for increased space for the website. F. Gorga, past Webmaster, will be receiving an ACS plaque recognizing his valuable contribution in guiding the website for two years. Vivian Walworth is to be the third Board member this year.

Editor: A. Heyn passed around the proof copy of the April issue which is 24 pages.

Membership: M. Chen reported that 123 new members will be invited to the April meeting. At tonight's dinner 10 new members are expected to attend.

Professional Relations

Career Services: M. Chorghade reported that the workshops on job search, writing are being held. One on *Managing an Effective Job Search* was presented by him in March to the Maryland Section in Baltimore and several such workshops will be presented at the New Orleans Meeting. A new workshop on *Finding Jobs in the Biotechnology Sector* has been added. An expanded version will be presented at the Fall National ACS Meeting in New York, as well as a panel discussion on *Overcoming Cultural and Linguistic Barriers in the Workplace*. The review and mock interviews have been well received and a suggestion has been made to add this to our monthly Section meetings. The workshop on *Conducting a Job Search* will be presented at the Univ. of New Hampshire and at Framingham State College in early April with M. Chorghade as guest speaker.

Norris Award: F. Green by written report stated that nominators of carry-over nominees have been advised of deadlines for nominations for the 2003 award. Procedures for the evaluation of the 2003 nominations have been established.

Esselen Award: A. Heyn reported that the 2003 awardee is to be Bruce Roth from Pfizer (Ann Arbor). He will be speaking on the synthesis and development of Lipitor. Because of budget constraints, invited guest may be limited to guests invited by the nominee, committee hosts, and Board members.

Hill Award: J. Fuller-Stanley stated that nominations for this Section Award are invited. M. Dube stated that calls for nominations will be published in the upcoming issues of *The Nucleus*, with a deadline of early August.

Other Committees:

Brauner Memorial Lecture Committee: D. Lewis presented an extensive report of the committee's activities. The Committee requests the establishment of a *Phyllis Brauner Endowment* as a separately named account in the National Chemistry Week Endowment, solely for the Phyllis A. Brauner Memorial Lecture. The committee requests \$25,000 as the chartering amount, to be taken from the Permanent Trust Income Account and supplemented by such grants or donations as may be received. Sufficiently large donations or grants may be eligible for matching by the ACS on a 2:1 basis. The aim is to reach a total endowment of \$150,000. A corresponding MOTION was made by D. Lewis and seconded by E.A. Hopkins.

In the discussion, J. Neumeyer stated that the Finance Committee had reviewed the proposal. There is a NESACS precedence for this type of fund: The Henry A. Hill Award operates in a similar manner. E.A. Hopkins stated that the motion is legal according to Article

XII of the Constitution.

J. Neumeyer stated that this item has been presented at this meeting, to be voted at the next meeting. This ruling was accepted and the motion and second, in effect, withdrawn.

Speakersâ Bureau: S. Buta stated that a survey will be sent to schools, then towns, then community groups in that order.

Summerthing: W. Gleekman stated that the April Red Sox game tickets are not selling well, while the May game tickets are. Two possibilities are being considered for a Summerthing III event: A trip to Sam Adams brewery, a trip to the Army Soldier Lab in Natick.

Younger Chemists: A. Tapper introduced Lauren Wolf who is the new YCC Chair. The YCC trip to Germany was very successful. The 6th Northeastern Chemistry Research Conference is being organized. Details will be on the YCC website.

Business Liaison: J. Quick via written report stated that M. Strem and P. Gordon will join the committee.

New Business: D. Lewis MOVED for the Brauner Committee that the NESACS Bd. of Directors approve applying for funding from the American Honda Association. Seconded by M. Simon and so VOTED.

S. Buta brought the *C&ENews* article: "Do we Need the Professional Chemist?" to the attention of Board members. She suggested that NESACS discuss and write a response. J. Neumeyer suggested this for an open forum. M. Chorghade stated that the British Royal Society has addressed this topic by issuing a higher-level certificate.

From the minutes of M. Singer

Notes of Meeting of April 10, 2003

Officersâ Reports:

Chair: J. Neumeyer stated that a letter of condolence had been sent to Mrs. Lloyd Taylor.

Chair-Elect: The September meeting is to be changed from Sept. 11 to Sept. 18 because of overlap with the National ACS meeting in New York. The Board agreed unanimously.

Treasurer: J. Piper presented the March 2003 financial report which was ACCEPTED.

Councilors: D. Lewis and M. Hearn attended the 2nd Annual Legislative Summit in Washington, DC

Michael Strem is one of the two candidates selected by the Council for election as President-Elect of the ACS. Also, Dorothy Phillips is a candidate for District I. Director and Morton Hoffman is a candidate for Chair-elect of the Division of Chemical Education.

Standing Committees:

Bd. Of Publications: P. Gordon reported that more space has been purchased for the website. Nucleus advertising is ahead of budget and also increased compared to last year.

Editor: The proof copy of the 32-page May issue of *The Nucleus* was circulated.

Membership: M. Chen reported that 137 letters were sent to new members, of whom two will be attending tonightâs dinner and meeting as guests of the Section. J. Neumeyer is sending a letter of greeting to the new members including a questionnaire about possible interest in committee service.

Finance: J. Piper spoke at length about the proposal of the Brauner Memorial Lecture

Committee to convert \$25,000 of the Permanent Trust Income Account into a Brauner Trust Account, the income from which is to support the Memorial Lectures. The Finance committee recommends that appropriate bylaw provisions be drafted.

Since a motion had been presented at the March meeting and postponed to this meeting, J. Neumeyer asked for the motion to be presented again. Accordingly, D. Lewis MOVED that two accounts be established in the Trust Funds of the Section: **A.** The Phyllis Brauner Memorial Fund in the Consolidated Trust Fund, and, **B.** The Phyllis Brauner Memorial Lecture Income Account. The A. fund to be formed from \$25,000 transferred from the Permanent Trust, and the B. Fund to receive the proportionate earnings from the A. fund and also any donations by individuals, foundations and/or corporations, made to honor the memory of Phyllis A. Brauner, possibly supplemented by matching funds from the ACS. SECONDED by J. Piper. The motion was PASSED.

Nominating: M. Hoffman asked for a one month delay in presenting the four Board nominees for the Nominating Committee.

Public Relations: J. Neumeyer mentioned that the committee should send congratulatory letters to two Wayland H.S. teachers who recently received awards, and that the Wayland local paper also be notified.

Local Arrangements: M. Burgess stated that this April Esselen Award dinner has been filled to capacity.

Esselen Award: A. Heyn stated that the Awardee Bruce D. Roth will be speaking tonight about the synthesis and development of Lipitor%. He thanked Karen Piper, J. Billo, J. Coob and P. Vouros for their help with details of the dinner and meeting.

Other Committees:

Business Liaison: A. Tapper suggested that the committee in their letter to raise funds from local corporations should mention specific education projects to be supported from these funds, as specified by the Chemistry Education committee. In the discussion, it was stated that companies would be most likely to support projects which are in their area of interest.

Continuing Education: A. Viola stated that the *Nucleus* announcement of the May 19-20 Short Course as submitted contained errors which would be cleared up because registrants have to contact him.

Medicinal Chemistry Group: E. Groman reported that the group is planning meetings for June 5 (Dalia Cohen, Novartis on functional genomics, to be held at the Swiss House; September 25: John Tally to speak about the development of Celebrex, at the MIT Faculty Club, and a December meeting, to be arranged by S.B. Rajur.

Natl. Chemistry Week: This year's theme for the week of Oct. 19-25 will be *Earth's Atmosphere and Beyond*. The 2004 theme will be based on the chemistry of health.

Speaker's Bureau: S. Buta reported that e-mail inquiries have been sent to schools recently and one reply has been obtained so far. Other groups are going to be contacted by mail.

Summerthing: W. Gleekman reported that tickets for the Summerthing I Red Sox Game on April 17 sold slowly. A number of tickets have been returned for exchange for a later date. The tickets for the Summerthing II Red Sox game on May 15 sold well. Suggestions are invited for a Summerthing III event later in the summer.

Younger Chemists Committee: L. Wolf stated that the Undergraduate Research Conference

will be held at B.U. on April 26, but so far few applications have been received. The keynote speaker is to be Charles Lieber of Harvard. J. Neumeyer inquired who would write a report of the trip to Germany. A. Tapper will coordinate these reports. Details about a planning conference for the 2004 meeting will be on the YCC website

No Old or New Business.

From the minutes of J. Fuller- Stanley who filled in for the Secretary

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- In case you wonder what this alphabet-soup means: **NorthEastern Section (ACS) Younger --- Chemists Committee ö Gesellschaft Deutscher Chemiker Jung Chemiker Forum**

[1]
-To those of us old-timers who learned to do our own C and H analyses, a modern version of these Liebig Bulbs was well-known. They contained a saturated solution of KOH (in German: **Kaliumhydroxyd**, therefore: Kaliapparat) to absorb CO₂. Note: Na₂CO₃ is insoluble in concentrated NaOH, that is why NaOH isn't used-the tubes would get clogged. For the determination of % C, the tube would be weighed both before and after a combustion run, the weight gain being CO₂ since the H₂O formed from the H in the sample has been absorbed in a preceding tube with a drying agent.