

Badger chemist: a newsletter from the Department of Chemistry of the University of Wisconsin. Newsletter 15 Winter 1968

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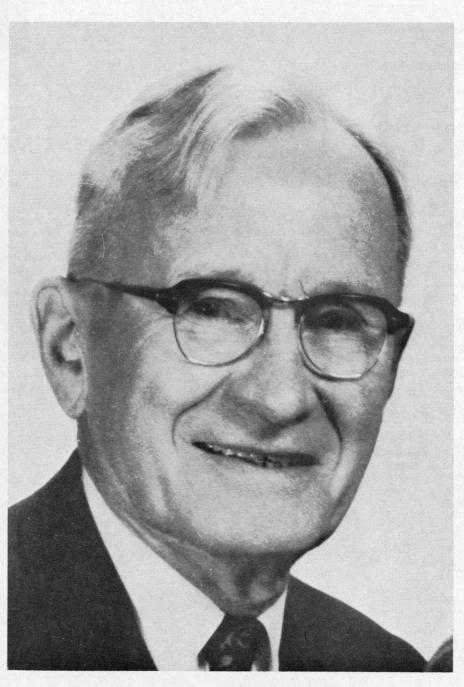
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BADGER CHEMIST

A Newsletter from the Department of Chemistry of the University of Wisconsin

Newsletter 15

Winter 1968



HENRY A. SCHUETTE
Founder and Editor of Badger Chemist These 15 Issues

BADGER CHEMIST

Privately published by the Department of Chemistry of the University of Wisconsin, Madison, with the assistance of its alumni.

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Editor's Column

We want Badger Chemist readers to know that the cover for this issue comes as a surprise to our beloved editor emeritus, Henry A. Schuette. While he was on vacation in California, we substituted this picture for the cover that he had intended to use. As the accompanying tribute by Professor Ihde indicates, Professor Schuette has been the spark plug for this fifteenth newsletter.

As we go to press almost all teaching and research facilities are located in the new building. A third floor laboratory in the east wing of the old building is still in use for beginning organic sections and the mechanicians are awaiting completion of their facilities before moving to the new building. In the next issue we hope to have pictures and a complete description of chemistry at Wisconsin in 1969.

-E. D. F.

Henry A. Schuette

With this issue of The Badger Chemist we do honor to Emeritus Professor Henry A. Schuette for his long and devoted service to the newsletter. When Farrington Daniels became Chairman of the department in 1952 he recognized the need for better communication with the Alumni. The Badger Chemist, written, edited by Professor Schuette, was brought out as a six-page publication. From that time, Dr. Schuette has given the newsletter his devoted attention. He has written well over 90% of

the material for 15 issues, including the present one. In addition, he worked hard to keep it financially solvent, especially in the early years when alumni contributions were inadequate to cover costs. Retirement, rather than causing him to step aside, provided time for him to give the publication the attention it required in order to grow into a highly informative departmental organ. We, your colleagues listed on the masthead, say "Thank you, Dr. Schuette."—A.J.I.

SOCIETY HONORS 50-YEAR MEMBERS

The names of nine Badger chemists were on the list of 192 members of the American Chemical Society honored last spring in recognition of their half-century association with it. One member of the group-see the In Memoriam column— died before the formal presentation of his certificate. Five of them in their day had professorial titles, three had been employed in industryone of them upon retirement became an educator-and one of them became a dedicated public health official. Their names together with a brief abstract of their respective activities follow.

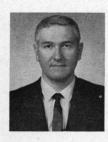
Augustus L. Barker, Ph.D. '22, on retirement at Ripon College in 1953, continued his activities as an educator in Auburn, Alabama, until his passing. Burt H. Carroll, Ph.D. '22, on reaching Eastman Kodak's mandatory retirement age, accepted a position as professor of photographic science on the faculty of Rochester Institute of Technology. Sheldon J. Dickinson, Ph.D. '26, is now a retiree of American Smelting and Refining Company, East Brunswick, New Jersey.

M. Starr Nichols, B.S. '16, Ph.D. '26 (biochemistry), as an undergraduate became a student assistant in Wisconsin's State Laboratory of Hygiene; and thus was laid the foundation of a career in sanitary chemistry. He retired in 1957 as a professor and, at this writing, is engaged in a study of the losses of nitrogen and phosphorus from farm land drainage. When Sarah Vance Dugan (Mrs. F. Clarke), B.S. '17, retired in 1959 as an employee of Kentucky's State Board of Health, she had to her credit a 40-year record of public

service made up largely during the course of her efforts to assure the state's citizens that the food which they ate, the beverages which they consumed, and that the drugs which they took were safe. Walter T. Schrenk, Ph.D. '22, University of Missouri-Rolla retiree, made a record there which spells a long and outstanding service of some 39 years. Ellis L. Krause, M.A. '23he is a Ripon College alumnus, A.B. '13, and a native of our state -received recognition as an educator at Marietta College whose like only two other badger chemists have received. Some seven years ago he was one of six outstanding educators chosen by the Manufacturing Chemists Association to receive its College Chemistry Teachers Award of \$1000. It is a recognition given to teachers of undergraduate chemistry who have "been personally responsible over a period of years for awakening in students a genuine interest in chemistry, for inspiring them to serious intellectual effort in studying that field, and for developing that interest into a continuing dedication". Elvira Weeks, M.A. '14she is a Ripon College alumna, A.B. '13-earned her doctorate in 1927 at the University of Kansas where she remained as a member of its chemistry department faculty until she reached associate professor rank. She resigned in 1944 to accept a position as a research associate in scientific literature in the Kresge-Hooker Science library of Wayne State University. Now retired, she continues her studies in the history of science. Her work in the history of chemistry, in particular her book, The

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ABOUT THE FACULTY . . .



Last summer Irving Shain became the new chairman of the Chemistry Department, succeeding John Ferry who more time to give to his re-

search program. Irv joined the department as an instructor in analytical chemistry in 1952, rising through the ranks to a full professorship in 1961. His teaching activities have added strength to the program in instrumental analysis and his research in polarography and electroanalysis has been distinguished.

He was born in Seattle in 1926. His studies in the University of Washington were interrupted to army service between 1943 and 1946. He resumed his studies upon discharge and took his B.S. in chemistry in 1949. Graduate work under Professor A. L. Crittenden led to the Ph.D. in 1952. In 1947 Irv married Mildred Udell. They have four children.

Dr. Shain is the sixth chairman of the department. When chemistry achieved departmental status in 1880, William Willard Daniells served as the first chairman until his retirement in 1905. The responsibility then passed to Louis Kahlenberg. In 1919 J. Howard Mathews began his long service as chairman, seeing the professorial staff doubled in size when he retired in 1952. Farrington Daniels then held the chairmanship until he retired in 1959, when John Ferry took over.

Professor R. B. Bernstein gave special lectures on "Molecular Beam Scattering" at the "Frontiers of Chemistry" lecture series, Wayne State University, in May of 1967. During this past year lectures on the same subject were given at Battelle Memorial Institute, Northern Illinois University, University of Michigan, and the Ford Scientific Laboratories.

Professor Jerome A. Berson gave lectures in "Molecular Rearrangements" at the University of Western Ontario, London, Ontario, Canada during the summer of 1967. Presently he is serving as Executive Officer of the National Organic Symposium.

Professor Walter J. Blaedel, accompanied by his wife, attended the Symposium on Automation in Analytical Chemistry which was held in Prague, September 4-10, during the meeting of the 21st Congress of the International Union of Pure and Applied Chemistry. His contribution to the program was a plenary lecture on automation through continuous analysis. The Blaedels, while in Europe, besides visiting relatives in Stuttgart and Munich, drove through parts of Austria, northern Italy and France, Currently Professor Blaedel is serving on the A.C.S. advisory Board for Analytical Chemistry, N.A.S. Committee on Post Doctoral Fellowships, and Advisory Panel to the Institute for Materials Research.

The 25th Jubilee Pittsburg Diffraction Conference held at the Mellon Institute in November, 1967, featured a talk by Lawrence F. Dahl on "Coordination Complexes of Transition Elements". Besides an A.C.S. tour of eleven lectures in the southwest, Professor Dahl presented a paper at the Third International Symposium on Organometallic chemistry held August 1967 at Munich, Germany. Among his many other activities is one of unusual interest, a series of six lectures on "Symmetry and its Importance in Science and Art" given at the Visiting Scholars Program, University Center, Richmond, Virginia.

Farrington Daniels was one of five solar energy scientists invited by the Pakistan Atomic Energy Commission to take part, as advisors in its enlargement program. in a ten-day conference which began on 27 November, 1967, and was held in turn in Lahore, Karachi, and Rawilpandi. The group was made up of three from the U.S.A., one from the U.S.S.R. and two from Australia. We understand that Pakistan is an unusually favorable place for the direct use of the sun's energy in that it has lots of sunshine but very little fuel and electricity. Pakistan, we have been told, has well-trained engineers. Its possibilities for good technological advances are deemed to be good.

Professor Daniels was one of several Wisconsin residents honored with a citation at the 97th annual meeting of the Wisconsin Academy of Sciences, Arts and Letters at Oshkosh State University. Recognition was accorded him as a teacher, editor, lecturer, researcher and administrator in national scientific projects.

Associate Professor Richard F. Fenske received the \$1000 Emil H. Steiger teaching award last year for excellence in teaching.

Two members of the Department's senior staff became grand-fathers for the first time since the release of our last two newsletters. Both acquired this status via a daughter who, on her part, presented her parents with a girl. Mary Ellen Fisher is now Mrs. George Minkevich and Phyllis Ferry is now the wife of Roger Lee Gilbertson.

Elsewhere in this issue is the announcement that Professor John Ferry has resigned the chairmanship of the chemistry department after 8 years of outstanding service. John will be on research leave for the second semester of this year and the first semester of school year 1968–69. Besides several months in France and Japan, he reports that he will be writing the 2nd edition of "Viscoelastic Properties of Polymers".

Professor Donald Gaines was the Sigma Xi lecturer at the New Haven chapter in October, 1967.

After presenting the 1967 Karl Pfister Lectures at M.I.T. Professor Harlan Goering visited Europe. During his stay he gave the Gnehm Lecture at Eidg, Technische Hochschule, Zurich; attended the Burgenstock Conference, Burgenstock, Switzerland, and gave additional lectures at Basel, Karlsruh, Munich, Darmstadt, Berlin, Marburg, and Braunschweig. Subject matter for his lectures included "Chemistry and Stereochemistry of Intermediates Involved in Ionization Processes" and "Structure and Chemistry of Biocyclooctyl Carbonium Ions".

Professor and Mrs. Larry Haskin announce the birth of a daughter, Jean Marie, on February 23, 1968.

In October, 1967, Professor J. O. Hirschfelder presented lectures for the University Lecture Series at the University of Western Ontario, London, Ontario. During January, 1968, he gave a series of lectures at the Winter Quantum Chemistry Institute and International Symposium, Sanibel, Florida.

Associate Professor Byron Kratochvil is no longer a member of the analytical division. He resigned his Wisconsin position for a sim-

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Faculty

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ilar one at the University of Alberta in Edmonton, Alberta, Canada.

Professor Edwin M. Larsen is serving on the Stanford Universitybased Advisory Council on College Chemistry, an independent group of chemists interested in how improvement and innovation in undergradulate chemistry curricula can be implemented at the national level. The Council collects and disseminates information through the activities of standing committees on Freshman Chemistry Curricula and Advanced Courses, Teaching Aids, Teacher Development, Science for Non-Science Majors, Junior Colleges, Resource Papers, and an Editorial Committee.

Emeritus Professor Villiers W. Meloche has been named the first recipient of the Joseph Howard Mathews Award for Distinguished Service to the alpha chapter of Alpha Chi Sigma, the professional chemistry fraternity.

Emeritus Professor and Mrs. H. A. Schuette observed their 49th wedding anniversary 2 November, 1967, on a cruise, Scandinavian style as to ship, cuisine, and accommodations, on the Norwegian America Line's flagship of its merchant marine, the M/S Sagafjord. They visited two continents and the West Indies and cruised to both sides of the Atlantic Ocean. They made shore excursions from each of the 12 ports at which the Sagafjord called. Their itinerary: Funchal in the Madeira Islands; Casablanca and Marrakech in Morocco; Santa Cruz in the Canary Islands; Dakar in Senegal (Emeritus Professor Daniels received an honorary Doctor of Science from the University there several years ago); Freetown in Sierra Leone; Monrovia in Liberia; then in turn the Brazilian seaport cities of Rio de Janeiro, Bahia and Recife; Barbados in the British West Indies; Fort-de-France in Martingue, a city described as a sophisticated French town famous for creole cooking the rhythm of the beguine, and pride in its illustrious native, Napoleon's Empress Josephine. The cruise drew to a close in Charlotte Amalie in St. Thomas. It ended in New York 39 days from the time of departure in late October. It proved to be, as advertised, an autumn adventure

cruise. Not advertised was the "fringe benefit" resulting from the trip: scenery which was interesting and fascinating, relaxation in comfortable surroundings, and a geography lesson on the areas visited which gave reality to what they had learned about them in school days.

Scheduled for publication this year is a book written by Prof. Worth Vaughan and associates. Its title: Dielectric Properties and Molecular Behaviour. D. Van Nostrand, Ltd. are the publishers.

Professor Robert West presented papers at the International Symposium on Organometallic Chemistry in Munich, Germany, and another International Symposium on "Small Ring Compounds in Louvain, Belgium. He is serving on the editorial board of the new A.C.S. publication "Accounts of Chemical Research".

Prof. John E. Willard, Vilas Professor of Chemistry, made an extensive lecture and visiting trip to Europe last summer for the purpose of taking part in the Eighth International Symposium on Free Radicals which was held in the new "Academic City" some 20 miles from Novosibirsk, a city about 1700 miles east of Moscow. The trip took him also to England, Sweden and Finland. His itinerary included a stop at Moscow for a visit at the Kharkov Institute of Chemical Physics and Electrochemistry; a visit in Leningrad as a guest of the Institutes of Photocatalysts, of Field Emission, and of High Molecular Weight Compounds. Stops were made in England at the radiation chemistry laboratories of the University of Leeds, of Newcastle, and of Manchester. Other European visits were made at Shell Company's Thornton Research laboratories in England, and at Stockholm and Helsinki. During the month of September he was invited to participate in ceremonies at the University of Chicago marking the 25th anniversary of the discovery of plutonium.

Professors Paul Treichel, Robert West and Howard Zimmerman were in charge of several A.C.S. Short Courses during the past year. Subject matter for Treichel and West was Organo-metallic compounds and Zimmerman's course was Photochemistry.

During this past year Professors John Harriman and Barry Trost have held research fellowships with the Alfred P. Sloan Foundation. Recently a similar fellowship was awarded to Professor Stephen Nelsen. Since these are awarded for a two-year period this means that next year three of our young professors will be holding this outstanding award.

Promotions among the faculty for the past year include Peter Wharton and Howard Whitlock to full professor and Richard Fenske and Worth Vaughn to associate professor.

50-Year Members

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Discovery of the Elements, was recognized in 1967 when she was given the Dexter Award. This award is sponsored by the ACS Division of History of Chemistry and is made possible by the Dexter Chemical Company. Chemistry Course graduate William Steriker, B.S. '17, Ph.D. '19 (Pittsburgh), is a Philadelphia Quartz Company retiree. His service record with it spells a very successful association of some 43 years. At last report, he was a consultant to his former employer and was giving his attention, as chairman, to the committee on detergents of ASTM and the American Philatelic Congress of which he is a member. We understand that he is often called upon to act as a judge of postage stamp exhibits.

Stipends: Then and Now

Time was when a teaching assistant's pay-it was then euphemistically described as halftime—some 60 years ago was \$400 for the then ten-month school term, plus the added "fringe benefit" of doing graduate work for a higher degree. By contrast the 1968-69 stipend schedule for graduate assistants probably has something or more than passing interest for the holders of higher degrees among the Department's "older grads". The schedule in question provides half-time academic pay of \$3,375 for new teaching assistants. Research assistants will receive half-time stipends of \$2,700 for the academic year, \$3,300 on an annual basis.

This 'n' That About Our Alumni

Louisiana-native Robbin C. Anderson, Ph.D. '39, is carrying on a family tradition as an educatorhis father was a superintendent of schools-and now, after many years as professor of chemistry and education at the University of Texas in Austin, is Dean of the College of Arts and Science at the University of Arkansas in Fayetteville. On the extra-curricular side of his activities he lists, among others, the presidency of the Texas Academy of Science, the chairmanship of the Committee on Chemistry for non-science majors, and his work on the ACS Division of Chemical Education, and membership in the Advisory Council on College Chemistry.

We have learned that Peter F. Arvedson, Ph.D. '64, like his father, is now an ordained Episcopal minister and that he is living in Effingham, Ill.

Paul R. Austin, B.S. '27, accompanied by his wife, was a campus visitor last June at Commencement time when his class celebrated its fortieth reunion. For Paul that forty-year span in his life spells a record which includes graduate studies at two universities (M.S. '29 from Northwestern, Ph.D. '30 Cornell); a two-year appointment as a National Research Council fellow following the completion of his formal education on the Ithaca campus, and an affiliation with Du Pont which began in 1933 and ended in 1967 upon his retirement.

The resignation of Badger chemist Robert A. Alberty, Ph.D. '49, as Dean of our Graduate School early in February, 1967, put another physical chemist in the "driver's seat" in the position vacated by him. His name: Robert M. Bock, B.S. '49, (Ch.C.) and Ph.D. '52. This Robert, upon graduation, accepted an appointment as an assistant professor of biochemistry in our College of Agriculture. He, a former student of Prof. J. W. Williams, now is Professor of Biochemistry and Molecular Biology.

Illinois alumnus Byron R. Bird, Ph.D. '50, has been named Charles F. Burgess Distinguished Professor of Chemical Engineering. Burgess was a former Wisconsin professor and, in his day, chairman of the Department of Chemical Engineering, a position which Badger chemist Bird now fills. This is not the first recognition which

he has received. He joined our staff upon graduation as a physical chemistry major who had spent his first year off the campus in Holland on a Fulbright fellowship. He returned to the campus as a project assistant. His contributions in his field of concentration have been many. They have brought him several awards and honors: the 1965 Professional Progress Award in Chemical Engineering from the American Institute of Chemical Engineers; the Westinghouse Award and the Curtis-McGraw Award from the American Society for Engineering Education; a Fulbright lectureship in Japan; a Guggenheim Research Grant; and one from the Petroleum Research Fund of the American Chemical Society.

A. Keith Brewer, Ph.D. '24-he is Professor Daniel's first doctoral graduate—on 24 May, 1966, was presented the Navy Distinguished Civilian Service Award in recognition of his exceptional achievements in the field of Naval Science and Technical Intelligence. This is the highest honorary award in the Incentive Awards Program which the Secretary of the Navy may confer upon a civilian employee of the Navy. The citation which was a part of the award follows: "For outstanding performance as a leader of the Navy's scientific and technical intelligence effort. His diligence and ability insured that the Navy was always provided accurate estimates of the capabilities of potential enemies in the use of atomic energy for military application. His initiative and leadership have resulted in a wellplanned and expeditious development in this important field. As a result of his personal efforts, new concepts, principles, methods, and techniques of intelligencegathering and evaluation have opened new areas of scientific study in the Navy and the Nation. Under his scientific leadership, an outstanding contribution has been made to the defense of the Nation. as evidenced by the adoption of these techniques by all major elements of the United States intelligence community. His tireless efforts, inspired leadership, and devotion to duty are exemplified in a record of achievement of great importance to the Navy and the Nation. Dr. Brewer is richly deserving of the Navy's Distinguished Civilian Service Award."

Eugene O. Brimm, M.S. '57, continued his graduate studies, after acquiring Badger chemist status, and then completed them at the University of Illinois to the doctorate level in 1940. At this writing he is representing Union Carbide in Europe. He is based in Geneva, Switzerland.

B. L. Browning, Ph.D. '28, of Lawrence University's Institute of Paper Chemistry is the author of Methods of Wood Chemistry, a two-volume set of books of some 880 pages described as containing "all of the important experimental methods that are used in studying the composition and chemistry of wood, wood components and certain derived products".

Ruby Wong Chiang (Mrs. Robert), M.S. '49, has added another master's degree to the one which she had earned at Wisconsin. The degree in question is M.S. in Public Health. It was conferred in June, 1967, by the University of North Carolina. She is a research associate in toxicology and pharmacology in a laboratory affiliated with the Medical School of the University of North Carolina. Its main activity, we understand, is drug screening and synthesis. Ruby is working in the organic chemistry division.

Kenneth E. Collins, Ph.D. '62, as a member of the faculty of the University of Buffalo, is teaching nuclear and radio chemistry there. And directly related to his field of concentration was his trip to Japan last October where he spent some six days as a participant in the six-day Fourth International Hot Atom Chemistry Symposium in Tokyo. On the extracurricular side of the report of his glorious nine days in Japan-we are quoting from text-are his lecture at the University of Tokyo and his visit to Japan's Atomic Energy Institute. We suspect that the opportunity for reviewing Tokyo's night life plus points of civic interest was not overlooked.

Ralph Connor, Ph.D. '32, Board chairman of Rohm & Haas, is now the possessor of two honorary degrees; and we know of no other Badger chemist in industry who can match this record. His first degree in this category was conferred several years ago by the Philadelphia College of Pharmacy and Sciences; the second one, also a D. Sc., recently came to him from Brooklyn Polytechnic Institute.

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Badger chemists again have a representative-unofficially, of course-on the A.C.S. board of directors. He is Lloyd M. Cooke, B.S. '37. Lloyd is the Fifth District's new regional director, and is serving on the 10-man ad hoc committee on which both Council and Board are equally represented which is set up to study future A.C.S. financial needs. He is an employee of Union Carbide Corporation and is in the food products division as manager-planning. He earned his Ph.D. degree in 1941 at McGill University.

Former research assistant Lawrence N. Craft, Ph.D. '66, is now a member of the chemistry staff of Johns Hopkins University. He had spent some time there in post doctoral research after acquiring Badger chemist status.

Paul C. Cross, Ph.D. '32, formerly chief executive officer and a trustee of Mellon Institute, is now vice-president for research of the newly created Carnegie-Mellon Institute, an industrial research laboratory, and Carnegie Institute of Technology. Mellon-Carnegie, we understand, now ranks among the nation's wealthiest private universities, behind Harvard and California Institute of Technology.

Sherrill Peterson Daily (Mrs. Arthur A.) B.S. '59, is again on the campus now as the mother of two children and the wife of a resident in dermatology in the University Hospitals. Sherrill, at one time, had been associated with Shell Development Company, Emeryville, California, as a research chemist.

Word has come to us that S. D. Darling, B.S. '54—he earned his doctorate at Columbia—is back in the mid-west. He is a member of the chemistry staff of Southern Illinois State University as an assistant professor.

Edward K. Degginger, Ph.D. '53, is no longer a resident of Syracuse, N.Y., because of a transfer by Allied Chemicals' industrial chemicals Division—it was formerly the Solvay Process Division—to its Central Research Laboratory in Morristown, N.J. And with a change of address came a new title: technical associate. His job, we understand, is to evaluate new, long-range research ideas and projects. Ed makes color photography his hobby, and very successful he is in this activity. He won third

place in Chicago in the KCS photo contest for color slides. His slides have appeared in National Wildlife and other national magazines.

At last report Joseph J. Dickert, Jr., B.S. '47, was an employee of Socony Mobil Oil, in its central Research Division with a senior research chemist's rating. Joe served in CWS, 1942–46, as a first lieutenant. His address: Homestead Dr., Yardley, Pa. 19067.

Paul L. Du Brow, M.A. '40, is one of an eight-member team of Armour scientists to receive the Company's Creative Science Award of the Armour Industrial Chemical Company for successfully developing two new lines of chemicals, the beta amines and arylates. In making the formal presentation to the group, Armour's president noted that the chemical groups in question consist of about 100 new nitrogen and 50 acid derivatives; that the arylates are unique chemical specialties of interest to the textile, plastics and other industries; that the beta amines function better and are less costly than previously available amines. Badger chemist Karl Folkers, Ph.D. '31he is the president of Stanford Research Institute—was one of the judges on the Armour Creative Science Award Committee.

Herbert J. Dutton, B.A. '36-he earned the doctorate on the "other campus" in biochemistry—as head of Agricultural Research studies in chemical and physical properties of oil seeds in the U.S. Department of Agriculture's Northern Laboratory, Peoria, Illinois, was recently awarded the Alton F. Bailey Achievement Medal for outstanding research in the composition, reactions, and techniques in lipid chemistry. The award was given him by North Central Section of the American Oil Chemists' Society.

Word came to us last year that Emeritus Professor of St. Olaf College, Emil O. Ellingson, Ph.D. '12, had reached the four-scoreand-ten milestone in his life on 14 October at which time he was honored by his alma mater at a dinner and a family open house. Dr. Ellingson is the first St. Olaf graduate to earn a doctorate in chemistry and, as the chairman in his day, of the Chemistry Department, was instrumental in sending 14 "oles" to the Wisconsin Campus for graduate work towards the doctorate. All in due time, like their sponsor, became Badger chemists.

Merle A. Evenson, Ph.D. '66, on graduation as an analytical chemistry major, joined the University Hospitals' staff as assistant director of its clinical chemistry laboratories. Promotion in rank from instructor to assistant professor came to him last September.

Organic chemist Garry N. Fickes, Ph.D. '65, is a member of the chemistry staff of the University of Nevada, Reno. He has assistant professor rank.

Karl Folkers, Ph.D. '31, is no stranger to Badger Chemist readers. For this issue we report that Karl is now Director of the Institute for Biomedical Research, at the University of Texas College of Pharmacy, Austin, Texas.

Richard Givens, Ph.D. '67, joined the chemistry faculty of the University of Kansas last September.

Word came to us last June that C. Richmond Griswold, B.A. '39—he is the son of the former Ada Richmond, B.A. '12—had been made manager of Cities Service's East Chicago, Ind., refinery. He joined Cities Service upon graduation and had worked his way up to the position of manager of refinery operations at the company's Lake Charles, Louisiana, complex before his transfer to the midwest.

In the 1961 newsletter it was our pleasure to report that Donald L. Griswold, B.S., '37, was vice-president of Jefferson Chemical Company, Inc., Houston, Texas. In this newsletter Badger Chemist gives a congratulatory hand to him on his promotion to president of Jefferson.

The current faculty roster of the University of Kansas contains the names of two graduates of our chemistry course. Both remained on the campus and are now on the Department's list of some 1200 Badger chemists upon whom the doctorate has been conferred since 1899. The youngest, chronologically speaking, is Gary L. Grunewald '66 (Jan.) He is a member of the School of Pharmacy staff.

Stan S. Hall, B.S. '63, successfully completed his graduate studies for the doctorate last year at Massachusetts Institute of Technology. He is, at this writing, a postdoctoral fellow at Stanford University.

Gene A. Hiegel, Ph.D. '65, has informed us that he is happy to be teaching at California State College in Fullerton and that his address there is 244B Associated Road, 92631.

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New Faculty Members

ALEX KOTCH
Associate Chairman



Alex Kotch joined the Department last summer as Professor of Chemistry and Associate Chairman. This is a new position brought about by the changing char-

acteristics of a modern chemistry department. The problems associated with liaison between the faculty and agencies outside the department make it necessary to have someone available who can give a sizeable amount of his time to such matters as research grants, budget, employment, industrial relations, and collection of information about departmental activities.

Dr. Kotch was born in 1926 in Edwardsville, Pennsylvania. He was educated at Penn State University where he took his B.S. in chemistry in 1946 and his M.S. a year later. He then became a student of Speed Marvel at the University of Illinois where he re-ceived the doctorate in organic chemistry in 1950. After a year as Fulbright Fellow with Professor P. E. Verkade at the Technical University in Delft and another as Arthur D. Little Postdoctoral Fellow at MIT with late Badger Chemist Arthur C. Cope, Ph.D. '32, he spent seven years as research chemist with du Pont.

In 1959 he joined the National Science Foundation as Associate Program Director for Chemistry. Between 1963–1965 he served as Program Director for Organic Chemistry. In 1965 he became Chief of the Biosciences Division of the Office of Saline Water. The next year he was again with NSF in the Institutional Development Section. Thus, it is evident that he brings to Wisconsin a wealth of administrative experience. Alex and his wife Ann are the parents of four children.

MARION H. O'LEARY

Marion H. O'Leary joined the staff August 1, as assistant professor. A native of Quincy, Illinois, he received his B.S. degree in 1963 at the University of Illinois, followed by the Ph.D. at Massachusetts Institute of Technology in 1966. Prior to coming to Wisconsin he spent a year in postdoctoral studies with Professor Westheimer at Harvard. His research interests are in the borderorganic-biochemistry field; specifically, subjects such as the chemical basis of enzyme specificity, role of coenzymes in enzyme action, non-covalent bonding in enzyme systems, and the design of modified enzymes with new catalytic properties. Dr. O'Leary was married in 1964 to Sandra Elaine Eisemann of Jacksonville, Florida. They have one child, Catherine, age one year.

R. CLAUDE WOODS



Dr. R. Claude Woods, assistant professor of chemistry, is another new member of the staff as of August 1. A B.S. degree from Georgia Tech was followed by

the A.M. (1962) and Ph.D. (1965) from Harvard. Two years as a lieutenant in the U.S. Naval Reserve followed the Ph.D. degree. His tour of duty was served as instructor in chemistry at the Naval Academy, Annapolis, Md. His research interests center in microwave spectroscopy, particularly of those molecules with hindered internal rotation. Dr. Woods was married in 1963 to Charlotte O'Kelley of Avondale, Georgia.

HYUK YU



Dr. Hyuk Yu, a native of Kapaan, Korea, joined the department as assistant professor July 1, 1968. Professor Yu has a B.S. in Chemical Engineering from Seoul National University, an

M.S. in Organic Chemistry from the University of Southern California, followed by the M.S. and Ph.D. degrees in Physical Chemistry from Princeton. Before joining our staff he was a research associate at Dartmouth and a research chemist with the polymer division of the National Bureau of Standards. His research interests are concerned with hydrodynamic properties of macromolecules, phase transitions and conformational changes of polypeptides and synthetic analogues of biopolymers, and chemorheology and kinetics of polymer degradations. Dr. Yu was married in 1964 to Gail Emmens of Wentworth, New Hampshire. They have a son, Jeffrey Ja-hwang.

EDWIN VEDEJS

Following a year of postdoctoral study at Harvard Edwin Vedejs has returned to Wisconsin as assistant professor of organic chemistry. Mr. Vedejs was born in Riga, Latvia. He received his undergraduate training at the University of Michigan and the Ph.D. at Wisconsin in 1966. He includes organic synthesis, thermal reactions, and organometallics among his research interests.

This 'n' That . . .

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Takeru Higuchi, Ph.D. '43—Edward Kremers Professor of Pharmacy—received the \$1000 Smith, Kline and French award from American Pharmaceutical for stimulation of research. "Tak" is now a member of the faculty of the University of Kansas.

Ralph M. Hill, Ph.D. '38, has again taken up residence in the States. Esso had transferred him from Brussells, Belgium. His new address: 320 So. Harrison St., East Orange, N.J. 07018.

Nashville, Tennessee-born Rob-

ert Neville Isbell, Ph.D. '31-he is a graduate of William Jewell College, B.A. '23-is a man of two careers. One was made in the class room as an educator; the other in the Air Force as an officer. The former began in Winston-Salem as an instructor in Wake Forest College in North Carolina; the latter stems from his enlistment in 1918 in the Aviation Section of the army and ended on retirement some 37 years later as a full colonel in the Reserves. His military record was impressive and the number of top security jobs which he had held is a large one. He was

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AN ACADEMIC YEAR IN VIENNA

By EDWIN M. LARSEN

A Fulbright Lectureship at the Anorganische Institut der Technische Hochschule, Wien, during the academic year 1966-67, not only provided me with the opportunity to become acquainted with European chemical education and research, but also allowed us to observe first hand over an extended period of time a culture somewhat different from our own. My professional responsibilities were teaching and research, but no committee meetings of any description. The Hochschule opened officially on October 1, but my host, Professor Dr. Viktor Gutmann was off giving lectures at a variety of institutions in Europe. He simply had posted a notice that the first lecture in advanced inorganic chemistry would be given Wednesday morning, November 9 at 8 A.M., and, to my surprise, both students and Professor showed up at the appointed time (8:15 convention). Professor Gutmann lectured for the first few periods, and as he progressed it became apparent that each lecture was independent of the next with no particular continuity between them. Thus in the first two hours he discussed twenty years of his research in non-aqueous solvents, and, in the next, topics in the history of chemistry which interested him. The students, who were equivalent to our seniors and entering graduate students both in training and ability, were not disturbed by the lack of continuity in subject matter and were prepared to develop the relationship between the subjects presented by their own study. On the other hand, I had prepared a set of lectures, complete with slides, before leaving for Austria. My sequence of lectures was therefore more coherent in subject matter content than the students were normally used to, a situation to which they responded very favorably. Although Professor Gutmann lectured in German, I lectured in English, since his experience with Englishmen and Americans who delivered lectures in German with the aid of a manuscript was often less than successful. The only caution was to speak slowly and to avoid the use of colloquialisms. Well, speaking slowly came naturally because it took some time to conceive a desired statement with-

out the use of colloquial expressions. One could hardly say that all the students were fluent in English, but the Austrian students now take five years of English whether they are destined to become wurst slicers or academicians. and so those students who continue to use the fundamentals learned earlier do quite well with the language. One interesting sidelight might be related. The students had never seen a left-handed professor, so my board work at first quite startled them. Actually, in the ten months we were in Austria we never met another lefthanded person. The students are "persfaded" at an early age to write with the right hand. Alles in Ordnung!

Professor Gutmann also assigned a young Viennese Fraulein as my research assistant to work on a problem related to some of our work in Madison. She is still at work in Vienna and she sends me a research report about once a month. Research work in Austria doesn't progress at a fast pace. Although most of the students are dedicated workers, life is just more relaxed there than it is here. If someone is moved to spend time in the Alps or Paris, you may find an empty laboratory bench for some period of time. Then of course there are numerous official holidays at which time the building is inaccessible. In addition, even during a normal week the working hours are limited. The gates to the Hochschule are locked at 8 P.M. in the evening and kept closed Saturday night till Monday morning. These limitations even extend to the use of the library facilities. For instance, the current periodical room is open only from 10 A.M. to 3 P.M. Fortunately, the Institute itself had a modest library with a reasonably good selection of current journals, and the library of the International Atomic Energy Agency was only a few blocks

The Institute was modestly equipped by our standards. The Austrian Government just does not put a large enough fraction of its budget into higher education to supply all the needs of modern chemical research. The result is that the Institute director spends considerable time seeking

sources of funds, a job made more difficult by the rapid obsolescence of scientific equipment. In spite of these handicaps a considerable amount of good work in non-aqueous solvents, boron, nitrogen and phosphorus chemistry has come from these laboratories in the past fifteen years.

One bonus of my tenure in Vienna was the opportunity to visit and speak at a variety of institutions in Europe. In Germany I spoke before the Darmstadt, Giessen, Braunschweig, Stuttgart and Marl-Huls (industrial) sections of the German Chemical Society, and at research seminars at the Technische Hochschule at Aachen and Münster. I also spoke before the Vienna Section of the Austrian Chemical Society, the Copenhagen Section of the Danish Chemical Society, the Belgrade Section of the Serbian Chemical Society, research seminars at the University of Ljubljana and the Institute Rudjer Boskovic in Zagreb as a guest of the Jugoslav Fulbright Commission, and research seminars at the Heyrovsky Polarographic Institute in Prague, and the University of Purkyne in Brno as a guest of the Czechoslovak Academy. I received cordial receptions at all the institutions visited. I also found that 95 per cent of the scientists visited conversed with me in English (made me wonder about our foreign language requirements). Our conversations ultimately turned to methods for funding research and equipment requirements. I found a universal desire to organize some sort of European foundation for this purpose (to compete with the Americans).

While the University laboratories in Germany and Copenhagen were well equipped, University departments in the "iron-curtain" countries were poorly equipped compared to the institutes in the same country. The embargo on American scientific equipment to Czechoslovakia was reflected in the large amount of Soviet, Hungarian and Scandinavian instruments in use, while in Jugoslavia, where no embargo is invoked, modern American equipment was found in every institute visited. In all the laboratories visited vigorous programs in Inorganic research were evident. In general, much of European inorganic chemistry might be characterized as long on technique and ingenuity,

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but short on theory. There is also more emphasis on non-metal chemistry than transitional element chemistry.

In spite of the so-called "second Mossbauer effect", my observation is that the PROFESSOR has not lost much of his authority. Thus in a given Institute his name is generally listed as the instructor for all courses given, his name usually appears on the published papers, and his word is law. This makes it difficult for the younger men to gain a reputation of their own, and thereby makes the academic profession an unattractive one. There is some softening of this position, particularly in England and Germany where the creation of new Universities provides the opportunity for innovation, but in general the situation remains much as it has been in the past. The institute organization also results in compartmentalizations of divisions, and hampers communication and the exchange of ideas. For instance, access to our institute was by key only, and in fact two keys were needed, one for each floor. It was difficult to visit another institute without first making an appointment for such a meeting. This kind of stratification is reflected in the lack of change in the chemical curriculum and course content, a condition which can only be disadvantageous in the long run.

Now just a few notes on the environment in which we lived. While Western Austria is influenced by Bavaria, Eastern Austria owes much of its culture to the countries which were once part of the Austro-Hungarian Empire. Vienna itself is a city of contrasts. It still retains the regal look of the center of the Empire, with the broad avenues of the Ringstrasse. the extensive gardens of Schönbrun and Belvedere, the innumerable palaces, the parks with beautiful flowers, Baroque architecture, the not-so-blue Danube, and the Wiener Wald. Everything written about these sights is true and they are well worth seeing and savoring. However, Vienna is also a city of apartments, many of which are massive monolithic structures of the early socialist era of the 1920's. Some of these look to be in various states of disrepair, and have quarters which never see sunlight. This disheveled look is sometimes deceiving because stucco is used extensively as an exterior surface and has the bad property of sloughing off a short time after application. Nevertheless, the net result is that some neighborhoods have a gray, foreboding, unappealing look.

We lived on the fourth floor of what probably had been at one time a single family residence, but now was divided up into one apartment per floor. It was in an area containing mainly single family and multiple dwelling units but very few of the large apartment houses typical of Vienna. Each residence was surrounded by a high metal fence with a locked gate (ours didn't work) with some fences even strung with barbed wire. We could never figure out who they were trying to keep out, but in the past Vienna has been the crossroads of so many invading armies that such things as fences, locks and keys just come naturally. In fact, not only are the gates locked, but the front doors are double barred and the doors to the individual apartments as well. This accounts in part for the lack of milk and paper delivery to your door. It is amazing how patient the mailman, chimney sweep and other tradesmen were about waiting at the front gate for somebody to let them inside. The high fences and locked doors symbolize the personal relation-ships of the Viennese. Families are very close and a relative n times removed is more important to them than their next door neighbor. For example, our landlady didn't know the names of her neighbors of twenty-five years. On the other hand, if you're standing on a street corner with a map and a puzzled look, someone is certain to ask whether you need help. I guess you could say that they are friendly in a formal way.

The average Austrian does things either because he likes to do whatever he is doing or because it has always been done that way. The questions "Why?" or "Is there a better way!" are seldom asked in the course of everyday events. This results in a tendency to preserve the status quo and to look back upon the brighter moments of the past. This is reflected in both the physical and human institutions of Vienna.

Two of the things the average Austrian likes best are music and walking. There are abundant op-

portunities for both in Vienna. There is hardly a day in the year when there are not at least three or more musical events of high quality. The Viennese reflect their conservative attitudes in music. Orchestra or opera productions of less than thirty years vintage are not particularly attractive to the Viennese, but an evening with Strauss or Wagner produces a great demand for tickets. Season tickets for the Symphony and Opera are assigned on a priority system based on seniority-something like our football seat assignments. However, this seating preference goes with the family, so many of the performances are unavailable to the average man on the street. It is surprising, however, how a palm crossed with a sufficient number of schillings can produce a pair of tickets for a choice performance.

The Wiener Wald, which stretches from the Danube on the northwest, south to the Alps, is interlaced with numerous foot paths. People of all ages hike in the Wiener Wald, and although the numbers are large, the space is so vast that one can find solitude if he wishes. It took the foresight of a monarch to have this territory set aside for public use; it probably could not be accomplished today. After or during the walk the Viennese are likely to stop at a favorite Gausthaus to taste the local wine. At such a Heurigen you are literally the guest of the vineyard owner in his house, or, during the mild months, in his garden. The guests bring their own food and drink the wine produced by this particular farmer. In some of the more commercialized establishments food may be purchased, but there is always food with drink. The vineyards in which the grapes are cultivated are found on the south side of the rivulets of hills which extend down from the Wiener Wald (1500-2000 ft.) toward the city. Each farmer cultivates his own plot, and, although each plot may be relatively small, the total area devoted to viniculture is very

Vienna is also known for its restaurants and coffee houses. The coffee house, which is a Viennese institution, provides a place for meeting a colleague, writing, reading or simple contemplation. Normally, only light lunches, or perhaps only desserts are available

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along with a selection of coffees, imported from all over the world. No one will hover over you to collect your bill; the table is yours as long as you wish to occupy it.

Shopping is an interesting experience in Vienna. The people who go into retail sales have had training in their particular specialty as part of their normal education. They study the subject in depth, and really know their merchandise well. As a result they tend to decide what particular item is best for a customer. They do know what their regular customers want, but this approach extends to strangers also. This, coupled with the fact that only the clerks, not the customers, are supposed to handle merchandise, made our first shopping experiences unusual from our point of view. In addition, their aim is to serve you rather than sell you. Whether they make a sale or not, they seem to receive a measure of pleasure just from the opportunity of waiting on you.

Although our children were in school and I had responsibilities at the Hochschule, we did see parts of Europe other than Eastern Austria. We managed a few visits to see our oldest son, Bob, who was a freshman at Schiller College, a small American-organized college, one-half hour's drive north of Stuttgart in Kleiningersheim on the Neckar. After these visits we can tell you where to get the largest, best-tasting, least expensive schnitzel in

all of Western Germany. In March we attended a week-long series of political and economic seminars on the Berlin situation at a conference sponsored by the Fulbright Commission of the Bundesrepublik in Berlin. The family came along for this trip and shared in an interesting week. The highlight of the trip was a tour of East Berlin and The Wall, first by bus and then on our own without benefit of an official East Berlin guide. We crossed the border at Check Point Charlie. One has an uneasy feeling inside the East German checkpoint as his passport disappears into a slot in a blank wall. A long time seems to pass before it reappears with approval to proceed. The East German comrades were on their good behavior while we were there and we encountered no difficulties. We walked around the Eastern Sector on foot for about six hours. The contrast between East and West is great. East Berlin has a large number of buildings still in ruins although the rubble has been removed. While West Berlin has been largely rebuilt in modern style, East Berlin is being rebuilt in accord with the point of view that the East is the keeper of the "real" German cultural heritage, while the West is being Americanized. The Wall, an ugly symbol of the inadequacies of man, seems to present an insuperable barrier to German unification. It is a moving sight to watch the armed border guards and their dogs patrol The Wall. We had several other short forays to cities in Communistcontrolled countries including Bratislavia, Budapest and Lubjljana. It is amazing how good Vienna and Austria looked to us upon returning "home"!

Our Christmas and Spring Holidays were spent outside of Austria. We were fortunate to secure reservations at a late date at a pension in St. Moritz Bad for the Christmas week. Our children had a great opportunity to test their skiing talents on the Swiss slopes and had a really challenging experience. In May we drove to Copenhagen where I visited with Professor Bjerrum for several days. Enroute and returning, we were able to see more of Denmark and Germany, including a visit to Kleinheubach/Main, the hometown of my wife's grandparents.

Our transportation to and from Europe was by sea. Our travel East was arranged by the Austrian-American Educational Exchange Commmission. All the Fulbright grantees were transported to Genoa, Italy, on the Italian liner, Raffaelo, and thence by overnight train to Vienna. Our first ocean travel was a pleasant one with nine sunny days across the South Atlantic and Mediterranean. A short stop at Naples gave us four hours to explore Pompeii. Our return trip was via the S.S. United States out of Le Havre, France. The Hochschule closed the last week of June and the ship sailed on July 5th, but this still left us with time to drive to the port and to spend some time in Paris as well.

All in all, it was a stimulating year both professionally and personally.

This 'n' That . . .

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a member of the Wake Forest chemistry faculty for 12 years when, as an associate professor, he was called back into service by the Reserves. That tour of duty completed, he returned to the Wake Forest faculty to help an old friend who, as chairman of the Department there, was faced with an expanding enrollment. His retirement as an educator dates from 1963. On announcing his retirement from the Air Force mention was made of the top security jobs that he had held during his association with it. The accolade, "one of its most distinguished scientists", very nicely sums up his record.

We have added to our list of awards-winning Badger Chemists the name of Harold A. Jeskey, Ph.D. '42. Harold, who is a professor of chemistry at Southern Methodist University, Dallas, Texas, was the 1965 recipient of the Minnie Stevens Piper Foundation of San Antonio and named Piper Professor. A certificate plus \$1000 was presented him as a reward for "outstanding academic achievement, scholarly research, and dedication to teaching at the college level". On another occasion he was honored with the establishment of an SMU scholarship fund in his name. We understand that it will provide scholarships of some \$500 each to graduate chemistry students to be selected by him.

The business card of Gordon G. Knapp, Ph.D. '57, some-time Wis-

consin Alumni Research Foundation fellow, reads "Ethyl Corporation, Commercial Development, Baton Rouge, La. 70821." Gordon was on "visiting hireman" duty in the Department last October.

Oklahoma Baptist University alumnus Donald J. Kouri, Ph.D. '65—he became a Badger chemist in 1962 as the recipient of the M.S. degree—spent some time in post-doctoral research in the Laboratory of Astrophysics at the University of Colorado after leaving our campus. He is now a member of the chemistry staff of the University of Houston.

Proctor & Gamble's Paul J. Kropp, Ph.D. '62, returned to the campus by invitation, 20 April, 1967, in order to address a special

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In Memoriam

Alabama alumnus (B.S. '10) Augustus L. Barker, Ph.D. '22, sometime instructor in the Department, a Ripon College retiree; he served this school for a total of 35 years and then joined the faculty of Alabama Polytechnical Institute, Auburn, as assistant professor—on 15 June, 1967. Death ended his 50-year membership in ACS.

Mrs. A. B. Bullock, B.A. '32—she was the former Dorothea L. Teschan and the mother of two children—1964, in Walnut Creek, California.

Stephen Dal Nogare, Ph.D. '48he was a Beloit alumnus and former research assistant to Professor Schuette-announced via his 1967 Christmas letter to his friends that the "most astonishing bit of news" was that the family was moving to Blacksburg, Virginia, in January because Steve had joined the faculty of Virginia Polytechnic Institute as a professor of analytical chemistry. This move spelled the break of a 19year association with Du Pont as a research chemist. During this period in his life he acquired an outstanding reputation as an expert in gas chromatography, received the Lab-Line sponsored award in chromatography and electrophoresis of the American Chemical Society, wrote a book in this field, and, because of his fluency as a lecturer, was frequently invited to address scientific groups. His last appearance on the Wisconsin campus was last October at which time he addressed a seminar on the subject of resolution and efficiency in gas chromatography. This, and a trip to the University of Missouri had rounded out his activities for the year. He died on 22 January, 1968. His wife, the former Dorothy Fortun, B.S. (Pharmacy) '46, and five children survive him.

Chemistry Course graduate James D. Doedens, B.S. '50, at the time of his passing, a project en-

gineer at Dow Chemical Company—on 27 September, 1966, in Midland, Michigan (On the list of contributors to the faculty-alumni room in the Department's new quarters will be found his name entered there because of his widow's request that the contribution in question be considered as a memorial to him.

Wray Vernon Drake, Ph.D. '35, a two-degree alumnus of the University of Alberta and sometime assistant to the Department, 1931—35—26 February, 1953.

Hebrew University graduate, M.Sc. '47, Mrs. Sulamith Goldhaber, Ph.D. '51, at the time of her passing a member of the staff of Lawrence Radiation Laboratory, University of California (Berkeley), unexpectedly while on a lecture tour in India—ca 1966.

Tennessee native James K. Hunt, Ph.D. '26, a 1923 alumnus of Alabama Polytechnic Institute, who had spent some 13 years as an educator in the deep South before enrolling in our Graduate School as a teaching assistant and eventually a Du Pont fellow; had joined Du Pont on graduation to begin what was to become a 30year association with it to the stage at which he had been made technical and educational adviser to its public relations department on 7 March, 1967. He had been a member of the Society's News Service staff for several years and had been active in its local and national affairs, and those of the National Science Teachers Association.

Clarence O. Groth, B.S. '31, a 30-year employee of J. I. Case Company, Racine, Wisconsin, at the time of his passing supervisor of his employer's chemistry and metallurgy laboratory—on 18 July, 1967.

Erwin O. Huebner, B.S. '17, M.S. '27, a Badger chemist whose life story spells a 35-year record of dedicated service to the State of Wisconsin, one which began as a chemist in the old Dairy and Food Commission and ended on his retirement in 1959 as supervisor of

food and drug control—in Madison, Wisconsin, 9 November, 1967.

Melvin J. Killian, Kaukauna, Wisconsin, native, B.S. '33, Ch.C., at the time of his passing, technical director of the St. Regis Paper Company, Deferiet, New York—on 11 September 1966, in Carthage, New York. His wife and six children survive him.

Chemistry Courseman Gene L. Kimpel, '40, an employee of A. F. Gallun Corporation, Milwaukee—4 December, 1963.

Robert D. Kralovec, Ph.M. '39, at the time of passing a development service representative with Du Pont—on 17 September, because of a massive heart attack, in Wilmington, Delaware.

Bradley University alumnus (B. Chem. '38) Robert J. Meyer, who received his Ph.D. at Wisconsin in 1953 and, at the time of his passing, was with Morton International, Inc.—16 December, 1966 in Woodstock, Illinois.

Harry R. Palmbach, B.S. '16 (Ch.C.), a native of Appleton, Wisconsin, and a graduate of our Chemistry Course, who had been associated with Martin Luther College of New Ulm, Minnesota, for most of his academic life—on 9 November, 1966, while serving his alma mater as a professor of science.

Chemistry Course graduate Theodore A. Rude, B.S. '17, sometime Du Pont employee, a State Department retiree after about eight years of service in Germany (Newsletter 1956)—on 9 January, 1967, in Mt. Holly, N. J.

Richard E. Speltz, B.S. '50—24 July, 1962, in Chicago, Illinois.

Homer W. Stone, Ph.D. '21, a University of California, Los Angeles, retiree in 1960, with a service record of 46 years there, a former fellow in our Department, and a Fulbright visiting professor in Taiwan and in Egypt after his active association with UCLA had ended—on 17 November, 1967, age 74.

Eugene F. Wilda, B.S. '35 (Ch.C.) and M.S. '40—on 3 March, 1967—in Manitowoc, Wisconsin.

This 'n' That . . .

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seminar in organic chemistry. His topic "The Photochemistry of cycloalkenes".

Robert W. Laundrie, B.S. '42 (Ch.C.) is serving The General Tire & Rubber Company as manager of manufacturing of its chemical division in Akron, Ohio. There are two milestones in his career, unique, in a way, by comparison with that of some other Badger chemists. After a ten-year association with the rubber industry at the University of Akron he, in 1956, took a position with General

Tire as chief process engineer in its Mogadore, Ohio, plant. Promotions and enlarged responsibilities covering its plants in Texas and Ohio date in his case from 1964. The foundation for his second milestone was laid in 1960 when the company became involved in

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Professor Sorum Visits Peruvian University

Professor Harvey Sorum spent the first four weeks of the second semester at Universidad Agraria in Lima, Peru. His visit was part of a 3-year program financed by the Ford Foundation and carried out by Midwest Universities Consortium made up of the Universities of Illinois, Indiana, Michigan State and Wisconsin, whose objective is the improvement and modernization of the faculty of sciences at Universidad Agraria. Professor Sorum's particular assignment was to help reorganize the freshman chemistry program. This involved choice of subject matter to be covered in the course, creation of a set of laboratory experiments suitable for the backgrounds of the students and for the available facilities, instructing the faculty in the use of lecture demonstrations, providing a list of lecture demonstrations with detailed directions for their performance, design of new lecture-room facilities, ordering of necessary equipment and chemicals, determination of the roles to be played by the professors, the students, the textbook, the lectures, the laboratory work, the discussion sessions, and the examinations, and assessment of the importance of the freshman chemistry course in the overall chemistry program.

In view of the tremendous enthusiasm shown by the Agraria chemistry faculty and the wholehearted manner in which they cooperated with him in the performance of his assignment, Professor Sorum is very optimistic about the results of the combined effort.

Professor Sorum and his wife found Lima a delightful city in which to live. The climate, in midsummer, left nothing to be desired: pleasant, sunny days, cool nights, with never a drop of rain. There were museums galore, with a wealth of artifacts dating far back into pre-conquest and pre-Inca times. Trips outside of Lima and up and down the coast, made possible by the Chevrolet sedan provided by Ford Foundation, revealed dozens of beautiful sandy beaches, frequented by thousands of Limanites, many Inca and pre-Inca ruins, acres and acres of lush fields of cotton, lima beans, corn, alfalfa, peas, sugar cane, fruit trees, strawberries, melons, and vegetables of every variety made possible by the life-giving water of the Rimac River, fish meal plants, and sprawling factories. Contrasting sharply with the modern apartments, beautiful homes, numerous parks and flower-laden gardens of the residential areas of the major part of greater Lima were the barriadas that clung to the barren peripheral hillsides and the desert-like hinterland. Every country has its contrasts and ex-

tremes, but nowhere does it seem quite as acute as in Lima.

A weekend trip, by air to Cuzco, thence by train to Machu Picchu and taxi to Pisak and the valley of the Urubamba, was an experience never to be forgotten. The mountain scenery was awe-inspiring, the Inca ruins were fantastic, the native Indians were striking, and the markets and fairs were crowded and colorful; only the rain, rain, rain, a landslide along the railroad track, and a general strike of all workers in Cuzco, including bus and taxi drivers, on the day of the return to Lima added a ripple to the exciting week-end.

No one with soles (at 40 to 44 per U.S. dollar) to spend need go hungry in Lima. There are many, many excellent restaurants serving excellent food at quite reasonable prices. The city has many modern supermarkets where fruits, vegetables, meats and fish, in great variety and abundance are available at prices generally lower than in the U.S. One who likes bananas can have a field day and stuff himself with delicious specimens at very, very small cost.

The people in Peru are generally very friendly and courteous and delightful company. But when you drive the streets of Lima, beware! The other fellow isn't really discourteous; it is just that driving in Lima is looked upon as a sort of a game whose objective is to get there first, and heaven help the inexperienced, the slow and the timid.

Our Cradle Roll

Betty and Paul E. Aldrich, Ph.D. '58, became on 3 April, 1967, the parents of a nine-pound, six-ounce son, Mark Christopher. Paul, a van Tamelen-trained organic chemist, is now a Du Ponter.

Word came last September from the **Edward R. Degginers**, Ph.D. '53, that on 14 August they had added a little daughter, Susan Elaine, to their family.

The Melvin Druelinger's, Ph.D. '67, announced the birth on 30 September of their second child, Mark Edward. His parents and his sister Carol live in Ames, Iowa. His dad is a member of the chemistry faculty of Iowa State University.

Janet Nicole Fickes was born 10 April, 1967. Her father, Garry, received his Ph.D. from Wisconsin in 1965 and is now teaching at the University of Nevada in Reno. Janet has two sisters and a brother.

The former Gretchen Gericke, B.S. '62, and her husband, David Hylton, announce the birth of a daughter, Amy Alison Hylton, on 19 June, 1967, in Richmond, California.

Richard Givens, Ph.D. '67, and his wife Sue announced the birth of their first child on 30 May, 1967. They have named the little girl Barbara Jean. Her father began a teaching job at the University of Kansas, Lawrence, in September.

Eastman Kodak's emulsion research chemist Evan Thomas Jones, Ph.D. '60, and his wife announced the birth of their first daughter—two sons had preceded her—on the 8th of March, 1967. She has been named Rebecca Anne.

Sonia Kropp was born on 12 July, 1966, to Pat and Paul Kropp, Ph.D. '62. Sonia has a brother, David.

The Robert G. Lewis, Ph.D. '65, family was enlarged last June by the arrival of their third son.

The Fred Jay Reichley's, M.S. '66, at this writing are the parents of two boys and one girl.

It has been brought to our attention that the Roger Lovald's Ph.D. '65, are now the parents of two girls, Jean and Julia. Their father is employed by General Mills in Minneapolis. The family is living at 1168 Autumn St., Roseville, Minn. 55113.

The David C. Remy's, Ph.D. '59, announced the arrival of their second January-born child, on the 23rd of that month, 1968. She has been named Cynthia Joan.

And Then They Retired

William T. Holbrook, B.S. '20, is "living in retirement" in Salem, Oregon, after having served the Bureau of Mines for nearly two decades.

Walter M. Kutz, Ph.D. '30, informed us last year that his association with the Koppers Company is drawing to a close and that he will retire in 1968. Walter was a teaching assistant in the Department while pursuing graduate work and at one time was a member of the staff of Mellon Institute.

We have learned that Roger H. Lueck, M.S. '21, since retiring as an officer of the American Can Company, has moved out to his old stamping grounds in Saratoga, California-he may be addressed at 20016 Winter Lane, 95070-and that he spends two days a week as consultant to the canning and paper industries on the reaction of iron and tin with "rutin", a problem of considerable technological interest to the canners of asparagus. The remainder of his time, we understand, is spent on the golf course or, in season, the pursuit of ducks, pheasants, etc.

A 35-year association with Du Pont in its Pigments Department ended because of retirement early in September 1967 for St. Olaf College alumnus Willard H. Madson, Ph.D. '31. During the interlude between graduation from our University and this milestone in

his life he had served the Department as a teaching assistant, the University Extension Division in Milwaukee as an instructor and the University of Illinois as a research associate for a short time. His association with Du Pont spells a series of promotions from research chemist on the staff of a subsidiary in Baltimore (Krebs Pigment and Color Corporation) to a research division head.

From Robert E. Reynolds, Ph.D. '28, now living in retirement in Montrose, Ala. came the following note written obviously in a nostalgic vein: "I particularly enjoyed the note concerning the late Professor Adkins—he was my major professor—as well as the references to the activities of the active and retired faculty members of the Department of Chemistry".

A. C. Robertson, Ph.D. '25, enrolled in our Graduate School as an alumnus of Oregon State Agricultural School, served the Department as a teaching assistant in general chemistry to the late Professor J. H. Walton and left the campus for Rochester, N. Y. to serve Eastman Kodak. Mandatory retirement has ended that service.

George R. Spannenberg, B.S. '23, retired in 1965, as vice-president, manufacturing, of Rainfair, Inc., Racine, Wisconsin.

For Services Rendered II

It has been brought to our attention that the report which appeared in the 1964 newsletter under the caption "services rendered" makes no mention of the chemistry building on the campus of the University of Missouri which stands as a memorial to a Badger chemist of the class of 1894 who subsequently added two other Wisconsin degrees to his first one: M.S. '94 and Ph.D. '01. His name: Herman Schlundt. He, a former member of the faculty there, was Wisconsin's second Ph.D. and the first graduate student trained for the doctorate by the late Professor Louis Kahlenberg. This addition to the list brings the number of Badger chemists so honored to six. The list as now brought up to date is the Schlundt chemistry building in Columbia, Missouri; the Dunbar addition to the chemistry building at North Dakota State University in Fargo; the geology building in Rolla, Missouri, honoring chemist-geologist Buehler; the McCalmont girls' dormitory at Stout State University in Menominee, Wisconsin; the men's dormitory on the campus of St. Olaf College in Northfield, Minnesota, honoring Emeritus Prof. E. O. Ellingson, '12; and the Kahlenberg house in a men's dormitory on our campus.

Our Newest Ph.D. Alumni

The graduating Ph.D. class of 1967 showed a slight decrease over record year 1966. Fifty-one received the University's highest degree in chemistry in 1967 compared to fifty-three in '66. Total doctorates in chemistry granted by this department since 1899 now stands at 1192.

You Said . . .

"Just a belated note in appreciation of the services of all the people who contribute to Badger Chemist, and especially Professor Schuette. I well know his diligence and persistence in arriving at the best way of presenting the printed word. He was my major professor and enforced more correctness in writing a thesis than the average graduate student appreciated at the time. I since have been thankful for it." Roger M. Christenson, Ph.D. '44.

"I enjoyed the recent issue very much and wish to give best wishes to Professor Schuette and congratulations for his fine work on getting Badger Chemist organized. I'm surprised that someone didn't call your attention to the fact that Duke Diwoky, Ph.D. '30, was an all-Pacific coast basketball player at Oregon State." Maurice E. Kinsey, '31.

"I enjoy reading about my classmates and the group at Madison." Robert W. Rosenthal, Ph.D. '49.

"I do enjoy very much every issue of Badger Chemist. You editors certainly do a marvelous job of newsgathering and it is so nice to hear about the folks I knew back in Madison during my residence there as a graduate student from 1930–1934." Albert W. Stout, Ph.D. '34.

"I appreciate the big task of getting the news into print. Enclosed is my contribution toward continuance." Grace Bitterman Thompason, B.A. '20.

This 'n' That . . .

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what industry called the "oil expansion case". He was a witness in this patent trial, and the experience gained there became a factor in his decision some day to join the legal profession. In 1964 he became an alumnus of the University of Akron Law School and was admitted to the Ohio Bar. We understand that in order to avoid any conflict of interest he has more or less restricted his practice to estate planning and probate fields, although his "charitable" activities do get him into other areas of the law.

Samuel Lenher, B.S. '24, D.Sc. '59, is now an elected member of the corporation which sponsors the

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marine biological laboratory of Woodshole, Mass. He is currently serving it as a trustee during a term of office which will expire in August, 1971.



Alan G. Mac-Diarmid, Ph.D. '53 — he is a professor of chemistry at the University of Pennsylvania where he has been since 1955 —on October 19, 1967, was presented with the sixth Philadel-

phia Section Award of \$300 and a plaque which recognized him as one who "by conspicuous achievement through research, has made important contributions to man's knowledge and thereby has aided the public appreciation of the profession". His award address: Silicon Chemistry-Is It "Pseudo-Organic?" When Alan came to Philadelphia he brought with him, we understand, among other things, a strong interest in the chemistry of the element in question. That interest has brought international fame to him and his research group at Penn. He was born in New Zealand and lived there until he obtained the B.S. and M.S. degrees. The Wisconsin doctorate is not the only one in this category. Cambridge awarded him one in 1955. At last report he was a member of the board of editors of Inorganic Chemistry and Editor-in-Chief of the five volume monograph, "Organo metallic Compounds of Group IV Elements"

Dick R. Markwell, Ph.D. '56, has put aside his military uniform for the academic robe, a change in dress from that of a retired lieutenant colonel in the armed forces to that of a professor of Chemistry, San Antonio College in the city of that name. His address: 1300 San Pedro Avenue, 78212.

Stanley D. McGregor, Ph.D. '66, on completing a year in post-doctoral study at the University of Florida in Gainesville, joined the research staff of Dow Chemical Company in Midland, Michigan.

Katherine A. Meyers, B.S. '67, on graduating last June, became the first student in more than ten years to accomplish the feat of making a straight A or 4.0 average at Wisconsin.

Several of our alumni have published general chemistry texts which have received a wide adoption. One of them, University Chemistry, is a Heath and Company book of 720 pages. It was written by three chemists and one of them is Therald Moeller, Ph.D. '38. We understand that this text book-it was published February 1965—is designed for use in a rigorous but noncalculus course in general chemistry and that the presentation makes wide use of the structure of matter, including modern theoretical approaches to structure, the chemical bond, equilibrium, kinetics and reaction mechanisms, the fundamentals of thermochemistry and thermodynamics, coordination chemistry, nuclear chemistry, and other topics.

We reported in our last issue of Badger Chemist that the Richard Mullineaux, Ph.D. '51, family had a new address. It was one that had taken Dick out of the mid-west to Shell Oil's New York office. In this issue we report his return, with a promotion, to his first address with his present employer, in the San Francisco Bay area. His is now the director of general science at the Shell Development Laboratory in Emoryville, California. "In four and a half years" he reported "and four moves we have crossed the U.S. and returned again to where we started". His address: 8502 Buckingham Avenue, El Cerriot, 94530.

The names of two Badger chemists may be found in the organization chart of Wyandotte Chemicals. Lowell E. Netherton, Ph.D. '50, is the director of research and development and also the director of research operations. Lester G. Lundsted, Ph.D. '42, is director of inorganic and organic chemicals.

Eleven years ago we reported that Warren D. Niederhauser, Ph.D. '42, was in Huntsville, Alaserving Rohm & Haas on a research project. Four years later he was recalled to the home office in Philadelphia and made a research supervisor. Currently he is serving his employers as an assistant director of research.

Wayland E. Noland, B.A. '48, completed his formal education at Harvard (Ph.D. '52) and then joined the chemistry faculty of the University of Minnesota. He is, at this writing, acting chairman of its chemistry department.

Mary Jane Oestmann, Ph.D. '54
—she is a member of the staff of
Argonne National Laboratory—has

been re-elected secretary of the Isotopes and Radiation Division of the American Nuclear Society. We understand that she has recently joined the Liquid Metal Fast Reactor Program, that she is a frequent contributor to the meeting programs, among others, of the Society of Applied Spectroscopy, and that she has received mention in Who's Who in the Midwest.

From far away Nigeria in West Africa comes the news that Justin Obi, M.S. '65, is a member of the staff of the University of Lagos in the city of that name. He teaches Freshman chemistry, physical and

inorganic.

Physical chemist John B. Peri, Ph.D. '49—he is an alumnus of the University of California-was an employee of California Research Corporation from the time at which he became a Badger chemist to 1957. Then he took a position as a research associate with the American Oil Company's (Standard Oil, Ind.) Research and Development Department. His current research interests include catalysis, and surface and colloid chemistry with emphasis on elucidation of surface structure of solid catalysts by infrared and other physical techniques. Last September he was one of the eight speakers taking part by invitation in a series of lectures centering on the applications of chemical and instrumental methods to the study of surfaces. The series—it began on September 30 and ended on November 11 -was given under the aegis of the Chemistry Department of the University of Wisconsin-Milwaukee in cooperation with the University Extension and the University-Industry Research Program (UIP).

A Badger chemist with no previous training in pharmacy has been named dean of Wisconsin's School of Pharmacy. The old order has been changed: the new in this case is the accent on biochemistry. The Regents have named David Perlman, B.A. '41, to this post, effective July 1. David went to the "other campus" for graduate work (Ph.D. '45). After service as a microbiologist with Merck & Company, and the Squibb Institute for Medical Research, he returned to our campus in February, 1967, as a professor of chemistry. He was awarded a Guggenheim fellowship in 1967. He served the American Chemical Society in 1965 as chairman of its Division of Microbial Chemistry and Technology.

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Edmond S. Perry, Ph.D. '38, has been a Du Ponter since graduation as a Badger chemist. At last report he was assistant head of the photochemicals division of one of his employer's laboratories.

Honors and recognitions continue to come to Armand J. Quick, M.S. '19 (Ph.D. Illinois '22, M. D. Cornell '28). His latest of which we have knowledge is the publication of a "Festschrift" in the Wisconsin Medical Journal honoring him for his work in biochemistry.

Richard L. Reeves, Ph.D. '55, is an Eastman Kodak employee who, at last report, was on the company's Color Photo Division staff. His address: 182 Mendon Center Road, Honeoye Falls, New York 14472.

We learned last April that Oscar R. Rodig, Ph.D. '55, now has associate professor rank at the University of Virginia and that he was at that time serving the Virginia Section of the American Chemical Society as its chairman. We learned, also, that in 1961 he had been associated briefly with the University of Strasbourg as a visiting member of its chemistry faculty and that some three years ago he had exchanged marriage vows with Ann De Shazo of Atlanta, Ga.

We learned last May (1967) that Harold L. Rice, Ph.D. '49, and his wife—she is the former Alva J. Huelsen, M.S. '48—have a new address from The Ford Foundation, New York, N. Y. to the Stanford Research Institute, Menlo Park, California 94025.

Word came to us in May of 1966 that Robert W. Rosenthal, Ph.D. '49, had been elected chairman of the Organic Group of the Pittsburgh Section of ACS.

John R. Scheffer, Ph.D. '67, joined the faculty of the chemistry department of the University of British Columbia, Vancouver on attaining Badger chemist status.

General Mills of Minneapolis last June announced the promotion of Eugene D. Schilling, B.S. '52, Ph.D. (biochemistry) '56, from department head for exploratory food research to director of food science research at its James Ford Bell Research Center. He had joined General Mills in 1960 after previous associations with the Upjohn company and Esso Research and Engineering.

Eugene C. Snooks, B.S. '51, has been transferred from a mid-west location by Union Carbide to San Diego, California. He is now a member of the staff of its Electronics Division,

Richard S. Schneider, Ph.D. '66, spent a year after reaching Badger chemist status in post-doctoral studies at Massachusetts Institute of Technology. He's now a member of the staff of Synvar Research Institute in Palo Alto, California.

Mark W. Siefken, Ph.D. '67, was a member of Wisconsin's ROTC in his undergraduate days. Now, with a captain's rank, he is with the armed forces at Edgewood Arsenal, Maryland. His assignment: Biochemical Branch of the Medical Research Laboratory.

Scott, Foreman and Company last August announced the appointment of Badger chemist Irvin Siegelman, Ph.D. '59, as general editor of science for its Elhi Division.

Donald J. Siehr, B.S. '51—he left the Wisconsin campus a Ph.D. in biochemistry—at last report was an associate professor of biochemistry at State University (Rolla), Missouri.

Ernest F. Silversmith, Ph.D.'55, informed us last summer that he was leaving Du Pont to become an educator again. His new post: professor and chairman of the chemistry department of Baltimore's Morgan State College.

Word has come from Albert W. Stout, Ph.D. '54, who is now a resident of Bellingham, Washington, and still on the staff of Georgia-Pacific Corporation. We understand that "things" are going along nicely for him there and that he is finding much satisfaction in his research problem on the recovery of chemicals from pulp by-products. The current emphasis on water pollution adds to the challenge of the problem on which he is working.

Robert L. Strong, Ph.D. '54, is serving the Chemistry Department of Rensselaer Polytechnic Institute as a professor of physical chemistry and the Eastern New York Section of A.C.S. as its chairman.

At last report the Paul S. Stutsman's, Ph.D. '38, had a new address: from Beaumont, Texas, to 30 Mountain Avenue, Mendham, N. J. 07945.

We understand that Carl E. Swartz, Ph.D. '26, has never followed chemistry as a profession, but that his studies in this discipline have been not only helpful

but have served as good background for his chosen fields of metallurgy, ceramics and agriculture. He was last year awarded honorary membership in the American Society for Metals in which he has been active for practically all of his professional years. He is the proud possessor of its Gold Medal and served as its president in 1961–'62.

Carl W. Umland, B.S. '52, and his wife the former Jean Blanchard, Ph.D. '53, with their two children, Anne, 9, and Susan, 7, have returned to the States after an absence of nearly six years in England and Belgium, Carl's classmates may perhaps remember him for his association with Esso Research and Engineering laboratories-he had been sent to Europe on company business-and Jean's friends probably have not forgotten that she is a Swarthmore graduate who at one time was one of two women of similar educational qualifications on Esso's otherwise all-male research staff. The Umland family, while in Europe, took advantage of their presence there to see much of the "old country" and that visit included a "fascinating trip" to Russia. Jean is teaching organic chemistry at Union College in their home town in Cranford, N. J. and Carl is with Esso Chemical Company working now as marketing advisor on organic solvents "with world-wide responsibility", we understand. Their daughters attended a French school in Brussels for some three years and, according to their dad, gained a fluency in French which their parents hope they won't fail to keep.

We have learned that Donna K. Vanseth, B.S. '62, is one of the few Badger chemist alumnae who have made chemistry their "point of departure" for librarianship. After graduation from our Library School in 1963 with an M.S. in library science, she took a job as literature chemist with the Chevron Research Company, a subsidiary of Standard Oil of California, in Richmond, In 1965, upon her husband's graduation from Golden State College, San Francisco, she returned to Wisconsin as head of Kimberly-Clark's Research and Engineering Library in Neenah.

Eugene R. Wagner, Ph.D. '65, is a member of the staff of Dow Human Health Research laboratories. His address: Zionsville, Ind. 46077.

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Robert G. Wall, Ph.D. '66, on the completion of his formal education had a postdoctoral appointment at the University of Michigan. Is he now an employee of Chevron Research Company in Richmond, California?

Philip M. Walters, Ph.D. '42, earned his first degree at Illinois, B.S. '38, and completed his formal education at Wisconsin where he served the Department for four years as a teaching assistant in organic chemistry. He is now the manager of Du Pont's Industrial technical section, Textile Fibers Department.

William H. Webb, Ph.D. '49, is a member of a joint committee selected to study future A.C.S. dues requirements. Bill is chairman of the chemistry department of the University of Missiouri Rolla and a councilor from the South Central Missouri Section.

Neil David Weinstein, B.S. '66, at last report was pursuing graduate work at Harvard. His undergraduate record was a superior one: a gradepoint average of 3.97; senior honors for his bachelor's thesis on electron spin (ESR) of intramolecular electron transfer; a Fischer chemistry award, and a Kendall prize. His academic recognitions began in his Freshman year with election to Phi Eta Sigma, continued into his second year by the capture of Sophomore honors, and ended in his upper classman years with election to Phi Lambda Upsilon, Phi Kappa Phi, and Phi Beta Kappa. He lists tennis and membership in a mountain-climbing club as his "extracurricular" activities.

Thomas R. Wildeman, Ph.D. '67, is a member of the chemistry staff of Colorado School of Mines in Golden. He is serving as an assistant professor.

Frank S. Williamson, Ph.D. '54, has been made an administrative officer in the department of chemistry at Washington University, St. Louis,

On the 1967 Christmas card from the family of Kenneth L. Williamson, Ph.D. '60—he is a member of the Mt. Holyoke faculty—appeared the following note, "Next year we'll be in England for Ken's sabbatical".

Ivan A. Wolff, Ph.D. '40, Chief of the Industrial Crops Laboratory, at the U.S. Department of Agriculture's Northern Utilization Research and Development Division, received the 1967 award for excellence in agricultural journalism from the American Society of Agronomy. The award is given annually, we understand, by the Society for the best article published in its Crops and Soils Magazine during the previous year. The article in question-in it is discussed crambe, a new crop being developed by USDA's Agricultural Research Service for the American farmer—is in two parts and Ivan is the author of one of them. The seed oil of this plant appears, it is said, to be promising

because of its high content of erucic acid and its lubricating properties for use in the continuous casting of steel.

Chemistry Course graduate Eugene L. Woroch, Ph.D. '48—he is a three-degree Badger chemist—has a new address: 485 Greenvale Road, Lake Forest, Ill. 60045.

F. Chandler Young, Jr., B.S. '66, a winner of the Department's Krauskopf Award for excellence in his Freshman chemistry days and the captain of the University's hockey team in 1965, is at this writing doing his stint in the Armed Forces as an ensign in the U. S. Navy. He is serving on a Honolulu-based destroyer.

Raymond G. Zehnpfenning, Ph.D. '41, is now associated as a research chemist with a Pasadena group of consulting engineers, James M. Montgomery, Inc. Ray has been active in sanitary engineering projects for some 20 years or more in southern California.

PHI LAMDA UPSILON REGISTER

The Chemistry Library is attempting to complete its holdings of The Register of Phi Lambda Upsilon, the publication of the honorary chemistry fraternity. If anyone has access to back issues which can be given to the library, please check for the following numbers which are needed.

(prior to 1917)
Volume 6, nos. 2, 3, 4
(1917)
Volume 7, nos. 1-4 inclusive
(1918-1927)
Volumes 9 through 12, all nos.
(1918-1927)
Volume 13, nos. 1 and 2
(1928)
Volume 14, all nos.

Volumes 1 through 5

Volume 15, nos. 2, 3, 4 (1930) Volumes 16 and 17, all nos. (1931, 1932)

(1929)

Volume 18, nos. 1, 3, 4 (1933)

Volume 19, all nos. (1934)

Volume 20, nos. 2, 3, 4 (1935)

Volume 21, nos. 1, 3, 4 (1936)

Volume 22, all nos. (1937)

Volume 23, nos, 1, 2, 3 (1938)

Volume 27, nos, 3, 4 (1942)

Volume 28, no. 4 (1943)

Volume 29, no. 4 (1944)

Volume 30, nos. 1, 2, 4 (1945)

Volume 31, no. 1 (1946)

Volume 37, no. 2 (1952)

Volume 48, nos. 1 and 2 (1963)