



Badger chemist : a newsletter from the Department of Chemistry of the University of Wisconsin. Newsletter 16 Winter 1969

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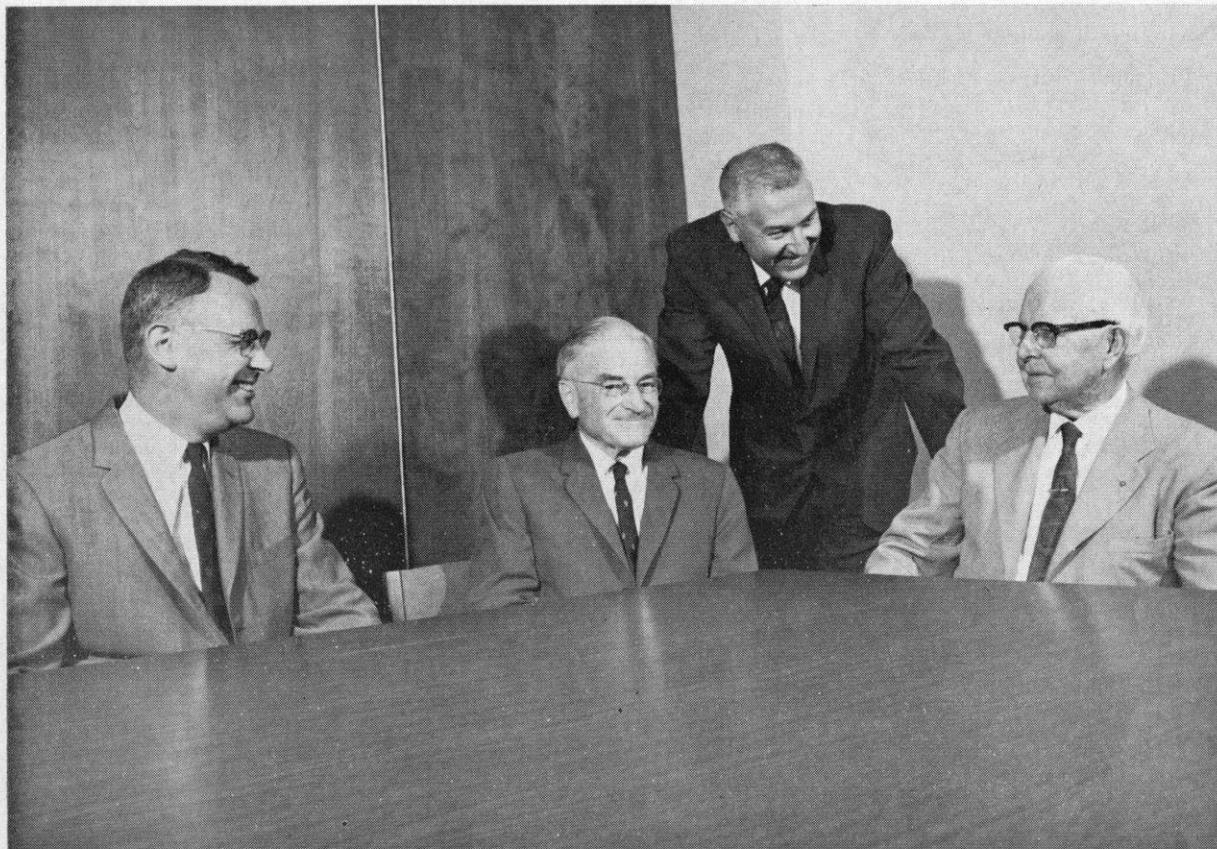
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BADGER CHEMIST

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

Newsletter 16

Winter 1969



From left to right are John Ferry, Farrington Daniels, Irving Shain, and J. Howard Mathews.

Our Chemistry Department came into existence in 1880 and since that time it has had six chairmen. Pictured above in this issue of Badger Chemist are the four surviving members of that group. Deceased are Professors W. W. Daniels (1840-1911) who served from 1880 to 1907 and Louis Kahlenberg (1870-1941) who was chairman from 1907 to 1919.

Professor J. Howard Mathews became chairman of the department in 1919 shortly after he terminated his activities with Chemical Warfare Service in World War I. Dr. Mathews had been an undergraduate student in the Department early in the century and then went to Harvard where he received his Ph.D. in physical chemistry under T. W. Richards. He joined the staff at Wisconsin shortly thereafter, but took a leave of absence during World War I. His long service as chairman was dis-

tinguished by growth of the Department in numbers and in quality. It was during his long tenure that Farrington Daniels and John Ferry (each to become chairman) were added to the faculty. The research activities of these men were stimulated by the strong support which they received from Dr. Mathews.

Upon Dr. Mathews' retirement in 1952, the chairmanship passed to Farrington Daniels, who had built up a distinguished reputation for his research in chemical kinetics, his work as Director of the Metallurgical Laboratory of the Manhattan Project, and the textbook and lab manual in physical chemistry. Dramatic growth of the department continued during Dr. Daniels' seven years as chairman.

Upon his retirement in 1959, the chairmanship was carried on by Dr. John D. Ferry, who joined the

Department in 1945. He had already acquired a distinguished reputation in the field of high polymers at the time he joined the Department and his research in this area continued to win him international recognition. During his chairmanship, the Department continued its further dramatic growth.

In 1967, Dr. Ferry wished to be relieved of the duties of chairman in order to pursue his own teaching and research program more vigorously. He was succeeded by Irving Shain, a leader in the field of electroanalytical chemistry. Dr. Shain joined the Analytical Division in 1952 and was the first member added to the Department during the chairmanship of Dr. Daniels. Since he has assumed the position as chairman, the Department has moved into new quarters and is continuing the trend of growth and excellence so well established by his predecessors.

BADGER CHEMIST

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Aaron J. Ihde, Ph.D. '41

Edwin M. Larsen, B.S. '37, Ph.D.
(Ohio State '42)

Villiers W. Meloche, Ph.D. '26

C. Harvey Sorum, Ph.D. '27

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Editor's Column

It is not our intent to use this column exclusively as an appeal for money. It has not been necessary to do so for several issues. However, for this issue it is certain that we will have to practice deficit financing to the extent of several hundred dollars. The solid support that many of you have given us is deeply appreciated but we must have help from a larger fraction of our readers if we are to continue publication. In addition to your contributions we want news items and ideas as to how we can make the Badger Chemist more attractive to greater numbers.

E. D. F.

SOCIETY HONORS 50-YEAR MEMBERS

The names of 6 retired Badger chemists were on the list of 153 members of the American Chemical Society honored in 1968 in recognition of their half-century association with it. Three of them at the time of their retirement were either educators or in a field closely related to it; the others had been employed by industry. Their names together with a brief abstract of their activities follow.

George C. Bailey, B.A. '09, enrolled at Yale for graduate work (A.M. '14 and Ph.D. '16). Some 16 years later with a background of industrial experience—Winchester Arms, Barrett Company, National Aniline, Roessle and Hasslacher Chemical—he took a position with Du Pont. Mandatory retirement came to him in 1951 when he was manager of its Perth Amboy plant's electrochemical department. He has done considerable traveling—near-global in extent—since then.

Roland E. Kremers, B.A. '15 (Ph.D. '21 in organic plant chemistry) is a man of two careers. Brief associations in the academic field (Wabash College, Vanderbilt and Ohio State) were followed until 1924 by a longer one in industry at which time (1951) he left General Foods and joined the staff of the Institute of Paper Chemistry at Lawrence College.

Armand J. Quick, B.S. '18, left the campus after Alma Mater had conferred upon him the M.S. degree in 1919, and then completed his formal education in chemistry at Illinois, Ph.D. '22. The next milestone in his career came in 1928 with a Cornell-conferred M.D. The year 1935 found him back in the midwest as a faculty member of Milwaukee-based Marquette University. He retired in 1964 as chairman of its Department of Biochemistry. A master's degree earned at the University of Buffalo in 1928 and the doctorate conferred by Columbia in 1930: these spell the formal education of Green Bay native, chemistry course graduate

Winfred J. Cauwenberg, B.S. '19. His life-long association with the pigment and dye industry came to a close with his retirement as manager of the titanium department of Cyanamid's Calco Chemical Division. **John H. Schmidt**, M.S. '18, Ph.D. '21, on graduating from the University of Michigan, B.S. '16, in chemical engineering, remained on the Ann Arbor campus for a year as a teaching assistant. He

then served Dow Chemical briefly as a research chemist after which he enrolled in our Graduate School as a teaching assistant in organic chemistry with the doctorate as his objective. Promotion to instructor came a year before this. In 1923 he made a move which was to develop into his life work—plastics and synthetic resins. He retired as patent coordinator with Bakelite Corporation and Union Carbide Plastics Corp. Milton College graduate (A.B. '10) **Philip L. Coon**, M.A. '15, Ph.D. '32, spent his active years as an educator. His career in this field began as a high school teacher in Wisconsin and Michigan. It reached college level in 1920 when he made an association with Geneva College of Glenn Falls, Pa. in 1920. He retired as a full professor and head of the school's chemistry department. Some ten years ago he was honored by friends, former students, and the administration of the college when the chemistry library there was dedicated in his honor.

You Said . . .

"I am enclosing a check to help pay for the expenses of printing Badger Chemist. I do enjoy receiving this, and hope that you will continue to send it to me." Alexander R. Amell, Ph.D. '50

"Please accept my small contribution for the continuation of Professor Schuette's 'Labor of Love' for the past year." M. A. Chandrasekharaiyah, Ph.D. '59

"It's good to get Badger Chemist." E. D. Coon, Ph.D. '32

"Many thanks for a very fine publication. Enclosed is my check to help pay costs." Michael J. Curry, Ph.D. '48

"We enjoyed your Badger Chemist since it was started. . . . Many thanks to all of you who have participated in its activity. When am I going to be able to brag about a winning football team?" Fred F. (Duke) Diwoky, Ph.D. '30

"Enclosed find check to help defray expenses on Badger Chemist. I always look forward to receiving it. . . . I would like to thank Professor Schuette for the fine publication (which) he started and also those associated with it now." Carl Eggert, B.S. '31

(Continued on page 6, col. 1)

ABOUT THE FACULTY . . .

Professor R. B. Bernstein is one of the 50 new members whose election to the National Academy of Sciences was announced last year. He is the sixth member of the Department's faculty recognized in this manner for "distinguished and continuing achievements in original research". On the local scene he is the W. W. Daniells Professor of Chemistry.

Jerome A. Berson gave special lectures at the IUPAC Symposium on Valency Tautomerism at Karlsruhe in September and at a Conference on Carbonium Ions in October, 1968. Professor Berson is leaving Wisconsin at the completion of this academic year to become a faculty member at Yale University.

Professor R. Pribil of Charles University and the Polarographic Institute was a guest of Professor **Walter Blaedel** for several days in March, 1968. Currently Professor Blaedel is serving on the Advisory Board for Analytical Chemistry and a Committee on Clinical Chemistry, both sponsored by the American Chemical Society.

Lawrence F. Dahl was a co-organizer of the Symposium on Stereochemistry of Inorganic Compounds held at Banff, Alberta, Canada during June, 1968. Professor Dahl also lectured at a Symposium on Metal Carbonyls at Venice, Italy, September 2-4, and for the latter part of the same month presented lectures at Budapest, Hungary, and Veszprem, Hungary: subject—"Structural Systematics and Bondings in New and Unusual Organometallic Sulfur Complexes". He was a guest of the Western Michigan Section of ACS at its March, 1968, meeting in Calvin College, Grand Rapids. Dr. Dahl addressed his audience on the subject of the structural chemistry of new types of transition metal sulfur complexes.

Emeritus Professor **Farrington Daniels** has been made a trustee of the Keith Brewer Foundation of Richland Center, Wisconsin, a city whose library is the gift of this Foundation. (Keith is a Ph.D. alumnus of the class of 1924.) He gave the lead-off discussion at a symposium held at Wayne University, Detroit, Michigan, on 7 May, 1968. He took for his subject the past,

present, and future of solar energy in technology.

Exactly 273 members of the University's faculty were promoted to tenure as of the current academic year. Of this number 112 were advanced to full professorship status and 161 are now associate professors. In the former group is Professor **Larry A. Haskin**, who began his ninth year as a member of the staff with full professor rank, and in the latter are Assistant Professors **John E. Harriman**, **Paul M. Treichel, Jr.** and **Barry M. Trost**, who were advanced one step on the academic ladder.

Professor **Joseph O. Hirschfelder**, director of the University of Wisconsin's Theoretical Chemistry Institute, was one of three Americans recently elected to the International Academy of Quantum Molecular Science. He was named to the group of 21 scientists because of his contribution to the field of theoretical chemistry.

The second Midwest Theoretical Chemistry Conference was held on the campus, June 13-14 under the aegis of Professor **J. O. Hirschfelder** and his associates in the Institute in question. Talks were given in all areas of theoretical chemistry including quantum mechanics, statistical mechanics, kinetic theory of gases and collision processes by researchers from all over the Midwest. Emeritus Professor **Farrington Daniels** was the featured speaker of the conference at a banquet honoring the visiting guests. His topic: "Science and Human Welfare".

Professor **Aaron J. Ihde** spent March in Colombia, South America, where he served as advisor to the U. S. State Department in connection with the Agency for International Development. He and Professor William Whittingham of the Botany Department visited the science departments of six Colombian Universities in Bogota, Cali, Medellin and Cartagena. Upon his return to the States, Professor Ihde, participated in a symposium on "Teaching the History of Chemistry" at the ACS meeting in San Francisco. Later in the summer, he presented a paper at the colloquium at the Marathon Oil Company's Research Center near Denver. In September, he attended the ACS

meeting in Atlantic City, where he received the Dexter Award for distinguished work in the history of chemistry.

Emeritus Professor **Villiers W. Meloche**, Ph.D. '26—he retired in 1966—was recently elected as honorary member of the Wisconsin Academy of Sciences, Arts, and Letters. He had joined the Academy in 1929.

Visiting Professors for the spring semester, 1969, include Professor **Alexander Popov** from Michigan State University in analytical chemistry and Professor **Frank McCapra** from the University of Sussex, England, in organic chemistry.

Professors **Irving Shain** and **Dennis Evans** presented an American Chemical Society Short Course in Electroanalytical Chemistry at the Atlantic City Meeting during September, 1968.

Badger chemist **Edwin Vedejs**, Ph.D. '66—he has assistant professor rank in the Department—began the current academic year with a \$3000 grant from the Research Corporation of New York. Assistant Professor **Marvin O'Leary** also received the same grant in aid of his present research activities. Both are members of the "organic" division.

Since our last issue Professor **John E. Willard** has been selected to serve as chairman of a Panel Advisory to the Physical Chemistry Division of the National Bureau of Standards. For 1968 he also served as chairman of the Gordon Research Conference on Radiation Chemistry.

Our Newest Ph.D. Alumni

The slight decrease in the size of the Ph.D. class of 1967 from that of the record year of 1966, when the Department sent out 53, continued into the next year to 51 and in 1968 dropped still lower. The 47, upon whom this degree was conferred last year, brought the total at presstime to 1239. Industry absorbed 15 members of the class; 12 continued their formal education to the post doctoral level; and approximately the same number are listed in our records as educators. One is doing his stint in the armed forces.

This 'n' That About Our Alumni

Sydney Archer, B.A. '37, is vice-president and associate director of research at Sterling-Winthrop Research Institute, Renssleer, N.Y. He, a native of New York City, left our campus upon graduation to pursue graduate work at Penn State in organic chemistry. Upon the successful conclusion of his studies there (Ph.D. 1940), he returned to the midwest for more graduate work at the fellowship level at Northwestern, and then at the University of Chicago. After a brief stint as chemist at Sun Oil he joined his present employer in 1943. In addition to his present duties he is now adjunct professor of chemistry at RPI. His accomplishments in the syntheses of pain-killing drugs, tranquilizers, radio-paque agents for diagnosing disease are many and diverse. In recognition of his work he was given the second ACS Award in Medicinal Chemistry. Participating in the presentation of this honor was the Chemical Institute of Canada.

Thein Aung, M.S. '59, at last report, was associated in an official capacity with Rango University in Rangoon, Burma.

The name **Baird** is twice mentioned in our mailing list. It identifies a husband and his wife who both had enrolled in our Graduate School as alumni of Berea College and as candidates for a higher degree. He, **H. Wallace**, and she, **Frances G.**, acquired Badger chemist status by virtue of the Ph.D. degree conferred upon him in 1963 and the M.S. degree granted her in 1961. The on-campus activities of Wallace began, in the order named, as a Wilson Foundation fellow, a teaching assistantship, and a Wisconsin fellowship. Industry, in a sense, then took over: as sponsors of the last two years of his association with the Department. And that sponsorship drew to a close with an assist in kind by The Ethyl Corporation. It ended, thanks to Procter & Gamble, who provided the funds for his last fellowship. At last report he was a member of the chemistry staff, with professorial rank, of Wake Forest College in Winston-Salem, N.C.

The vacancy caused by the transfer of Sterling Randall from Wausau to the University's Green Bay unit has been filled by the appoint-

ment of **Neil M. Ball**, Ph.D. '69, to the position.

The **Klaus-Jochen Behling's**, Ph.D. '65, have a new address: from Wilmington, Del., to Geneva, Switzerland. He is a Du Ponter.

Badger chemist **R. Byron Bird**, Ph.D. '50, is no longer the chairman of the Chemical Engineering Department. He has resumed his teaching and research activities.

Ray U. Brumblay, Ph.D. '38, has joined the faculty on the Marathon County Campus of the University Wisconsin Center System located at Wausau. As professor of chemistry he will be in charge of general and analytical chemistry.

Word came to us last summer from **Harry F. Brust**, B.S. '38 (Ch.C.) that Dow Chemical had promoted him to senior research chemist status.

Kenneth D. Carlson, Ph.D. '66, is an alumnus of Wisconsin State University, La Crosse. He is now associated with the U.S. Northern Utilization Research and Development Division in Peoria, Ill. and is active with a group engaged in an extensive research program which is being conducted at the Laboratory whose objective is a search to find new alternative crops for American agriculture that are good sources of industrially useful vegetable oils, proteins, or fibers. A case in point is crambe seed, a new crop which is being developed for the American farmer.

Phillip R. Certain,—Emory University alumnus—National Science Foundation fellow, was the 1968 recipient of the Eastman Kodak Scientific Award of \$500 given him as the "most outstanding student in the Department". His major is theoretical chemistry. Phillip is working with Professor Hirschfelder.

The **Robert S-H Chiang** family, Ph.D. '53, she has an M.S. degree as of '49—now has a Missouri address, 108 Five Meadows, Ballwin, Mo. 63011, from Durham, North Carolina. The change was due to Robert's transfer by Monsanto to its St. Louis plant. We understand that Amy, their eldest daughter, will be ready for college in September of this year. Will it be Wisconsin? Her paternal grandfather was a Badger chemist.

Ralph E. Conary, Ph.D. '38, on graduation from the University of

Minnesota in 1934 with a B.S. degree in chemical engineering, began his studies for a higher degree as a teaching assistant at Wisconsin. On achieving Badger chemist status he took a job with Texaco. His is an association with this corporation which has remained unbroken to date. His record with it spells a series of promotions from research chemist—the first one dated from 1942—to recognitions and increased responsibilities to his present one as manager of the Beacon research laboratories. As we go to press we learn that he has been named manager of Texaco's research center in Ghent, Belgium.

Ralph Connor, Ph.D. '32, has been named by Rohn & Haas to serve a second term as Vice-President and Chairman of the Board of this Philadelphia-based company.

Eugene Corey, Ph.D. '63, is associate professor of chemistry at the University of Missouri-St. Louis. Mrs. Corey, **Joyce Corey**, Ph.D. '64, is assistant professor at the same school.

Lloyd M. Cooke, B.S. '37, (Ph.D. '41, Montreal), manager of planning for Union Carbide's Food Products Division, has received recognition for his work in trying to motivate more young people in the minority groups toward business and industrial career. We understand that the recognition in question is an honor scroll which resulted from his efforts under the government's Plans for Progress program. Lloyd was pictured in Carbide's newsletter of last June to its stockholders on receiving a congratulatory hand from President Lyndon B. Johnson on the presentation to Badger chemist Cook on this milestone in his career as an industrial chemist.

We have learned that **Howard I. Cramer**, Ph.D. '29, is now the executive secretary of the Pennsalt Chemical Foundation, Philadelphia. We understand that he continues to serve as vice president of Pennsalt International Corp., S. A., and as technical adviser on chemicals in his employer's international marketing operations. Howard's friends will probably recall that some seven years ago he had been sent to Holland to assist an affiliate there in its expansion program and to provide commercial, technical, and management between it and Pennsalt's home office.

St. Olaf alumnus **Roland A. Trytten**, Ph.D. '41, is serving Stevens Point State University as the



Faculty-Alumni Room on ninth floor: Windows face east and afford a fine view of downtown Madison and Lake Monona.



Another view of Faculty-Alumni Room from windows looking toward room entrance.

chairman of its chemistry department.

Kendra Davenport Tutsch (Mrs. J. H.) M.S. '68, is instructing beginning chemistry at the Rock County Campus of the University of Wisconsin Center System.

We have learned that **Frank H. Verhoek**, Ph.D. '33, has returned to full-time teaching and research at Ohio State University. His friends will remember him as the Department's first Rhodes Scholar; as one who began his career in the academic field upon graduation from Harvard as a teaching assistant in chemistry in the department; and, his formal education completed, as one who made an association with Ohio State which began as an instructor and, in due time, became a full professor in 1953. Elevation

to the vice-chairmanship of his department came to him in 1960.

Michael J. Curry, Ph.D. '48, has informed the editors that after 16 years he has left "R and D" and that he is now a management consultant in New York City in the employ of Heidrick and Struggles whose letterhead reads "Management Counsel-Executive Searches, with branches in Chicago, Los Angeles, and San Francisco.

Carl Djerassi, Ph.D. '46, has been made an honorary member of the Academy of Pharmaceutical Sciences of the American Pharmaceutical Association. He holds a professorship at Stanford University and serves Syntax Corporation as vice-president for research.

Two years ago we reported to our readers that **Max Douglas**,

New Chemistry Building

The new chemistry building as described in Badger Chemist for 1966 has been in use since the fall of 1967. In the 1966 issue we included an architect's perspective viewing the building from University Avenue. In this issue we show it as it is today (see page 17). Many of you will be especially interested in the Faculty Alumni Room on the top floor, part of which is shown in pictures on this page. The room has been furnished entirely by contributions from alumni and faculty. It is in constant use for a variety of activities, academic and social, formal and informal. Do not fail to stop in on your future visits to Madison. Teaching activities are concentrated on the first two floors and the basement of the building. Two large lecture rooms occupy parts of the basement and first floor and a third lecture room is entirely on the basement level. All three rooms have access to a common lecture preparation room. Undergraduate laboratories in organic and physical are at the basement level, general chemistry on the first floor and the second floor includes analytical and general laboratories. Numerous recitation rooms are located in the basement and on the second floor. Research activities and office space occupy the wing completed in 1962 (see Newsletter 8) and floors 3-9 in the central tower of the completed building. The front entrance at the corner of University Avenue and Mills Street is especially impressive (see page 17).

M.S. '57, was in Burghausen, Germany, where his employer, Marathon Oil Company, was building a refinery. We were advised last June that Max is back in the States. His new address is Robinson, Ill. 62454, Marathon Refinery Office Building.

Chemistry Course graduate '52, **William D. Ehmann**, M.S. '54 (Ph.D. Carnegie Inst. Tech.) has been named, we have learned, the 25th Distinguished Professor of the Year in the University of Kentucky College of Arts and Sciences. He joined the UK faculty in 1958 as an assistant professor. Eight years later he received full professorial rank. His field of specialization is radio chemistry. We understand that he has signed a contract with the National Aeronautics and Space

(Continued on page 6, col. 3)

You Said . . .

(Continued from page 2)

"I am enclosing what I feel is a long overdue contribution to Badger Chemist which I thoroughly enjoy reading." Ted Grant, Ph.D. '59

From Bartlesville, Oklahoma, comes this note: "I am enclosing a bill to help pay the expenses for publishing Badger Chemist. I find it is interesting to read what's happening to my old friends." Louis F. Heckelsberg, Ph.D. '51

"I certainly agree with the item on page 2 (of the last newsletter) regarding Professor Schuette. He has done a remarkable job and I hope he is still going strong." (He is. Ed.) Ralph M. Hill, Ph.D. '38

Writing from Shelby, Montana, where he is serving St. William Church as its pastor, St. Norbert College alumnus—he is also a Badger chemist—Pritzl says "It's rather strange for me to have had to come to Montana to find badgers digging holes on this prairie and being a nuisance to cattle ranchers. . . . Congratulations to Dr. Schuette for his fine work." The Rev. Peter P. Pritzl, M.S. '30

"Enclosed find my check—to help keep the Badger Chemist solvent. Keep up the good work. Both Mrs. Koerner and I enjoy each issue." William E. Koerner, Ph.D. '49

From Seattle, Washington, where he is a practicing surgeon came the following note: "Badger Chemist is practically my only contact with the past and I enjoy reading about all the old and recent grads as well as the faculty members who are still around. Thank you very much." Fred W. Laird, Ph.D. '28

"We are enjoying Texas. . . . The Weather down here (in Houston) is great but we do miss the Wisconsin fall!" R. L. Matcha, Ph.D. '66

"Somehow you have managed to make Badger Chemist a really successful venture. . . . I still find much of interest in each issue." C. Keith McLane, M.S. '44

"To retiring editor Henry Schuette I say: congratulations for a fine job of keeping us informed in a most entertaining way." Wayland E. Noland, B.A. '48, Ph.D. Harvard '52

"Enclosed is a check payable to Badger chemist. . . . I hope you will receive enough financial help to enable you to continue publication of this delightful news medium." Fredus N. Peters, Ph.D. '25

". . . am enclosing a check for the Badger Chemist fund. Just love getting it and keeping up with our chemist friends." Marie Roth, Ph.D. '32

"The Badger Chemist" has just arrived. I was pleased to see the picture on the front cover." E. R. Schierz, Ph.D. '22

"When we first moved to Florida, we used to wonder if it would seem at all like Christmas without the snow, the wintry nights, the bite of frost on cheeks and fingers. Gradually the pattern of the holidays became one of summer-warm beaches and great clusters of brilliant poinsettias in every garden. Yet each year, as this season approached, we realized that our children had never seen snow fall, never touched a frozen lake, never tobogganed down a hill. So—this is the year! Books and boats and swimming suits will be tossed aside on December 20th, and all five Schultzes fly north to Racine, Wisconsin, for a White Christmas!" The Schultzes, Harry (Ph.D. '46), Pearle, Stephanie, Alison, and Tor

"Enclosed is a contribution to help you in your service to our alumni." Harry P. Schultz, Ph.D. '46

"Just a small check for helping publish the one item which keeps me in touch with 'the good old days'." S. C. Slifkin, B.S. '42

"Please find enclosed a contribution to support the continuation of Badger Chemist. As I have stated previously, I enjoy reading these publications and discussing the news with my fellow Wisconsin alumni here in our group (Merck, Sharp & Dohme Research Laboratories). However, I must confess that it is getting harder and harder to find news of people during my years at Madison. I enjoyed my visit to the campus last fall. The many changes on campus, I must admit, drastically altered my picture of the campus that I carry from some 30 years ago." James M. Sprague, Ph.D. '34

"It is always a pleasure to look over Badger Chemist and the happenings pertaining to those that were at Madison when I was. This, even though I have never followed chemistry as a profession; my studies in this field were very helpful and served as a good background for my chosen fields of metallurgy, ceramics and agriculture." Carl E. Swartz, Ph.D. '26

"Enclosed is my contribution toward the publication of Badger

Chemist. I look forward to its appearance, even though that time has come when fewer familiar names appear. The news of the great strides being made by the Department is very interesting and rewarding. It has been my pleasure to follow the illustrious career of Dr. Daniels who was my instructor in physical chemistry in 1927, for whom I have always had the deepest respect and admiration. Dr. Schuette was my adviser and I shall express my thanks to him for his efforts in a separate letter. I hope the newsletters will continue to come." Jane Ehrlinger Taylor, B.A. '31

"Please accept my heartiest congratulations and thanks for all the great work you have been doing for fifteen years on the Badger Chemist which you founded. With these issues you have brought pleasure to thousands of Wisconsin alumni. Thank you also for your kind mention of the Dexter award." Elvira Weeks, M.A. '14, Ph.D. (Kansas '27)

This 'n' That . . .

(Continued from page 5)

Administration for research on returned lunar samples.

Morton Albert Eliason, Ph.D. '59, is a member of the faculty of Augustana College, Rock Island, Ill., with professorial rank. He, an alumnus of Concordia College, Moorehead, Minn., was in his graduate days in the Department, an NSF fellow.

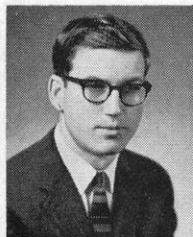
Edward L. Engelhardt, Ph.D. '44, of Merck, Sharp & Dohme, was a guest of the Department on 22 October, 1968, at which time he addressed an organic chemistry seminar on the chemistry and stereochemistry of certain dibenzo cyclopropenes. Ed, at our last report, was the assistant director of medicinal chemistry research to Badger chemist, James M. Sprague, Ph.D. '34.

Herbert H. Epsy, Ph.D. '56, spent three weeks last year in Japan on a business trip for Hercules.

Chemistry Courseman E. M. Fitchett, B.S. '24, reached the mandatory retirement age of his employer, Ray-O-Vac Division of E.S.B., Inc., in Madison on July 1, 1967. We understand that he is now a part-time consultant and that his activities have taken him to Spain, Wales, and Canada.

(Continued on page 7, col. 2)

New Faculty Members



Dr. David J. Brookman is the newest member of the Analytical Chemistry Division. He was born in Fort Collins, Colorado, and received the B.S. degree from

Colorado State University in 1965. He received the Ph.D. degree in August of 1968 from the University of California at Riverside. Dr. Brookman's research interests include gas chromatography, mechanisms of adsorption, and analytical separations.

Dr. Charles P. Casey joined the staff of the Organic Chemistry Division in September. A native of St. Louis, Missouri, Dr. Casey received a B.S. degree in chemistry from St. Louis University in 1963. In December, 1967, he received the Ph.D. degree in organic chemistry from M.I.T. He was then an NSF Postdoctoral Fellow at Harvard University working with Professor Paul D. Bartlett. His research interests include mechanisms of organometallic reactions, homogeneous catalysis, and radical chemistry.



to the study of chemical reactions; he is also interested in level crossing effects and optical-radio-frequency double resonance in molecules.

Dr. Ian G. Dance joined the Inorganic Chemistry Division during the past summer. A native of Australia, he received the B.Sc. in 1961 and M.Sc. degree in 1963 from the

University of Sydney, Australia. In 1966 he was awarded the Ph.D. degree from the University of Manchester, England. He spent two years as a Research Associate with Professor R. H. Holm. The first year was at the University of Wisconsin during 1966-67; the second year was at M.I.T. in 1967-68. His research interests are in the general area of transition metal chemistry.



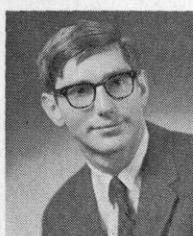
This 'n' That . . .

(Continued from page 6)

We have learned that **Karl Follers**, Ph.D. '31, has left Stanford Research Institute in Menlo Park, California, to become director of the Institute for Biochemical Research of the University of Texas College of Pharmacy in Austin. He continues to serve SRI on its board of directors.

Dervin L. Flowers, Ph.D. '60, spent the first five years after leaving the campus with Shell Development Company in Emeryville, California, and the following three with Ampex Corporation in Redwood City working principally in polymer chemistry "with considerable overtones of surface chemistry". We understand that he has been concerned with surface chemistry and electrochemistry in silicon semi-conductor technology.

Chemistry Courseman **Stephen E. Freeman**, Ph.D. '35, was the 1967 recipient—and the tenth member of the American Chemical Society—to be honored by the Milwaukee section with its Award which consists of a medallion, a citation, and a check. He is a native Badger (Racine), a three-degree Wisconsin alumnus, the founder and president of the chemical corporation which bears his name, and a former employee of the Pittsburgh Plate Glass Com-



Dr. David R. Crosley is now on the roster of the Physical Chemistry Division. He was born in Webster City, Iowa, and was awarded the B.S. degree in chemistry from Iowa State University in 1962. He received the M.A. degree in 1963 and the Ph.D. degree in 1966 from Columbia University. From 1966 to 1968 Dr. Crosley was engaged in postdoctoral research work at the Joint Institute for Laboratory Astrophysics at the University of Colorado in Boulder. Dr. Crosley is doing research on optical pumping and its application

pany. His first work involved the separation of glyceride oils and fatty acids into higher and lower unsaturated fractions of varying chain length by selective solvent extraction. Processes for solvent separation of sterols from natural oils and tall oil were also developed. In 1944, he became Assistant Production Manager of the Milwaukee Paint Division and shortly afterwards was transferred to the Pittsburgh plant as Production Manager. In 1949 he relinquished this position and became founder and president of the Freeman Chemical Corporation at Saukville, Wis., which now manufactures resins and paint vehicles. His professional affiliations include the American Chemical Society, Sigma Xi, Society of the Plastics Industry, American Oil Chemists Society, Society of Plastic Engineers, Chemists' Circle, Wisconsin Paint, Varnish and Lacquer Association and American Association for the Advancement of Science. Other memberships are the Sertoma Club of Whitefish Bay (President, 1958), Milwaukee Athletic Club, Rotary Club of Port Washington (President, 1963-64). He was the 1961 Treasurer and the 1964 Chairman of the Milwaukee Section. He also holds thirteen United States, Canadian and British patents. His family consists of his wife, daughters Mary and Katherine, and one granddaughter, Ann Catherine.

We have learned that both daughters of the **Lucien E. Gagnérons**, M.S. '45—their mother is the former **Bernadine ("Bibi") Poch**, B.A. '45—have married scientists. The husband of one is pursuing graduate studies at Berkeley for the doctorate; the other is married to a nuclear physicist who has recently received his Ph.D. degree.

Paul Glasoe, Ph.D. '38, professor of chemistry and chairman of the department at Wittenberg University, Springfield, Ohio, is spending school year 1968-69 on sabbatical leave under an N.S.F. faculty research fellowship at King's College, University of London.

Louis J. Gosting, Ph.D. '48, heads one of the five research sections of the prestigious, campus-based Enzyme Institute. Some of his research is being done in our chemistry building.

We are pleased to report the promotion of organic chemist **E. A. Grant**, Ph.D. '59, by Minnesota Mining and Manufacturing to the position of laboratory project man-

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This 'n' That . . .

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ager. In this position, we understand, his is the responsibility of designing and developing both hardware and software for a new copying machine. He joined 3M in 1957 and is credited with having made numerous technical contributions to duplicating products.

The year 1968 had two significant milestones for **Neil V. Hakala**, Ph.D. '43. One is his promotion to a top echelon-of-management post by his first, and only, employer; the other spells a recognition by his alma mater for his off-campus accomplishments in industry. Neil enrolled in our graduate school as an alumnus of then Michigan College of Mining and Technology (B.S. '39). He began his graduate-student career as a WARF fellow and completed his formal education as a research assistant to Professor Williams. Last May he became one of our small core of Badger chemists upon whom an honorary Doctor of Science degree had been conferred. His alma mater—renamed Michigan Technological University—gave him this formal recognition. He began his 25-year research career as a chemist in the Research Division of the Standard Oil Development Company, the forerunner of Esso Research and Engineering. Noteworthy “transition points” for him in this quarter-century association with ERE are a section head position, the directorship of one of the company’s divisions (Products Research), deputy to a vice president, managing director of the affiliated Esso Research, Ltd. in England; vice-president for European research; and deputy refining coordinator for Jersey Standard. In 1966, upon his return to the States, he was made a director and vice-president for petroleum research. In August, 1968, he was named president, ERE.

Eight Badger chemists—all are graduates of the chemistry course—were in the group of some 496 alumni who were made members of our University’s exclusive Half-Century Club at homecoming time on 17 May, 1968. Their names: **Ida F. Starkweather Atchinson** (Mrs. Thomas), no address; **Lyman A. Beeman**, Glens Falls, N.Y.; **Edward L. Chaplin**, Hagerman, Idaho; **Ralph Friess**, Madison, Wisconsin; **Armand J. Quick**, Milwaukee, Wisconsin; **Chester E. Shephard**, Pas-

adena, California; **Charles L. Warner**, Cressom, Penn.; and **Henry H. E. Wessel**, Des Plaines, Ill.

Chemistry Courseman **Jan B. Hall**, B.S. '65, is pursuing graduate studies in the Chemistry Department of the University of Minnesota.

Thomas M. Hard, Ph.D. '65, is now associated with National Aeronautics Space Administration’s Research Center at M.I.T. in Cambridge, Mass.

Eight years ago at this writing it was our pleasure to report that Chemistry Courseman **George W. Heise**, B.S. '09, “for his endowments of mind and spirit, for his life-long record of continuous giving of himself to research, his profession and society” had been awarded an honorary degree of Doctor of Science of Cleveland’s Fenn College. In this issue of the newsletter we are reporting that history in his case has repeated itself. His second D.Sc. stems from Cleveland State University. Badger Chemist extends a congratulatory hand to George.

Don J. Henderson, Ph.D. '68, has joined the Baytown (Texas) Research and Development Division of Esso Research and Engineering Company. He has been assigned to the company’s chemicals research laboratory, exploratory plastics research section. He is an alumnus (B.S. '62) of William Jewell College in Liberty, Mo., holds an M.S. '64, from the University of California (Berkeley) and served in turn this school and Wisconsin as teaching assistant.

St. Olaf alumnus, **David Karl Hinderman**, became a Badger chemist in January, 1967, via his Wisconsin-conferred Ph.D. degree. He is now a member of the research staff of Bell Telephone Laboratories, Murray Hill, N.J. 07971.

The scientific world was startled in January of this year by the news that for the first time an enzyme had been synthesized. Of local interest was the knowledge that a Badger chemist in the employ of Merck, Sharp & Dohme was a member of one of the two teams which virtually simultaneously, using basically different methods, had accomplished the feat. The enzyme in question is ribonuclease. Sharing in the honor of being the first in this case are the Merck, Sharp & Dohme Research Laboratories and Rockefeller University, New York City. The name of the Badger chemist involved: **Ralph F. Hirschmann**,

Ph.D. '50, a protege of Prof. W. S. Johnson, sometime member of our chemistry staff.

We have learned that **Alexander Hollaender**, Ph.D. '32, director of the biology division of Oak Ridge National Laboratory, has received a citation, with medallion, from the Atomic Energy Commission. It was given him for having developed an internationally known program in radiobiology.

Physical chemist **John D. Jenkins**, Ph.D. '23, sometime teaching assistant to the late Prof. J. H. Walton, is the 1968 recipient of the Milwaukee Section Award. The award, a monetary one plus a bronze medallion, was given him in recognition of his outstanding service to industry, chemistry, and his Section. His professional career—he holds a B.S. in chemical engineering from Oregon Agricultural College in 1920—began with the master’s degree. Upon achieving Badger chemist status in 1921, his biography spells chemist with Pittsburgh Plate Glass Company in Milwaukee; an association with the Ditzler Color Division in Detroit; a fellowship in coatings research at the Mellon Institute in Pittsburgh; return to Milwaukee to take charge of PPG’s department of Lacquer and Pigment and Specialized Coatings; retirement in 1962; and consultant since then in the field of coatings, surface protection and organic chemistry.

Donald R. Johnson, Ph.D. '54, research and engineering manager of Du Pont’s instruments products division has been named to the advisory board of **Analytical Chemistry**. He is filling the unexpired term of the late Badger chemist Stephen Dal Nogare.

Frederic A. Johnson, Ph.D. '58, no longer has a Huntsville, Ala., address. His employer, Rohn & Haas Company, has transferred him to its analytical research laboratory at Bristol, Penn. A native of Concord, N.H., Frederic received a B.S. and an M.S. from the University of New Hampshire. His association with his employer began in 1958 as a physical chemist at the Redstone Research Laboratories in the analytical laboratory. The Johnsons, with their two children, reside at 834 Bell Lane, Maple Glenn, Penn.

We understand that **Fred K. Kawahara**, Ph.D. '49—he is a member of the staff of the Cincinnati-based staff of the analytical quality control laboratory, Federal

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We Salute Governor Peterson



In the 1967 issue of Badger Chemist we gave our readers a biographical sketch of a Wisconsin native, Russell W. Peterson, Ph.D. '42; and in that profile mention

was made not only of his civic but also his political activities in the State of Delaware; we described the milestones in his successful industrial career as a Du Ponter, and we enumerated the several honors which had been given him for outstanding community services (the brother-citizenship award from the Delaware Chapter of the National Conference of Christians and Jews, chairmanship of the neighborhoods

and housing committee of the Greater Wilmington Development Council, the Vrooman Award of the Correctional Society, and appointment to several jobs in the State Republican Party). His activities in the latter in the national election of 1968 led to a gubernatorial surprise in that he became one of the seven members of the GOP (journaleese for the Grand Old Pachyderm) on the national level to capture a governorship. And in doing so Russell is the first—and only—Badger chemist at this writing to have been elected to this high office. His life story reads: partial self-support while a high school pupil, teaching assistant while a graduate student, recognition by his former employer, the prestigious Du Pont Company.

For Services Rendered

At an earlier date, we reported on those Badger chemists whose services to their respective communities have been officially—and variously—recognized by an appropriate memorial such as a campus building or a unit thereof. The original six in the list in question must now be enlarged by three to make the number nine; and something new in our memorial list is added, a highway in rural Beulah in Michigan's Benzonia County.

Geneva College retiree Philip C. Coon, Ph.D. '32, on completing a forty-year term of devoted service to this school was honored by friends and former students in that the chemistry library there had been dedicated in his name. Recognized in his active years as an outstanding and inspiring teacher of chemistry, some nine years ago he had been given the Distinguished Service Award of the Geneva College Alumni Association.

Wisconsin-born (Rio) Milford A. Cowley, Ph.D. '33, began his career as an educator upon graduating at Wisconsin State Teachers' College in La Crosse. His uninterrupted association with this school spells chairman of the Department of Physical Sciences and Mathematics, promotion to professorship status, and the administration of a department whose personnel, numbers-wise, reflects the growth of the school at large. Its graduates in

chemistry are pursuing advanced work for higher degrees in universities which range, alphabetically, from Alaska to Wisconsin. The science building on the campus of Wisconsin State University, La Crosse, bears the name of a highly respected, dedicated educator and member of the faculty: Milford Alton Cowley.

Some fifty years ago Agnes Challoner Rogers (Mrs. A.J.), B.A. '10 and her husband—a Wisconsin Alumnus, B.S.A. '07—became fruit growers in Beulah, Michigan, on a farm to which they gave the distinctive name of Thrushwood Orchards. Sensing the desirability of having an organization in Michigan's fruit-growing area for marketing its cherry crops co-operatively, they were instrumental in founding an association for this purpose. The venture proved to be highly successful. A grateful community expressed its appreciation to the Rogers family for service rendered. The highway marker there reads Rogers Road.

This 'n' That . . .

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Water Pollution Control Administration, U. S. Department of the Interior—is "doing quite a bit of work" on oil pollution. His prob-

lem stems from the 1967 Lake Michigan oil spill which ruined long stretches of natural recreational facilities in Chicago.

Professor Otto L. Kowalke—he is the oldest emeritus professor at our university—was feted on his 90th birthday, 18 January, 1968, by friends, associates, and former students. He, a Wisconsin alumnus, joined the faculty in 1907 as an instructor and was the chemical engineering department chairman 1915-40. He retired in 1948.

George R. Krsek, Ph.D. '49, has informed us of his change of address to 116 Huntington Bay Road, Huntington, Long Island, N.Y. 11743.

Chemistry Course graduate Clarence J. Krueger, '27, general manager of paint plants for the coatings and resins division of Pittsburgh Plate Glass Industries, has retired after nearly 40 years of service. His association with PPG began upon graduation as an analytical chemist in its Milwaukee plant. He served the company in various production positions until 1941 when he entered the military service as a captain in the U. S. Infantry with overseas assignments in Hawaii, the Philippines, and Okinawa, where he served as a colonel and commander of Group Headquarters of the 13th Tank Destroyer Group. The year 1945 found him back with PPG as assistant director for the company's Ditzler Paint Division in Detroit. His next, and final transfer came in 1949 to its general office in Pittsburgh as production manager of the paint division where, in due time, his responsibilities were gradually enlarged. We understand that he is widely known in the paint industry and that in his active days he had been associated with the Pittsburgh Chapter of the Federation for Societies of Paint Technology.

Superior, Wisconsin, native Vincent P. Kuceski, Ph.D. '50—he served the Department during his last two years of graduate study as a Johnson Foundation fellow—began his industrial career in the employ of the Southern Oil Company in Savannah, Georgia. He is currently director of research with C. P. Hall Company of Chicago.

Announcement was made last September that Robert H. Levin, Ph.D. '41, who had been with the Upjohn Company of Kalamazoo, Michigan, since 1941, had joined New York-based Richardson-Merrill, Inc., as vice president for re-

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Professor J. W. Williams Retires

More than one hundred well-wishers were in attendance May 27, 1968, at a dinner in the Memorial Union honoring the promotion of Professor John W. Williams to emeritus status. Arrangements were in charge of Irving Shain, chairman, and Dr. John L. Oncley, Ph.D. '33, was toastmaster. After listening to tributes from a host of associates and former students, Professor Williams responded.

REMARKS ON RETIREMENT

By J. W. WILLIAMS

My remarks are based upon the assumption that you do not object to hearing something of how I happened to come to Madison and of what I consider to have been two of the high-lights of my University of Wisconsin career. The account begins on April 23, 1921, for it was on this day that I wrote to Professor Mathews, then Chairman of the Department, of my acceptance of an offer as teaching assistant in physical chemistry. So, my association with the Department of Chemistry began in September, 1921. Professor Shain, successor twice-removed of Professor Mathews, has made me happy by his statement that this affiliation is still to continue.

Now, to return to calendar year 1921—why did I accept Wisconsin, rather than offers from two other top-flight institutions to which I had also applied. All I can say is I have always felt there runs a thread of destiny for guidance in each of us. In those early days I had no real basis for opinion or knowledge about the tremendous breadth of interests here, about the caliber of the students, both the undergraduates and graduates who come to Wisconsin, and related things. I was enrolled in a small Engineering College, where actually it was a member of the Department of Modern Languages who told me about graduate programs and why they existed. And where else could I have found and come to know men such as Professor Daniels, Professor Warren Weaver of the Mathematics Department, Dean Charles Slichter and his then Chairman of the University Research Committee, President Emeritus E. B. Fred, Visiting Professors The Svedberg (Uppsala), and P. Debye (Zürich)? It was individuals of high attainment who not only taught me, they set me up in this occupation which is

called scientific research. Too, I made observations of their methods of imparting knowledge to others.

This is it then: there were exceptional opportunities provided and my short-comings in achievement have been solely my own responsibility. I did recognize my limitations, so I took it to be my debt to the individuals I have named to pass on their information to my students. I have had the good fortune to have had a long succession of extremely able graduate students, pretty close to sixty in number, and of talented post-Ph.D. associates, some forty-five in all, incidentally from fifteen countries. I would not know how to go about providing you with the number of both graduates and undergraduates who have been with me in class. In several instances undergraduates were promoted to graduate programs; Dean Bock can tell you about this operation. Well, no mistake was made in this case.

Duty in the physical chemistry laboratory is to me worthy of mention. It was my first assignment in 1921; it was the locale of my last class during the current academic year. It was always such a pleasure to be associated with those students as they performed their experiments, never the more so than on the afternoon of one October 18, 1967. At that time there was not a single absentee in spite of what all of us knew to be taking place in and about Bascom Hall. I have great pride in that laboratory and how it is operated; those of you who have not seen it ought to pay it a visit.

Now I would like to mention two specific items along the way; they are ones not immediately and ordinarily connected with either the normal teaching or the research activity expected of a Professor at the University of Wisconsin. The first has to do with the acquisition in 1936 by the Chemistry Department of an instrument called the

ultracentrifuge. I have mentioned Professor Warren Weaver; he had been my teacher in several courses in mathematics. He left Madison in 1932 to become Director of the programs in the Natural Sciences for the Rockefeller Foundation. He had recognized that by this time there had been produced a whole array of new research instruments by the chemists and physicists. With marvelous perception, he reasoned that with these techniques, along with new general mathematical approaches, the time had come to explore their power to deal with some of the complex problems of living matter. So his Division of the Foundation concentrated upon financing "the friendly invasion of the biological sciences by the physical sciences."

One of the plans was to supply Mr. A. with X-Ray equipment, Mr. B. with electrophoresis equipment and so on down the line, with Mr. W. to be provided with funds for the purchase of an ultracentrifuge. In 1936 he wrote to then Dean E. B. Fred of the Graduate School to inquire what would we at the University of Wisconsin do if we had an ultracentrifuge, pointing out to him that there was a program in the physical chemistry of the proteins already in existence in the Department of Chemistry—Did he wish to enrich this program? But there was a serious problem—it was the rigid position of the Regents of the University to refuse acceptance of the "tainted monies" of any private Foundation, a policy which had been in effect for over a dozen years.

So, Dr. Fred, feeling that he had a good case (complete absence of any solicitation on our part, the further development of researches already in progress, etc.) decided to prepare a test case; we went ahead and with success. In this way there was opened the door to a number of further Rockefeller Foundation grants-in-aid to talented and productive individuals in the Departments of Bacteriology, Biochemistry, Genetics, Physiological Chemistry, etc. for a period of more than a decade and until the U. S. Government agencies came into the picture. Thus, it was the by-product which became significant; the enhanced rate of growth of these existing nuclei meant much for the eventual high rate of development of Molecular Biology on this campus.

The second detail has to do with a World-War II effort. Under a

Committee on Medical Research, OSRD, contract, it became our task to study procedures by which the gamma globulin antibodies could be separated in the large scale fractionation of human blood plasma. It was an endeavor in support of a much larger and more general program centered in the Laboratory of Physical Chemistry of the Harvard Medical School. We read in the official record, "Advances in Military Medicine," of U. S. Government sponsored medical progress made during the war.

"The gamma globulin antibodies that were concentrated in Fraction II, in the best method (Method 3) available at the time the first contracts were made were neither as pure, as stable, nor as high in yield as those achieved by the present process. Work during 1943 and 1944 led to a series of modifications of Method 3 which had as their goal the production of gamma globulin of higher purity in the hope that it could be injected intravenously. . . . In the fall of 1944, new studies were undertaken, both at Harvard and Wisconsin, with the aim of increasing the yield of gamma globulin and isolating a betaglobulin fraction in a more nearly "native" state. Work at Wisconsin led to a simplified procedure (Method 4W) producing a better yield of gamma globulin (Reference to Deutsch, Gosting, Albery and Williams)."

You will understand, of course, that these sentences which have been selected from the record do not provide for proper recognition of the great achievements by the Harvard sub-group under the direction of Professor J. L. Oncley, a Ph.D. student of mine, in connection with separations of the beta and gamma globulins from the blood plasma. We were in close and cordial collaboration throughout the war years.

One may be permitted a certain amount of satisfaction that he could participate in an effort of this kind, for the Method 4W mentioned is even today in pharmaceutical house use in a number of countries over the world, including the United States, for the large scale production of antibody-rich protein preparations. But the point I wish to make is that the effort was typical of a number of our research experiences. As already indicated I have been inordinately blessed with highly competent companions in research, and coopera-

tive efforts with them have been the rule rather than the exception.

To close, then let me say that my membership in the Department of Chemistry over a long period of years has consisted of continued rewarding experiences. With them come now memories of good teachers, colleagues here and elsewhere, and students; and of fine opportunities, including those provided from within, the University Research Committee and the Department of Chemistry; and those from without, Private Foundations and U. S. Government Agencies. To and for all of these, I am deeply grateful. The call to appear here (for that it is) is as well an honor not to be forgotten. Thank you.

Wedding Bells

Barbara W. Brockett, B.S. '68, and Roger Brian Krieger, B.S. '64, after their marriage on June 15, 1968, left for Paris, France. At last report both were associated with the Institute Francaise du Petrole.

Badger chemist Alan Fritzberg, M.S. '68, a 1966 alumnus of Washington State University and Lisbeth Hadden, a graduate of Methodist Hospital School of Nursing, Madison, exchanged marriage vows in Center Lutheran Church, Edgerton, Wisconsin, on 22 June, 1968. Alan was a research assistant to our Professor Wharton. Last August (1968) he and his wife took up residence in Middletown, Conn. where he will continue work toward the doctorate at Wesleyan University.

Chemically speaking, the month of June, 1967, contained two "transition points" for Ruth Ann Goodrich. She became a Badger chemist at Commencement time when our University conferred upon her the Ph.D. degree and a wife when she and John Haines exchanged wedding vows.

Sharon L. Gray, B.A. '60, and Marvin R. Boots, M.S. pharmacy, exchanged wedding vows in December of 1964 in Kansas City. They are living in Richmond, Virginia, where she is employed by The American Tobacco Company in its Department of Research and Development and he is on the staff of the School of Pharmacy of the Medical College of Virginia with assistant professor rank.

Michael Mokotoff, M.S. '63, (Ph.D. '66 in Pharmaceutical

Chemistry) and Bonnie F. Arieff, B.S. '64, exchanged marriage vows on 22 April 1967. They are now living in Pittsburgh where Michael is on the staff of the School of Pharmacy, University of Pittsburgh, with assistant professor rank.

Allegheny College alumna, Jo Ann Molin, Ph.D. '67, and Andrew L. Case, exchanged marriage vows on 6 June, 1965.

Paula Elizabeth Pratt, B.S. '66 (education), chemistry major, and John Henry Lussow, a graduate of Beloit College and the Wisconsin Law School, exchanged marriage vows last August. She had taught chemistry in the Monroe High School (Wisconsin) for a year after graduation. He is a member of the Wisconsin Bar Association and, at this writing, assistant director of development for Beloit College and she is teaching general science in Beloit's Roosevelt Junior High School. Our newlyweds are making their home in that city.

Allen John Sinclair, B.A. '68, claimed as his bride Paula Jean Brown, a Home Economics graduate and a classmate of his, on 16 June, 1968. They are now Californians "by adoption". We understand that Allen is enrolled as a medical student in Stanford's school of medicine and that the Sinclair's have a Palo Alto address.

Karen Ruth Walter, B.S. '65, and Avram Gold exchanged marriage vows on 9 September, 1967, in her home town Methodist Church in Mazomanie, Wisconsin. Karen had been elected to Phi Beta Kappa in her junior year and had spent a year at Philipps University, Marburg, Germany, on a Fulbright Fellowship. Her husband is a 1963 honors graduate of Harvard. Both, at last report, were in Cambridge, Mass., pursuing graduate work as candidates for the Ph.D. degree.

Our Cradle Roll

The latest addition to the Duff Allen, Jr., Ph.D. '60 family is a girl, Tana Joy. Are we correct in stating that she is their third child?

The family of Richard Givens, Ph.D. '67, became a two-girl group with the arrival on 17 September, 1968, of Elizabeth Irene. "Beth" has an 18-month old sister "Barbie".

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Our Cradle Roll . . .

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The R. C. Matcha's, Ph.D. '66, as of 26 November, 1968, became a three-children unit with the arrival of son Stephen. Mrs. Matcha is a former secretary in the employ of our University.

The Michael Mokotoff's, M.S. '63, became the parents of twins, David and Naomi, on 27 April, 1968.

The Richard S. Schneider's, Ph.D. '66, family welcomed the arrival on 13 April, 1968, of their second son. We understand that they are "extremely" happy with their life in sunny California where they settled down and bought a house. The senior Schneider is a research scientist with Synvar Research Institute in Palo Alto.

We have learned that on 5 November, 1968, the Thomas A. Spencer, Jr.'s, Ph.D. '60, welcomed a daughter—she has been named Melinda—to the family circle.

The Robert A. Stenger, Ph.D. '62, family now has three children. Little Cynthia Rene completed the count on 3 February, 1968. Her father is a duPonter.

In Memoriam

Rensselaer Polytechnic Institute alumnus (B.S. '41) Edward M. Bevilacqua, Ph.D. '44, at the time of his passing research associate of Uniroyal Research Center, Wayne, N.J. (his employer when he left our campus was known as U. S. Rubber)—on 2, October 1968. Edward, a physical chemistry major, in his day had received worldwide recognition for his contributions to our knowledge of rubber chemistry and had been editor since 1965 of **Rubber Chemistry & Technology**, a publication of the ACS Rubber Divisions. His wife, the former Ellen Burton, Ph.D. '44, and two children survive him.

Mary V. Buell, B.A. '14, M.A. '15, Ph.D. (biochemistry) '19—she was the first woman to have earned this degree in our university's Department of Biochemistry—at one time associated with several universities (Iowa, Johns Hopkins, Washington University of St. Louis, the University of Chicago until 1960, and our university to which she had returned, upon retirement in 1960, to continue her research activities in the Wisconsin Enzyme Institute in nutrition,

physiological chemistry, medical chemistry—on 18 February, 1969, in Madison. With her passing there came to a close an illustrious career in her life work.

A 37-year association with E. I. du Pont de Nemours and Company, Inc. had ended because of retirement in February, 1968, for Fond du Lac native Harry R. Dittmar, Ph.D. '28. The career for which he had prepared himself came to a close some seven months later on his passing away in Wilmington, Del., on 20 September, 1968, at age 65. He, a three-degree Badger chemist had served Alma Mater for a short time upon graduation. (He had served the Department first as a teaching assistant and then with instructor's rank). He had left du Pont as manager of patents and contracts in its plastics division. We understand that during that association he helped develop the process that made his employer the first U. S. manufacturer of synthetic urea and had pioneered in the research that produced Lucite acrylic resins and du Pont's polyethylene. Survivors include his wife, his son Bruce, M.S. '58, Ph.D. '61 (Penn.).

Chemistry Course graduate, Leonard A. Dobrick, B.S. '37, chief chemist for the Milwaukee Health Department—13 November, 1968, at age 53.

Emil O. Ellingson, M.S. '10, and Ph.D. '12, an educator whose lifetime record spells teacher in a rural school before enrolling at St. Olaf College (B.A. '06); an association with our Department which began in 1906 as an assistant and continued as instructor after obtaining the doctorate; return to the St. Olaf campus upon completing a six-year association with Wisconsin, this time as professor of chemistry. The chairmanship of the chemistry department came soon thereafter. It ended with his retirement in 1952.

Some 70 of his students had gone on to earn the doctorate elsewhere. On two occasions recognitions of the degree of his success in his chosen field came to him: an honorary Sc.D. conferred upon him by Luther College in 1957 and national recognition when he was chosen by the Manufacturing Chemists Association as one of six chemistry professors in the United States cited for outstanding teaching.

He passed away on 10 August, 1968, at the age of 90. Surviving

him are five children, six grandchildren and six great-grandchildren. His wife predeceased him in 1953.

Iowa State Teachers' College alumnus (B.A. '11) Robert W. Getchell, Ph.D. '30—he had served his alma mater for some 40 years with professorial rank—in Cedar Falls, Iowa, Nov. 1967. He had retired in 1949. Among his extracurricular activities was a term as president of the Iowa Academy of Science.

Chemistry Course graduate Catherine Weeks Inganhett, B.S. '32, in her active days chief technician, pathology, of Hahnemann Medical College hospital—in Philadelphia, 1968. The date of her passing was unknown at press time.

Chemistry Course graduate Gene L. Kimpel, B.S. '40—in Milwaukee, Wisconsin, 4 December, 1963.

John A. Montgomery, Ph.D. '19, some-time owner and president of Lakeside Engineering Corporation from which he retired in 1960—on 27 October, 1968, in Denver where he lived out his last years. His wife, two daughters, four grandchildren and three great-grandchildren survive him.

Robert J. Moubry, B.S. '49, at the time of his passing an employee of the Wisconsin Department of Agriculture—2 August, 1968.

Syracuse alumnus (B.S. '19) L. B. Parsons, Ph.D. '23, sometime teaching assistant in the Department, whose career as an industrial chemist began, upon graduation, as an employee of Cudahy where he in time became director of research, a position which he left for one with Lever Brothers Company. At the time of his retirement in 1962 he was a vice-president, research and development, and a director. Among his "extra-curricular" activities were the chairmanship of the Omaha Section, ACS, the presidency of the Association of Research Directors, and an active participation in the affairs of the American Oil Chemists' Society. He passed away on 28 February, 1968, in New York City.

Madison native Homer A. Piper, B.S. (Ch.C.) '14, inventor of a photocopying paper in 1929 while employed as a chemist by Haloid Company, predecessor of Xerox Corporation—16 November, 1968, in Fairport, N.Y. at age 76. His wife, three daughters, and seven grandchildren survive him.

CHEMISTRY IN COLOMBIA

By AARON J. IHDE

In March, a year ago, I became a member of a science advisory team invited by the Agency for International Development (AID) in Colombia, South America. Purpose of the trip was to take a look at science instruction and research in some of the leading Colombian universities in order to advise regarding future directions that assistance should take.

Accompanying me on the trip was Professor William Whittingham of the UW Botany Department. I gave particular attention to mathematics and the physical sciences, Dr. Whittingham to the biological sciences. However, we worked as a team rather than as individuals and were together during nearly all interviews.

Our first days in Colombia were spent in gaining familiarity with the country and its scientific problems under the guidance of Edward Schten, director of higher education activities for AID in Colombia. Dr. Schten was on leave from the UW Political Science Department. The U.S. Embassy in Bogotá made available to us a large amount of documentary material dealing with problems of AID and Dr. Schten arranged background interviews with key people connected with foundations working on developmental problems in Colombia. A month before our arrival there had been a major seminar arranged by AID and the Colombian Department of Education with Dr. Harrison Brown of Cal. Tech. as the principal coordinator. Badger Chemist Carl Djerassi of Stanford University was one of the participants in this symposium. The report of this symposium was particularly valuable since many scientific leaders in Colombia had participated.

The Republic of Colombia received its independence from Spain in 1810 and has been, since that time, traditionally a democratic country. Like most South American countries it has had its political upheavals but it has not had the extreme instabilities that have characterized some other Latin American nations. During the early 50's it was ruled by a dictatorship, but it is now governed by a liberal-conservative coalition which overthrew the dictator in 1956. The area is approximately 440,000

square miles (compare with Wisconsin's 56,000). The terrain varies enormously, coastal flats on the Pacific and Atlantic rapidly rising to mountainous terrain in the high Andes and dropping off to rain forests on the eastern slopes where tributaries of the Amazon arise. The Andes split into three ranges upon entering Colombia from Ecuador. Travel in an East-West direction is difficult and mountain valleys have been isolated in character throughout history. The airplane is the principal mode of transportation and is serving to unify different parts of the country. Bogotá, the capital founded in 1538, is situated in the Andes at an altitude of 8,600 feet. It has a population of 2,000,000.

Coffee is the principal source of foreign exchange, Colombia being second only to Brazil in exports. It makes up 80% of the export trade. Rice, tobacco and cotton are important crops and there is extensive cultivation of cocoa, sugar, wheat, bananas and pineapple. The jungles furnish dyewoods and rubber. Cattle ranches produce large quantities of beef. The country is rich in minerals and in recent years has become a heavy exporter of petroleum. Colombia produces 95% of the world's gem emeralds. Other minerals of some significance are gold, silver, copper, lead, mercury, manganese, coal, iron, limestone and salt. Food processing is the principal industry although there is beginning to be industrial activity in textiles, rubber goods, steel and chemicals.

The people are primarily of mixed Indian-white descent, this group constituting approximately 80% of the population. Ten percent are whites, the families coming originally from Europe and the United States, and 5% each are full-blooded Indians and Negroes. The full-blooded Indians inhabit the jungle areas while the Negroes live primarily in the coastal areas.

Educational opportunities vary immensely in different parts of the country. High schools and universities are available in all of the larger population centers, but in the hinterlands educational opportunities are frequently very minimal indeed. In the more primitive areas schools seldom go beyond the second or third grade level.

Since Roman Catholicism is the official religion of the country, including 95% of the population, the church has a great deal of influence on education. Governmentally operated schools are, however, taking on greater importance at the present time.

There are more than forty educational institutions which utilize the name "universidad" in their title. Half of these have no offerings which are really above the secondary school level. Five kinds of universities are in existence. The Nacional University derives its income entirely from the federal government. The departmental universities derive theirs primarily from the departments (equivalent to states in the U.S.). Municipal universities, Catholic universities and private universities also exist.

Colombian leaders are deeply concerned about the future of education in their country and have been active in a university reform movement assisted by the AID program and private foundations (Rockefeller, Ford and Kellogg). About ten years ago a reorganization began in the principal universities, moving from a European structure where departments were virtually autonomous with respect to faculty, curriculum, and other matters, to an American type of structure where departments are housed within colleges and function as a part of a college activity.

Under the old structure a student entering the university declared his field of concentration and his whole education was completed within that department. Thus, for example, a student who wished to major in chemistry took all of his courses and did all of his work within the chemistry department. He took no work in Spanish, foreign languages, history, general humanities or social studies. To the extent that mathematics and other sciences are essential to chemistry, they were taught by the chemistry faculty. At the same time, chemistry was taught in other faculties such as engineering, medicine and physics for students in those fields of concentration. Under the reorganization, which is taking place, chemistry departments are responsible for all chemistry courses regardless of the professional objective of the student, but the mathematics taken by chemistry students is taught by a math department and physics by a physics department.

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a physics department. Greater attention is now being given to general education and some of the universities require work in Spanish and sometimes even a study of a foreign language such as English. We found mixed feelings among faculties and administrators with respect to the reorganization. Departments formerly had great power over the student, under the new reforms this is lost and the loss is frequently resented. However, the principal universities continue to move ahead with the restructuring program and many educational leaders in Colombia feel the move is in the right direction.

Staffing of departmental faculties is a major problem in Colombian universities. There are too few well educated scientists to enable departments to hire only full-time professionals. As a result, most departments are made up of three types of teachers: 1) reasonably well trained professionals who give their full time to faculty duties (these are generally the department heads and deans who are responsible for administration and teaching upper level courses); 2) full-time faculty members at the equivalent of our bachelor's level who carry heavy teaching loads and are responsible for most of the underclass laboratory and discussion section work; 3) part-time professionals, principally local physicians and engineers, who give lectures in the early morning, late afternoons, evenings and weekends. The latter generally have a professional business which takes the bulk of their time. The departments see very little of such persons despite their heavy involvement in teaching.

As is the case in most Latin American countries, students have a strong voice in curricular policy and other matters. In the past, student power played an important role in keeping Colombian universities in a chaotic state. The principal universities in Colombia have now been giving a stronger hand to faculty and administration. This move appears to be reasonably successful in the universities which we visited, although student strikes are not unknown even in these places. Not only has there been very little freedom for students to transfer credits from one Colom-

bian university to another, it has even been difficult for a student to change his major in midcourse without losing credit for all of the work he has completed.

The principal reason for our visit as advisors was that the AID program and the U.S. foundations feel that the structural reorganization of major Colombian universities is well in hand so they now need advice regarding the best direction to take in stimulating the growth of science in the country. During our stay we visited six universities which are considered most promising for future development. Three of them are in Bogotá: Universidad Nacional is supported by the federal government, Universidad Javeriana is a Catholic university, and Universidad de los Andes is a private institution which has strong support from private sources in the United States. The other three universities which we visited are departmental universities in departmental capitals; Universidad del Valle in Cali, Universidad de Antioquia in Medellin, and the Universidad de Cartagena in the city and department of that name on the Atlantic seacoast. Our original itinerary also called for visits at the Industrial University of Santander in Bucamaranga which is on the edge of the Colombian jungle and in proximity to the petroleum fields near Venezuela. A day before we were to fly to Bucamaranga the airport was closed down for a month because of the rainy season. We were also to have spent a day at the University of Baranquilla on the Atlantic seacoast, but this was called off because of a religious holiday which made it impractical to see anyone.

In addition to these universities, we visited three institutes which play an important role in scientific activities in Colombia. The Institute for Nuclear Energy lies on the outskirts of Bogotá where the Institute is housed in a newly finished laboratory which has a small swimming pool reactor. Dr. Túlio Alberto Mirulanda, is the director of this institute. He has a Ph.D. in physics from Yale and is attempting to surround himself with a small staff of appropriately trained scientists. The Nuclear Institute will also be available for research program initiated by scientists in the various Colombian universities. It is hoped that such programs can be developed and that young men can be trained in

nuclear science in association with nearby National University and other universities of the country.

A visit was also made to the Institute of Technological Research which is housed in new buildings very close to the campus of National University. The director is a native Colombian named Norton Young who received his Ph.D. in chemistry from Yale University. This Institute was created recently by the federal government in order to provide scientific service to industry and government and to encourage applied research, particularly toward the utilization of agricultural and mineral resources. The Institute has a professional staff of 55 people, mostly graduates in science from local universities. They are assisted by 25 technicians whose education terminated at the high school level. The third institute was the oldest and most impressive. This was the Colombian Agricultural Institute which is directed by Dr. Canuto Cardona, who received a Wisconsin Ph.D. in plant pathology under James Walker. We found him to be an aggressive hard-driving scientist who has built up an institute which is on the point of making an impact on Colombian agriculture. Cardona's staff includes 40 scientists who have Ph.D.'s. Some of these are on loan from the United States and are fulfilling two-year tours of duty to help get particular research programs organized. The rest (27) are native Colombians who have taken their degrees in the States and returned to Colombia to work at the Agricultural Institute.

After completing our studies in Bogotá, we flew to Cali, a city of 70,000 people, compared to Bogotá's two million. Cali lies in a beautiful agricultural valley at about half the altitude of the national capital and a much more moderate climate. Beautiful plantations of sugar cane, pineapple and bananas were commonplace. University of the Valley proved to be an energetic institution which is working very hard to develop, not only good medical and agricultural schools, but a good liberal arts college as well. The chemistry department has two men with Ph.D.'s and three more with Master's degrees. The Ph.D.'s are natives of Belgium and England who have chosen to carry on their scientific work in Colombia. The men with Master's degrees are native Colombians who have taken a Master's degree in

the United States. The University laboratories were not as lavishly equipped as those at National University in Bogota, but there was a good deal more evidence that the equipment was being used in instruction and research. We also found that at Cali it was possible for a chemistry major to complete his work in four years, in contrast to National where a five year program was required. The Cali curriculum also provided room for study of language as well as essential math and science.

I was delighted to encounter, in a corridor of the chemistry building, my former student Janet Thompson Kurz, who with her husband was a Peace Corp worker in Colombia. We also encountered Peace Corp workers in physics at Medellin. They are engaged in the introduction of CHEM study and PSSC physics into the preparation of science teachers for Colombian secondary schools. We were deeply impressed by the devotion and achievements of these young people under circumstances which frequently are very trying.

Our itinerary next took us to Medellin which is the capitol of the department of Antioquia. Antioquia is referred to as the Texas of Colombia. It is the most prosperous department in the nation and has an aggressive population which is moving forward rapidly with an industrialization program. The University of Antioquia is the most impressive of the six which we visited. While not as large as National or as well financed, it is a school with aggressive leadership and a desire to move ahead as a foremost educational institution. The university has been most active in reorganization from a departmental to a college system.

The Chemistry Department has two Ph.D.'s and three men with the Master's degree, a situation similar to that at Cali. In addition, they have several men in the States and Europe working for Ph.D.'s. They plan to build a departmental faculty composed entirely of chemists holding higher degrees. It is hoped that within a few years they will be able to start a graduate program at the Master's level and ultimately expand this to a Ph.D. program. Jorge Puerta, the head of the Chemistry Department has a Master's degree from Stony Brook and hopes soon to be able to take a leave of absence to pursue the doctorate in the States. One of the Ph.D. members of the department

is a Belgian, the other is British. Both of them are starting a modest research program.

The College of Arts and Sciences recently moved into well-planned new buildings constructed on a new central campus which is sufficiently large to ultimately include the medical, and engineering, business, and other colleges which are presently scattered throughout Medellin. Thus, this university is becoming one in which the several colleges will strengthen one another.

While at Medellin we participated in a two-day symposium on "The Impact of the Scientific Explosion on Higher Education". In attendance were not only local faculty members but science professors from universities in Bogotá, Cali, Baranquilla, and Pereira. The subject of my first paper was "The Role of the Scientist in the Underdeveloped World", a subject on which I can hardly claim to be an expert. However, the deep interest with which we were received and the eagerness to discuss Colombia's problems made it possible to shed a small amount of light on the subject. Dr. Wittingham dealt with "Recent trends in biological education". Each talk was followed by two hours of questions and general discussion. The whole experience was a unique one since my Spanish is not equal to the rapid fire give and take characteristics of Latinos. My paper was read in English and simultaneously translated into Spanish by a member of the English Department who was born in Panama, but has never spent any time in the United States. His English and his Spanish are both excellent and the facility with which he translated my presentation, which was given from notes, was truly impressive. During the discussion period he would listen to a commentator speaking in Spanish and keep me apprised of what was being said at a rate which was about a half sentence behind that of the speaker.

On the second day of the symposium, I discussed "The changing nature of chemistry and its effects on the curriculum". Dr. Wittingham discussed "Tropical Ecology, an emerging frontier". The formal presentations were again followed by a general discussion period after which recorders reported the general sense of the sessions.

Our flight from Medellin to Cartagena was almost called off as a result of inclement weather. Medellin

nestles in a mountain basin and approach by planes is fairly hazardous. Jets were not being landed that day, but fortunately our flight was on a propeller plane which was able to make a belated landing on its flight from Cali and take us on to Cartagena. Had we been stranded in Medellin it would have been two days before we could have proceeded since the next day was election day. Election day in Colombia is a day which everyone takes with great emotion and great concern. In order to prevent voters from casting ballots in several precincts, all travel is halted.

Cartagena was founded by the Spaniards early in the sixteenth century. Since it was a collection point for silver and gold for transhipment to Spain, the city was walled and heavily garrisoned. We spent election day, Sunday, being shown the sights by a taxi driver who seemed to be well versed on the subject. Even he had difficulty getting us into the old walled city since this was a different precinct than that in which our hotel was situated. The sailors who were guarding the precinct entrance were finally convinced that we were bona fide Gringos who would not cast a ballot and we were given the opportunity to visit the cathedrals and government buildings. We also visited the ancient fortress on the hill outside the walled city and a church at the highest mountain overlooking the city. Cartagena has a warm, pleasant, though slightly humid, climate and has begun to attract American tourists.

The University of Cartagena is a school with deep problems. It is growing rapidly as a result of an exploding population, but financial support for the university is quite inadequate for the job which needs to be done. They have not made progress in reorganization to the American structure and they have not had success in building up a permanent faculty of good quality. Facilities of all sorts were inadequate.

Upon our return to Bogotá our time was spent making revisits to clear up points which had not been fully explored earlier, conferences with state department officials connected with higher education, and preparation of our report for the AID program.

Unfortunately, science lacks a broad appeal to Colombian students at the present. The most popular subjects are medicine and

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engineering since these are financially attractive, with business and law running weak third choices. Medical schools are able to pick well qualified students from among their applicants and this is also true of engineering. Student currently majoring in the sciences are generally of lower ability since they have not been accepted for medical and engineering schools. Up to this point, Colombian scientists have not been able to persuade governmental and industrial leaders that science has much to contribute to the country's welfare. There are signs that this is beginning to change, particularly as a consequence of the activities of AID and the American foundations which have been actively seeking to upgrade scientific activities in the country.

It was our general impression that chemistry and biology are the two strongest sciences in Colombian Universities. Mathematics is spotty with a good mathematics faculty at National University, but weak faculties elsewhere. Physics seems to be universally weak and the earth sciences are virtually non-existent, despite the fact that Colombia has extensive mineral resources which have barely been touched.

Teaching facilities appeared to be limited and of indifferent quality. Science teaching tends to be fact oriented rather than concept oriented. Considerable attention is given to rather obsolete types of laboratory work and subjects are required in the chemistry curriculum which represent outdated techniques and points of view. There is a serious lack of textual and reference material. Spanish texts are available for early undergraduate courses, but are seriously lacking for advanced level science courses. AID is presently supporting an extensive translation project based in Mexico City which is utilizing recommended American texts for translation into Spanish. Some are now available in Latin American countries but most are still in process of translation. As these become available it will be possible to carry out instruction in the native language of the students rather than expecting them to read English texts for their organic and physical chemistry courses as is usually the case at present. Al-

though upperclass students are expected to be able to use English texts, the fact is that their competence is poor. The professor spends his time lecturing on the subject in Spanish since these students are not truly able to master material from the English texts.

Very little research is being done by chemical faculties. In several cases we found expensive instrumentation available in the universities through the generosity of American foundations, but selection of appropriate instrumentation was not good. Other universities had refrained from making unwise purchases, but find themselves seriously deficient in rather ordinary laboratory instruments. We came away with the feeling that many American industrial and university laboratories are probably replacing instruments with more sophisticated models. Such discards, when still in good condition, would be a boon to scientists in Latin American universities if there were a way of passing them on.

We were deeply impressed with the desire of Colombian educators and government officials to bring about an improvement in higher education. They appear eager to move ahead to improve educational facilities at every level, and particularly to encourage development of the sciences. Encouragingly, I recently learned from Dr. Schten that some of our recommendations are being implemented.

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search and that he will have line responsibility for all this company's ethical pharmaceutical research. Robert had joined Upjohn as a research chemist. He, a University of Illinois alumnus, appeared on the Madison scene as a teaching assistant in the Department's organic chemistry division. His career at Upjohn spelled advancement from that of research chemist to assistant director of research in 1958. We understand that he had played an important role in the company in the development of a number of its significant products. He has been transferred to Cincinnati.

Blair Mac Queen, M. A. '23, has sold the family's furniture-and-

funeral business which was founded in 1857 at Oconto, Wis., by his grandfather, W. B. Mitchell. We have learned that he has acquired an interest in the Coronet Motor Hotel in Phoenix, Arizona; that he is serving this company as chairman of its board, and that he has already made an extended winter stay in the "Valley of the Sun".

We have learned that **David M. McQueen, Ph.D. '33**—he is an alumnus of Western Ontario University, class of 1930—has been a Du Pont employee since 1934. His is an association with the corporation which spells a gradual rise from his first position as a research chemist to research supervisor, to laboratory director, to assistant director of the chemical research department, and now director. Our readers of *Business Week* may have seen him pictured in the November 2, 1968, issue of this publication as one of a quartet of research chemists in an article bearing the title, "Where Du Pont Bets on the Future."

In our report on **Ellington M. Magee, Ph.D. '56**, of some nine years ago, we stated that he was a research chemist with Humble Oil in Bayton, Texas. That statement now requires revision upwards. We have learned since then that he has been named senior research associate in the agricultural products laboratory of Esso Research Engineering Company in Linden, N. J.

The appearance of Illinois Professor of Chemistry **Howard V. Malmstadt, Ph.D. '50**—he is a three-degree Badger chemist and former research associate in analytical chemistry in the Department—on the campus as the guest speaker of the Wisconsin Section (ACS) on 15 January, 1969, was, in a sense, the "return of a native". The subject of his address: "Electronic Instrumentation for Chemists".

Robert L. Matcha, Ph.D. '66, at last report is now a member of the chemistry staff of the University of Houston with assistant professor rank.

Chemistry Courseman **Charles R. Naeser, B.S. '31**, is serving the chemistry department of George Washington University, Washington, D. C. as its chairman. Charles earned his doctorate at Illinois.

Justin M. Obi, M.S. '65—he is a former resident of Dinit Sha, Nigeria—now has a new address: Chemistry Department, Wisconsin State University, Oshkosh.

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View of Chemistry Building from Corner of Johnson and Mills



Night View of Main Entrance to New Building

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Organic chemist **Clyde E. Osborne**, M.S. '53, has been a member of the chemistry staff of Long Beach College with professorial rank since 1957. His undergraduate career appears to have been interrupted long enough to have done service in the Armed Forces (U. S. N. R. Lt. j.g.). He earned his B.S. degree (B.S. '48) at U.C.L.A.

We have learned that **Richard G. Peterson**, Ph.D. '66, has been transferred by his employer, Rohm & Haas company, from its Chemicals Division where he was manager of market development in the Coatings Department. In his new work he is now executive assistant to the vice president of the Fiber Division where his duties center on both production and marketing operations of this Division. Richard is an alumnus of Williams College, B.S. '61. He began his graduate studies in the Department as a National Institute of Health fellow.

From **Albert F. Preuss**, Ph.D. '53, came word last September that he had joined IONAC Chemical Company, Birmingham, N. J. as associate director of research. No change in address is involved in this change of employers.

Allen K. Prince, Ph.D. '56, is serving Dow Chemical as research and development manager of its functional chemicals and services department.

Sterling Randall, Ph.D. '68, has left the Wausau Campus of the University of Wisconsin Center System for a position as assistant professor at the University of Wisconsin—Green Bay.

David C. Remy, Ph.D. '59, was born in Waco, Texas; he grew up in southern California; he became a two-degree alumnus of UCLA (B.S. '51 and M.S. '52); and then he came to Madison to begin his studies for the doctorate. (He was 21 before he experienced his first Wisconsin snow-storm and laid the foundation in Madison for his favorite sport which is skating on ice). His studies here were interrupted by a two-year stint in the Army Medical Service Corps in Germany. His first job on his return to civilian life was as a research chemist at Du Pont. Then he returned to our campus to do research in oncology. He served for two years as a fellow in Wisconsin's McArdle Memorial Institute for cancer research. Some six

years ago he left Du Pont for a position with Merck, Sharp & Dohme where, at this writing, he is a senior research chemist. He met his wife on our campus. She was then working for her master's degree in oncology. The Remys are the parents of two children.

Alan K. Roebuck, Ph.D. '48, is now serving Purdue University as an associate professor at its Calumet campus. Alan is a three-degree Badger chemist. His address: R. 1, Scherrville, Ind.

Donald A. Roth, B.S. '40 and Ph.D. '44—he later added a Marquette University-granted M.D. to the list—is head of Renal Service at the U. S. Veterans' Hospital in Milwaukee and, among other duties, serves on the medical advisory committee of the Kidney Foundation of Wisconsin. He is married to the former Marie Mercury, Ph.D. '52, a two-degree Mount Holyoke alumna. Marie's interest in chemistry is still very much alive in that she attends seminars and other scientific meetings when the opportunity offers in Milwaukee or elsewhere. We recently learned that while out east in 1968 she stopped in New York en route to Boston to attend the dinner honoring former Wisconsin Professor W. S. Johnson when he received the Nichols Medal Award.

Jerome F. Saeman, Ph.D. '42, has been advanced by the Forest Products Laboratory to the position of associate Director. He was formerly the chief of the wood chemistry research division, a position which he had held since 1959. His association with the Laboratory began in 1936 while he was a student at Wisconsin. We understand that he has "worked on research" in Germany, India, Pakistan and South America.

It has come to our attention that, after some 27 years with Humko Company, Memphis, Tenn., **William F. Schroeder**, B.S. '38, joined the staff of Archer Daniels Midland Company in Decatur, Illinois. Bill is now the technical director of its Food Products Division. We understand that for him his job is "a challenging opportunity to help put together a group which can make a real mark in the processing of soy beans protein products as well as vegetable oils". A.D.M. is in the midst of a large expansion of its hydrogenated oils processing plants in Decatur and Lincoln, Nebr.

Leonard Shapiro, B.A. '35—he holds also a Brooklyn College-con-

firmed master's degree '39—at last report was an employee of Sun Chemical Corporation and was serving it as an assistant research manager of the pigments department.

Word came to us last June from Korea that **Kung S. Shim**, Ph.D. '65, no longer has an Inchon, India, address, and that he is now an employee of Stauffer Chemical Company. His address: Apt. H. F., 200 Beacon Hill Drive, Dobbs Ferry, N. Y. 10522.

Donald Siehr, B.S. '51, Ph.D. in biochemistry, associate professor at the University of Missouri-Rolla is spending school year 1968-69 on sabbatical leave at the State University of New York—Buffalo.

Frank F. Signaigo, Ph.D. '36, began his industrial career as a research chemist with General Motors. He became a du Ponter upon acquiring Badger chemist status. That association ended some 33 years later with mandatory retirement. He retired as director of research photoproducts department.

Chemistry major **Henry G. Small**, M.A. '67, on acquiring Badger chemist status, elected to continue his graduate studies in the field of the history of science. The Ph.D. degree in this discipline was conferred upon him in 1968. We understand that he is now on the staff of the American Institute of Physics in New York. His address: 335 East 45th Street, 10017.

Robert Spies, Ph.D. '51, has joined the faculty of the University of Wisconsin-Waukesha County Campus with associate professor rank. He is a three-degree Badger chemist, and has had teaching experience on the Milwaukee campus of our University and that of North Dakota. He is one of three faculty members of the Waukesha County Campus who shared in the 1968 Teacher of the Year Award. The award is financed by a \$150 grant from Standard Oil of Indiana which was matched by the school's UWU Student Association. We understand that the students vote the award by naming the best teacher in seven categories: lecture presentation, emphasis on related learning, student-professor relationship, mechanics of teaching, imagination and creativity, exam appropriateness and presentation, and participation in outside activities.

The Karl Folkers lectures for 1968—they were first financed several years ago by a grant from Merck, Sharp & Dohme in honor of



A view of the new library. Two spacious study rooms are also part of the new building.



Portraits of J. H. Mathews and Farrington Daniels look down on the main entrance to the building at Mills Street and University Avenue. Professor Leslie Holt is at extreme right.

James M. Sprague, Ph.D. '31, its Executive Director of Medicinal Chemistry—were given as a series of three by Professor Ronald Bresler of the Department of Chemistry of Columbia University. The theme of the first two was *Studies on Conjugated Systems*; that of the third one was *Reactions in Oriented Complexes*.

Ten years ago we told our readers that Caltech alumnus (B.S. '21) **Alfred J. Stamm**, Ph.D. '25, had retired upon completing a brilliant career in the Federal Service as a chemist in the Forest Products Laboratory on our campus. We also reported that Al had accepted a professorship of wood chemistry in the Forestry Department of North Carolina State College. (It now has State University status). Retirement is again his lot; this time it is mandatory but under conditions which do not necessarily mean rupture of his associations with the university. We have learned that he has received the 1968 Anselme Payen Award of the ACS Division of Cellulose, Wood and Fibre Chemistry. He was cited in this award for his "pioneering and innovative work on the nature, behavior, and improvement of cellulosic materials". We understand that he plans to continue his research on the chemistry of wood but not as a state employee because a state law in North Carolina forbids the use of state university funds upon retirement.

Lawrence Stein, Ph.D. '52, is a member of the staff of Argonne

National Laboratory. He earned his first degree (B.S. '48) at George Washington University, has to his credit a three-year stint in the air force, U.S.A., was associated with the National Bureau of Standards for a brief period, and then enrolled in our Graduate School as an assistant. His association with his present employer reportedly dates from 1951.

Frank M. Strong, Ph.D. '32, spent part of the 1967 summer in Japan where he and a fellow member of his department in Wisconsin's College of Agriculture and Life Sciences attended an International Congress on Biochemistry.

G. R. Svoboda, Ph.D. '60, is serving Freeman Chemical Corporation of Port Washington, Wisconsin, as vice-president, research and development.

Harold Tarkow, Ph.D. '39, has been named chief of the Division of Wood Chemistry Research of the U. S. Forest Products Laboratory in Madison. Harold, a native of Milwaukee and a graduate of the chemistry course in 1934, joined the FPL staff in the early forties, rose from the position of research chemist to that of section head in physical chemistry. He has done, we understand, research in wood-water relationships and reaction of various chemicals with wood, and has demonstrated the possibilities of radio frequencies as a precise method for determining the moisture of wood.

We understand **Bryce F. Tate**, Ph.D. '50, is now a section manager in Pfizer's chemical research

department at its Groton, Conn. plant. His residence address: Route 2, Niantic, Conn. 06357.

At last report **Hugh L. Templeton**, Ph.D. '25, had a Bogota, Colombia, address. His letterhead in 1967 showed that he was taking part in that country's United Nations Development Programme. We understand that he is taking part in this program as a food technologist primarily for dairy products, cashew nuts and "almost anything else that is related to foods". Some of our readers may perhaps recall that Hugh has served India in somewhat the same way back in 1957. He has tentatively set July 1, 1969, as the time of his departure from Bogota for home.

Raymond H. Ten Pas, B.S. '42, is a two-degree alumnus. The first was earned as a chemist, the second as a physician (M.D. '49). Ray is practicing medicine in Palm Springs, California. His address there: P. O. Box 915, 92262.

Chemistry Courseman, '51, **Warren E. Thompson**, on graduation enrolled at Harvard. It was a move which brought him a master's degree in 1953, the doctorate in 1956, a Fulbright scholarship, and a Kamerlingh postdoctoral scholarship at the University of Leyden in the Netherlands. On his return to the States he took a position as instructor at the University of California (Berkeley), left it in 1959 as an assistant professor for a position with similar rank at Cleveland's Case Institute of Technology. That activity ended in 1965

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when he laid aside the props of the educator to become a staff assistant in the Office of International Scientific Activities of the N.S.F. At last report he was living in Arlington, Va.

Donald B. Wetlaufer, B.S. '46, Ph.D. '54 (biochemistry), at last report was serving Minnesota's College of Medical Sciences with professorial rank in physiological chemistry.

Mt. Holyoke's chemistry professor **Kenneth C. Williamson**, Ph.D. '60, and his wife spent three weeks last year in South America on a visit to Ecuador, Peru and Brazil. Their stop in Brazil was made the occasion for Ken's participation in a symposium at Sao Paulo on nuclear magnetic resonance (NMR). We understand that at this writing the Williamsons are enjoying a sabbatical leave in Liverpool, England.

George F. Wittkopp, B.S. '66, is a third-year medical student at Wisconsin.

Is **Gary Alan Zimmerman**, Ph.D. '65, at the University of Ottawa on leave from State University College, Buffalo?

We have learned that Eastman Kodak's **Carl W. Zuehlke**, B.S. '58, —Michigan State University conferred the doctorate upon him four years after he had left the Wisconsin campus as a Badger chemist—has moved up a step with enlarged responsibilities: head of Eastman's newly formed technical services division. Badger Chemist extends a congratulatory hand to Carl.

Addresses Wanted

Byers, Charles M. ----- B.S. '64
 Clifford, Mrs. Malcolm -----
 Eisenhaur, Hugh R. ----- Ph.D. '53
 Enzer, Erica ----- M.S. '50
 Erickson, Donald ----- M.S. '51

Frederick, Louis III -----
 Hoelle, Carol J. ----- B.S. '51
 Jacob, Mrs. Edward J. ----- M.S. '59
 Jones, Russell A. ----- B.A. '20
 Kimoto, Walter I. ----- Ph.D. '61
 Kliggert, Mrs. Eliza-
 beth J. ----- M.S. '61
 Kleber, Eugene V. ----- Ph.D. '43
 Kleber, Eugene V. ----- Ph.D. '43
 Krueger, Arthur C. -----
 Ling, Mrs. Nan-Sing ----- B.S. '56
 Lund, Loren M. ----- B.S. '41
 Monsson, William H. ----- M.S. '25
 Naistat, Samuel S. ----- Ph.D. '44
 Nikles, Otho L. ----- B.S. '45
 Rubin, Harry K. ----- B.A. '36
 Smith, Mrs. Charles, Jr. ----- B.S. '29
 Spensley, James -----
 Swartz, Carl E. ----- Ph.D. '26
 Taylor, Fred L. ----- B.S. '30
 Triller, Ralph E. ----- M.A. '37
 Wasserman, Leonard S. ----- B.S. '35
 Weidner, Ralph ----- B.S. '49
 Wiesler, Donald P. ----- B.S. '51
 Wiggert, Mrs. Djimitri ----- B.S. '56
 Williams, H. S. ----- M.S. '46
 Young, Mrs. Ronald J. -----