

NEWS - LETTER

UNIVERSITY OF ILLINOIS

Department of Mining, Metallurgy and Petroleum Engineering

January, 1963

Miss Hazel Allen Has Resigned

On September 28, 1962, Miss Hazel Allen resigned after giving nearly thirty years of continuous service to the University. Over that span of time, Hazel saw the department grow from a small staff offering a B.S. curriculum in Mining to its present status of 33 full-time academic and nine non-academic employees, with undergraduate programs in mining and metallurgy.

Hazel was born in Urbana, and actually was employed by the University as early as 1924, but spent some years working in Chicago before returning to the University in 1933.

The department has never known such a loyal and devoted servant, and her principal aim was to serve the best interests of the department. When there was work to be done, evenings and weekends just provided more time for Hazel to devote to her tasks.

Outside of working hours, Hazel devoted herself unstintingly to the care of her invalid sister. Following the death of her sister last year, Hazel made her decision to retire. Her plans are not definite now, but she hopes to find an apartment somewhere in the friendly climate of the South, and enjoy a well-deserved, leisurely life.

We are sorry to see Hazel leave, and shall always remember her with great respect and affection.

MATERIALS RESEARCH LABORATORY

The position of the University of Illinois as a leader in solid state research and graduate training will become even more firmly established with the construction of a new Materials Research Laboratory on the campus. The building is now in the final blueprint stage, and construction is scheduled to start this spring.

The Materials Research Laboratory is to be an interdisciplinary effort, allowing scientists from metallurgy, ceramics, physics, chemistry, and electrical engineering to work together and coordinate their individual talents in cooperative studies of the properties of solids. The new laboratory will nearly double the facilities now available for solid state research in the College, and permit a great increase in the number of students able to do graduate work in this field. The new facility is not designed to relieve over-crowded conditions in existing laboratories, but calls for new staff and will represent complete expansion of solid state research.

The building is to be paid for by the University, but the University is to be reimbursed over a period of years by contracts with the Atomic Energy Commission and the Advanced Research Projects Agency. The cost of the MRL will be in the neighborhood of \$5½ million.

The building is to be located east

of Goodwin Street, and just north and across the Boneyard from the New Physics Building. It will be connected with the Physics Building by a two-story interpass to permit sharing of library and lecture room facilities. The Laboratory will be a four story plus basement structure containing 124,000 square feet of gross floor space, with 80,000 available for research laboratories.

The site of the building now contains mostly physical plant shops and storerooms which will be moved to the new Physical Plant Building under construction now near the power plant on the south campus. The design of the MRL also takes into consideration its integration with the existing Nuclear Reactor Building and such future buildings as a Coordinated Science Laboratory and maybe even a new Metallurgy Laboratory someday.

It is expected that about 60 senior scientists will be housed in the laboratory, 50 post-doctorate scientists, 100 graduate research assistants, 36 technicians, and about 10 office and clerical people.

A very large and well-tooled machine shop of about 6500 square feet is planned. Additional area will be provided for such special shop needs as an electronics shop, glass shop, etc. The building will also feature several special research facilities, the major one being a horizontal 3 Mev Van de Graaff accelerator in a well-shielded basement location. This machine will permit important extension of the excellent work in radiation damage already being done at Illinois. Also planned are a cryogenic

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Many Enjoy Alumni Luncheon in New York

This year's Alumni Luncheon, held during the Metals Congress at New York, was highly successful and was attended by 38 staff and alumni. It was a great thrill to see all the old faces again, and recall how these now important executives used to sweat out their metallography assignments. As always, time was too short to visit as long as we all would have wanted.

As most of you know, the department made independent arrange-

ments for the luncheon, although it was listed in the official program. This avoided the problems of high prices, poor room arrangements, and slow service which have been traditional in previous luncheons arranged by ASM with the hotels.

We would appreciate any comments regarding this arrangement before planning a similar Alumni Luncheon next year. Our man in Cleveland, Sam Leber, has "volunteered" to find a suitable place for

us to meet. Another decision to be made is the choice of day on which to hold the luncheon. ASM schedules all alumni luncheons on Wednesday, which has been too late in the week for many. On the other hand, a Tuesday meeting often conflicts with other scheduled luncheons. We welcome any comments which will help us plan a meeting most suitable to the majority.

NEW STAFF MEMBERS

T. J. ROWLAND

Prof. Ted Rowland has been on our staff since September, 1961, and though we are remiss in not having introduced him prior to this time, a description of his activities is appropriate now because his research laboratory is just about equipped and ready for operation. Prof. Rowland is widely known for his research work in nuclear magnetic resonance (NMR) and he expects to continue his investigations with new ultra-sensitive equipment.

Ted did his graduate work at Harvard University, writing a thesis on the application of nuclear magnetic resonance to the nature of solid solution alloys. He became a staff member of the Metals Research Laboratory of Union Carbide in Niagara Falls after graduation in the early 1950's. While at Carbide, he undertook a series of studies of the nature of dilute solid solutions of both copper and silver alloyed with other metals of various valency. His painstaking work resulted in a much better understanding of the nature of electronic screening of foreign atoms in these noble metals.

Part of Ted's training and interest is in both physics and metallurgy. He teaches graduate and undergraduate courses in metallurgy in addition to his research work. His presence on the staff gives us a close tie with the studies of solids being carried out in both the physics and chemistry departments using NMR techniques.

A. E. SCHEIDEGGAR

Prof. Adrian Scheidegger joined our staff as Professor of Petrophysics this Fall. You may recall that Prof. Scheidegger held an appointment as Visiting Professor during the summer of 1961, so he is no stranger to the department. Adrian comes to us most recently from the Univ. of Alberta, where he was associated with the Mathematics Department. He has held previous academic positions at the Univ. of Sydney, Australia and as Visiting Professor at the California Institute of Technology. He has also had experience in the oil industry in Western Canada and with the Seismological Section of the Dominion Laboratories at Ottawa, Canada.

Prof. Scheidegger holds degrees in Theoretical Physics from the Swiss Federal Institute of Technology, Zurich, and in Applied Mathematics from the Univ. of Toronto. He is an internationally recognized authority in the field of geophysics, and has authored outstanding texts in the field; "Physics of Flow Through Porous Media," "Principles of Geodynamics," and "Theoretical Geomorphology." While at Illinois, Prof. Scheidegger will continue his research interest in the physics of the earth's crust.

The Scheidegger's have three children, a daughter, 7, a son, 4, and a baby son, 2 months old.

D. R. FRANKL

Joining the department as Visiting Professor this year is Dr. Daniel R. Frankl, who is on leave from the General Telephone & Telegraph Company. He is teaching Advanced Physics of Metals and using the electron microscope to continue his studies of silicon and germanium surfaces.

Miss Huber Is New Secretary

Miss Marion Huber joined the department staff this Fall as Departmental Secretary. Marion came to us exceptionally well-qualified. She has held secretarial positions in Chicago where she worked for two national advertising agencies and more recently as secretary to the vice-president in charge of pharmaceuticals of the Wander Company.

In the short time she has been here she has impressed us all by the efficient manner in which she has organized and supervised the routine of the office. We are certainly fortunate to have such an exceptional person to fill the vacancy created by Hazel Allen's resignation.

Marion has an apartment on the "Strip," as she calls the somewhat commercialized section of West Springfield in Champaign where she lives. Although new to Champaign-Urbana, some of her family has preceded her here; her brother William is on the staff of the College of Veterinary Medicine, and she has twin brothers in graduate school in Aeronautical Engineering and Plant Pathology.

Staff Enjoys Travel Abroad

Prof. Robert Balluffi presented a paper at the International Conference on Atomic Energy held in Venice, Italy last May. Bob's paper, co-authored with Profs. Koehler and Simmons of the Physics Department, dealt with the nature of defects in pure metals.

In September, Profs. Charles Wert and Robb Thomson presented papers at conferences in Tokyo and Kyoto, Japan. They spent several days in Japan and visited many laboratories and Universities. They also met a number of Japanese scientists and engineers who had either graduated in metallurgy at Illinois or had served on the staff here in research positions. These reunions with former associates were very much enjoyed by Charlie and Robb.

Prof. Paul Beck was invited to give a paper on the electronic structure of transition element solid solutions at the Symposium on Solid Solutions organized by Profs. Friedel and Guinier of the University of Paris. The meeting was held in July at the new campus of the University at Orsay,

outside Paris. After the meeting, Paul visited laboratories and friends at Harwell and Oxford on his trip home.

Prof. Walter Rose is on a year's sabbatical and is at the Plasticite Francais de Petrole in Paris. This is a laboratory which is operated by the government, but is subsidized by assessments made on the French oil industry for the purpose. The laboratory is devoted to research for the oil industry. Walter is accompanied by his family during this year in Europe.

Ronald Odle, a graduate student in metallurgy whose research on nuclear magnetic resonance phenomena is directed by Prof. Wert, enjoyed the opportunity of a student's lifetime in being chosen as recipient of a NSF grant to attend a solid state conference held on the island of Rhodes, Greece, this past summer. The conference was sponsored by NATO, and attended by representatives from all NATO nations. Ron was the only student from the U. S. attending the three week meeting. Prof. Robert Maurer of our Physics Dept., was one of the lecturers.

NEWS ABOUT ALUMNI

Old grad, former colleague, and faithful correspondent from the Northwest, Harry Czyzewski, Met '41, will be General Chairman of the 1963 Pacific Northwest Minerals and Metals Regional Conference in Portland this Spring. Last year's Chairman, Don Anderson, was a '41 grad in Mining. Harry is still putting his professional talents to good use; he's on the Board of Engineering Examiners and supervises the examinations for state registration of professional engineers.

B. C. Person, Met '47, is now a management consultant with McKinsey & Company, 270 Park Ave., New York. Burt came to the Alumni Luncheon during the New York meeting, and was surprised to see some familiar faces.

F. K. Lampson, Met '49, has been appointed Technical Representative, Pacific Coast Area, for Allegheny-Ludlum Steel Corp., with headquarters in Los Angeles.

R. C. Anderson, Met '51, has acquired the Metallurgical Supply Company, a small local business handling supplies and equipment for metallurgical laboratories, to go with his flourishing consulting business. Bob has recently purchased a few country acres outside Houston, Texas, with a running stream and hopes to be building a home there soon.

Ralph E. Herzler, Met '40, is now general manager of Johnson Foil Division, Standard Packaging Corp in St. Louis. He is in charge of a nonferrous foil rolling operation, including laminations to paper and board. Ralph is looking for a man experienced in the foil business, as well as recent graduates to enter the business.

Roy E. Lorentz, Met '39, with Combustion Engineering in Chattanooga, gave the Adams Memorial Lecture to the American Welding Society at the 1962 New York meeting, a considerable honor to Roy. His paper was entitled "Utilization of Quenching and Tempering for Improvement in Properties of Low Alloy Steel in Heavy Thicknesses for Welded Construction."

John E. Bevan, Met '40, and Robert Millhouse, Met '48, are Chief Metallurgist and General Superintendent, resp., of Marion Malleable Iron Works, Marian, Indiana. John's address is R.R. 3, Box 210, Marion, and Bob lives at 806 W. First St., Marion.

Just as we were about to report that L. H. McCreery, Met '37, had changed positions from Technical Specialist at Temco Electronics and Missiles, Dallas to Consulting Engineer (Materials), Unmanned Spacecraft Section, General Electric MSVD, at Valley Forge, Penn., we received a new transfer notice. Mac is now in Houston as Consulting Engineer (Materials) to Defense Systems Department Apollo Support Program. His business address is; General Electric Co., P. O. Box 26287, Houston 32, Texas, and his home address is 3226 Milburn St., Houston.

Stanley L. Channon, Met '51, has changed his business affiliation without leaving Southern California or his hearthside in Riverside. Stan is now Leader, Metallic Materials Section, Aerospace Corp., El Segundo, California.

Roy E. Anderson, Min '52, was on the campus this summer with his family for the first time since graduation, and like anyone else who's been away that long, was amazed at the growth of the campus. Roy is with Humble Oil & Refining in Beaumont, Texas and is now District Production Engineer in the Beaumont District. In his spare time, Roy is chairman of the Spindletop Section, SPE of the AIME, and tries to maintain order in his family of twin daughters, age 10, and sons, 6 and 4. Roy passes on information on the activities of some of his classmates. Warren Holland, Min '53 is with Humble as research engineer at the Production Research Center, Houston. Daryl Gaumer, Min '52, is now an independent oil operator in Kilgore after having spent some time with Shell in Louisiana, Texas, and Oklahoma. Robert L. Pounds, Min '52, was also with Humble for three years after graduation, but resigned in 1955 to accept an assignment in Sumatra with Standard-Vacuum,

and is currently located at Jakarta, Sumatra.

Richard V. Turley, Met '54, has resigned his position with Allis-Chalmers in Springfield, Ill., and is now at Douglas in Long Beach, California as research metallurgist. His new address is: 4591 Suite Dr., Huntington Beach, Calif.

Tommy Ullom, Min '54, has joined the staff of the Mining Department, Missouri School of Mines.

Darryl L. Albright, Met '59, has left his position with United Aircraft at Hartford to return to the academic fold. Darryl is working on his doctorate at Lehigh University, and holding a position as instructor in the department. His current address is 211 Delaware Lane, Allentown, Pa.

Ernst G. Huschke, Met '55, has moved from GE's Evendale plant to a position with Rocketdyne, in the Materials and Processes Sub-Division. Ernie is Supervisor of the Brazing Unit. His home address is 22927 Lull St., Canoga Park, California. Ernie has given us some news of some of his colleagues: Bill Hensley, '49, also from the old Cincinnati group, joined Rocketdyne this Fall, doing research on nickel base superalloys. Robert Kory, '55, is in the Materials Engineering Department at Marquardt. Ken Wilson '56, is at North American's Los Angeles Division.

Paul Shewmon, Met '52, is the author of a McGraw-Hill book just off the press: "Diffusion in Solids." Paul has been very active in this field, and those who have seen the proofs report it to be an excellent presentation. Paul has been granted an NSF Fellowship for study at the Max Planck Institute in Goettingen, Germany. We are all tremendously proud of Paul's accomplishments, and send him congratulations for this twin triumph.

Gerald A. Gegel, Met '60, is a 2nd Lt. stationed at Redstone Arsenal in charge of an instructional section of the Ordinance Guided Missile School. He is taking courses in the extension school of the

More Alumni News

Univ. of Alabama at Huntsville. His address is: 136 Goss Circle, Apt D21, Redstone Arsenal, Alabama.

Jack Sayles, Met '56, sent word announcing the accomplishment of a longstanding ambition, that of an overseas assignment. Jack had been working in Paris on the installation of a gantry furnace for Lindberg. As an added bonus, the family was able to accompany Jack on the trip.

Donald H. Boone, Met '57, is on leave from Pratt & Whitney's Advanced Materials Research & Development Lab and is now on active duty in the Army stationed at Cal Tech's Jet Propulsion Laboratory. Don is working on the high temperature mechanical properties of tungsten. His home address is 1622 Canada Pl., La Canada, California.

James Stanley, Met '52, has a new address: 831 W. Outer Drive, Oak Ridge, which makes him an across the street neighbor of Tom Noggle, '48. Generally, Jim gets recognition in the News-Letter by virtue of the arrival of a new youngster, but it looks like Jim has taken the easy way out this year. Jim is involved in an experiment to make in-pile internal friction measurements on iron-carbon alloys.

Kaye Johnson, Met '58, was back in the Midwest last year at the holiday season on vacation with the family. Kaye is at Los Alamos, where he is working on plutonium alloys and cermet.

George A. Morris, Met '59, remained on campus after his B.S. degree to obtain his master's in nuclear engineering. Following his M.S., George was called to active service in the Army, and has been stationed in Berlin, which he has found to be a beautiful and fascinating city.

Jim Hanafee, Met '58, was married September 1 to the former Miss Doris Rosselet. After receiving his M.S. here, Jim joined the Research Laboratory of International Nickel at Bayonne where his address is 5813 Sandra Circle, Westfield, N. J. Jim is considering returning to graduate studies

at Stanford if he survives the skiing season, and may have a California address in the near future.

Russell Duttweiler, Met '60, is no longer with General Electric at Cincinnati, and has taken a position with Sunstrand Aviation at Rockford, Illinois, where he is working with Bill Leeming, Met '57.

Norman Lindblad, Met '58, wrote last spring that his tour with the Navy would be completed during the summer. Following a tour in the Orient, Norm taught air and photo intelligence in the Naval Intelligence School in Washington. Norm planned to settle in the East, and hoped to be able to continue graduate studies on a part-time basis.

Robert Hinton, Met '61, became a father on December 9 with the birth of a daughter, Ann Lynne. Bob is working in the research laboratory of Universal Oil Products in Chicago, and will present a paper on cavitation before the New York meeting of the NACE in March.

Kevin M. Myles, Met '56, just completed requirements for his Ph. D. degree this month. Mike did his research at Argonne National Laboratory on a cooperative arrangement with the University through the Associated Midwest Universities, after having completed all course requirements on the campus. His research was a study of the thermodynamic properties of solid Fe-V alloys by a torsion effusion technique. Mike plans to stay at Argonne in the Alloy Theory group under the supervision of Mike Nevitt, Met '44. Jim Kerr, Met '52, is also finishing up his Ph.D. requirements this month, and will be leaving soon. Jim's research was a study of the effect of stress on the gamma transformation in iron and Fe-Cr alloys.

George Roman, Min '61, was released by the Army and is now working for Consolidated Coal Company at Fiatt, Illinois..

Lanny L. Richter, Min '62 is employed by Old Ben Coal Corp., at Benton, Ill.

Fire Destroys Eadie Home

Just about a year ago this time of year, the George Eadies returned from an evening with friends to find their home completely destroyed by fire. Their home was located well outside the city limits, and the fire was far out of control before being discovered by neighbors. The home itself was rented and did not represent a personal loss, but all of the contents — furniture and clothing and personal possessions — were totally lost and unhappily, uninsured. Although finding themselves with nothing save the clothes they were wearing, the Eadies could take some consolation from the fact that no one was in the house at the time to be trapped by the fast spreading fire.

Friends, relatives, and neighbors rallied to help the Eadies in this time of need. Of particular help were George's friends in the Optimists Club, who organized the desire of so many people to help. Living arrangements were found and temporary clothes found until the Eadies could get back on their feet.

During the summer, the Eadies moved into a new house at 39 Lang Ave., Savoy. We all have the greatest respect for the courage shown by all the Eadie family in the face of this misfortune.

Material Research Lab

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measurements laboratory, and a high magnetic field laboratory with a superconducting solenoid cryostat and a pulsed high field facility (200 kilogauss, 3.4 millise). A high pressure laboratory will be another feature of the MRL and laboratories for radiochemistry, spectroscopic analysis, chemical analysis, and mass spectrography will be other special research facilities.

Laboratories of particular interest to metallurgists will be the electron microscope laboratory, crystal growing lab, semiconductor preparation, metallography, and a high temperature laboratory. These special facilities will, of course, be in addition to individual research labs which require only normal power and other utilities.

We will follow the growth of the laboratory with close interest, and know you will be anxious to see it develop as you visit the campus in the months ahead.