

NEWS-LETTER

UNIVERSITY OF ILLINOIS

Department of Mining, Metallurgy and Petroleum Engineering

JANUARY, 1968

Scholarship Program Increases Undergraduate Enrollment

From time to time, we have mentioned our concern with the declining undergraduate enrollment in metallurgy. Our enrollment, following national trends, dropped from 98 in 1957 to a low of 58 in 1965.

Two years ago, we began a vigorous campaign to interest more students in metallurgy. There have also been substantial efforts by the professional societies and their local chapters. No doubt many of you have participated in these programs.

Our particular emphasis has involved a strong public relations program in the high schools, based on an expanded industry-sponsored scholarship program. We are convinced that any statement about opportunities in metallurgy is vastly enhanced by the tangible support of the industries whose need for metallurgists is critical.

We have had a very satisfactory response from our friends in industry to support this financial aid program. At this point, we have 21 grants (mostly for \$500 per year) supported by Alcoa, Caterpillar Tractor, Deere & Co., Dow Chemical, Fansteel Metallurgical, Inland Steel, Kaiser Aluminum and Chemical, Olin-Mathieson, Republic Steel, Union Carbide, and Wyman-Gordon. In addition, a special fund for metallurgical education of \$3600 per year, from which miscellaneous grants can be made, has been endowed by Armco Steel, Burgess-Norton, Chicago Bridge and Iron, Illinois Gear, Interlake Steel, Signode Corp., and Union Tank Car Co.

Most of the support is in the form of "grants" rather than "scholarships." This permits us to avoid some of the University restrictions on academic performance and financial need factors. Thus, we can use the funds more effectively for the purpose they are intended — increasing our undergraduate enrollment.

Although this number of grants is substantial, it still reduces to about six becoming available each year as the recipients move through the undergraduate years. To accomplish our desired goals, we need even more support, and ask you to consider how you can help. If your company is interested in a greater supply of graduate metallurgists, speak to the appropriate administrators of your company about instituting a student financial aid program with us. Contact the department (Prof. Wert or Prof. Bohl) about details in setting up such a plan. At the same time, if you know of a young man interested in engineering, don't fail to tell him to contact us about a scholarship.

All indications are that the program has been very successful in the brief period since its initiation. Our enrollment climbed from its low of 58 to 72 in 1966 and was 83 this year. We are receiving many inquiries from high school students about metallurgy — almost an unheard of event in earlier years. High school science advisers and counselors are becoming aware of our program, and are recommending that their students consider metallurgy as a career.

Incidentally, many companies are able to relate their financial aid program to summer employment, and thus achieve a close relationship with undergraduates.

Our enrollment problem is further aggravated by declining enrollments in engineering and increasing admission restrictions. The University has a programmed policy leading to greater emphasis on graduate level education. In line with this policy, the number of freshman admissions is scheduled to decrease in coming years. We must do more than just maintain our share of new students if the metallurgy department is to grow. With your help, we intend that it shall grow.

New Department Alumni Directory

It has been some time since we have been able to compile an alumni directory for distribution. Your response to our letter last Fall has helped us locate a few more "lost" grads, and the annual round of greeting cards has brought in some more recent address changes (much to the dismay of the secretarial staff who had completed typing beforehand).

We are particularly grateful to Carl Weymueller, '49, who is located at American Society for Metals headquarters, for checking our no-address list against the ASM membership file.

We attempt to keep accurate records of our graduates and hope you will continue to keep us informed of your moves. If you see any errors in this list, please let us know so we can change our records.

As you might suspect, our records become increasingly unreliable for earlier graduation classes. For this reason, we have arbitrarily chosen the class of 1920 as the cut-off date for this directory, with apologies for some old-timers who might have been missed for this reason.

Another arbitrary decision was in the manner of presenting the records. We decided to list according to the date of the degree rather than a straight alphabetical listing. This way, one can more easily scan the list to refresh his memory on the location and names of his classmates.

SIXTY AT ALUMNI DINNER

Last Fall's alumni dinner at Cleveland was highly successful as 60 Illini searched through the rain to find the well-concealed restaurant Sam Leber, '47, picked out for us. Next year, no natural hazards are expected for the meeting in Detroit, as we have already reserved the Top-of-the-Flame restaurant, located right down by the convention center.

NEWS

... FROM THE DEPARTMENT

Prof. Fred Wright has taken a leave of absence and is now at the University of Kentucky where he began his duties last September. Fred will be responsible for the organization of a mining engineering program in the civil engineering department at Lexington. This is a new program which resulted from the abandonment of mining as a separate department. Our information is that the Wrights have a rural home in the horse farm country, and the entire family is enjoying life on the farm.

Norman Street resigned as Professor of Mining Engineering last February, and has returned to his native Australia, or nearly so, as he is now teaching at the University at Port Moresby, New Guinea. His wife, Anne, completed her Ph.D. in mathematics here, and is teaching in southern Australia. The Streets hope to remedy this temporary situation which places them about 800 miles apart.

Howard Birnbaum's planned sabbatical in England is definitely on now that the family has found someone to care for their German shepherd for the spring and summer they will be gone. Howard plans to work with Dr. Barnes at Harwell on defects in nuclear materials.

Carl Altstetter also plans to take a sabbatical leave. Carl will spend the summer and fall in Stuttgart, Germany at the Max Planck Institute. He will work with Dr. Erich Gebhardt on gas-metal equilibria. It is hoped that one of Dr. Gebhardt's group will pay a return visit the following spring to our department to continue the cooperation between the two groups.

We now have another level of administration at the University, as the office of Chancellor was created this Fall. President David Henry retains the title of President, but his area of responsibility now concerns the complete U. of I. system, including the Chicago Circle campus. Each local campus has a chancellor as its chief officer. That person on the Urbana campus is Jack W. Peltason. Some of you

may remember him as the former dean of the LAS college here. More recently, he was vice-chancellor at the Irvine campus of the University of California.

Mrs. Hazel Ruffner, who worked in the Associate Dean's office of the Engineering College since 1949 succumbed to a heart attack Dec. 23. One of Hazel's responsibilities was checking records to ensure satisfaction of graduation requirements. Some of you, especially if you had transferred here after work at some other school, will remember her efficiency and fairness in the difficult task of evaluating these credits.

Earl Eckel was chosen as a recipient of a University Undergraduate Teaching Award for the summer of 1967. He won the award for a proposal submitted for the modification and expansion of his course, Design of Engineering Alloys. Earl was granted a summer appointment to develop new materials for this course. Some of you may have been contacted by Earl as a result of his thorough efforts to obtain specimens, case histories, and other examples of materials technology.

Marvin Wayman was invited to attend an interdisciplinary conference on friction and wear this Fall. The conference was sponsored by NASA, and hosted by the Southwest Research Institute. Marvin was asked to present the metallurgical viewpoint on wear of metals and alloys.

Walter Rose resigned as Professor of Petroleum Engineering effective February 28. In recent years, partly due to the declining enrollment in petroleum, Walter's activities had broadened beyond the department's boundaries. He has taught a course in Zetetics, a study of the relationships among all sciences invented by Prof. Joseph Tykociner, an emeritus professor of E.E. This year, Walter held a part-time appointment as a counselor and adviser in the foreign students' office.

Walter announced his resignation to indicate his disagreement with the administration's general attitudes in the area of student relations. Walter has accepted a temporary teaching post at the Technion in Israel, and hopes to find an university affiliation by next Fall.

Charlie Wert, who was announced in last year's Newsletter as acting head of the department following Tom Read's heart attack in September, 1966, has assumed the office in his own right. A departmental committee, appointed by the Dean, reported their confidence in Charlie, and the official designation was approved by the Board of Trustees last March.

Alan Kingery, Eliabeth Schilling, and Rudy Berg of the college publications office have written a book, "Men and Ideas in Engineering" which deals with the first 100 years of the College. Based on a dozen stories of significant accomplishments during these years, it not only provides a history of the College, but also gives a good deal of insight into what engineers and engineering are all about. "Men and Ideas" has been acclaimed by critics from technical societies to the *Saturday Review* for its value in explaining engineering to the non-technical reader. The book is available from the Engineering Publications Office, and is excellent reading for any prospective engineer you might know.

Howard Birnbaum and Marvin Metzger presented papers at the International Conference on Strength of Metals and Alloys in Japan the first week in September.

Charles Wert attended a NATO meeting on Research in Refractory Metals in Sandefjord, Norway the first week in August. He found the meetings good, but, along about Thursday he began to flounder on the steady diet of pickled herring for breakfast.

(Continued on Last Page)

NEWS

. . . . FROM THE ALUMNI

Jonathan Smith, '47, has been elected to the board of directors of Sunbeam Equipment Corporation, Meadville, Pa., a wholly owned subsidiary of Sunbeam Corp. This news is about a year old, but does not detract from the sincerity of our congratulations.

It is with a great deal of sadness that we report the untimely death of Ross Mayfield, '42, last month. Ross, together with a companion, was reported missing while on a duck hunting trip along the Illinois River near Sparland, and found drowned about a week later. Apparently, their boat overturned in a sudden squall, and neither man had a chance in the icy water with their heavy clothing. Ross was a group leader in the Metallurgy Division at Argonne National Laboratory. He is survived by his wife and a son, who would have been with his father had not he been scheduled to take college entrance examinations that day.

We have a report that Eugene Schwetz '51 has been named a vice-president of the Meehanite Metal Company. Gene is in charge of servicing foundries in the United States.

Frank Sorrentino, '47, recently visited the campus after a long absence. Frank is project manager, Ornance Division for National Presto Industries of Eau Claire, Wisconsin. Frank's division has about 3,000 employees.

Bruce Capek, '51, has been appointed to Union Tank Car Company's new corporate office that is to coordinate the company's marketing and manufacturing in the pollution control field. Bruce will serve as assistant to the executive vice-president. He was formerly assistant corporate controller.

Last Spring, the undergraduate students made a plant trip to Indianapolis to see the metallurgical operations at Diamond Chain and GM's Allison Division. Vito Mitkus, '52, was our host at Diamond Chain, and Bob Stusrud, '59, was on hand to greet us at Allison. Bob was recently married, and had

just returned from a honeymoon trip to Mexico.

Dan Weinstein, '57, who was at the Vallecitos Atomic Laboratory in Pleasanton, Calif., is now at General Electric's Nuclear Research Laboratory in Santa Clara, Calif. Dan's research interest is concerned with high temperature nuclear materials.

Paul Shewmon, '52, has accepted a position as Associate Director of the Metallurgy Division at Argonne Lab., where he is working with Mike Nevitt, '44, who is the Director. Paul was formerly professor of metallurgy at Carnegie Tech. Leo Michels, '61, who recently received his Ph.D. from this department, has joined their staff, and will work with Paul on problems associated with swelling in nuclear fuels.

Phil Leighly, '48, was on sabbatical leave this Fall from the University of Missouri at Rolla, and spent his leave at Birmingham University in England.

Harry Czyzewski, '41, has been appointed by the Governor to a second six-year term on the Board of Engineering Examiners for the State of Oregon. Harry, who is president of Metallurgical Engineers, Inc., of Portland, is the only practicing consulting engineer on the nine-member board.

We were very sorry to learn that George Heckman, '41, died of a heart attack last June, in Schnectady, N. Y.

Harry Turner, '49, after many years on the West Coast, has moved to St. Louis, and is chief metallurgist for the McDonnell-Douglas plant there.

Howard Savage, '56, after ten years in the Metallurgy Division of Argonne Lab, has returned to us, and is now doing graduate work in the department. It was a hard decision for Howie and his family after so long an absence to make the transition to academic work (and compensation), but he felt that graduate training was essen-

tial for his progress in the work he was doing at Argonne.

Bob Dreshfield, '54, who is located at NASA-Lewis in Cleveland, has embarked on a Ph.D. program at Case Institute.

Tom Follensbee, '60, is now living at 474 Fox Hill Dr., North, Bloomfield Hills, Michigan 48013. Tom is a service engineer for McLouth Steel Corp. in Detroit.

Dick Forbes, '64, has left United Nuclear and is now chief metallurgist for Merriman, Inc., in Hingham, Mass.

Jim Cost, Ph.D. '62, now with the metallurgy department at Purdue, during the past year bought a large old home near the Purdue campus, and we can imagine his wife is keeping him busy on remodeling projects. Their new address is 421 Robinson, West Lafayette, Ind.

Will Radecke, '62, is now Process Metallurgist with Simonds Steel Mills in Lockport, New York.

Ralph Leonard, '63, has recently joined the staff of Battelle-Columbus, and will work in the Fabrication Dynamics Division with former classmates Bob Wittman, '62, and Vonne Linse, '62. Ralph was with the U. S. Steel Laboratory in Monroeville following his M.S. degree here in '64, and had recently moved to Shell Research Labs in Wood River when this opportunity developed.

Jim Watters, '66, finished his M.S. degree at Stanford where his thesis concerned the effect of shock loading mild steel on the fraction transition. Jim is now at the Homer Research Laboratory of Bethlehem Steel, and plans to enter the Lehigh Business School. Another addition to the staff of the Homer Lab was Bob Hinton, who completed his Ph.D. here last February.

Jim DeChant, '66, completed his M.S. degree in August, and is now

(Continued on Next Page)

More News From The Alumni

with Borg-Warner in Des Plaines. Jim was a first place winner in the graduate division of the Chicago Section-AIME annual student paper contest.

Jim Horak, '58, has just left Argonne Lab to accept a position at Los Alamos, where he will be located in K-Division, Reactor Technology. Jim will be involved in fast reactor fuel development, and is particularly concerned with fundamental studies of radiation damage effects in solids.

Ted Koppenal, '58, has also resigned from Argonne, and is now with Phillips' Aeronautics Division in Newport Beach, California. Ted will be working on the metallurgy of beryllium.

Miguel Garza, '61, completed his MBA program at the University of Pennsylvania's Wharton School, and is back in Monterrey, Mexico. Mike is general superintendent of a new steel and ductile iron foundry of the HYLSA steel group.

Department News

(Continued from Page 2)

John J. Gilman contributed a major article to the special September issue of *Scientific American*. The issue was devoted to materials, and Jack's article was on ceramics.

The department was saddened by the death on July 31 of one of our beginning graduate students, Ryohe Nakamura. Prof. Birnbaum later visited Mr. Nakamura's parents in Nagoya, Japan, to convey our regrets to them. They have presented their son's books to our departmental library as an indication of their gratitude for the sympathetic and personal manner in which the necessary arrangements were completed following this unfortunate situation.

John Gilman attended the Battelle Seminar on Mechanical Properties of Solids held near Seattle in April. Dr. Ron Bullough, who was a visiting professor here a few years ago, was also a conferee at the seminar, and spent a week visiting us again enroute back to England after the conference had concluded.

Dick Haimbaugh, '58, is in the commercial heat treating and induction heating sales business with Induction Heating and Engineering Corp. of Chicago. Dick visited us last year when he was on the campus to check the installation of a new furnace in the Chemistry Department.

Chih-kwong Li, M.S. '65, is now cast house superintendent for Intalco Aluminum Corp., Ferndale, Washington. His wife and two children recently arrived from Taiwan and are busy learning English.

Chitta R. Nanda, M.S. '64 was badly burned in an automobile accident north of Urbana in October, and is now recovering in Madison, Wisconsin where he is doing his doctoral work. He receives his mail at: Room 623 Plastic Surgery Ward, University of Wisconsin Medical Hospital, Madison, Wis. 53706.

John C. Bilello, Ph.D. '65, has accepted a position as assistant professor at the State University of New York at Stony Brook, Long Island, and has resigned his position with General Telephone and Electronics at Bayside, N. J. John is in the Department of Materials Science, and will no doubt exert his influence to pattern their program after the Urbana ideal.

John Marx, formerly a metallurgy staff member here before joining Phillips Petroleum in 1953, was given a full-page tribute in the January 1967 issue of *Petroleum Engineer*. John is now head of Phillips' Production Research Branch. The Marx's sent their son, Jeffrey, back to Illinois for college, and he finished his degree a year ago.

Carl Janis, '58, is now with IBM at Endicott, N. Y., as a staff metallurgist. Carl has begun work on a graduate degree in business.

Prof. Marvin Wayman demonstrated his versatility last August by coming away from the Campaign County Fair with first prize in the men's cookout competition. Marve took one of his mother's old recipes for steak basting, and parlayed it into an award of cash and groceries.

Technology Seminar Offered

A new series of materials technology seminars has been initiated this Fall for our undergraduate and graduate students. The program has grown out of conversations between Stan Paprocki (MS 1947), now manager of the materials engineering department at Battelle-Columbus, and Prof. Bohl, who has spent several summers in Stan's department.

The purpose of the seminars is to acquaint the students with the applications of basic principles to engineering problems and technology. Thus, the series complements the traditional departmental colloquia, which deal almost exclusively with advanced topics in solid state science. Most undergraduates and beginning graduates do not have the background to benefit from the latter programs, nor do they satisfy the interests of the engineering-oriented student. The technology seminar also introduces the student to many materials and processes which he would not normally encounter in the classroom, and acquaints him with the nature of industrial research.

Each week, a speaker from Battelle presents a lecture on topics which have ranged from nuclear materials and radiation damage to explosive fabrication and fiber composites. The lectures have been very popular, and have attracted an average attendance of about 60 students, including materials-oriented students from other departments.

The department is very grateful to Stan, and to Battelle, for the considerable effort which they have given to this project. We hope to continue this type of program in following years, depending on a careful evaluation at the end of this semester.

We do not intend to impose on Battelle in the event such a program is to be continued. Instead, it would be our plan to invite speakers from various industries and laboratories to talk on subjects of current interest. In this connection, we are collecting a list of potential speakers and topics, and would be delighted to receive your suggestions. If you feel your work, or that of any of your colleagues would be appropriate to the aims of this program, we would be grateful to hear from you.