

## SHADES OF HOLLYWOOD!

He doesn't sport dark glasses and beret, but Professor William Berkow qualifies as a top flight movie director and producer. His film has no glamorous actresses and, so far as we know, has not been nominated for an academy award, but has received many favorable comments from educators and people in industry.

Beginning with an engineering drawing and a piece of steel, the motion picture follows a workpiece through turning, boring, milling, drilling and grinding until it finally emerges as a high precision machine part. Each set-up and operation is illustrated and explained with direct reference to its drawing specification. The finished part is then subjected to final inspection to assure its exact conformity to specifications. Conventional machine tools are compared with special automatic machines and tape controlled machines.

Conceived and directed by Prof. Berkow, and produced jointly by the University of Illinois, Urbana, Illinois and Kearney & Trecker Corp., Milwaukee, this is a 16 MM Sound Motion Picture, black and white, with running time of 29 minutes.

The title is "Design for Manufacture" and it may be purchased or rented from: University of Illinois, Audio Visual Aids, 909 South Sixth Street, Champaign, Illinois.

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Professor L. D. Walker is making a remarkable recovery from a severe illness which struck him early in February. Presently at home, and growing stronger with each passing day, Prof. Walker expects to be back teaching next September.

## BOWLING

The I.S.G.E. assembled a formidable array of athletic talent for the recent bowling contest between G.E. students and faculty. The outcome was a rather decisive victory for the students, who were undaunted by threats of retaliation such as being dropped from school, etc. This was the sixth annual tournament and despite the efforts of the faculty to devise a foolproof scoring system, the overall score stands at three wins each. By way of proving that their victory was no fluke, the I.S.G.E. went on to cop top honors in the inter-society bowling tournament sponsored by Engineering Council. The big guns on the student teams are all underclassmen with good averages which portends trouble for the faculty at next year's affair. Some members of the staff have resorted to practicing, but with no visible beneficial results.

## G.E.'S HONORED AT ST. PAT'S BALL

While Engineering Open House will not be until May 10-11, 1963, the annual St. Pat's Ball was held on March 16, featuring Richard Maltby's orchestra. The dance was a huge success and highlight of the evening was the knighting of twelve outstanding engineering students as knights of St. Patrick. Two G.E. students were included in the group, one actually being honored as a Lady of St. Pat. She is Constance J. Mayer, McHenry, Illinois. Connie has played a prominent role in the affairs of I.S.G.E., I.S.P.E., Society of Women Engineers, and Engineering Council, plus numerous other activities, and has maintained an excellent scholastic record.

The other student was Richard A. Miller, Jr. of Morris, Illinois. Dick has served as president of Engineering Council for the past year, is a member of Gamma Epsilon, (the G.E. Honor Society) and I.S.G.E.

Honorary Knight was Stanley H. Pierce, Associate Dean of the College of Engineering, and officially a member of the G. E. staff. We are proud of these people and of the representation they gave us in this outstanding event.

#### NEW COURSE IN PATENTS

Answering a long-standing need, G.E. 282, Introduction to Patent Law, was introduced this semester as a nontechnical elective. The course covers the history and philosophy of the patent system, requirements of patentability, U.S. Patent Office procedure, licensing and assigning of patents, infringements, and a brief look at copyrights and trademarks, plus other pertinent material. One hour of credit is given for the course.

#### PLACEK EARNS PH.D.

Ronald J. Placek, an Instructor on the G.E. staff for the past several years, has had his thesis accepted for a Ph.D. in TAM. Entitled "Elastic Deformation of a Gear Tooth Type Protrusion from a Half Plane," the thesis deals with the determination of stresses and displacements interior to a body when the external stresses acting on its boundaries are given, and presents a procedure for mapping of a gear tooth type protrusion from a half plane to the half plane by means of a rational function.

A native of Chicago, Ron attended Louisiana State University, the Chicago Undergraduate Division of the U. of I., and was awarded a B.S. degree in Mechanical Engineering, with honors, in 1958, at this campus. He followed this with an M.S. in TAM in 1959. He has spent the last two summers teaching in the U. of I. summer programs for technical institute teachers, sponsored by the National Science Foundation.

#### NEWS FROM ALUMNI

Robert M. Fraas, '46, is Head of Engineering Data Control, R & D Division, Hughes Aircraft Co. He has some interesting comments on the question of what

industry expects from the newly graduated engineer. He agrees with Mr. Hutchens (see June, 1962 newsletter) that too many of the "engineering" graduates have not been trained in school to handle engineering jobs, but feels that there are simply not enough people now graduating from the practical type curricula. The emphasis in school is on the theoretical aspect of the field and industry is perhaps making a mistake in trying to fit such people into true engineering jobs. In Mr. Fraas' words, "We in industry must review our specific requirements, recognizing the need for both types, and hire the right man for the job...not any engineering job for any engineering graduate."

Industry and, finally, educators, realize that more young people must be encouraged to pursue careers in the practical fields of engineering. Technical Institutes are a partial answer and will undoubtedly assume an increasingly important role.

Ensign Wendell Whitlow's most recent address was listed as U.S.S. Newport News, a Navy cruiser. After graduation in June, 1961, Wendell took a job with Owens - Corning Fiberglass Corporation, Newark, Ohio, until he was inducted into the Navy. Last summer he was on cruise to Portugal and Northern Europe.

Another Navy man is Ensign Jack Conant, '61, on duty at Pensacola, Florida as a flight instructor. Jack taught G.E. 101 as a senior assistant and rates the experience so gained as invaluable in his present work.

Richard K. VanWeeldon, '61, now living in Evanston, Illinois, recommends that graduating seniors consider teaching as a career. He is an instructor at DeVry Technical Institute.

With the comment, "So far I haven't been asked for engineering skills," 1st Lt. Tom Walker, '60, writes that he is employed by the U. S. Air Force as a fighter interceptor pilot.

An excellent letter from Jed L. Metcalf, '58, describes his work at R.P. Donnelly & Sons Company, Chicago. As a project engineer, his responsibilities include writing of specifications for, procurement of, design of, and installation of printing equipment. The range of equipment and the variety of problems presented are what make his job challenging and satisfying, according to Jed. He feels that General Engineering gave him an excellent background for his work in developing technical studies and reports, public presentation of same, and in business letter writing. He recommends that engineers give serious consideration to working in the printing industry. Jed is attending IIT evenings, working toward an MBA degree.

Adolph John Colombo would like to know where others from the class of 1956 are now located. He holds the position of mechanical-electrical engineer with the U. S. Corps of Army Engineers, engaged in construction of MacAlpine Locks and Dam near Louisville, Kentucky. His address is Box 98, Rt. # 1, Prospect, Kentucky.

Head of the E.H. Pietsch Engineering Company, Consulting Engineers, is Eugene Pietsch, '38, of Des Moines, Iowa.

One of several recent G.E. graduates who have proceeded to the MBA program is Paul Landgren, '58. Paul received his MBA degree last June and is on the administrative Services Staff of Arthur Andersen & Co., Public Accountants.

Russell J. Hurliman, '60, writes of his duties as an electrical engineering assistant in the Human Research Unit, Fort Bliss. Being in the Army permits Russ to engage in a variety of activities such as "building equipment for psychological testing, making cabinets, washing pots and pans, picking up cigarette butts and performing other bits of nonsense."

In Belleville, Illinois, William J. Shive, '41, is Vice President and Sales Manager of the Sterling Steel Casting Co.

"An engineer gone administrator" is how William E. Hamrick, '53, describes himself. He is chief of the Management Engineering Branch of the Joliet Arsenal, Joliet, Illinois. His work is an analysis of management problems rather than strict engineering problems.

The diversity of fields in which G.E. graduates end is further illustrated by John T. Harmon, '48, now an attorney in the firm of Walcom & Harmon, San Francisco, California.

Jon Peacy, '58, teaching mathematics at Warren Township High School, Gurnee, Illinois, inquires about why the College of Engineering doesn't make information available to each graduate regarding requirements for becoming a registered Professional Engineer in Illinois. At present, there is such information given to our students and many G.E. students and staff were instrumental in organizing a student chapter of the Illinois Society of Professional Engineers here at the University last year. (see newsletter, November, 1962.) We can furnish such information to persons who have graduated, upon request.

William Littman, '60, is working for the York Corporation in Chicago as a marketing engineer, training for sales in air conditioning. Bill was also successful in "heir" conditioning, as he and his wife have a new baby girl.

Municipal engineering provides a diversity of duties for Max L. Whitman, '58, Village and Traffic Engineer for the Village of Oak Park, Illinois. Max finds his G.E. background very satisfactory for this type of work and feels more G.E.'s should enter the field.

David Weaver, '61, is working for the Kankakee County, Illinois, Division of Highways. On campus for a recent short course, Dave paid us a visit.

Dennis P. Galle, '58, has been with Commonwealth Edison Co. in Joliet, Illinois, since graduation, and got married last October.

Another visitor was James Sindt, '58, who took part in presenting a program at our I.S.G.E. meeting in December. He is an engineer for the Illinois Bell Telephone Research Laboratories in Springfield, Illinois.

Keeping busy and enjoying it, 2d Lt. Douglas Pihl, '62, is a platoon commander in the U. S. Marine Corps Engineers. He is not, however, a career man and expresses the hope that he can get a job as an engineer with a company that will call for him to travel in Europe or Japan after his discharge in June, 1964.

Maybe we got Thomas Gabbard, '61, confused with his brother in the last issue of the Newsletter. Tom's duty with the Navy has been primarily along the West Coast of the U.S. on the U.S.S. McMorris, a destroyer escort. He has made two cruises to the Far East, including Japan, the Phillipines, Hong Kong, Singapore, Burma, and many other points. He has been on inactive duty with Proctor and Gamble during his time in the service and will start back with P & G upon being discharged this month.

Donald C. Rockholm, '53, is employed as a project engineer in the electrical department of Underwriters Laboratories, and is living in LaGrange Park, Illinois.

#### NEW STAFF MEMBERS

We are pleased to have added to our staff Mr. Morris Scheinman, a man with an extensive background in many phases of construction engineering. Morris is a native of New York City, and attended the City College of New York, from which he graduated cum laude in 1935 with a B.S. in Civil Engineering. The following year, he earned a C. E. (Master's) degree from the same institution.

Mr. Scheinman's professional career has taken him into design and construction of power plants, water supply systems, sewage disposal plants, highway bridges, foundations for multi-storied

buildings and railroads. He was a chief engineer on the construction of the New Jersey Turnpike and many other construction jobs, and served as a topographic engineer for the U. S. Geological Survey in several states. For four years he was a lecturer in structural design for the Cooper Union Alumni Association and has done consulting work as a licensed Professional Engineer in the State of New York. He is a member of the American Concrete Institute.

The likable Mr. Scheinman and his wife, Muriel, have a son, Andrew, age 2 1/2. Mrs. Scheinman has a major in art history and was employed as a guide-lecturer for school children by the educational division of the Museum of the City of New York. Both Morris and Muriel like to draw, and Morris does carpentry work and repairs antique clocks as additional hobbies.

Another "new" name on the active department roster is Prof. R. P. Hoelscher. He, of course, needs no introduction, and has come out of retirement this semester to help take up some of the work load due to Prof. L. D. Walker's illness. From all appearances, Professor Hoelscher is getting a big kick out of being back in the harness.

#### OUTSTANDING G.E.

Jay Lovelace, a senior in G.E., was one of 28 athletes honored as recipients of the annual George Huff award for proficiency in scholarship and athletics. Eligibility is gained by those who have won a varsity "I" and have maintained a scholastic average of 4.0 or better for two consecutive semesters. Jay came to the University from Carbondale, Illinois. He earned his letter in basketball.

#### EARN AND LEARN

Cooperative programs, whereby a student alternates periods of study in school with periods of work in industry, are not a new idea but are apparently

receiving wider attention recently. Two such work-study programs have just been announced for engineering students at the U of I by McDonnell Aircraft Corporation, St. Louis, Mo., and NASA, at the Flight Research Center, Edwards Air Force Base, California. The former is open to freshmen, sophomores and juniors, participants being selected on the basis of scholarship and interviews. High school seniors may also apply and are chosen on the strength of test scores. NASA will consider freshmen only, on the basis of test scores.

The programs are designed to give the students a total of 22 months on the job and 38 months of school with a B.S. degree at the end of the five-year period. Pay during the working periods is at an attractive level and there is no obligation on the part of a student to stay with his employer after graduation. For the very ambitious, night study while working is available under each program.

#### THE EDWARD S. FRASER AWARD

An annual cash award to the outstanding student in General Engineering has been made possible through the generosity of Mr. and Mrs. Edward S. Fraser, Hinsdale, Illinois. A gift of some \$2800 in stock was made by them in December to the University through the U. of I. Foundation with the direction that it be used to provide a gift award to the outstanding student in General Engineering. Selection of the student will be on the criteria of scholarship, activities in technical societies, membership in professional and honorary organizations, achievement in technical writing, faculty evaluation records and all University extracurricular activities. A plaque in the first floor main corridor of the Transportation Building will carry the name of each year's winner. Except for this year, the award will be \$100.00.

Both Mr. and Mrs. Fraser are members of the class of 1939 at the U. of I. While in school, Mr. Fraser was recipient of the Ira O. Baker award as the outstanding student in civil engineering. Presently he is vice president

and a director of the Chicago Bridge and Iron Co.

The Frasers have two children, Mary A., a freshman in LAS, and William T., a sophomore in G.E., at the University.

This gift is serving an excellent purpose and should also serve as an example for other engineering alumni to follow. We earnestly invite all alumni to consider supplementing this fund. All contributions are tax deductible.

#### PROFESSOR TAGUE RETIRES

James R. Tague, a member of the G.E. faculty for the past ten years, will retire in June. This is actually the second time Professor Tague has retired! He previously served 30 years in the U.S. Navy and retired with rank of Captain in 1949.

Born in Japan, the son of Methodist missionaries, Professor Tague received his elementary and high school education in Kentucky. He was then appointed to Annapolis in 1919. He saw service on almost every type of vessel including battleships, destroyers, submarines and aircraft carriers. Mr. Tague was a pioneer in naval aviation, being among the first in that branch of the service to receive his wings.

This time, retirement is permanent, according to Professor Tague. He and Mrs. Tague will move in June to Pensacola, Florida, where they intend to do only as they please, and this will include golf and gardening in large quantities.

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A few items gleaned from "Engineering Outlook," published by the U. of I. College of Engineering Experiment Station may be of interest. Last year the University led the nation in the number of engineering degrees awarded--1,090. We were second only to M.I.T. in the number of doctorates awarded in engineering, with a total of 94. Seventeen doctorates were awarded in math and 74 in physics and chemistry, in that same period by the U. of I.

Last year, the University spent \$31,241,308 on research, a large proportion of which came from outside sponsorship.

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TECHNICIAN NEED SURVEY

Two members of the G. E. department, Christy Murphy and Don Klokkenga, are devoting their efforts this semester to a research project sponsored jointly by the U. of I. College of Engineering, Danville Junior College and the Illinois State Board of Vocational Education. The project consists of a technician need survey for Vermilion County, Illinois, designed to furnish information relative to curriculum development based on what

industry is seeking from its technicians. The survey is also a pilot study which will be of use in determining and improving upon the techniques to be used in gathering such information in future studies. Much of the work being done by Mr. Murphy, who is director of the project, and by Mr. Klokkenga, who is assistant director, involves personal contact with people in industry, both at the management level and the technicians themselves. The basic concern is with getting the information from industry and converting it into the form that a junior college can use in designing its course work for training technicians. A number of people from Danville Junior College and the University of Illinois are assisting with the project. Dr. W.J. Schill, Assistant Professor of Industrial Education, is serving as consultant.

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This is space that we could fill and with the next issue, maybe we will. It all depends on getting news, opinions, criticisms and views.

FROM YOU