

The GEAR of THETA TAU



THE PARTHENON, NASHVILLE, TENNESSEE

FALL 1972

VOLUME LXI

NUMBER 1

THE EXECUTIVE COUNCIL

has authorized a formal plan for

VOLUNTARY CONTRIBUTIONS TO THETA TAU FRATERNITY

by its alumni and other interested persons. These contributions may be by periodic or occasional gifts or bequests.

Specifically, persons may contribute to a "Founders' Memorial Fund" or give "unrestricted gifts." Funds contributed to the Founders' Memorial Fund are to be invested in securities (stocks, bonds, and mortgages) with preference to be given to loans to Theta Tau house corporations for the purpose of building, buying, remodeling, or furnishing chapter houses. One-half of the return on invested funds will be reinvested, and the other one-half will be used as directed by the Trustees (Executive Council). These gifts are not deductible for income tax purposes. Unrestricted gifts will be used in the operation or promotion of Theta Tau Fraternity as directed by the Trustees.

No minimum amount has been set, and all gifts are welcome.

BEQUESTS TO THETA TAU

Bequests to Theta Tau may be made using the following suggested form:

"I give, devise, and bequeath to Theta Tau, national professional engineering fraternity, with its Central Office located at 13 Sona Lane, St. Louis, Missouri 63141, \$..... (or 'the following described property, or securities'), as an unrestricted gift (or 'as a contribution to its Founders' Memorial Fund')."



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FALL 1972

VOLUME LXI NUMBER 1

JAMES M. WALTER, *Editor-in-Chief*

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the Grand Regent speaks

Needed: More Theta Tau Engineers

BY CHARLES E. WALES

Although the present educational system has many critics, teachers point with pride to the high quality of the people who have graduated. During the past one hundred years these graduates have provided leadership for the greatest revolution mankind has ever known. How could anyone quarrel with a system which has done that?

On the surface, this reasoning may appear to be very sound. But is there a cause and effect relationship between the present educational system and the progress we have made? Do the people who hire our graduates give the educational system credit for this rapid progress? Although employers may be generally satisfied with our graduates, they do have some specific criticisms which are pertinent to this discussion.

1. Today's graduate is too theoretical; his belief in theory often excludes the use of practical judgments.
2. He doesn't want to get his hands dirty.
3. He can only solve single-answer (text-book) problems—he can't apply anything to the real world.
4. He has no concept of the economics associated with time.
5. He does not comprehend the necessity of a team effort.
6. He does not know how to identify, define or solve open-ended problems.

Employers not only voice these criticisms, they take full credit for developing the ability of the graduate to solve open-ended problems. And the solution of these problems, after all, constitutes progress. Thus, employers give little credit to the educational system for the progress made.

Of course, many educators disagree with the employers' claim. But there are others

who believe the present educational system does not properly prepare students for a meaningful role in society. Who is right? One way to find out is to examine the characteristics of the students and graduates of our schools. Psychologists have identified four belief systems which can be used to describe the characteristics of people (including students). They define a belief system as a "predisposition to perceive, feel toward and respond to ego-involving stimuli and events in a consistent way."¹ The four systems are:

Type I—The *craftsman*—he is orderly and likes to do things "correctly." Amenable to working in organizations, he accepts the Protestant ethic of hard work and discipline. He follows orders and is a dependable employee.

Type II—The *radical*—he is the antithesis of Type I—against everything for the sake of being against something—the revolutionary type.

Type III—The *salesman*—he is the socially oriented individual, hates to be alone, is susceptible to peer group influences.

Type IV—The *professional*—he has all the capabilities of the craftsman, but he is more likely to exercise his own judgment rather than bow to what is now accepted as "correct." He is a flexible individual who tries many different things socially and professionally. Although he can work with a group, he is much the individualist, open to diverse inputs, a creative decision-maker.

¹ *The Affective Domain, Contributions of Behavioral Science to Instructional Technology*—I. Harvey, O. J., pp. 67-96. Communication Service Corporation, Washington, D.C., 1970.

Now that we know which type of person is most likely to stimulate progress, let's find out if this is the type of person developed by our educational system. How would you describe the students or graduates of this system? Do they work well without direction? Are they responsible and original? Do they insist on understanding the rules they are asked to apply? Do they avoid either-or and good-bad judgments? Are they open to other opinions and consistent about their own? Are they sensitive to subtle cues in their environment and wary of obtrusive clues? Are they flexible when they solve complex and/or changing problems? Do they have a high tolerance for ambiguity and uncertainty? Are they innovative and creative? Are the students or graduates of our schools Type IV professionals? Are they competent decision-makers?

The data gathered by psychologists show that only about 5% of the general population have these characteristics. That may be true for the general population, you tell yourself, but surely the percentage of professionals is much higher in those who graduate from the university. Unfortunately, the reverse is true. The Type IV person represents less than 5% of university graduates. The university not only fails to increase the supply of professionals, it either alters some Type IV's into Type I's or else it does not attract or retain its proportional share of these desirable types.²

Why does our educational system have this negative effect? According to the psychologists, this is a direct result of the teaching-learning patterns used by both parents and the educational system. To develop a Type IV person you must develop an "environment that encourages the student to explore both his physical world and his world of values, to discover new elements and to put them together in his own way without fear of punishment and/or rejection."³ In contrast, most people are educated in an environment that involves a

dictatorial approach, external control, threats, careful surveillance, an avoidance of conflicts, unity of beliefs, the sporadic use of explanation, punishment for rule violation, rewards for behaviors which conform to accepted standards and a push toward social success.

Of course, an engineering education has many of these defects. But, a careful study of what happens in the classroom shows that engineers get the best education available on the college campus. Why? Because engineers learn more about using the decision-making process than any of their con-



Grand Regent Dr. Charles E. Wales, Wayne State '53, is Director of the Freshman Engineering program at West Virginia University. Brother Wales has served Theta Tau as a charter member of Epsilon Beta Chapter, Grand Inner Guard, Grand Outer Guard, and Grand Vice Regent.

temporaries. And it is this ability that makes the engineer such a valuable member of our society.

The same reasoning applies to the Theta Tau experience. The man who is involved in an "active" chapter operation gets invaluable decision-making experience that will help him make a more effective contribution to society throughout the rest of his life. And that is why we need more *Theta Tau* engineers.

²Root, A. A., and Madill, J. W., "After the University Fails," *ERM* magazine of the American Society for Engineering Education, Vol. 3, No. 2, December 1970.

Professional Development: An Assessment

BY JAMES M. WALTER

At the past National Convention, a Professional Development Committee consisting of six student members discovered that before recommendations could be made, some definition of the term "professional development" had to be accepted by all involved. The result of their discussions resulted in the following:



Formal professional development is exemplified in this presentation at one of the Regional Conferences by Brothers Hal Greig and Tom Collins.

"Professional development is the furthering of one's abilities in his chosen technical field and the realization of his responsibilities—both technical and social—to himself, his profession, his employer, and all society.

"One must continue with his professional development throughout his career because of the constant and the ever-increasing technology of engineering and the changing social impact of the engineer's creations. The term . . . by its very nature, instills a different meaning into the mind of every individual; and therefore, is a con-

cept which the engineer cannot be taught but can only be exposed to."

Our Fraternity is a National Professional Engineering Fraternity, founded around basic purposes related to professionalism. It is no surprise that the Interim Long-Range Planning Committee, in its work, has been able to identify the main attribute highlighting the experiences of the Theta Tau student as "participating in a group situation representative of the way one must deal with people throughout their professional lives."

The one underlying common thread to the successful chapter must be the professional development the members experience. Yet the casual observer reviewing chapter newsletters and correspondence would have to conclude that there is no credence in this conclusion. Formal professional development programs appear to be the weak activities of most of our student chapters.

The answer to all this lies in the conclusions of the Convention Professional Development Committee. The common bond of brotherhood as established by our founders has resulted in the growth of an informal professional development program inherent in that brotherhood. Invaluable as this is, graduates of the campus environment have realized and attempted to encourage the formulation of formal professional development programs through the appointment of chapter Professional Development Chairmen. They realized that the level of informal professionalism in a chapter is greatly enhanced by a paralleling formal program of professional development.

With changes occurring in the Fraternity leading to more individual development, less conformity, and less Fraternity formalism; more effort and consideration must be given to changing formal Professional Development programs to meet these demands. Kappa Beta Chapter at Mississippi State University is one of the chapters which has redesigned its program. The description below is an edited version of Brother T. J. Gilbert's report in the January, 1972 "Log" of Kappa Beta.

"The Professional Development Committee (PDC) of Kappa Beta Chapter has attempted to provide the best possible programs that the available speakers at Mississippi State can present, with the least amount of time and trouble. To accomplish the previous aims a few new policies were instigated.

"The first of these policies was a new method of speaker location. In the past the active chapter has from time to time felt that the speakers selected by the PDC were not quite up to par. To alleviate this problem and to get a better and broader source of speakers an early meeting was used solely for the purpose of attaining speaker suggestions. Each active was asked to suggest three prospective speakers that he would be interested in hearing.

"The second new policy was made out of necessity and not to try something out for the sake of newness. This policy involves cutting the work of the committee down to the bare minimum. This was called for because the members of the PDC each had other responsibilities such as additional committee obligations, wives, and duties in other organizations on campus. Due to this, policy committee meetings were rare. The actual work was done at the start of the semester freeing the members except for small, routine chores. And in doing this, two people were able to easily run the committee.

"The third policy instigated this semester was a new means of contacting prospective speakers. Upon the suggestion of previous PDC chairmen, speakers were contacted by telephone in most cases. This method worked well because it saved time and trouble for the PDC as well as the speakers. A custom of phoning speakers prior to the time of the meeting to remind them again of the exact time and place was also started."

Chapter newsletters in this issue highlight ongoing and developing programs, both formal and informal, further evidencing the value of professional development to the members of Theta Tau.

Pope Addresses Music Fraternity

As Secretary of the Professional Interfraternity Conference, Brother ROBERT E. POPE, *Kansas '52*, was invited to be guest speaker at two Regional Conventions of Phi Mu Alpha Sinfonia this fall. He spoke at the Central (Kansas, Oklahoma, Missouri, and Arkansas) Regional Convention in Springfield, Missouri on October 9, and at the Great Plains (Colorado, Wyoming, and Nebraska) Regional Convention in Lincoln, Nebraska on October 10. Phi Mu Alpha Sinfonia is the professional fraternity for men in music.

Brother Pope, Grand Scribe of Theta

Tau Fraternity, heads the Theta Tau Central Office located in St. Louis, Missouri. During his service to the Fraternity he has visited each of the chapters and has attended every Theta Tau Convention since 1950. Brother Pope has been Grand Scribe since 1956 and has been employed full time by Theta Tau since 1959. He is a member of Sigma Tau, Tau Beta Pi, Phi Lambda Upsilon, Omicron Delta Kappa, and the Engineers' Club of St. Louis. He also is an associate member of the AIChE, a senior member of the American Chemical Society, and a registered professional engineer.

Theta Tau Well Represented at PIC Annual Conference

Four Theta Tau's represented the Fraternity at the Annual Professional Interfraternity Conference held May 5-6, 1972 at the Atlanta American Motor Hotel in Atlanta, Georgia. In addition to Grand Scribe Robert E. Pope, *Kappa* '52, who is the Secretary of PIC; Grand Regent Charles E. Wales,



Representing Theta Tau at the PIC Annual Meeting held in Atlanta, Ga. are (l. to r.) Carl Sandlin, *Lambda Beta* '71, Grand Regent Charles Wales, *Epsilon Beta* '53, Executive Secretary Robert Pope, *Zeta* '52, William Griggs, Jr., *Lambda Beta* '73.

Wayne State '53 and two student members of *Georgia Tech*, Brothers Carl W. Sandlin, '71, and William E. Griggs, '73, attended the Conference.

The Annual Conference Session was preceded by an informal Workshop for na-

tional fraternity central office executives on Thursday afternoon, May 4. A variety of matters of mutual interest and concern were introduced by the participants and extensively discussed.

Judge Joseph G. Maddox, *Sigma Delta Kappa*, at Atlanta, President of the Professional Interfraternity Conference, presided at the meeting. The opening session, Friday morning, featured a presentation and discussion on Tax-Exempt Organizations and Foundations by Mr. Walter T. Coppinger, District Director, and Mr. James E. Griffith, of the Internal Revenue Service.

On Saturday afternoon, three simultaneous workshops considered the matters of Fraternity Housing, Dr. Conrad A. Blomquist, *Phi Delta Chi*, of Chicago, Moderator; National Conventions, Mr. Frank J. Brye, *Alpha Kappa Psi*, of Indianapolis, Moderator; and Student Involvement in National Fraternity Affairs, Dr. Charles E. Wales, *Theta Tau*, of Morgantown, West Virginia, Moderator. Condensed reports from the workshops were presented by the moderators when the general meeting reconvened.

Serving at President of the PIC for the year ahead will be Dr. William E. Koch, Jr., *Xi Psi Phi*, of St. Louis. Executive Committee members elected were: Dr. Conrad A. Blomquist, *Phi Delta Chi*, Chicago, President-Elect; Dr. Erwin Small, *Omega Tau Sigma*, Urbana, Illinois, Vice-President; Robert E. Pope, *Theta Tau*, Secretary, and six-year delegate of the PIC to the Interfraternity Research and Advisory Council; Frank J. Brye, *Alpha Kappa Psi*, Indianapolis, Treasurer; and Alan E. Adams, *Phi Mu Alpha*, Sinfonia, Evansville, Indiana, and Dr. James F. Miller, *Alpha Chi Sigma*, Indianapolis, Members-at-Large.



Nashville, Tennessee, will be the site of the Twenty-Ninth Biennial Convention, December 27-30. Headquarters will be the Hilton Inn at the Airport, conveniently reached by airline or highway, just minutes from downtown.

The central location of the headquarters city, together with the fact that there are hundreds of alumni in the area including most of the alumni of the host chapter, Lambda Beta, should swell the attendance. Those within 200 miles of Nashville will be sent details regarding events and reservations. Others may request this information from the Central Office.

Any Convention provides a rare opportunity to become acquainted with members from across the nation and to meet the national officers. This time, those attending will experience some innovations such as a leadership training session and officer seminars as well as athletic competition which will make the Convention most worthwhile and pleasant. Highlight of the Convention, as usual, will be the Convention Banquet,

Friday evening, December 29.

Installed in the fall of 1968, Lambda Beta Chapter, at Tennessee Tech in Cookeville, lost no time in making its presence felt in the Fraternity, winning the Erich J. Schrader Award during its first biennium as a Theta Tau Chapter. It also hosted the Southern Regional Conference early this year.

The city of Nashville, capital of Tennessee, has long been known as the Athens of the South, largely because of the large number of academic institutions which have flourished there. There are now 13 colleges and universities in the city. Of special interest to any Greek letter organization meeting in Nashville is the full scale replica of the Parthenon, ancient Athenian temple. It was constructed in 1879 in commemoration of the city's centennial.

This fall the Grand Ole Opry celebrates its 47th anniversary giving Nashville its fame as country music capital of the nation. It is the second largest recording center in the U.S.

Lambda Beta Hosts Convention



Past GEAR Editor Howe Retires

JOSEPH W. HOWE, Omicron '24, retired from active service as a Professor of Engineering at the University of Iowa in June of 1971, after over 40 years of service on the Iowa faculty, the last 29 of which were in the position of Chairman of the Department of Mechanics and Hydraulics.

When Brother Donald E. Curtis, long-



Joseph W. Howe, Omicron '24, GEAR Editor for 33 years from 1929-1962, has retired from active service as Professor of Engineering at the University of Iowa. While still spending some time at the University, he and Mrs. Howe will be enjoying his retirement by becoming world travelers.

time Grand Marshal and later Grant Regent of the fraternity, left Iowa in 1929 to become head of Mechanics at Clemson College, South Carolina. Brother Howe was called from the University of Illinois, where he was teaching, to fill Brother Curtis' vacancy in the Department of Mechanics and Hydraulics. Brother Curtis per-

suaded him to take over his job as Editor of THE GEAR of Theta Tau as well as his academic position. Brother Howe associated his good friend Paul L. Mercer, charter member of Omicron Chapter and a later Grand Treasurer, with him as Co-Editor of the Fraternity magazine. The two retained this arrangement from 1929-1962, a period of 33 years. In this third of a century, through depression, World War II, and the Korean conflict, the magazine came out on schedule regularly; also, a national directory was published. Part of the credit for maintaining regular publication through these years was the tremendous help supplied by Brother Erich Schrader. Erich had a prodigious memory and he remembered practically everyone in the fraternity from having seen their names published at the time of their initiation. In fact, the listing of names became a GEAR policy because of Brother Schrader's desire to have such a record in his office.

As head of the Mechanics and Hydraulics Department at Iowa, Brother Howe was responsible for the development of a full graduate program in mechanics of solids to complement the existing program in mechanics of fluids. He recruited an outstanding staff which has received worldwide recognition for its research achievements and the outstanding success of its alumni. Brother Howe kept a "Rogue's Gallery" containing the picture, grade record, degree dates, and examining committee personnel on all of the hundreds of graduate students who went through the department in his long tenure.

In April of 1970, alumni and friends gave Professor Howe a tremendous surprise

party. He was invited to go to dinner with a few friends but actually found some 160 people present, many of them alumni from all parts of the United States. In addition to numerous gifts, he was presented with an all-expense paid trip to the next meeting of the International Association for Hydraulic Research to be held in Paris in the late summer of 1971. He also received a bound volume of letters from more than 150 alumni who could not attend the dinner and donations toward the trip from some 60 others. With such a fine beginning, the Howes continued around Europe with stops at Rome, Athens, Switzerland, and England, with an

Aegean cruise up to Istanbul thrown in. That fall, the opening of school found Brother Howe absent from his regular position in the registration setup for the first time in 42 years. He admits that he liked what he was doing in Switzerland at the time considerably better.

Brother Howe continues to occupy an office at the Hydraulics Laboratory in Iowa City, although he is there hardly half the time because of his freedom to travel and both his and Mrs. Howe's freedom from physical restrictions. When he is in his office he finds himself swamped with things to do.

Kalb Elected Into Masonic Order

ROBERT M. KALB, *Ohio State '27*, has been elected and received into the Royal Order of Scotland, an allied organization of the Ancient and Accepted Scottish Rite of Free Masonry. Membership in the Masonic affiliate is distinctly a high honor, there being less than 7,000 members throughout the world. Some of his other Masonic affiliations include Zuhrah Temple, A.A.O.N.M.S.; Demolay Legion of Honor; Grand Council, Order of High Priesthood, State of Minnesota; and Minneapolis Valley, A.&A.S.R., Minneapolis, Minn. (32nd degree K.C.C.H.).

An Electrical Engineer, Brother Kalb also did graduate work in physics and math at both Ohio State and Columbia University. Residing in Minneapolis, Minn., he and his wife have two children and five grandchildren. Prior to retirement in 1969 he was Technical Assistant to the Director of Engineering, Univac Div. of Sperry Rand. He is presently a consultant for Sperry Rand and the Illinois Scientific Developments Co.

Brother Kalb is a Fellow of the American Association for the Advancement of Science and of the Institute of Electrical and Electronics Engineers. His citation on the IEEE Fellow award well depicts the accomplishments of his professional career. It reads



Robert M. Kalb

"For pioneering contributions in real-time information processing applications, and for sustained service to the profession in this field." Brother Kalb is a member of the General Committee for the 1973 International Communications Conference.

Brother Kalb holds eight U.S. and nine foreign patents in his field. He has written many technical articles including a chapter entitled "Packaging for Computer Applications" in *Handbook of Electronic Packaging* published by McGraw-Hill, New York, 1969.

Graves Honored in Shreveport

The Engineering Achievement Award by the Engineering and Scientific Council of Shreveport, La., was recently awarded to JOHN W. GRAVES, *Upsilon '50*. Brother Graves was recognized as having contributed to advancement of society and profession through the field of science and engineering.

A graduate of the University of Arkansas in Chemical Engineering, Brother Graves is presently a Staff Engineer and Administrator of Pipeline Safety for the United Gas Pipe Line Company. He has had numerous assignments with that firm since 1950, including Senior Engineer engaged in evaluating line pipe manufacturing facilities and quality control practices in pipe mills located in Europe and Asia and work in the Corrosion and Pipe Line Design Sections of the General Office Engineering Dept.

Brother Graves has long been active in social and professional activities. He was recently appointed Vice-Chairman, NACE

Technical Practices Committee. He is the Chairman of NACE Technical Practices committee T-10-1.



John W. Graves

Feil Receives Highest Scouting Award

LOUIS G. FEIL, *Kappa '28*, has received the highest award of the Boy Scouts of



Louis G. Feil

America, the Silver Buffalo Award. Presented at the BSA's 62nd National Council Annual Meeting, the award is made annually to a small group of Scouters and public figures for "distinguished service to boyhood" at the national level. Brother Feil joins such notable previous recipients as astronauts Neil Armstrong and John Glenn, and football great Vince Lombardi.

Brother Feil, who is a civilian employee of the Army Corps of Engineers in Colorado Springs, Colo., has been a longtime volunteer Scouter and chairman of the BSA's honor camping society, the Order of the Arrow, since 1960. His list of service for the Boy Scouts includes the posts of lodge advisor, Scoutmaster at three National Jamborees, member of the Executive Boards of three councils, and committee member on numerous national committees.

Alumni Notes

MINNESOTA

GEN. HENRY J. MATCHETT, '33, is a retired Brig. Gen., U.S. Army and lives in Fort Huachuca Bay, Calif.

PHIL J. LAURENCE, '33, is retired and makes his home in Coral Gables, Fla.

KARL H. SOMMERMEYER, '30, is a patent attorney residing in San Diego, Calif.

DON R. JOBINSON, '39, is the Director, Gas and Gas Liquids, Gulf Oil Corp., Pittsburgh.

DR. JAMES M. ROSEN, '61, has the position of Assistant Professor of Physics, Univ. of Wyoming, Laramie.

PAUL P. BARRELL, '71, is presently living in Minneapolis, Minn.

MICHIGAN TECH

N. E. NILSEN, '24, is the Chairman, Great Boulder Mines Ltd., Fimiston, Western Australia. He lives in Mount Eliza, Victoria, Australia.

A. J. PEPIN, '32, is President, A. J. Pepin & Associates, Inc., Automation Consultants, Worcester, Mass. He resides in West Boylston.

COL. DONALD JAY KIENY, '40, is retired from the U.S. Army and living in St. Petersburg, Fla.

EDWARD W. WITCOMER, '40, has moved to Tucson, Ariz. He is the Assistant to the President, Primary Metals Div., The Anaconda Co.

MAJ. VERNELLE T. SMITH, '39, is with the U.S. Army Corps of Engineers, Washington, D.C. and recently completed studies at the Command & General Staff College. He makes his home with his wife, Virginia, in Ft. Leavenworth, Kan.

R. L. WAHL, JR., '42, is a Superintendent, C. F. & I. Steel Corp., Monarch Pass, Colo. He lives in Salida, Colo.

DAVID H. BURGER, '46, is pursuing his doctorate in economics. Brother Burger is living in Barrington, Mass.

HARRY C. "BILL" FOOTE, '49, has the position of Chief Design Engineer for Climax Molybdenum Co., Golden, Colo.

KAY A. SIMONER, '50, is the owner of Century Engineering Co., St. Joseph, Mich.

DONALD M. GERREY, '53, lives in Fraser, Mich., and is the Chief, Program Development Branch, Corps of Engineers, Detroit.

NORMAN E. PIETICH, '55, is a Resident Construction Engineer for the Iowa State Highway Commission, Sioux City, Iowa.

JOHN H. BAYKO, '37, is employed with White, Hord & Impey, Ltd. and resides in Whitehorse, Yukon Territory, Canada.

ROBERT MARCO, '61, is a Research Coordinator for the St. Paul Companies, Inc., and lives in St. Paul, Minn.

THEODORE W. RUONAVAR, '62, is a supervisor of Plant Engineering for Ford Motor Co., St. Paul, Minn. He lives in Burnsville, Minn.

EUGENE R. WELKOWSKI, '68, is a Plant Engineer with Dow Chemical Co., Midland, Mich. His mailing address is Auburn, Mich.

DOUGLAS A. DAVIES, '69, is a graduate student in electrical engineering at Michigan Tech.

COLORADO MINES

ELMER R. WILFLEY, '14, is President, A. R. Wilfley & Sons, Inc., Denver, Colo.

HAROLD E. MUNN, '17, is a retired Consulting Mining Engineer living in Santa Cruz, Calif.

THOMAS G. FOULKES, '22, is retired and now living in Bethlehem, Pa.

V. L. MATTHEW, '26, is now a mining consultant after retiring as Vice President, Kerr-McGee Corp. He resides in Estes Park, Colo.

J. L. RORDON, '31, is a Senior Vice President, Home-Stake Production Co., Tulsa, Okla. His mailing address is Tucson, Arizona.

ERWIN D. BEERER, '47, has moved to Morenci, Ariz. He is employed by the Phelps Dodge Corp.

JOHN D. McIVER, '50, is Refinery Superintendent with Magna Copper Co., San Manuel Div., San Manuel, Ariz.

DAVID R. COLE, '52, has the position of Secretary-Manager of the Colorado Mining Assoc. He lives in Lakewood, Colo.

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R. J. HORN, '54, is the Manager of Economics Analysis with the Southern California Gas Co., Los Angeles. He lives in Whittier, Calif.

GARY E. BURTCHALL, '64, holds the position of Petroleum Engineer with Union Oil Co. He resides in Anchorage, Alaska.

FREDERICK W. FAIRBANK, JR., '66, is a Lt. in the U.S. Army. He lives in Lakewood, Colo.

KENRICK A. C. FUCHS, '68, is employed by Dow Chemical Co., and lives in Arvada, Colo.

JAMES S. ROBBINS, '68, is a Sales Engineer with Joy Mfg. Co., Denver Equipment Div.

P. MICHAEL CLAIBORNE, '71, is a Production Engineer with Cities Service Oil Co., Brownfield, Texas.

CASE-WESTERN RESERVE

LYDD A. COLLIER, '14, is living in retirement in Kaneohe, Hawaii.

WM. P. VON BEHREN, '25, retired May, 1967 as Executive-General Manager, General Electric Co. He lives in Fairfield, Conn.

DR. KENT R. VAN HORN, '26, resides in Pittsburgh, Pa.

NYAL W. DEEMS, '41, owns and operates three travel agencies within 45 miles of the Charlotte, N.C. airport. Brother Deems resides in Statesville, N.C. and has six children, ages 12 to 34.

DAVID H. BUENKEL, '47, lives in Newtown Square, Pa.

HUGO H. BORNEMAN, '50, is Manager, LHA Product Integration, Litton Ship Systems, Pascagoula, Miss. He lives in Mobile, Ala.

CAPT. WILLIAM T. JONES, JR., '55, is a Systems Analyst, OCAMA/MMERP, Tinker Air Force Base, Okla.

JAMES R. MISCH, '68, is an Applications Engineer with United Detector Technology, Santa Monica, Calif. He lives in Torrance.

SGT. MICHAEL L. KOWNACKI, '69, is in Air Force Intelligence stationed at Offutt Air Force Base, Nebr.

JAMES W. JOY, '70, lives in Cleveland Hts., Ohio.

WILLIAM G. MAY, '71, has completed active duty training in the Army National Guard. He is a Staff Chemical Engineer at Procter and Gamble Co., Cincinnati, Ohio.

EDWARD J. TATMAN, '71, is a graduate student in electrical engineering at Rensselaer Polytechnic Institute. He lives in Chagrin Falls, Ohio.

RICHARD L. FLASHING, '72, is a Plant Engineer with Babcock & Wilcox Co., Beaver Falls, Pa. He resides in Canton, Ohio.

WILLIAM E. HAMILTON, '72, is pursuing his M.B.A. at Babson College, Babson Park, Mass. He is living in Kirtland, Ohio.

RAYMOND C. HASERODT, '72, lives in Novelty, Ohio. He is an engineer with Haserodt Machine and Tool, Inc., Cleveland.

KENNETH E. MARBRAUGH, '72, is an Associate Sales Engineer for Diamond Power Specialty Corp., Lancaster, Ohio. He was married on July 15.

THOMAS OTERCHAL, '72, was recently drafted into the U.S. Army. His permanent home is in New Brighton, Pa.

JACK L. SMITH, '72, lives in Johnstown, Pa., and is a member of Bell Laboratories Technical Staff.

JAMES F. SORDER, '72, currently resides in Lyndhurst, Ohio. He is an Associate Engineer with Gould Ocean Systems, Cleveland.

CALIFORNIA (BERKELEY)

DR. FRANCIS E. VAUGHAN, '17, is President of the VEMCO Corp., Pasadena, Calif. He recently completed a book, "Andrew C. Lawson, Scientist, Teacher, Philosopher."

V. A. BRUSOLO, '20, is a Resident Engineer with the U.S. Government GSA. He makes his home in Tucson.

THOMAS W. KOCH, '24, is a retired Geologist currently making his home in Santa Rosa, Calif., with his wife, after eight years of retirement in Reno.

W. G. DONALDSON, '25, makes his home in Berkeley, Calif.

LAWRENCE L. TAPOR, '26, is an Engineering Geologist with Woodward-Lundgren & Assoc., Oakland. He lives in San Francisco.

DR. JOHN C. HAZARD, '28, is a consultant residing in Hudo City, Calif.

HENRY J. CAWELL, '37, is employed by Standard Oil Co. of Calif., and lives in Fullerton, Calif.

GEORGE J. BARNETT, '39, is a Senior Engineer with C. F. Brown & Co., Alhambra, Calif.

E. ALLEN McCURE, '39, is the Manager of Oil and Gas Prod., W. Kidley Wheeler Est., Fort Worth, Texas.

E. B. BUSTER, '40, makes his home in Santa Ana, Calif. He is Executive Vice-President, Townsend Company-Division Texttron, Inc., Santa Ana.

DR. WILLIAM A. BREWER, '53, is Vice-President of the Range Engineering Co., Albany, Calif.

HENRY W. COIL, JR., '54, is owner and Vice-President of Tilden Constructors, Inc., Riverside, Calif.

JAMES A. TAYLOR, '59, is now living in Encino, Calif. He was medically retired from the USAF in 1970, and is now an Instructor and Staff Gemologist at the Geological Institute of America, L.A.

JAMES MARLOW CHRISTENSEN, '69, is Asst. to Director of Biomedical Engineering at Cutter Laboratories, Berkeley. He resides in Foster City.

HARRY M. NICHANDROS, '69, is an engineer with Water Resources Engineers, Walnut Creek, Calif.

KANSAS

RALPH M. KING, '25, is retired and living in Stuttgart, Arkansas.

D. A. MCGEE, '26, is Chairman and Chief Executive of the Kett-McGee Corp., Oklahoma City.

PRESTON A. COLE, '36, is a self-employed Geological Engineer Consultant. He lives in Oklahoma City.

VICTOR A. KOELZER, '37, is retired from the U.S. Govt. as Chief Engineer of the National Water Commission. He is currently Professor of Civil Engineering at Colorado State University. He also will be doing independent consulting.

J. B. LADD, '49, is President of Ladd Petroleum Corp., Denver.

ROBERT F. BRUCE, '55, resides in Overland Park, Kansas. He is Transportation Planning Engineer for Howard, Needles, Tammon & Beigerdt, Kansas City, Mo.

D. G. FINE, '55, is Environmental Engineer for Phillips Petroleum Co., Bartlesville, Oklahoma.

WILLIAM E. FRANKLIN, '57, is Senior Environmental Economist at Midwest Research Institute, Kansas City, Mo. He lives in Prairie Village, Kansas.

PAUL T. HETHERINGTON, '70, has accepted a position with Cerna Military-Twin, Wichita, Kansas. He resides in Wichita.

ENGIN. ANDREW D. RUSSELL, '70, is an Aviation Maintenance Officer in the U.S. Navy and is currently on tour of duty in Rota, Spain.

STEPHEN ELLIS FIEDSCH, '71, makes his home in Merriam, Kan. He is an Engineer with Black & Veatch Engineering, Kansas City, Mo.

LESLIE D. McCULLY, '72, is Plant Engineer for Kansas Power and Light Co., Lawrence. He makes his home in Leocompton, Kan.

DAVID RUSSELL WOOLLEY, '72, is an Electrical Engineer with Kansas University-Bureau of Child Research, Lawrence. He lives in Overland Park.

MIT

LUIS M. NELSON, '25, is retired and living in Evanston, Ill.

COLUMBIA

DR. FELIX E. WORMSER, '16, is self-employed in the mining profession. He resides in Connecticut.

ROBERT K. BOGARDEN, '41, now lives in Ramsey, N.J. He is the Director, Public Buildings Service, U.S. General Services Administration in New York, New York.

WILLIAM VERMEULEN, '41, has moved to Morrison, Ill. He is the Manager-Switch Engineering, Appliance Control Products Dept., General Electric.

HARRY W. FRETT, '46, is a Purchasing Agent for the Aluminum Co. of America, Pittsburgh, Pa.

HOWARD L. FRIESE, '63, is a Marketing Manager with Luwa Corp., Charlotte, N.C.

DR. LAIRD WHITEHILL, '65, has received his doctorate from Cornell University in Astronomy. He resides in New York City.

ROBERT A. BORNFRIEND, '66, resides in Norwalk, Conn. and is employed as a Chemical Engineer with American Cyanamid Co., Stamford, Conn.

TA M. LI, '69, has been promoted to Truck Haulage Foreman at Kennecott Copper Corp.'s Bingham Canyon Mine. He lives in Salt Lake City, Utah.

KENNETH M. KRISHER, '70, is a Biomedical Engineer at The Mount Sinai Hospital, New York. He lives in Jamaica, N.Y.

CHESTER LEE, '70, is pursuing his M.B.A. at Columbia University.

VICTOR LEE, '70, is living in Jackson Hts., N.Y. while pursuing his M.B.A. at Columbia University.

THE GEAR OF THETA TAU

ARTHUR DUANG, '71, is a graduate assistant in computer science at St. John's University, Jamaica, N.Y. He lives in Floral Park, N.Y.

RICHARD HONG, '71, is a Flight Test Engineer with Grumman Aerospace Corp., Calverton, Long Island.

JOHN S. HORVATH, '71, resides in New York City.

IRA KASTENBERG, '71, is a student at the Upstate Medical Center, Syracuse, N.Y.

RICHARD S. WESTIN, '71, is a high school mathematics teacher in Manasquan, N.Y.

MISSOURI AT ROLLA

JAMES L. FAULKY, '25, is retired and living in Jefferson City, Mo.

W. IRWIN SMOKE, '26, is a Professor Emeritus of Civil Engineering, University of Pittsburgh. He is living in Boca Raton, Fla.

K. K. NEAL, '30, is self-employed and residing in Sarasota, Fla. He has semi-retired.

WARREN HEILIC, '31, is Vice-President, A. K. Graft & Assoc., Consulting Engineers. He makes his residence in Hoytston, Ill.

BERNARD J. GROSS, '35, is President, Sofec Co., Houston, Texas.

ROBERT L. FISHER, '36, is a Senior Engineer with Valve Engineering Co., Alexandria, Va. He resides in Washington, D.C.

RAY E. HOFFMAN, JR., '39, lives in Sparta, N.J., and is a Project Engineer with Picotiny Arsenal, Dover.

A. E. RHODES, '39, is the Vice-President, Public Service Co. of New Mexico, Albuquerque.

R. KENT COMANN, '43, is a Production Engineer with Johns-Manville, Denver.

RAYMOND O. KAYEN, '45, is Manager-Application Engineering, Armco Steel Corp., Kansas City, Mo.

GLENN L. STALEY, JR., '44, is an Instructor in Civil Engineering Technology, Vocational Technical Institute, Southern Illinois University, Carbondale.

JAMES W. SNIDER, '47, is an Exploration Manager with Cardinal Petroleum Co., Denver. He now lives in Denver.

RICHARD J. STEGEMEYER, '50, is Vice-President, Union Oil Co. of California located in Singapore, Singapore.

W. M. AMBLEY, '54, is President, A.M.A. Oil Co., Casey, Ill.

GUNTHER A. HELM, '56, is a Lt. Col., HQ Dept. of the Army, Washington, D.C. He resides in Springfield, Va.

J. R. WYATT, '61, resides in Grandview, Mo. and is a Field Erection Engineer with Smith and Loveless Div. of Ecodyne.

DENNIS G. DREYER, '64, is President, U.S. Nuclear, Inc., Oak Ridge, Tenn. He lives in Knoxville.

DR. ALAN D. ZUNKEL, '64, is a Senior Research Engineer, St. Joe Minerals Corp., Monaca, Pa. He resides in Aliquippa.

DENNIS G. HEDLER, '70, is a Project Engineer with J.L. Simmons Construction Co., Carbondale, Ill. He lives in Carbondale.

ROBERT M. CRANMER, '71, is a Production Manager with Charmin Paper Co., Div. of Procter and Gamble, Cape Girardeau, Mo. He lives in Jackson.

ILLINOIS

CHARLES H. DODGE, '24, is retired and lives in Knoxville. He is a former Superintendent and Mining Engineer with U.S. Steel and the U.S. Bureau of Mines.

J. C. HAPPENNY, '24, is retired and residing in Fort Lauderdale, Fla.

GEORGE W. ROBINSON, '24, is retired and living in Spruce Pine, N.C.

HOWARD E. BUTTERS, '25, retired, is living in Fort Lauderdale, Fla.

GERALD F. PAULEY, '27, has retired from Monsanto Co. He lives in Chesterfield, Mo.

L. G. LEUTWILER, '29, lives in St. Louis, Mo.

CHARLES S. MONNIER, '38, is a Division Engineer with the Federal Highway Administration, Springfield, Ill.

UTAH

GEORGE M. JONES, '27, is a self-employed Consulting Mechanical Engineer in Salt Lake City.

ROBERT F. SCHEIDER, '28, has retired from The Mountain States Telephone and Telegraph Co. He is living in Evergreen, Colo.

ELTON W. PACE, '30, is President, Pace Industries, Salt Lake City.

LT. COL. **FREDERICH D. CORNER**, '41, is an Educational Advisor with the U.S. Army, Fort Bragg, N.C. He resides in Fayetteville, N.C.

KING HICKLEY, '47, lives in Bellevue, Wash. He is a District Engineer with Westinghouse Electric Corp., Seattle.

RICHARD P. SORENNEN, '53, lives in Salt Lake City.

CLARKE B. LIUM, '36, is a Business Analyst with Connecticut General, Salt Lake City.

RALPH B. HODGES, '57, is a Division Engineer for Utah Power & Light Co., Salt Lake City Division.

R. H. SIMONS, '57, is an Industrial Engineer with Kennecott Copper Corp., Salt Lake City.

GLEN J. ANDERSON, '69, is a Structural Designer with Devenco, Inc., Salt Lake City. He resides in Bountiful, Utah.

ALABAMA

PAUL M. SPEAKE, '27, lives in Birmingham, Ala. He is Vice-President, Davis, Speake & Assoc., Inc., Architects and Engineers, Birmingham.

R. B. BISHOP, '33, is retired and residing in Foley, Ala.

WILLIAM T. SUTE, '40, is Engineering Manager, Chicago Bridge & Iron Co., Oakbrook, Ill. He makes his home in Western Springs.

VINCENT D. LAURIA, '47, lives in Jericho, N.Y. He is Director of Manufacturing, AIL Division, Cutler Hammer Inc.

J. R. HUMPHRIES, '49, is employed by C. F. Braun and Co., Alhambra, Calif. and lives in South Pasadena, Calif.

CHARLIE F. WEED, '50, holds the position of Senior Engineer with Reynolds Metals Co., Sheffield, Ala. He resides in Tusculum.

LEOPOLD J. CANTAFIO, '52, is on the Technical Staff of the Aerospace Corp., San Bernardino, Calif. He received a M.S. in Systems Management from the University of Southern California in February, 1971. An addition to his family, Alex William, was born July 23, 1971.

S. PATRICK BALLARD, '65, is pursuing his Ph.D. in Industrial Management at the University of Alabama.

TERRY S. MEER, '66, is Project Engineer, Advanced Escape and Rescue Systems, Naval Air Systems Command, Washington, D.C.

PIERCE BOYD, '69, is Plant Manager of the West Alabama Supply Co., Livingston.

LT. DAVID L. NAGLE, '69, is stationed in Washington, D.C.

ROBERT B. THOMPSON, '69, is a Salesman with E. I. Dupont, Florence, S.C. He lives in Foley, Ala.

MICHAEL S. ABBOTT, '71, is an Assistant Engineer with South Central Bell, Birmingham, Ala.

PATRICK D. FREDERICK, '72, entered the USAF in October, 1972. His mailing address is Elizabethton, Tenn.

LT. FREDERICK J. HARSANY, '72, has completed his sixth year with the USAF. He makes his home in Birmingham, Ala.

JIMMY R. JACKSON, '72, lives in Clayton, Ga. He is an Industrial Engineer with Burlington Industries, Rabin, Ga. He was married in May, 1972.

JERRY M. TRIMM, '72, is an Engineering Assistant with Gulf States Paper Corp., Demopolis, Ala.

WILLIAM J. WILLIAMS, '72, is a Junior Field Engineer in Oil Exploration for Schlumberger, Morgan City, La. He lives in Amelia.

CARNEGIE TECH

THOMAS F. BRANTOW, '27, is retired from FNC Corp., American Viscose Division, Philadelphia. He is living in Villanova.

LEON J. HARTMAN, '30, is a Construction Superintendent with the Tidewater Construction Corp., Norfolk, Va.

DONALD E. ARMSTRONG, '39, is a Manager, Development and Materials Engineering, Westinghouse Electric Corp., Buffalo, N.Y.

ANDREW J. PEPPER, '46, is the Director of Systems Methods and Data Processing with Koppers Co., Inc., Pittsburgh.

KARL B. WEBER III, '47, is the Assistant Director of Community Planning, Bucks County Planning Commission, Doylestown, Pa.

JAMES O. DENNY III, '48, is a Professor of Industrial Engineering, West Virginia University, Morgantown, W. Va. He lives in Pittsburgh, Pa.

WISCONSIN

E. N. TORGERSEN, '51, is employed by AMAX Exploration, Inc., and resides in Lakewood, Colo.

THE GEAR OF THETA TAU

DR. AMRIT L. GOEL, '64, is an Associate Professor at Syracuse University, Syracuse, N.Y.

ROBERT G. SCHNEIDER, '65, lives in Stevens Point, Wis. He holds the position of Civil Engineer with the Fairview Home Administration, USDA, Stevens Point.

DAVID M. SCHUEFFNER, '66, is a Research Engineer with Caterpillar Tractor Co., Peoria, Ill. He lives in Dunlap, Ill.

DENNIS COOPER, '68, is a Project Engineer with Sundstrand Aviation, Rockford, Ill.

STEPHEN VANVLEET, '72, is a Technical Service Engineer with 3M Co., St. Paul, Minn.

IOWA

C. B. ANDERSON, '27, is retired and living in Prescott, Arizona.

EDWARD A. SLINDER, '42, is Senior Project Engineer, Product Div., International Harvester Co., Moline Park, Ill. He resides in Elmhurst.

RICHARD KINN, JR., '49, is a member of Sandia Laboratories Technical Staff, Albuquerque, N.M.

LINDSAY L. LENHART, '53, is involved with a new firm called Fraternity Alumni Service in Evanston, Ill. He is the owner of Lenhart Sales Co., Northfield, Ill.

ROBERT L. WUBBENA, '66, is Senior Engineer for State Health-Washington, Olympia, Wash. He lives in Lacey.

GEORGE E. ENTWHISTLE, '69, makes his home in Northlake, Ill. He is Staff Engineer for GTE Automatic Electric Laboratories, Northlake.

GAYLEN H. ENDICISON, '70, lives in Rochester, N.Y., and is an Industrial Engineer for Eastman Kodak.

ABRAM ZWANY, '71, is concentrating on his graduate studies and is living in Woodside, N.Y.

CHARLES R. HOUGHSELDY, '72, is a Design Engineer for Loudon Div., American Chain & Cable, Fairfield, Iowa. He lives in Keosauqua.

DONALD G. JOHNSON, JR., '72, has begun studies on a combined program of law and business at Harvard Law School and eventually is expecting to receive an MBA as well as a J.D. His permanent home is in Ottumwa, Iowa.

RONALD R. RIEDELL, '72, makes his home in Phoenix and is a Systems Engineer for Honeywell Information Systems.

VIRGINIA

FERMAN W. PERRY, '50, is President of Perry Engineering Co. Inc., Winchester, Va.

ROBERT L. RIDGWAY, '52, is the Los Angeles District Manager of Sales, Delaval Turbine, Trenton, N.J. He lives in Manhattan Beach, Calif.

RAY C. SHAW, '61, is Extension Director for Richmond Technical Institute, Hamlet, N.C.

GARTH F. FORT, '64, is a General Supervisor, Monsanto Co., Columbia, Tenn.

WILLIAM M. ROSS, '69, is a graduate student at the University of Tennessee.

NORTH CAROLINA STATE

LELAND G. ATKINSON, JR., '33, is Plant Engineer for Westinghouse Electric Corp. He resides in Beaver, Pa.

GEORGE B. ELLIS, '61, is Plant Group Manager, Buckeye Cellulose Corp., Perry, Fla.

WALTER WILEY MORRIS III, '62, resides in Dunham, N.C. and is Senior Assoc. Engineer with IBM.

CHARLES E. FULTON, '68, is an Instructor in Electrical Engineering with A T & T. He lives in Batavia, Ill.

JOSEPH W. DYER, JR., '69, is a Reconnaissance Pilot with the U.S. Navy, NAS Albany, Ga.

SP. 5 ROGER D. TOWE, '70, is in Military Intelligence with the U.S. Army, Ft. Riley, Kan. Upon discharge in April, 1973, Brother Towe will return to Shell Chemical Co., Houston, as a Technical Engineer in Polymer Division.

OHIO STATE

RICHARD L. SLOANE, '38, is Professor of Civil Engineering at the University of Arizona, Tucson. Brother Sloane was recently remarried to Renée E. Bankel.

VICTOR C. SMITH, JR., '43, is a self-employed asphalt paving contractor in Ft. Lauderdale, Fla.

JAMES DAFORE, '67, is an Engineer with Bettis Atomic Power Lab, West Mifflin, Pa. He makes his home in Pittsburgh.

SYRACUSE

R. G. EASTON, '28, is retired and living in Palm Harbor, Fla.

FALL 1972

FREDERICK T. THAYER, JR., '33, is the owner of F. T. Thayer Jr., General Contractor, Memphis.

CHARLES W. FLORING, '37, is President of C. W. Floring & Associates, Inc., Syracuse.

MANFRED D. CLAYTON, '40, is a Resident Associate/Student at the University of Rhode Island, Kingston.

ROBERT M. RENICHEL, '69, lives in Nutley, N.J. and is a graduate student.

IGOR SHIPIJEKO, '70, is a 1st Lt. in the USAF, Lowry AFB, Denver.

TERRY L. BROWN, '72, is living in Elmira Heights, N.Y.

ARKANSAS

ROBERT D. McCALLUM, '49, is Engineering Personnel Supervisor, Pacific Telephone, Los Angeles. He is a Councilman for the City of South Pasadena where he resides.

GLEN D. WILSON, '56, is President of Information Design, Inc., Bedford, Mass. He lives in Littleton.

BOBBY RICE FREY, '57, is an Engineer for E.I. duPont de Nemours & Co., Wilmington, Del.

RAY OWEN, JR., '66, is a Chemical Engineer for Aluminum Company of America, Bauxite, Ark. He resides in Little Rock and has worked to re-establish an alumni club for Arkansas.

R. WILLIAM MILLER, '67, is Mechanical Contracting Vice-President and makes his home in Little Rock.

GUS M. VRATHINAS, '67, resides in Little Rock and is Project Engineer with Pickens Bond Construction Co.

FRANK J. ROEHM, '40, is Marketing Analysis Mgr., S.D.D. Division-IBM Corp., Endicott, N.Y. He lives in Endwell.

FRANKLIN A. PETRAHEK, '44, is employed by the Central Intelligence Agency and makes his home in Bethesda, Md.

ALAN C. LEWIS, '47, resides with his wife, Marian, in Havana, Ill. He has eight children and one granddaughter. Brother Lewis is Plant Manager with Atwood Vacuum Machine Co., Rockford. He is also a Rotarian and a private pilot.

V. L. CARRONARO, '50, is the Director-Product Engineering, IIT Corp., New York.

J. ROBERT DAY, JR., '53, is a Consulting Engineer for Dale Engineering Co., Inc., Utica, N.Y. He lives in Whitesboro.

NICHOLAS J. SZYMANSKI, '56, resides in Rockville, Md. He is Director, Information Systems, F.D.I.C., Washington, D.C.

CAPT. EDWARD A. HULL, '66, is a pilot for the USAF, Reese AFB, Texas. He resides in Lubbock.

G. KENT BURNETT, '68, is a Systems Engineer for IBM Corp., Little Rock.

LT. C. WAYNE CHAFFIN, '68, is a Tempest Officer, U.S. Navy-Defense Intelligence Agency, Washington, D.C.

LYNN F. OATES, '71, is a Naval Flight Officer, U.S. Navy, NAS Miramar, Calif.

GREGORY ALLEN DALKE, '72, is in Reserve Officer Candidate School, U.S. Navy, Newport, R.I.

PURDUE

LOUIS S. DIVAN, '29, is retired and makes his home in Glen Mills, Pa.

BERT F. WARDELL, '38, is an Estimator for Ferry Electric Co., Pittsburgh.

REESE DEYON HOBBS, JR., '54, resides in Dallas, Texas. He is Project Manager with Daniel Construction Co., Greenville, S.C.

CARL S. HINSHAW, '59, is Contract Administrator for LTV Aerospace Corp., Dallas, Texas.

MICHAEL W. STEWART, '67, lives in Sylvania, Ohio and is a Project Engineer with Owens-Illinois, Inc., Toledo.

KENT A. WILLIAMS, '68, is an Associate Development Engineer with Union Carbide Nuclear Div., Oak Ridge, Tenn.

ROGER C. DYCEK, '69, lives in Beech Grove, Ind. A recent addition to the family, Bethany Lynn, was born on Jan. 12, 1972.

MICHAEL K. SCHAEFFER, '71½, is employed by the Ralph L. Woollpert Co., Dayton, Ohio. He lives in Germantown, Ohio.

ARIZONA

COL. BARNEY SHERMAN, '31, is retired and living in San Clemente, Calif.

THE GEAR OF THETA TAU

HOWARD L. FINE, '37, is a Construction Engineer with U.S. Bureau of Reclamation, Grand Coulee, Wash. He resides in Electric City.

JOHN W. F. DULLER, '33, is a Professor of Latin American Studies at the University of Texas, Austin and a Professor of History at the University of Arizona, Tucson. He makes his home in Austin.

LARA HOLMQUIST, '48, is an Engineer for American Bridge Div.-U.S. Steel Corp., Los Angeles. He makes his home in Alhambra.

E. N. TORGENSEN, '51, is Senior Mining Engineer with AMAX Exploration, Inc., Lakewood, Colo.

MARTIN O. LOEWMAN, '37, is Assistant Manager-Walnut Creek Branch, Geo. S. Nolte & Assoc., Walnut Creek, Calif. He resides in Pleasant Hill.

L. C. BODENHAMER, '60, makes his home in San Diego, Calif.

DAVID W. CROZER, '66, is a Member of the Technical Staff of Hughes Aircraft Co., Culver City. He resides in Los Angeles.

LYLE D. JOHNSON, '66, is a Design Engineer with Honeywell Micro Switch, Freeport, Ill.

NICHOLAS LYCORDES, '66, is a Reliability Engineer with Motorola, Inc., Phoenix. He lives in Tempe.

BRUCE W. FARMER, '67, lives in Redondo Beach, Calif. and is a Programmer with TRW Systems Group, Redondo Beach.

ROY F. ELLIS, '68, makes his home in Plano, Texas and is a Systems Analyst with Texas Instruments, Dallas.

ALLAN H. FUELER, '68, is a Design-Review Engineer, Price Brothers Corp., Dayton, Ohio.

DON M. STEINWACHS, '68, has recently been appointed to the faculty in the School of Hygiene & Public Health at Johns Hopkins University, Baltimore. He recently married in August of this year.

DAVID C. RANDOWER, '69, is Maintenance & Transportation Officer with the U.S. Navy-Civil Engineering Corps, Iwakuni, Japan.

BRUCE A. SEIVER, '72, is living in Tucson, Ariz.

MONTANA TECH

S. G. OLSON, '48, is Executive Vice-President with Hudson's Bay Oil & Gas, Calgary 9, Alberta, Canada.

RICHARD L. LENZ, '49, is a Hydraulics Engineer with Oregon State Highway Div., Salem.

OWEN LASKER, '65, is a Sales Engineer with Cooper-Bessemer Co., Houston.

GARY CARLSON, '68, is a Petroleum Engineer with Union Oil Company, Coalinga, Calif.

SOUTH DAKOTA MINES

W. I. WHITHAM, '37, is a Division Engineer with the Milwaukee Railroad, Aberdeen, S.D.

ERLE J. HUBBARD, '42, makes his home in Newport News, Va. He is a Technical Consultant with Janney Cylinder Co.-Edgewater Corp., Philadelphia. He was formerly General Manager of Foundry Operations and Asst. Exec. President.

HANS M. JENSEN, '50, makes his home in Kings Park, N.Y., and is a Hydrologist with U.S. Geological Survey, WRD, Mineola.

JOHN SYNHORST, '68, is a Design Engineer for Pacific Gas & Electric Co., San Francisco. He makes his home in Oakland.

GARY RAY VEURINE, '72, is a Research Engineer with Dow Chemical, Midland, Mich.

GEORGE WASHINGTON

WM. J. ELLENBERGER, '30, is a self-employed Engineering Consultant in Washington, D.C. and Overseas. He lives in Washington, D.C.

JOHN E. PARRONS, '38, is General Staff Engineer with C & P Tel. Co., Washington, D.C.

HAROLD L. SANDSTER, '39, lives in Rockville, Md. He is an Engineer with Potomac Electric Power Co., Washington, D.C.

JOHN C. HELD, '52, resides in Raleigh, N.C. He is Manufacturers Representative for Lee Associates, Inc.

JOEL S. SONNAREND, '52, is Manager, Product Design for Sandets Associates. He lives in Ashland, Mass.

GORDON DAVISON, '65, is a Reliability Engineer with Singer-Kearfott Div., Little Falls, N.J. He resides in Ringwood.

DAVID L. WONG, '65, is a Computer Systems Engineer with IBM, Washington, D.C.

GREG C. ECHERT, '71, is an Electrical Engineer with the U.S. Navy Research and Development Center, Annapolis, Md.

DONALD E. WALLROTH, '71, resides in Cherry Hill, N.J. He is a Financial Analyst for Ultronic Systems (GTE), Moorestown.

LOUISVILLE

L. G. KUHN, '43, is a Chartered Life Underwriter in Louisville, Ky. He is self-employed.

FOSTER R. SCHULER, '46, is a self-employed Builder in San Diego, Calif.

RALPH LEE BAKER, '58, is a Plant Manager, with Jerritt Corp./Union Carbide Corp., Garland, Texas.

JOSEPH C. BISTL, '66, makes his home in Camden, N.J. and is an Assistant Engineer with Public Service E & G Co., Trenton. He has also begun graduate work in Engineering Management at Drexel University, Philadelphia.

LT. GORDON D. SPENCE, '66, is now Resident Officer in Charge of Construction, Marine Corps Supply Center, Bartow, Calif. He was previously stationed in Antarctica.

WAYNE STATE

GLEN H. HOWELL, '34, is Professor of Mechanical Engineering Sciences at Wayne State University, Detroit. In 1968 he was awarded "Engineer Of The Year," by the Detroit Chapter, Michigan Society of Professional Engineers. Brother Howell is now Vice-President, Region V of The American Society of Mechanical Engineers. He is also married and has three children and seven grandchildren.

MIKE SZYBLOWSKI, '68, is a Refinery Engineer with Marathon Oil Company, Texas City. He lives in Webster, Tex.

GREGORY J. CARMEN, '70, is an Area Engineer for Michigan-Wisconsin Pipeline Co., Detroit. He lives in Monroe, La.

LARRY VINCENT PALIZZI, '71, makes his home in Allen Park, Mich. He is a Chemical Engineer for Mobil Oil Corp., Buffalo, N.Y.

HOUSTON

DAVID L. MILLER, '65, is a Senior Engineer, Humble Oil & Refinery, New Orleans and lives in Metairie, La.

DAVID L. BROWN, '70, is Installation Foreman with Southwestern Bell, Houston.

DAVE G. PAMPFEL, '70, resides in Houston and is a Plant Manager with Winston Mfg. Corp., LTD., Calgary, Alberta, Canada.

KENNETH H. WILSON, '70, is an Assistant Service Manager for York, Div., Borg Warner, Houston. He resides in Bellaire.

EUGENE EARL KLODINSKI, '71, makes his home in Houston and is an Engineer for Southwestern Bell Telephone Co.

WASHINGTON (SEATTLE)

LT. FREDERICK A. EMERSON, '68, is a Safety Officer with the United States Air Force, Kincheloe AFB, Mich.

DETROIT

MICHAEL F. MAMAYER, '72, resides in Milwaukee and is an Engineer with the Milwaukee Furnace Co.

MISSISSIPPI STATE

RAY H. JONES, JR., '65, is a Chemical Engineer, Texaco Research, Port Arthur, Texas. He lives in Port Neches.

GORDON S. BUCK, JR., '70, makes his home in Longview, Texas. He is a Mechanical Engineer for Texas Eastman Co.

RICHARD L. HOLLIDAY, '70, is Technical Assistant with PPG Industries, Chemical Div., Lake Charles, La.

GENE H. CHEN, '71, is Assistant Dept. Director, U.S. Navy, Port Huemene, Calif. He resides in Oxnard.

W. DAVID WERR, '71, is an Electrical Engineer for the Tennessee Valley Authority, Knoxville.

DAVID L. BUSHMAN, '72, is pursuing an MBA at Mississippi State University, State College, Miss.

JAMES L. HOLZHAUER, '72, is enrolled in the MBA Program at State College of Arkansas, Conway.

MICHAEL H. LITTLE, '72, is a Design Engineer with Radiation Inc., Melbourne, Fla. He resides in New Hebron, Miss.

MAK STEELE MUTHLER, '72, is furthering his education at Virginia Tech, Blacksburg, Va.

TENNESSEE TECH

DANNY H. POWELL, '68, is an Engineer for Union Carbide, Oak Ridge, Tenn.

2ND LIEUTENANT JOHN A. LAMR, JR., '72, is with the U.S. Army, USAEUR, Germany.

CHARLES A. WELDON, '72, resides in Richmond, Va. and is a Production Supervisor for E.I. duPont de Nemours, Co.



contributors

Operating Fund

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 Felix Edgar Wormser, Theta '16

Founders' Memorial Fund

Theta Tau acknowledges with gratitude the gifts to the Founders' Memorial Fund received from the following members:

Scott Bailey, Omicron '66
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 John W. F. Dulles, Chi '43
 William J. Ellenberger, Gamma Beta '30
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 Louis M. Nelson, Eta '23
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Ferman W. Perry, Pi '50
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 Vernelle T. Smith, Beta '59
 Richard P. Sorensen, Lambda '55
 I. William Spraitzar, Sigma '41
 Elwin L. Vinal, Founder (Request)

Editor's Note: Because of the change in GEAR editors, it is possible some names have been inadvertently omitted from this listing.



Past Grand Regent Passes Away

Past Grand Regent Richard Joel Russell, a brother who cherished his association with Theta Tau and was likewise cherished by all those who came in contact with him, passed away September 17, 1971.

Brother Russell was born in Hayward, California, November 16, 1895. Initiated by Epsilon Chapter, Class of '19, he went on to earn his doctorate in structural geology from the University of California in 1926 under Brother George D. Louderback (Grand Regent, 1919-1925). After serving two years as Associate Professor of Geology at Texas Technological College, Brother Russell accepted an appointment at Louisiana State University in 1928, attaining the rank of Professor in 1931. He went on to be

Dean of the Graduate School in 1949 and Director of the University's Coastal Studies Institute in 1961.

In addition to his administrative and professional duties, Brother Russell was deeply involved in Theta Tau. He first served as Grand Marshall from 1923-1927. During this period he designed and issued the Fraternity's first membership certificates, and designed the robes used by chapter officers. From 1927 through 1931 he served as Grand Regent. In addition to visiting many of the active chapters, he installed Upsilon and Chi chapters. Brother Russell remained active in the functions of Theta Tau as can be seen in the accompanying photo which was taken at the 1968 National Convention.

A noted authority on geology and geography, Brother Russell held numerous positions on technical societies. He served as a member of the Executive Committee of the Geological Society of America, 1950-1952; a member of the Earth Science Panel of the National Science Foundation; a director of the International Association of Sedimentologists; and one of five members of the International Commission on Coastal Sedimentation. He published more than seventy-five scientific articles and authored several books.

Brother Russell spent much time abroad. In addition to attending international congresses in Paris, Moscow, Amsterdam, London, and Algiers, he made a detailed study of the Rhone Delta, silts in Belgium, the coast of French Morocco, and the rivers of Asiatic Turkey.

Dr. and Mrs. Russell lived in Baton Rouge, La. In addition to his wife, he is survived by five sons.



RICHARD JOEL RUSSELL
Past Grand Regent
1895-1971

"Father of Petroleum Engineering" Dies

JOHN ROBERT SUMAN, *Epsilon* '12, well known geologist, engineer, and executive whose business leadership and many contributions to petroleum technology helped shape the modern oil industry, passed away on Jan. 5, 1972. In a memorial resolution for the Houston Geological Society, Carl E. Reistle, Jr., retired President of Humble Oil and Refining Co. made the following remarks:

"John Suman—the father of petroleum engineering—was one of the men who, in the early years after Spindletop, recognized the crucial importance of a scientific and orderly approach to the production of oil. Through developments in which he was a prime mover, oilmen learned new conservation techniques and practices which continue to redound to the benefit of the entire nation."

Brother Suman was born April 9, 1890 at Daleville, Ind. and graduated summa cum laude with a degree in mining engineering from the University of California in 1912. He entered the petroleum industry that year as an assistant geologist with the Rio Bravo Oil Company (Southern Pacific Railroad). One year later he was promoted to chief engineer for the company, the assignment that shaped his career. His interest in applying engineering and scientific knowledge to the production of petroleum continued throughout his long and colorful life. At his retirement in 1955 he had held positions of assistant to the vice-president and general manager of Rio Bravo Oil Co., director and vice president in charge of Humble Oil Company's production operations, and vice-president and director of Standard Oil Company (New Jersey).

Among the notable achievements of Brother Suman's career was his book, "Petroleum Production Methods" published in 1921 and used as a textbook at the University of Pittsburgh and as a reference book at the University of California. He won deserved recognition as one of the world's top authorities on the production of crude oil,

playing a key role in the development of the modern rotary drilling rig, the unitized drawworks, and in directing the R & E efforts of Humble Oil in reservoir engineering. His most dramatic and important contribution to the oil industry was the concept of directional drilling.

Brother Suman helped organize the Houston Geological Society and served as its first president. In 1958 he was awarded the John Fritz medal, the highest honor the four national engineering societies can give. His citation reads: "PIONEER IN THE APPLICATION OF ENGINEERING PRINCIPLES TO THE DEVELOPMENT, PRODUCTION, AND CONSERVATION OF PETROLEUM AND NATURAL GAS; AUTHOR; INDUSTRIAL STATESMAN; AND ONE WHO TAKES A KEEN INTEREST AND REAL PLEASURE IN INSPIRING MEN TO MAKE THE MOST OF THEIR TALENTS."

Survivors of Brother Suman include his wife and two sons, John R. Suman, Jr. and R. H. Suman, both of whom have successful careers in the oil industry. Mrs. Suman resides in Houston, Texas.



John R. Suman

In Memoriam

JOHN F. AHLBRANDT, *Carnegie Tech* '29 passed away September 22, 1970.

GLENN L. ALT, *Kennett* '16, former professor of civil engineering, University of Michigan, died December 17, 1971.

HENRY B. BARKIS, *California (Berkeley)* '17, died this spring in Houston, Texas. He was president of B & W Inc., an oil field equipment sales firm. He leaves his wife, two sons, a daughter, and fifteen grandchildren.

IVAN F. BELL, *George Washington* '49, passed away in Arlington Hospital on February 29, 1972 following a very brief illness. Brother Bell had been working for the U.S. Government in the Department of Defense, Bureau of Ships.

ARTHUR C. BOEKE, *Iowa* '26, died September 16 1969.

GILBERT BROOKS, *George Washington* '33, died April 18, 1972. Brother Brooks' entire career was spent in government service. At the time of his retirement in 1970 he was director, GSA Public Buildings Service Construction Division. His wife and a son survive him.

JOHN L. CLAWSON, *Kennett* '22, passed away October 29, 1971.

EDWARD H. CRANMER, JR., *North Carolina State* '26, died March 29, 1972.

DONALD G. DALTON, *Carnegie Tech* '27, passed away October 8, 1969.

GEORGE V. DUNN, *Colorado Mines* '20, passed away March 1, 1972.

JAY N. EDMONDSON, *Iowa* '27, died December 31, 1969.

EDWARD L. ELIOT, *Michigan Tech* '28, passed away January 3, 1971.

CARLETON J. EVERETT, *MIT* '26, died June, 1971.

WILLIAM B. FRACKELTON, *Wisconsin* '27, died November 20, 1970.

SAMUEL A. GARNETT, *Colorado Mines* '20, passed away November 21, 1971.

CHARLES L. GOOD, *Purdue* '42, passed away September 3, 1971.

CHARLES R. KUZELL, *Case-Western Reserve* '10, passed away June 21, 1971. Brother Kuzell had served as vice-president and general manager of western operations of Phelps Dodge Corp. from 1955 to 1958 and as a member of the board of directors from 1956 until retirement in 1968. Among his many technical posts were director of AIMME from 1955 to 1959 and director of the American Mining Congress from 1940 to 1960. Survivors include three sons, a daughter, and eleven grandchildren.

JOHN D. LEE, *Virginia* '27, died January 4, 1970.

ROBERT W. LUTHER, *North Carolina State* '26, died December 25, 1971.

GEORGE W. MITCHELL, *Colorado Mines* '23, died in Reno, Nevada on October 20, 1970 following a long illness. Brother Mitchell had managed mines in the U.S. as well as in Canada and South America from 1927 until retirement in 1956. He is survived by his widow, and two children.

LOUIS E. MOHR, *Illinois* '23, passed away August 2, 1971 in Gary, Indiana. Brother Mohr was a member of Delta Kappa Epsilon and The Founders Club of the University of Illinois. Survivors include his widow, a son, and three grandchildren.

JOSEPH P. MOORE, *Virginia* '25, passed away on February 17, 1972.

THEODORE A. NYLUND, *Minnesota* '38, passed away November 19, 1971. Brother Nylund was with the Army Corps of Engineers located in Albuquerque New Mexico. His widow, two daughters, and a grandson survive him.

WILLIAM H. OSBORN, *Columbia* '21, passed away on July 28, 1971.

GERARD V. PATRICK, *MIT* '28, died December 28, 1971. He had retired as chairman of the board of York Division, Borg-Warner Corp. in March, 1971. Brother Patrick was president of that division from 1963 to 1970, after filling numerous positions at Borg-Warner since 1949. He was also active in numerous community affairs. He is survived by his wife, three grandchildren, and two sisters.

GEORGE W. PAUL, *Arizona* '34, passed away in January, 1972.

DAVID W. PETERSEN, *Carnegie Tech* '48, died in May, 1972.

JOHN F. RAUCHER, *Arizona* '36, passed away on April 27, 1972.



chapter news

Professional Development is the topic which Chapters were asked to use as the theme for their letters in this issue. What formal and informal programs at each Chapter exist? How are formal programs arranged? As can be seen, alumni members are welcomed to give presentations to the Chapters. You might contact a local Chapter to see if you can be of assistance in their professional development program.—JMW

BETA CHAPTER

Michigan Technological University



For Beta Chapter this will be a trying year. With the success of every endeavor last year, from the Regional Conference to a championship basketball team, the members will be trying to better all the showings of last year. To add to the activities there are eighteen graduating

seniors this spring will put an added strain on our professional program. Because of the variety of interests among the job-seeking members, we should have an outstanding line-up of professional representatives.

If keeping all the seniors happy isn't enough, the committee will have another major job this spring. The Professional Societies on campus are trying to promote a full scale engineering show which will include everyone from grade school to large corporations with exhibits, projects, and demonstrations. Although this program is still in its early stages we plan on making a more than average contribution to the show. It is the common feeling that this show will help us a great deal in every aspect of relations with the community, the school, the business world, and the image of more than the social fraternity that the rest of the campus Greeks are.

Because of the great number of professional committee activities our rushing program will be working hand in hand with them in an attempt to attract the attention and interest of students in our activities. It will take a great deal of effort to replace all the seniors graduating this year and to instill in them the house pride we have gained through our successes.

In recent years our name on campus committees, organizations, politics, and athletics has grown tremendously. It seems as though our success on campus has overshadowed our engineering orientation. In this year we hope that without distracting from

our campus activities we can stress even more our "engineering" history and tradition. Through the work of our rushing and professional committees and culminated by the spring engineering show, we hope to bring into light our real fraternity roots, engineering.

Corresponding Secretary

EPSILON CHAPTER

University of California



The number of active members in our chapter is small at present, but we hope to grow in the coming year. Although we are new members, we plan to stimulate interest in Theta Tau among our fellow engineering students. As one of our first activities of the school year, we are planning a picnic at Tilden Park to celebrate Founders Day, October 15; and to acquaint ourselves with other engineering students. Plenty of food, drink, games, and girls are always good ways to meet people on a specially planned day.

Several casual dinners have been planned to introduce ourselves and the Fraternity to future pledges. We are planning tours of the Beta-Delta model by the U.S. Army Corps of Engineers and the Bay Area Rapid Transit complex. In addition, we plan to have our alumni come and discuss the various aspects of the engineering profession and job possibilities after graduation. These activities will be open to members, alumni, pledges, and interested engineering students.

CISNA DENCE
Scribe

ZETA CHAPTER

University of Kansas



Zeta Chapter in the last few semesters has experienced a low point in both brotherhood and financial status. But, as of the start of this semester, great strides are being taken to remedy this situation.

The financial burden of our new chapter house has at times been cumbersome. We are now seeing ways to work toward total payment of our debt. Chapter morale has reached a bright that hasn't been achieved in quite some time. Every-

one is willing to do his share and to help someone else if that is what is needed. The organization in the house is at its best.

Zeta Chapter kept with tradition by building the archway for the annual Engineering Exposition and also by showing a room display. Our room display, built with a large amount of alumni aid, almost took the honors for best at the expo.

Contact with alumni was improved during the year with alumni being invited to the celebration of Zeta Chapter's 60th anniversary. Also, a new computerized addressing system has greatly facilitated correspondence.

Both alumni and KU faculty are engaged to speak about engineering related topics approximately once a month as part of our professional development program. Some of the more notable topics last year were concerning KU's nuclear reactor and the job situation. With our increasing alumni support and our improving brotherhood, our professional development program is reaping high rewards.

DAVID L. THIEL
Corresponding Secretary

MU CHAPTER

University of Alabama



Mu Chapter of Theta Tau is looking to the coming year with high expectations. Always a leader in the college of engineering, Mu will strive to provide more benefits for the student body as well as its own members. Our rush committee

deserves a pat on the back for a job well done. Hard work over the summer in contacting potential members has resulted in a fall pledge class of seventeen. The new pledges have already exhibited some good Theta Tau "spirit" and are keeping the activities on their toes.

Mu Chapter has always endeavored to present interesting and informative speakers to the college of engineering. Our professional development meetings are held once a month. They are not closed meetings limited to actives, but are open to any interested student. We have many types of speakers with various backgrounds, both technical and non-technical. Last year we had talks ranging from "Management Opportunities for Engineers" to an informative lecture on Communist China. The highlight of our program last year was a talk by Grand Regent Charles Wales on new educational opportunities in the field of engineering. We always strive to create an informal atmosphere that is conducive to good rapport between the speaker and the audience. Most importantly, we have discovered that variety in speakers is the key to a successful Professional Development program.

Theta Tau continues to provide leadership for the College of Engineering. The President, Vice-President, and Secretary of the School of Engineering are all Theta Tau members. All members belong to their respective technical societies where many hold offices.

Mu Chapter received several honors and awards last year. Our beautifully constructed float took first prize in the homecoming parade and our homecoming party was a showcase of uninhibited brotherhood. Our regional convention delegation returned with a plaque for the best presentation and a collection of odd pictures. The fiftieth anniversary celebration was enjoyed by all the members and alumni who attended. Our sports program experienced unexpected success with a 3-3 football record and a spot in the campus softball playoffs where we lost to the eventual champions.

One of our goals for this year is more communication with surrounding chapters. Any Theta Tau who happens to be in the Tuscaloosa area is certainly welcome at our house on 304 Thomas Street. We hope we can meet more of our brothers this year.

ROGER PIERCE
Corresponding Secretary

XI CHAPTER

University of Wisconsin



Xi Chapter has been very active in professional development this past year. We have been participating in many different activities and have been the leaders in most of them. During Engineers Week,

Xi held a series of lectures and discussions on many topics that engineers are interested in, such as product liability, professional registration, and professional unions for engineers. The series was held in the engineering building during the noon hour and was well attended.

The chapter has undertaken the task of colonizing The University of Wisconsin-Platteville. We had an exhibit at their Exposition and recruited ten enthusiastic men to start a chapter. We have made several trips to Platteville and hope to have a strong organization by the end of this semester. We think that Theta Tau will soon have a strong new colony in southwestern Wisconsin.

We have not neglected our own Expo here at Wisconsin. Again the men of Xi Chapter are leading the organization. We have five men on the Executive Board. The president, treasurer, special efforts, student exhibits, and building organization chairmen are all of Xi Chapter. We are also in the initial planning stages of our own exhibit for the Engineering Expo this spring.

We haven't let our outside activities interfere with our own professional development program. We

plan for several speakers and two plant trips this semester. In the past, we have listened to the head of the Engineering Placement Office talk on job opportunities for the graduating and undergraduate engineers, and to a speaker on product liability as applied to the engineer. This semester we hope to have some of our recently graduated alumni come back to tell us what it's like to be out on the job, as well as other speakers from industry. We are also planning trips to the GM assembly plant in Janesville and the Johnson Wax plant in Racine.

We feel that our alumni relations could always be improved. We are trying to include our alumni in our functions. We held a frat and beer fest for our alumni before our last homecoming game and had an alumni banquet afterwards. Because of its success, we are planning the same for this year.

This coming semester looks as busy as the previous ones have been. With rushing, colonization, professional development programs, and Expo, Xi Chapter is certainly alive and active.

The Brothers of Xi Chapter

RHO CHAPTER

North Carolina State University



The professional development program at Rho Chapter attempts to foster an attitude of professionalism in the student toward engineering. Activities are directed by a committee of

six men with the Vice Regent serving as chairman. Traditionally, the Fraternity has held dinner meetings and lectures on a monthly basis. These events are open to the brothers, their guests, and prospective pledges. Speakers are obtained by contacts the brothers have established in industry or on recommendations from the faculty and administration of the School of Engineering. The topics are usually directly related to engineering, but social involvement and contemporary issues are also brought into the program.

For the last two years the Fraternity (together with the Professional Engineers of North Carolina (PENC) and the School of Engineering) has sponsored a professional development seminar. Outstanding engineering and management personnel from industry, government and universities are invited to speak and sit on panels. Discussions cover

areas of interest to engineering students and young, practicing engineers—job opportunities in industry, large or small; job hunting; employment opportunities in state, federal and local government; advantages of being a registered professional engineer. PENC and the School of Engineering secured the speakers and bore the expense of the program. Theta Tau was responsible for advertisement of the event. Co-ordinated utilization of media, posters, programs, paint, and pledges was effective in making the students aware of the program. Though attendance was not as great as had been hoped, the fraternity, PENC, and the School of Engineering were pleased and plan to make it a yearly event.

JOHN SMITH
Regent

TAU CHAPTER

Syracuse University



The Tau Chapter of Theta Tau at Syracuse University is an active and vital part of the engineers' professional development here at Syracuse University. The Freshman class of 1976 looks promising, not only in the number of engineers, but also in the scholastic standing they have attained

in high school. Those select Freshmen who are chosen for membership in Theta Tau will prove to be an asset to our chapter and the national Fraternity.

The past year was marked with many new and innovative ideas that the chapter has done for the engineering community here at Syracuse. During Engineers Week, for example, the chapter held a celebration for the College of Engineering; its faculty, staff, and students. The party gave the students in engineering a chance to meet some of the other students, freshman through graduate; and promoted the image of Theta Tau on campus.

The brothers have also spent a lot of hard work in fixing up the house. They have sanded the wood floors and paneled the first floor. These are only two of the many home improvements, both inside and outside, to make the chapter house a more attractive part of the University campus.

JAMES R. CAW
Corresponding Secretary

"Professional development is the furthering of one's abilities in his chosen technical field and the realization of his responsibilities—both technical and social . . ."



Little Sisters of Theta Tau programs have been successful at many Chapters over the past several years. A Regional Conference was even held at Sigma Chapter this past spring for Little Sisters of Phi (shown), Delta Beta, and Sigma Chapter.

UPSILON CHAPTER *University of Arkansas*



Last year, Upsilon Chapter participated in a recruitment program with the student government. There were four members from various careers sent to high schools over the state and surrounding areas. Upsilon Chapter provided an engineer as the fifth member of the committee. The Engineering Department provided the literature and expenses for the engineer. Most of the trips were scheduled either on career days or career nights.

The rumor that engineers are out of jobs is believed by most high school students. This and other reasons has dropped freshman enrollment in Engineering about 40% at the University of Arkansas. This committee tried to explain that the engineers out of work were the highly skilled or trained engineers, especially engineers connected with aeronautics.

NELTON HENLEY
Corresponding Secretary

PHI CHAPTER *Purdue University*



Phi Chapter has resolved to do greater things for professional development this year, since it is felt that the chapter may have neglected that area while in pursuit of a better social program. We hope to change the scope of our program from solely an in-house program to include campus-wide activities, which will serve the dual purpose of obtaining much-needed attention for the engineer-

ing profession, and giving the Fraternity much-needed publicity. Plans have been made to utilize the Ruhe Goldberg Machine concept as a working display at the Student Union to emphasize the unique results that can be had by combining engineering and a quest for enjoyment. This idea may be expanded next year to include a campus-wide contest, sponsored by Phi Chapter, for the best machine design.

Other professional ideas include having speakers on such controversial topics as industrial pollution and the space shuttle come to our campus. One aspect of our professional program we plan to continue is the house visitations of various professors and professionals of the community. These visitations may include discussion, a question and answer session, or a short presentation of the person's area of specialty. Such programs have not been limited to areas of engineering interest; the best of last year's presentations was probably that given by two draft counselors, who found themselves fielding a multitude of questions.

We also are continuing our tours of places which the brothers consider of interest to them. One such possibility for this term is a tour of a local hospital's technical facilities, as there are several brothers who are enrolled in Purdue's new Biological Engineering curriculum. Whether our plans come to fruition remains to be seen, but we will certainly give a good effort so that they may.

Phi Chapter has achieved great things academically, socially, and athletically in the past two years. Scholastically, we have had the first or second highest grade point average of all the houses on campus. Improvements in the Little Sister program have added to a much better house social atmosphere. In athletics, Phi Chapter has risen from the ranks of the unknown to third place in one of Purdue's intramural fraternal leagues. Furthermore, the house has been completely remodeled within the past two years, giving the brothers a great deal of pride. We are very proud of these achievements. We just hope



Phi Chapter's living room, with a replica of the badge emblazoning the wall, is the scene of numerous social events throughout the year.

that our professional program can be improved as well.

PETE HARTER
DON BARRA
Chapter Officers

CHI CHAPTER University of Arizona



During the spring semester of 1972 and this past summer, Chi Chapter has initiated a program of professional development among the chapter brothers. Desiring to realize the ideals of professional development in terms of actuality, we have undertaken a program involving industrial tours to the

mines, power plants, and engineering facilities in our area. We have decided to utilize the first hand knowledge and experience of the working engineers in our area by having them as guest speakers at chapter meetings.

Many Chi Chapter brothers traveled far and worked hard this past summer. Brothers Semelsberger and Hall, while working under the auspices of a grant from the National Science Foundation, have been conducting research on the effluent and pollution effects smelters have on the local environment. Brother Mangum was in Mexico where he was responsible for numerous data relaying stations located in the Gulf of California. These stations sample meteorological, tidal, and oceanic data and then relay it to the ERTS—a spacecraft presently configured in a polar orbit. Brother Wiltcheck worked with design engineers and Federal Environmental Control agents in evaluation and testing of power plant precipitators. Brother Beebe worked as a field engineer for the Southern California Testing Laboratories in San Diego.



A panel discussion held during the Southern Regional Conference produced a good exchange of ideas between the student members in attendance.



Eta Beta student members accept the manila award for the Southern Regional Conference from Grand Scribe Robert E. Pope. Zeta, Mu, Upsilon, Kappa Beta, and Eta Beta joined host Lambda Beta in Cookeville for the event held Jan. 7-9.

Getting closer to home, brother Pittelkau was with the Naval Facilities Engineering Command, Phoenix, as a data collector and analyst for a national fallout shelter survey. Brother Wozniak spent the summer back East as an employee of the city of East Grand Rapids. Brother Cook was employed as a foreman at Kennecott Ray Mines Division, while Brother Stewart was with the American Smelting and Refinery Co.

All of this experience affords Chi Chapter a unique opportunity to develop professionally, and it is with great enthusiasm and expectations we launch our professional development program.

Brother Wiltcheck, Vice Regent, brought back many ideas from the Western Regional Conference held last December. A great effort was devoted to our last pledge class utilizing these ideas in the hope of instilling a greater sense of brotherhood among the pledges themselves and with the active brothers. A critique of the pledging activities with our new brothers revealed our objectives had been achieved.

One highlight of last semester was a visit by brother Jack Payne, our Western Director. His visit coincided with our celebration (twice a year) of Founders Day Picnic at the home of Professor Newlin, Chapter Adviser. Brother Payne brought much needed advice and brotherhood during his visit with Chi Chapter.

Recreationally, Chi Chapter was well represented in Puerto Penasco, Mexico during the Memorial Day and Labor Day weekends when many of the brothers made it down to the beaches for fun in the sun.

For the future, Chi Chapter plans to extend its professional development and pledging programs and to initiate a campaign to make Theta Tau's presence felt more on the U. of A. campus and in the Tucson community.

JAMES H. WEEKS
Corresponding Secretary

OMEGA CHAPTER

South Dakota Mines



Recognizing the importance of ecology in today's society, Omega Chapter has decided to concentrate its efforts in professional development on that subject. We are currently

planning a school-wide effort to collect aluminum cans for resale to manufacturers. The effort will consist of ditch drives as well as just saving cans and bringing them to a central collection facility. Further plans will depend on the success of this venture.

On more of an individual basis, some of our members participate in the annual city career drive; some coach grade school youth in the skills of basketball, and some help in running a track meet for mentally retarded children in the local area. Professional development is also gained through the involvement of brothers in student government. Brothers have been elected to the office of Student Association President for the last three years, as well as other campus positions. Brothers belong to nearly every campus organization, from professional societies and honorary fraternities to the Singing Engineers. In the past two years, eleven of our members have been selected to *Who's Who in American Colleges and Universities*.

Our activities stretch into the field of varsity and intramural athletics, with the name Theta Tau being prominent as a perennial title contender in both flag football and intramural basketball. We also have teams in volleyball, track, and softball.

All in all, the men of Omega Chapter keep very busy with their studies, campus activities, and involvement in community affairs.

TOM FOLKINGHORN
CHUCK NATHIE
Corresponding Secretaries

GAMMA BETA CHAPTER

The George Washington University



Gamma Beta is perhaps an unusual chapter in that many of its activities continue through the summer months. With so many of our brothers working at summer jobs in the District, as well as at the Naval Ships Research Lab in Annapolis, it is quite easy to get together for picnics and other outings. On May 28 the chapter house was converged upon by several carloads of pledges from Pi Chapter. The trip to Washington was included as part of their pledge project, and perhaps their most difficult task was finding our chapter house, which lay buried under the mounds of rubble from subway construction. They were

treated to lunch, and were presented with various articles of proof of their visit, including a written invitation for Pi Chapter to attend our annual Founder's Day picnic this fall. We look forward to many of such activities with our nearest neighbor.

Gamma Beta's professional development program was highlighted by a chance-of-a-lifetime trip to Transpo '72 over the Memorial Day weekend. The exhibition was both massive in scale and dazzling in its entertainment, providing displays of interest to all types of engineers. A continuous air show, visible from all locations of the fair, included the famous Blue Angels and the Navy's precision flying team. Entries from all major transportation corporations included monorail systems, hydrofoils, and computerized trains and buses.

However, one of the most courageous entries was the University of Wisconsin's urban vehicle. Without the massive funds and technological process of corporations such as General Motors and Ford, the Wisconsin engineering students fabricated a vehicle that met all the 1976 Federal safety and pollution standards. In all, this vehicle provided an inspiration to us, emphasizing that individual initiative and professional pride are still very important parts of the engineer's way of life.

BILL DARROW
Regent

IOTA BETA CHAPTER

University of Detroit



Professional development at Iota Beta Chapter has seldom taken the direct or formal approach. We have attempted, in the past, various programs involving lectures from different speakers to the chapter. These were generally held in conjunction with a chapter business meeting. We have also been

responsible for arranging displays and lectures during the annual observance of Engineering Week. It has been our experience, however, that our formal programs have either been too general to be of useful depth, or too specific to be generally attended. Therefore attendance and support were poor.

However, members of our chapter are able to assist each other professionally in quite another manner. Our College of Engineering operates with a Co-operative Training Program for each student. We believe this opens up a much broader area of professional development along his lines of career interest. On this basis, then, the chapter takes an active if informally directed interest in the Co-op placement of its members.

A new member (or, for that matter, a prospective member) in our chapter comes into contact with a wealth of personal information on job placement within the Co-op program. We have acquired this

information from years of experience, both as individuals and as a fraternity. The scope of this experience covers areas such as: how to interview; what to look for in an employer and a job; what type of work and pay scales to expect; and probably most important, how to hustle in a tight job market. This is not an organized and structured body of knowledge complete with slide lectures and field trips; it is simply brothers pooling their knowledge, resources, and experiences for very pragmatic and personal reasons.

GREG HUMENIK
Regent

KAPPA BETA CHAPTER Mississippi State University



Kappa Beta chapter has been very fortunate in returning this fall from a successful professional development program last year. Hopefully we can move forward to an even more fruitful program this year. Our program consists of weekly professional development luncheons, community service projects, and special emphasis on professionalism in our pledge program. The luncheons are intended to provide a professional yet friendly atmosphere, with the speakers presenting their ideas about many different subjects.

Kappa Beta sponsored three community service projects last year. These projects served to improve our brotherhood; publicize the name of Theta Tau in the community, and teach our brothers how to work together more efficiently, a quality obviously necessary in any professional. Our pledges are urged to formulate their own ideas on professionalism and submit a theme to the chapter expressing their ideas. The pledges are also required to construct within close tolerances, a replica of the hammer. This project teaches the pledges to take pride in their work and serves to bring the pledge class closer together.

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Professionalism has as many different meanings as there are people, but its value is held in esteem by everyone. This statement can be illustrated by a portion of a recent letter from one of our alumni, J. Matthew Dicks, 71, now serving as a lieutenant in the army. He writes "I know why George Patton loved the army so much—after seven months I'll probably be a thirty-year man. It's a good life for me and I really enjoy it. This verifies the purpose of Theta Tau. A professional attitude will perpetuate any occupation whether civilian or military. Those of you who will be entering the service will find out exactly what I mean."

GARRY GARRETON
Vice Regent

LAMBDA BETA CHAPTER Tennessee Technological University

COOKEVILLE



Lambda Beta Chapter sponsors and promotes various formal and informal professional activities to broaden the scope of its member's engineering education. One of

the formal professional development activities is our regular speaker program. In our quest to give our members a diversified program of professional lectures, we have ventured into the fields of law, education, legislation, and business; as well as engineering. Hopefully this type of varied program will aid our graduates in dealing with our modern technologically centered society which demands that its engineers be responsive to changes.

During the Fall 1971 quarter it was our privilege to have Mr. William Farris, Executive Director of the Tennessee Society of Professional Engineers, to speak before our assembled brotherhood. Those who attended the Southern Regional Conference this past winter will remember him as the guest speaker for our banquet. His enthusiastic lecture on the theme of "Legislation and the Engineer" prompted us to initiate a petition signing day and to present the document to the Tennessee State Legislature.

Other notable lecturers included a lawyer, Mr. John Acuff, who spoke on "Integrity and the Profession," and Mr. Ken LaMarr who expounded on his knowledge in the area of "Stocks, Bonds, and Mutual Funds." Our formal speaker program for the year was closed out by Dean James S. Brown, head of the College of Engineering and recently elected Engineer of the Year in Tennessee, with his enlightening topic of "The Future of Engineering Education." For formal professional development is further enhanced by our annual participation in Engineer's Day.

Informal professional development at Lambda Beta consists of participation in programs which add stature to the engineer's background. For example, our members take part in professional clubs, honor and technical societies and student government. The Order of the Engineers, a newly formed organization at Tennessee Tech, has incorporated into its membership those brothers who are eligible to participate. To encourage outstanding academic achievement, our chapter awards a \$100 scholarship each year to the member who increases his grade point average the most during the preceding year.

The professional development program at Lambda Beta is aimed toward making our members well informed and receptive engineers. We will continue in our efforts to provide these building blocks which are so important to a young engineer.

JOHNNY RAY EVANS
Corresponding Secretary

Jeff Watkins



Kappa Beta's Jeff Watkins gave his brothers a lot to cheer about last year. After being named a high school All-American in basketball, Jeff accepted an athletic scholarship to Texas A&M before he transferred to Mississippi State in the Fall of 1970. Jeff was "red-shirted" for his first year at State and took advantage of the situation to pledge Theta Tau in spring, 1971. Last year Jeff won a starting position for Mississippi State at center and was one of the leading scorers for the Bulldogs with an average of 13.5 points.

During the game with Auburn University with the score tied 60-60 and with four seconds remaining, Jeff (who is 6'4") put up a reverse lay-up over Auburn's seven foot center and won the game. Brother Watkins (13) is shown at the left putting in two points against arch-rival 'Ole Miss'.

Jeff also performed well off the basketball court. During the fall semester of '71, he obtained a 4.00 index, which was a great boost to the chapter's grade point average, while majoring in Mechanical Engineering.

The Brothers of Kappa Beta Chapter are very proud of Jeff Watkins' contributions to MSU and to the brotherhood of Theta Tau.

Seventeen Chapters Have Houses

Seventeen of the twenty-nine Theta Tau Chapters not only have permanent meeting places, but also have a residence where the Fraternity crest, badge, or Greek letters signify that the brothers reside together. It is normally through the action of active alumni who contribute their time and funds in establishing housing corporations that Chapter houses are brought and maintained. Little recognition is given these brothers in our National publications,

yet all should recognize the value of their efforts.

In addition to the funds raised by alumni House Corporations, the National Fraternity does make loans available to the Corporations to assist in their efforts. As many as eight Chapters have utilized this National program concurrently to aid in establishing a Chapter house. The future growth of Theta Tau, with several potential colonies, means that this program will prove even more invaluable in the future.



Phi Chapter



Sigma Chapter

NOTICE OF ALUMNUS ADDRESS

Send names and addresses of any alumni you know who may not be receiving THE GEAR to Theta Tau Central Office, 13 Sona Lane, St. Louis, Missouri 63141.

Name _____ Chapter _____ Class
Year _____

Street _____

City _____ State _____ ZIP Code _____

Reported by _____ Chapter _____ Class
Year _____

Street _____

City _____ State _____ ZIP Code _____

Be sure the Theta Taus you know are receiving THE GEAR.

RECOMMENDED STUDENTS

Mail to Robert E. Pope, Executive Secretary, 13 Sona Lane, St. Louis, Missouri 63141. Include relatives and other recommended students at accredited schools whether or not Theta Tau yet has a chapter at that school.

I recommend that the following student(s) in engineering be considered for Theta Tau membership:

Name _____ School _____

Mailing Address _____ Major _____

Expected Graduation Date _____

Remarks: _____

Signed _____ Chapter _____ Year _____

NOTICE OF DECEASED MEMBER

Please give as complete information as possible, including biographical data known, clippings, etc. Send to Theta Tau Central Office, 13 Sona Lane, St. Louis, Missouri 63141.

Name _____ Chapter _____ Class
Year _____

Address _____

Date and place of death _____

Name and address of nearest relative _____

Reported by _____ Chapter _____

Address _____

Relationship to deceased _____

CHANGE OF ADDRESS NOTICE

Send to Theta Tau Central Office, 13 Sona Lane, St. Louis, Missouri 63141.

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Old address:

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New address:

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Permanent address from which mail will always be forwarded to you:

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GIFTS TO THETA TAU

Make checks payable to Theta Tau Fraternity and mail to Robert E. Pope, Executive Secretary, 13 Sona Lane, St. Louis, Missouri 63141.

I enclose the following contribution to Theta Tau:

As an unrestricted gift \$ _____

For the Founders' Memorial Fund \$ _____

Name _____ Chapter _____ Class _____
Year _____

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ALUMNI NEWS

THE GRAB needs news about you and other alumni. Include promotions, job changes, professional honors, family news. Send to Theta Tau Central Office, 13 Sona Lane, St. Louis, Missouri 63141.

Name _____ Chapter _____ Class _____
Year _____

Address _____

News of yourself and/or others _____



Additions to Membership

XI CHAPTER

- 373 Bradford Carl Bennett, Madison, Wis.
374 Donald Henry Bridge, Beloit, Wis.
375 James Paul Esler, West Bend, Wis.
376 Stephen Jerome Mlinaz, Sheboygan Falls, Wis.
377 Victor Michael Pfanku, Arena, Wis.

CHI CHAPTER

- 786 Carter Elliott Bennett, Tucson, Ariz.
787 Paul Flannery, Teuticket, Mass.
788 George William Vona, Tucson, Ariz.
789 James Harley Wreck, Tucson, Ariz.
790 Lynn Herbert Davis, Tucson, Ariz.
791 Steven Lee Hall, Tucson, Ariz.
792 James Olen Jones, Mobile, Ala.
793 Robert Clayton Mangum, Tucson, Ariz.
794 Eric Darrell Pittelkau, Warrenton, Va.
795 John Boone Pooler, Yuma, Ariz.
796 Jack Richard Stewart, Jr., Phoenix, Ariz.

OMEGA CHAPTER

- 748 Ronald Roy Allum, Chamberlain, S.D.
749 Terril Arlin Alter, Winner, S.D.
750 John T. Chikos, Bridgeport, Neb.
751 Douglas Wayne Enme, Chamberlain, S.D.
752 David Robert Habicht, Willmar, Minn.
753 Wade Eugene Hart, Lead, S.D.
754 David Walter Knox, Mitchell, S.D.
755 Clifford Norman MacDonald, Lake Zurich, Ill.
756 Charles Patrick McMahon, Jr., Pierre, S.D.
757 Douglas Fred Miller, Sturgis, S.D.
758 Kenneth Ronald Miller, Tulare, S.D.
759 Scott E. Rausch, Gettysburg, S.D.

- 760 John Archer Segerstrom, Lafayette, Calif.
761 David Emanuel Sinkheil, Parkston, S.D.
762 Kenneth Richard Story, Ft. Meade, S.D.
763 Koyle Dean Tuhandt, Jr., Tulare, S.D.
764 Ralph Anthony Wagner, Clark, S.D.
765 Daniel Boyd Ward, Bluffton, Ind.
766 Michael John Young, Mitchell, S.D.

DELTA BETA CHAPTER

- 488 Kermit Edward Flener, Jr., Hopkinsville, Ky.
489 Donald Lynn Hanks, Danville, Ky.

IOTA BETA CHAPTER

- 161 Anthony Dale Verbiscus, Highland Park, Mich.

KAPPA BETA CHAPTER

- 180 Louis Richard Grobmyer IV, Helena, Ark.
181 Carey Frank Hardin, Calhoun City, Miss.
182 David Leo Hester, Quitman, Miss.
183 Michael Antonio Hicks, Columbus, Miss.
184 Donald Allen Johnson, Jackson, Miss.
185 Ralph Lawrence Myers, Coldwater, Miss.

LAMBDA BETA CHAPTER

- 113 Jere Ernest Bowen III, Nashville, Tenn.
114 David Lee Hawkins, Fayetteville, Tenn.
115 Harry Lynn Little, Powell, Tenn.
116 James Hobert Lord, Tullahoma, Tenn.
117 Robert Hoyt Lovitt, Milan, Ohio
118 Bobby Steve Myers, Cookeville, Tenn.
119 Ottis Hansel Phillips, Cookeville, Tenn.

Due to circumstances beyond the control of the new Editor, two issues of THE GEAR are being published close together. This assures that all worthwhile information accumulated since the last issue will be covered.

The Existence of Our Fraternity

Theta Tau . . . to develop and maintain . . . to unite . . . a common bond. Thus the existence of our Fraternity is expressed in fewer than ten words. But how often it is that during our everyday activities we lose awareness of the ideas expressed by these few words? How many times are we concerned with only personal thoughts or outside interests? How often does it seem that our efforts to better our Fraternity are lost due to little interest or differing opinion? Pretty often, isn't it. And yet Theta Tau is as strong, if not stronger, than ever. Why?

Grand Regent Wales would say a fraternity chapter is an educational system. To be a good educational system it should have goals of its own and yet be responsive to the goals, desires, and abilities of its members. Theta Tau is just that. The Fraternity provides an educational framework: profes-

sional development, fellowship, everyday living, guidance. Yet every member is free to be an individual, to progress at his own pace, to be concerned with professional interests, to sometimes forget the goals of the Fraternity. It is all part of the system. And in the maturing process that takes place, the members eventually return and contribute to the Fraternity. To realize this and build upon it is the strength of Theta Tau.

Many fraternities are now in a forced position of reevaluation and change. What further measure of success is needed than the rather sobering thought that many of the problems troubling other fraternities are the strengths of Theta Tau Fraternity . . . Success has a strange way of showing itself in many forms.—PAUL FREDERICK, Regent of Phi Chapter, in the Spring, 1972 "Link of Phi Chapter."

There'll Be Some Changes Made

It seems fitting to title this with the heading Past Editor Bill Franklin used in his last editorial in Spring, 1969. It's a challenge to follow such competent past editors as Bill, Brother Joseph Howe (see article this issue) and others. Yet it is reassuring to echo the words of the guest editorial and say that the strengths of Theta Tau are carrying us through a time of genuine upheaval within fraternities. How appropriate it is that in times when people are said to be either totally apathetic or violently revolutionary, two new editors can look back on the proceedings of the past biennial convention and find not criticism, but viable recommendations for improvement.

You'll have to bear with us as changes are slowly implemented. We've already encountered the challenge of just duplicating the highly-praised format and contents of past issues. Executive Secretary Bob Pope manages the Central Office and passes on

pertinent information so effectively and efficiently that a large measure of the success of THE GEAR must be credited to him. We're already chuckling with other past editors as we wear pages of the dictionary thin editing chapter news, as those past editors did with the material we sent them. But we too cannot help but be revitalized by the spirit displayed by our student brothers in their reporting.

A few changes are already in evidence in this issue. The In Memoriam section has been reduced by limiting the quantity of information printed. Our office will have any available additional information on file. We have elected to take a cost trade-off by replacing the separate heavier cover with a self cover, allowing us the benefit of some two color pages. Presently under consideration is quarterly publication. As you can see, "There'll Be Some Changes Made."

—JMW



Theta Tau Directory

Theta Tau Fraternity was founded at the University of Minnesota, Minneapolis, Minnesota, on October 15, 1904, by: ERICH J. SCHRADER; ELWIN L. VINAL; WILLIAM MURRAY LEWIS and ISAAC B. HANKS.

PAST GRAND REGENTS

- | | |
|--|---|
| ERICH J. SCHRADER, <i>Alpha</i> , (1904-1919)* | NORMAN B. AMES, <i>Gamma Beta</i> , (1948-1950)* |
| GEORGE D. LOUBERACK, <i>Epsilon</i> , (1919-1925)* | DONALD D. CURTIS, <i>Omicron Han.</i> , (1950-1952)* |
| J. SIDNEY MARINE, <i>Eta</i> , (1925-1927)* | JAMISON VAWTER, <i>Zeta</i> , (1952-1954)* |
| RICHARD J. RUSSELL (DR.), <i>Epsilon</i> , (1927-1931)* | A. DEXTER HINCKLEY, <i>Theta</i> , (1954-1958), 151 East River Road, Guilford, Conn. 06437 |
| FRED COFFMAN, <i>Lambda</i> , (1931-1935)* | CHARLES W. BRITZBUS, <i>Alpha</i> , (1958-1962), 662 Cromwell Avenue, St. Paul, Minn. 55114 |
| HERMAN H. HOPKINS, <i>Beta</i> , (1935-1937), 3320 Culvert Avenue, Evanston, Ill. 60201 | WILLIAM K. REY (PROF.), <i>Mu</i> , (1962-1966), P.O. Box 664, University, Ala. 35486 |
| JOHN M. DANIELS (DR.), <i>Nu Han.</i> , (1937-1939), 338 Pinewood and Cole Road, Sayrev, Pa. 16055 | C. RAMOND HANEX, <i>Sigma</i> , (1966-1968), 2190 S. Wapak Road, Lima, Ohio 43805 |
| RUSSELL G. GLASS, <i>Sigma</i> , (1939-1946), Saddleback Lane, Gates Mills, Ohio 44040 | |
| RALPH W. NUBER, <i>Zeta</i> , (1946-1948), 609 West Dartmouth, Kansas City, Mo. 64113 | |

* Deceased.

EXECUTIVE COUNCIL

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| DELEGATE-AT-LARGE | C. RAMOND HANEX, <i>Ohio State '25</i>
2190 S. Wapak Road, Lima, Ohio 43805 |

CENTRAL OFFICE

Robert E. Pope, Kansas '52, Executive Secretary, 13 Soma Lane, St. Louis, Mo. 63141

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| SOUTHERN | JOHN E. DANIEL, <i>Alabama '68</i>
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Official recognition button* (<i>Top left</i>)	\$ 1.25
Greek letter recognition button (<i>Top center</i>)	1.50
Coat of arms recognition button (<i>Top right</i>)	1.50
Fledge button* (<i>Row two, left</i>)	1.00
Pledge pin*	1.00
Colony pin (<i>Row two, right</i>)	1.50
Sister pin* (<i>Row three, left</i>)	
Close set pearls	19.65
Crown set pearls	21.90
Badge* (<i>Row three, right</i>)	
Close set pearls	18.15
Crown set pearls	19.40
Alumni chain (<i>Lower left</i>)	7.15
Award key, gold plated (<i>Lower right</i>)	6.00
Award key, 10K gold	12.90
Founders' star coat of arms (<i>Plain or with ring at top</i>)	
1/20-10K yellow gold filled	8.00

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