The GEAR of THETA TAU

Fall 1939

The GEAR *of* THETA TAU

FALL, 1933

VOLUME XXIII NUMBER 1

OMEGA CHAPTER

FIRST ROW—Earl Rossnow, Neil Gagnettar, Dick Doolittle, Wm. Mannick, Eugene Berry, Frederick Wilson, Ralph Shane, Frank Bohac, Richard Grow

SECOND ROW—Clarence Holloman, Archibald Slaughter, Harvey Held, Oliver Johnstone, Walter Black, Jack Northrup, Ralph Nelson, Lester Warren, Frank Woodman

TOP ROW—James Fortchner, Donald Moulds, Donald Marquardt, Ralph Butler, Albert Hall, Kenneth Schmeling, John Lampert, Francis Estrup, Clifford Hixson

The GEAR *of* THETA TAU

OFFICIAL PUBLICATION OF THE FRATERNITY

P. L. Mercer, Omicron '21 and J. W. Howe, Omicron '24
Editors

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VOLUME XXIII FALL, 1933 NUMBER 1

CONTENTS

Executive Council 4
Theta Tau Chapters 5
Convention Announcement 6
The Boom in Gold Prospecting and Mining in the United States 7
Engineers' Council for Professional Development Has First Meeting 13
P. I. C. in Biennial Meeting 14
"For the Good of the Order" 15
In Memoriam 17
Editorial 25
Prominent Theta Tau Actives 27
Polite Repartee at Colorado Mines 30
Letters From the Chapters 31
Employment Service 42
Recent Initiates 43
Honors 44
Alumni Notes 46
New Publications 47
Lost Theta Tau Alumni 48

ILLUSTRATIONS

Omega Chapter 2
Sluicing on Chase Creek, Greenlee County, Arizona 8
Dry Washer Operating in Gold Basin, Mohave County, Arizona 9
A Small Dredge Operating on Lynx Creek, Yavapai County, Arizona . . . 10
A Small Rocker Operating in Copper Basin Wash, Yavapai County, Arizona . 12
Donald D. Curtis 13
Charles J. Painter 18
Morris Charles Knight 19
Frank Robertson Van Horn 19
Nesmith Thompson 20
Frederick W. Beasley 21
Joseph Edward Ensworth 21
Howard Bruno Hedglund 22
Edward F. Miller 23
Walter J. Irwin 27
Jim Westwater 27
Frank Lohr 28
Jack Hays 28
Myron Orval Jensen 28
Clair Wood 29
Phi Chapter 39
Chi Chapter 40

Theta Tau Fraternity

Founded at the University of Minnesota
October 15, 1904

FOUNDERS

Erich J. Schrader — Isaac B. Hanks
W. Murray Lewis — Elvin L. Vinal

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Twin City—John H. Moore, 1714 Johnson St., N. E., Minneapolis, Minn.
St. Louis—H. R. Kilpatrick, 216 Elm Ave., Glendale, Mo. (c/o Kirkwood P. O.)

Chapters

ALPHA, *Founded October 15, 1904* - - - - University of Minnesota
(Chapter house) 324 Walnut St., S. E., Minneapolis, Minn.

BETA, *Established March 26, 1906* - Michigan College of Mining and Tech.
(Chapter house) 233 College Ave., Houghton, Mich.

GAMMA, *Established November 8, 1907* - - Colorado School of Mines
c/o Prof. B. B. Boatright, Colo. School of Mines, Golden, Colorado

DELTA, *Established May 23, 1911* - - Case School of Applied Science
Theta Tau Box, Case School of Applied Science, Cleveland, Ohio

EPSILON, *Established May 4, 1912* - - - - University of California
Box, Hearst Mining Bldg., University of California, Berkeley, Calif.

ZETA, *Established April 17, 1912* - - - - - - - University of Kansas
(Chapter house) 1409 Tennessee Street, Lawrence, Kansas

THETA, *Established May 26, 1914* - - - - - - - Columbia University
Care of Prof. T. H. Harrington, Columbia University, New York City

IOTA, *Established February 5, 1916* - - - - Missouri School of Mines
Theta Tau Box, Missouri School of Mines & Metallurgy, Rolla, Mo.

KAPPA, *Established March 25, 1916* - - - - University of Illinois
P. O. Box 116, Station A, Champaign, Ill.

LAMBDA, *Established April 29, 1920* - - - - - University of Utah
Theta Tau Fraternity, Union Building, Salt Lake City, Utah

MU, *Established January 3, 1922* - - - - University of Alabama
P. O. Box 1279, University, Alabama

NU, *Established January 1, 1922* - - Carnegie Institute of Technology
P. O. Box 114, Carnegie Institute of Technology, Pittsburgh, Pa.

OMICRON, *Established February 3, 1923* - - - - University of Iowa
(Chapter house) 4 East Market Street, Iowa City, Iowa

PI, *Established May 26, 1923* - - - - - - - - University of Virginia
P. O. Box 1054, University, Virginia

RHO, *Established February 16, 1924* - N. C. State College of Ag. and Eng.
P. O. Box 3775, State College Station, Raleigh, N. C.

SIGMA, *Established November 29, 1924* - - - Ohio State University
(Chapter house) 1963 Indianola Ave., Columbus, Ohio

TAU, *Established December 12, 1925* - - - - - Syracuse University
P. O. Box 11, University Station, Syracuse, New York

UPSILON, *Established April 7, 1928* - - - - University of Arkansas
P. O. Box 24, University Station, Fayetteville, Arkansas

PHI, *Established April 21, 1928* - - - - - - - - Purdue University
(Chapter house) 40 N. Salisbury St., West Lafayette, Ind.

CHI, *Established April 23, 1930* - - - - - - - University of Arizona
Theta Tau Box, Engineering Bldg., University of Arizona, Tucson, Ariz.

PSI, *Established May 7, 1932* - - - - - - - - - Montana School of Mines
Theta Tau Fraternity, Care of Montana School of Mines, Butte, Montana

OMEGA, *Established March 26, 1932* - - - - S. Dakota School of Mines
(Chapter house) 1117 St. Joe St., Rapid City, South Dakota

Announcing

THE

Eleventh Biennial Convention

IN

CHICAGO

AT THE

MEDINAH MICHGIAN AVENUE CLUB
505 N. MICHIGAN AVE.
CHICAGO, ILL.

Convention Dates

December 28, 29, 30, 1933

Executive Council Meeting and Opening Smoker

Wednesday Evening, December 27

Every Theta Tau who can attend this convention, the largest in the history of the fraternity, will find inspiration and new interest in his membership. Don't miss the opportunity!

Plenty of work for everyone!

Plenty of time for fun!

Who's afraid to miss two nights' sleep?

The Boom in Gold Prospecting and Mining in the United States

DEAN G. M. BUTLER, Chi Honorary,
Tucson, Arizona

FOR many years prior to 1929, the gold mining industry in the United States suffered from a severe depression. The price for which pure gold could be sold was fixed at $20.67+ per Troy ounce, while the costs of labor, supplies, and everything else used in the industry had risen to such figures that only unusually large and rich deposits could be worked profitably. Many mines that had long been gainfully productive had been exhausted or were approaching exhaustion, and there was little incentive to try to find and develop new gold mines. The crash of 1929, with the consequent fall in commodity prices, placed gold in a much more favorable position, however, and the gold mining industry is one of the very few that had been relatively prosperous during the depression. The production of gold in the United States gradually increased during the past four years as is shown by the following figures:

Does the present gold policy of our government tempt you to go West to seek your fortune as a previous generation did in '49? Whether or not you contemplate such action you will enjoy Dean Butler's explanation of your chance of success. Dean Butler is Director of the Arizona Bureau of Mines and Dean of the College of Mines and Engineering at the University of Arizona

Value of gold produced in the United States (Philippines excluded)

1929 —	$42,514,300
1930 —	43,419,000
1931 —	45,762,100
1932 —	51,836,000

Early in April of this year, the foreign price of gold had risen above $20.67 an ounce, and President Roosevelt issued an order that virtually prevented the shipment of gold bullion by the miners outside of our country and compelled them to sell their product at the old figure. It was however, possible for gold miners to ship gold ore or concentrates abroad and sell the gold contained therein at the world valuation. This rather anomalous and decidedly unsatisfactory situation, so far as gold miners were concerned, was radically changed when, on August 28th, President Roosevelt issued another order that made it possible to sell gold mined in this country after that date at a figure that was close to the world

value. More recently, our Government has begun to buy gold at a price ($32.84 on November 6th) somewhat in excess of the world value.

Any substance that materially appreciates in value, either actually or in relation to costs, is certain to be eagerly sought, and diligent attempts are sure to be made to produce it in increased quantities. If any factor

Sluicing on Chase Creek, Greenlee County Arizona

had made it decidedly more profitable to mine any metal during the period of *prosperity* which ended in 1929, increased interest in the industry would have been aroused and the production would have risen. Gold is no exception to these statements, but there are several reasons why the search for gold deposits attracted unprecedented numbers of persons during the *depression*, even if the value of gold had not risen, as follows:

1. Thousands of self-respecting people who had tried long and diligently, but unsuccessfully, to find jobs turned to gold hunting as a last resort.

2. Nearly everyone knew that placer gold had been recovered in past years by people with little or no capital, and a great many persons decided to try to duplicate the experiences of the gold prospectors of fifty years ago.

3. Certain sensational newspapers disseminated entirely erroneous information about the ease with which wages could be made recovering gold, especially placer gold, in the West.

As a result of the facts outlined, it was estimated by the United States Bureau of Mines that about 20,000 people were endeavoring to recover gold in the far western states in 1932, whereas only a few hundred were so occupied four years earlier. An increasing number of people have become placer prospectors or miners this year, and the recent increase of the price at which gold can be sold will certainly augment their ranks.

To date, the increased gold production already noted has come mostly from old properties; mines already operating have increased their output and some abandoned properties have been re-opened. Very few virgin deposits have been brought into production and are now working on a large scale. The gold output of California in 1932 was $931,464 greater than in 1931, but the small scale prospectors in that state were responsible for less than one-half of the increase. In spite of the activities of the gold prospectors in Arizona in 1932, the gold pro-

duction of that state declined from 126,185.94 ounces in 1931 to 66,789.67 ounces in 1932 due to the fact that much of the gold produced in Arizona has been recovered as a by-product in the mining of copper ores, and many copper mines closed down or greatly curtailed their operations in 1932.

It is true that there are many new properties that have begun to produce or are being equipped for production, but the importance of few of them has been demonstrated. It is hoped, of course, that many very productive, long-lived gold mines will be developed during this period of high gold prices.

Although, for the reasons given, the interest that was taken in gold prospecting and gold mining at the first of this year was greater than for generations, the recent sudden and quite unprecedented jump of almost 60% in the price at which gold can be sold, has increased that interest enormously. It should not be forgotten, however, that depreciation of our currency will gradually increase costs and lessen the gold miners' profits, even at prevailing high figures. If further extensive depreciation follows, to mine $32 an ounce gold may be no more profitable than to mine the metal when it sold at $20 an ounce. Furthermore, there is no certainty that the present high gold quotations will prevail for any length of time. The gold mining industry is really experiencing an artificially created "boom," and the bubble may burst without warning, although many mining economists are convinced that the price of gold has long been too low and believe that it should not be allowed to drop back to anything like the figure at which it was long fixed. Wise miners will seek to avail themselves of existing conditions, however, and not count very strongly on their indefinite continuance.

How do the facts set forth affect the members of Theta Tau? They may be of no interest to sophomores and juniors, but many seniors are probably going to look in vain for jobs next June, and it is not improbable that some of them will decide to prospect for placer gold rather than lie around and do nothing. Engineering graduates usually have the willingness to work hard and the energy and persistence characteristic of most men who successfully seek placer gold, and a prospecting trip may be made with comparatively little capital. "Tenderfeet" who plan prospecting trips should be interested in learning what their chances of success may be, where to go, what to do, what equipment is needed, and so forth, and the writer will attempt to give some information and suggestions on these points or state how they may be obtained.

Dry washer operating in Gold Basin, Mohave County, Arizona

The chances that a trip to prospect for placer gold will be successful

are, frankly, poor. It is most positively not true that fair wages can almost surely be earned in that calling with no great effort. Gold placers are found and worked with relative ease and the cost of the necessary equipment is often comparatively small. They are, therefore, the type of deposit that is first located and exhausted when people begin to settle in any region. While it is not impossible that some good virgin ground has been overlooked, it is unlikely that much of it exists, and far less likely that it will be found by a given individual. It is almost certain that the best one can hope to do is to locate a deposit that is too low grade to have interested the old-timers or one very difficult to work for various reasons. One's chances can be judged to some extent by the accomplishment of others to date. 12,000 small scale placer miners in California recovered $493,437 worth of gold in 1932, an average of about $40 per person, or about $65 at the present price of gold. No data are available as to the average number of days of work required to produce this small sum, but it is unlikely that the average daily recovery per person was more than 25c. A field investigation made by the Arizona Bureau of Mines this year, prior to the jump in price of gold, showed that about one thousand placer gold prospectors were active in the state and that the average daily recovery of each energetic, but inexperienced, individual (of whom there were a great number) was not more than 25c. Even experienced operators were hardly averaging $1 daily, each. These figures become nearly 40c and $1.60 respectively, at the present price of gold.

A small dredge operating on Lynx Creek, Yavapai County, Arizona

40c a day will buy beans and may seem better than nothing to a man out of work even if he must labor ten or more hours a day to obtain it, but it must be remembered that a large proportion of the placer miners recover little or nothing. That means that some of them are making several times 40c a day. The energetic, optimistic, courageous young engineer may ask "Why may I not be one of the lucky ones?" To that question there is no good answer except to point out

that the influx of prospectors is making it increasingly difficult to find promising ground.

Assuming that a member of Theta Tau has determined to seek placer gold in the United States, but not in Alaska, where should he go? Generally speaking, his chances would seem to be best where the most gold, especially placer gold, is being produced by the greatest number of people or in the greatest number of places, and that is certainly in the West, since the total value of all of the gold produced by the states east of the Mississippi River in 1932 was less than $25,000.

The value of the gold production of the western states for 1932, as reported by the United States Bureau of Mines, was as follows:

Rank	*State*	*Value*
1	California	$11,700,900
2	South Dakota	10,026,900
3	Colorado	6,339,400
4	Utah	3,174,300
5	Nevada	2,688,100
6	Arizona	1,384,600
7	Montana	897,300
8	Idaho	854,300
9	New Mexico	494,400
10	Oregon	429,000
11	Washington	87,700
12	Wyoming	32,900

The value of the total production of any state should not be the only factor considered, however, since one or two great lode mines, such as the Homestake in South Dakota, may be responsible for most of the state's production. The number of companies or groups of people (not individuals) who operate gold mines, both lode and placer, should also be taken into account, and the United States Bureau of Mines is responsible for the following figures for the western states in 1932, the last year for which these data are available:

Rank	*State*	*Number of Gold Mines*
1	California	959
2	Colorado	555
3	Montana	361
4	Nevada	336
5	Arizona	320
6	Idaho	296
7	Oregon	196
8	New Mexico	168
9	Utah	105
10	South Dakota	89
11	Washington	45
12	Wyoming	9

A third very significant factor, especially to prospective placer miners, is the number of placer mines in each state. Again the United States Bureau of Mines furnishes these data for 1931, as follows:

Rank	*State*	*Number of Placer Mines*
1	California	497
2	Colorado	195
3	Idaho	160
4	Oregon	139
5	Montana	118
6	New Mexico	109
7	South Dakota	83
8	Arizona	68
9	Nevada	65
10	Washington	21
11	Utah	9
12	Wyoming	7

It is recognized that the prospector for placer gold should really be most interested in the number of active placer mines there are in each state, and the production of them, but figures on the production of placers

alone are not yet available in many states, so the total gold production of each state is the only value factor that may be used. The total number of operating gold mines, including lode mines, is certainly significant, since that number, if large, indicates a wide distribution of the yellow metal.

The three factors considered give, except in the case of California, ranks for the twelve western states that are not the same in the three tables. In order to combine all three factors when trying to determine the chances in any one state, the three different

A small rocker operating in Copper Basin Wash, Copper Basin District, Yavapai County, Arizona

ranks of the state may be added, and the twelve states then arranged in order, as follows:

Rank	*State*
1	California (1-1-1=3)
2	Colorado (3-2-2=7)
3	Montana (7-3-5=15)
4	Idaho (8-6-3=17)
5	Nevada (3-4-9=16)
6	Arizona (6-5-8=19)
	S. Dakota (2-10-7=19)
7	Oregon (10-7-4=21)
8	New Mexico (9-8-6=23)
9	Utah (4-9-11=24)
10	Washington (11-11-10=32)
11	Wyoming (12-12-12=36)

In spite of the fact that the area of each state and the relative accessibility of its different parts were not considered in ranking the twelve states, it is believed that most well-informed mining men will agree that the "tenderfoot" who hopes to mine for placer gold has the best chance in California or Colorado, the poorest in Washington and Wyoming, and approximately the same chance in the other western states. These things being true, the choice of a field in which to work should not be difficult. Of course, winter prospecting is not practicable in the northern states or in the high elevations in the South.

As to how placer gold is recovered, what equipment is needed, and so forth, several of the western state bureaus of mines have issued pamphlets which cover these matters in detail. The Arizona Bureau of Mines at Tucson has distributed 5,000 copies of such a pamphlet in fifteen months and has a new edition now in the press. A copy will be sent gratis, as soon as issued, to any member of Theta Tau who requests one. It contains sections on all known Arizona placer areas, on small scale gold placering apparatus and operations, on equipment for prospecting, on food suggestions for prospectors, on the treatment of heat prostrations, on poisonous animals and the treatment of their bites, and on how to locate and retain gold placers in Arizona. It is a booklet of about one hundred and twenty-five pages.

The writer will also be glad to advise members of Theta Tau who plan prospecting trips and help them in any way in his power. If they decide to work elsewhere than Arizona, he may be able to give them the addresses of

state officials who can supply them with valuable information. They may find nothing but enormous appetites, robust health, delightful hours around the camp fire, some hunting and fishing, and, perhaps, adventure, but, on the other hand, some of them may "strike it rich" and make enough to enable them to build Theta Tau lodges at their Alma Maters. "Here's hoping!"

Engineers' Council for Professional Development Has First Meeting

The Engineers' Council for Professional Development held its first annual meeting in New York City on October 10, at which time the permanent organization was perfected and committee reports were read and discussed.

The Engineers' Council was formed in October, 1932, by the joint authorization of the American Society of Civil Engineers, the American Institute of Electrical Engineers, the American Institute of Mining Engineers, the American Society of Mechanical Engineers, the American Institute of Chemical Engineers, the Society for the Promotion of Engineering Education and the National Council of State Boards of Engineering Examiners. Its purpose, by charter, is "to enhance the professional status of the engineer by coördinating and promoting efforts and aspirations directed toward higher professional standards of education and practice, greater solidarity of the profession and greater effectiveness in dealing with technical, social and economic problems." As the combined voice of the seven societies above given, its reports and recommendations are subject to the approval of the participating groups.

The four standing committees reporting at the first annual meeting dealt with the four major divisions of the work contemplated by the Council. The first committee, on student selection and guidance, submitted several constructive suggestions, including the need for stressing the breadth of engineering and of preparing a simple, understandable, description of the work of engineers. This committee's job is to develop means for helping young men to determine their fitness for the engineering profession before entering college.

The second committee, on engineering schools, proposed that the E. C. P. D. be set up as an accrediting agency for schools of engineering, to the end that graduates of such accredited schools may be assured of a sound educational foundation for the practice of engineering. The third committee, charged with developing plans to further the personal and professional development of young engineering graduates and those without formal scholastic training reported progress but made no specific recommendations as yet.

The fourth committee, that on professional recognition proposed that the profession establish as the goal of attainment a series of qualifications for which the young engineer may strive

continuously from the time he enters upon his career, the goal to be a certificate equivalent to a professional degree and adequate to entitle the holder to licensing. The proposed minimum qualifications for such certificate would require four years of successful college work supplemented by at least four years of active practice of satisfactory kind to be followed by examination, or for those without college training, a minimum of eight years of practice followed by examination covering both practice and the field of normal college courses. The committee further recommended that professional recognition be expressed by three grades of society membership: student member (engaged in study), junior member (graduate of approved school or one who has passed equivalent examinations), and member (one who has passed the minimum requirements as summarized above).

P. I. C. in Biennial Meeting

Prof. Jamison Vawter on Executive Committee

The Professional Interfraternity Conference gathered for the sixth meeting at the Knickerbocker Hotel in Chicago on Oct. 13, 14, 1933. This year's meeting indicated clearly that the conference is definitely through the formative period and is now squaring away at some of the major professional fraternity problems.

Such subjects as chapter inspection, officers' manuals, indefinite pledge terms, editing magazines, balancing budgets, and alumni chapters were ably discussed by members of the conference. The annual dues were reduced 10% in keeping with the spirit of the times.

Before adjourning the following men were selected to direct the conference for the next biennium:

President: Dr. W. A. Mann, Jr., Alpha Kappa Kappa (Medical)

Vice-President: Dr. J. H. Cadmus, Psi Omega (Dental)

Secretary-Treasurer: Mr. H. G. Wright, Delta Sigma Pi (Commerce)

Members of the Executive Committee: Dr. M. C. Rogers, Alpha Chi Sigma (Chemistry); Mr. Don C. Jenkins, Phi Beta Gamma (Law); Prof. Jamison Vawter, Theta Tau (Retiring President).

What It Takes

Some years ago six thousand engineers were asked to list the important factors of success in the engineering profession and to rate each factor with its relative importance on a percentage basis. Following is the summary of the ratings:

Factors	*Relative Importance*
Character	24.0
Judgment	19.5
Efficiency	16.5
Knowledge of men	15.0
Knowledge of fundamentals	15.0
Technique	10.0
	100.0

"For the Good of the Order"

Constructive Criticism from Grand Marshal DONALD D. CURTIS

WITH another biennial convention close at hand, the active chapters should begin making plans to get all possible good out of the gathering. For one thing, a chapter should send as many of its active members as possible to the convention in order to get ideas and stimulation from

Donald D. Curtis

contact with members of the other chapters. With the meeting held in Chicago several chapters are in reach and I hope it will be possible for all such to send at least their alternate in addition to the regular delegate. Some should be able to help finance the trip for one or more promising sophomores, who would bring especial benefit to the chapter through their longer active life in it.

And most chapters have practices of their own which might work for the good of the order if adopted by the others. Giving these a reasonable presentation to the proper committee of the convention might produce results.

There are two kinds of chapter letters—I suppose I could say bad and worse—but I am referring to the type sent to the GEAR editors as chapter news and the type some of our chapters send to their alumni periodically. For the chapter news letter, little can be said favorably of the form usually presented to the GEAR. A recital of purely local affairs and campus honors —important though they may be to the local group—can hardly be calculated to offer much to the fraternity at large, and examination of numerous such letters from our chapters and in other fraternity publications convinced me a long time ago that the average chapter news letter consists chiefly of that. Naturally it would. The letters do have value to the individual who prepares them, and perhaps to the local group, but the editors who publish them should be absolutely free to condense them at will, or even only to mention receipt of them.

The other letters are quite different in complexion. As news of their own groups these are of direct interest to

alumni. One chapter uses its monthly letter as official Alumni Association mouth-piece, has the letter edited jointly by an active and an alumnus, the alumnus having the responsibility of the actual editing, printing and mailing. Frequently a guest editor has been chosen from the better known alumni. This letter is remarkably successful, as are numerous others I know about. These letters do much to keep contact with alumni and in that way help to meet a real need. All our chapters should get out some such communication.

It seems reasonable to me to urge the use of the Theta Tau employment bureau. At the present time jobs are beginning to open up and numerous of our alumni ought to be able to give a line on an opening, if not one for which they will hire the men, then just a tip that the place will be open. Such a tip might be the means of helping a needy brother, and I'm afraid there are a good many such now.

Times are getting better. Men who are in school now should feel encouraged. They may shortly find themselves on the crest of a wave of demand for technical services such as we have never seen. Even if times are slow in picking up, college men can feel that they are making good use of their time and resources in preparing to meet the resulting keenness of competition. And Theta Taus will have some extra chance by virtue of a connection with a group which has assumed considerable proportions in a close field.

MIXES ENGINEERING AND ARCHEOLOGY IN PERSIA

The following is quoted from a letter by Chas. H. Topping, Eta '28, to Professor Spofford of M. I. T.:

"I am division engineer in charge of port construction for the South Persia State Railways at Ahwaz, and enjoying the job since there is plenty of it. I'm alone with 1,800 Persians, Arabs and Indians, my neighbor at the half-way point being the only white man this side of Ahwaz, 70 miles up the track. We're building an island which is ten miles out in the Gulf at high tide and 10 miles inland at low water, but still connected by a fine channel. The work is varied, the job being "mayor" of the town being part of it. We're marking the channel, building station, warehouses, shops, train crew and section houses, bridges and discharging ships, besides keeping trains running. There are now 250 kilometers of line and it is being pushed through very heavy mountain country in the north.

"The heat is terrific, 120° in the absent shade, and the humidity, usually very low, has been for these two months 100% so that we are always drenched in perspiration. Food is scarce but very cheap. Servants, (cook and house boy) amount to $12.00 per month. Otherwise there are no expenses.

"Archaeological curios are plentiful, coins of Alexander the Great and many much older being frequently dug up in the many ruins. Ahwaz is the site of old Nasserie where the remnant of Valerian's army, enslaved by the Persians, built a masonry dam three-quarters of a mile long across the Karun River, which now serves as the foundation of our bridge."

In Memoriam

The Executive Council Wishes to Express Its Deep Sorrow at the Passing of the Following Brothers, About Whom Details Are Not Available at This Time:

David Stewart Craig, Alpha '18
John A. McCrea, Alpha '28
Lewis B. Smith, Zeta '14

CHARLES J. PAINTER, Zeta '15

CHARLES J. PAINTER, manager of the Veterans Administration, Manila, P. I., and for many years connected with the Veterans Administration, Washington, D. C., died in Philadelphia, Pa., on October 24, 1932.

Brother Painter was born at Barclay, Kansas, in 1890, and was graduated from the Barclay High School in 1908. He attended Friends University, Wichita, Kansas, from 1908 to 1911, and later specialized in civil engineering at Kansas University, where he became a member of Theta Tau and Sigma Nu fraternities.

He enlisted in the army on June 12, 1917, at El Paso, Texas, and was commissioned a second lieutenant in August, 1918. Returning to Washington after the war, he served in various offices of the George Washington Post, American Legion, and was made commander in 1927.

After serving thirteen years in the Washington office of the Veterans Administration, he was appointed in November, 1930, to the post in the Philippines and continued there until a few months before his death when failing health made necessary his return to this country.

Brother Painter was active in the American Legion, was a member of Acacia Lodge No. 18, Grand Lodge, F. A. A. M., a member of National Sojourners, Far East Chapter No. 15. He held a commission in Reserve Officer Corps, U. S. A., at the time of his death, and was a steward in Mt. Vernon Methodist Church.

He was buried in Arlington National Cemetery, and is survived by his wife. Theta Tau unites in expressing sincere regret at the loss of Brother Painter.

ROBERT J. BURNS, Gamma '33

ROBERT J. BURNS lost his life last June by drowning while on a vacation jaunt in the Canadian wilderness, near the head of Lake Athabasha, Canada.

Brother Burns was one of the most popular men on the Colorado School of Mines campus. He was a member of Kappa Sigma and Theta Tau fraternities, was a member of the "M" Club, and was one of the star players of the hockey team. He graduated from Mines in 1933.

Theta Tau extends sincere sympathy to the relatives and friends of Brother Burns.

MORRIS CHARLES KNIGHT, Alpha '33

MORRIS CHARLES KNIGHT, son of Dr. and Mrs. Ray R. Knight, was born on July 3, 1912. At the age of sixteen years, he entered the University of Minnesota. His success as a student is evidenced by the many activities in which he took part and by his election to Pi Tau Sigma, honorary mechanical engineering fraternity. He was active in the student branch of the American Society of Mechanical Engineers and served as vice-president during the past year. Brother Knight was a member of Scabbard and Blade, Beta Theta Pi, and Theta Tau fraternities. He was an Eagle Scout, was active in Hi-Y and in young people's work in Westminster Presbyterian church.

After a short illness, Brother Knight died on April 20, 1933. Theta Tau unites in extending sympathy to his parents, his sister, his two brothers, and his many friends.

FRANK R. VAN HORN, professor of geology and mineralogy, "father of Case athletics," and eminent scientist, was born in Johnsonburg, N. J., in 1872. He received his grammar school education at Trenton and was graduated from Rutgers' College. He obtained his Ph. D. degree at the University of Heidelberg, Germany.

FRANK ROBERTSON VAN HORN, Hon. Delta '92

After having taught a year at Rutgers' College, Brother Van Horn began teaching at the Case School of Applied Science in 1897. Due to his goatee and continental manner, he soon acquired the nickname "Count." From 1900 to 1925, he was faculty

director of athletics—his ability in this position being evidenced by the Case Club and the athletic field which bears his name.

Brother Van Horn was active in his field and was the author of two standard textbooks on geology and mineralogy, the government-published "Geology and Mineral Resources of the Cleveland District," and many articles in scientific journals. He was one of the twelve counselors of the Geological Society of America, was a member of the Committee of one hundred men on Chicago's Century of Progress, was secretary of the Mineralogical Society of America since 1923; was a member of the Association for the Advancement of Science, the Ohio Academy of Science, the American Institute of Mining and Metallurgical Engineers and the Seismological Society of America. He was also a member of Phi Beta Kappa, Sigma Xi, Delta Upsilon, and Theta Tau fraternities. These are some of the reasons for his appearance in "Who's Who."

Last spring, Brother Van Horn completed the cataloging of ten thousand specimens of rock in his economic geology collection at Case, the largest mineralogical collection in the country.

Brother Van Horn died on August 1, 1933, leaving his widow, Mrs. Myra Van Horn; a son, Kent R. Van Horn, Delta '26; and a daughter, Mrs. Hilda Richenbaugh of Detroit. Theta Tau extends deep sympathy to those who mourn the loss of Brother Van Horn.

Nesmith Thompson, son of Albert W. and Hildreth N. Thompson, was born on Dec. 23, 1899, in Lowell, Mass.

His early training was received in the public schools of Manchester, N. H. and Lowell, Mass. He was also a student at the Fessenden School for Boys in Newton, Mass., for three years.

In 1923, he graduated from Massachusetts Institute of Technology where he was a member of Sigma Nu and Theta Tau fraternities and was captain of the Gym team in 1923.

From 1923 to 1929, he worked for the Parks-Cramer Humidifying Company in Charlotte, N. C. He was then

Nesmith Thompson, Eta '23

transferred to Fitchburg, Mass., as assistant to the General Manager.

He died on June 17, 1932, from an attack of bronchial asthma, at his home in Fitchburg.

Because he was ill much of the time, he read a great deal and hence became well versed along many lines. However, he was very fond of outdoor life and sports and his sense of humor and good sportsmanship never failed him.

Brother Thompson is survived by his wife, an infant daughter, and his father. To these relatives, and to his many friends, Theta Tau wishes to extend sincere sympathy.

FREDERICK W. BRADLEY,
Hon. Epsilon '86

FREDERICK W. BRADLEY, outstanding mining engineer and executive, died on July 6, 1933, at the age of seventy years. He was a native of Nevada City, Calif., and began his mining career in 1884 in the Spanish Mine, where he made low-grade ore pay substantial profits. At the time of his death, he was president of the Alaska Juneau and Bunker Hill and Sullivan mining companies of Idaho. He resigned last month as foreman of the Federal Grand Jury in San Francisco.

For outstanding achievement in mining, Brother Bradley received the William Laurence Saunders gold medal last year. In 1929 he was president of the American Institute of Mining and Metallurgical Engineers. In 1931 he was made an honorary doctor of laws by the University of California.

He was a member of the University Club, Pacific Union, Bohemian, Olympic, Commonwealth, Commercial, Engineers' San Francisco Golf Club, and St. Francis Yacht Club.

To mourn his loss, Brother Bradley leaves his widow, Mrs. Mary Parks Bradley, whom he married in 1901; four sons, Frederick, Jr., James, Epsilon '28, Henry, and John, Epsilon '33; his mother, Mrs. Virginia Shearer Bradley; two sisters, Martha Hogue and Mabel Legg; and a brother, Philip Reed Bradley. To these relatives and to his many friends, Theta Tau wishes to extend sincere sympathy.

JOSEPH E. EDGEWORTH was born in Denver, May 8, 1899, and attended the Denver Schools. In 1921 he received the degree of Engineer of Mines at the Colorado School of Mines, where he was a member of Theta Tau.

For five years immediately following his graduation, he was employed by the Goodman Manufacturing Co.

JOSEPH EDWARD EDGEWORTH,
Gamma '21

of Chicago as Machine Service man in the Western Territory. In 1926 he began with the Union Pacific Coal Co. as Timberman but was soon put in charge of Mechanical Loading. In August, 1929, he accepted the position of Superintendent of the Lion Coal Corporation at Blairtown.

Brother Edgeworth served with dis-

tinction in the World War, was active in the affairs of ex-service men, and was adjutant of Archie Hay Post No. 24, American Legion, at the time of his death, April 7, 1933. Only recently he had completed his term as Chairman of the Wyoming Section of the American Institute of Mining and Metallurgical Engineers.

To his widow, to his small daughter, and to his other relatives and friends, Theta Tau extends sincere sympathy.

HAROLD WELCH FAIRCHILD, Eta '29

HAROLD WELCH FAIRCHILD was born in Pelham, N. Y., on April 29, 1908. At M. I. T. he became affiliated with Theta Tau and Sigma Alpha Epsilon fraternities. After being graduated in aeronautical engineering in 1929, Brother Fairchild completed a year's training course with the Air Corps at Brooks and Kelly fields. He became associated with the United Company in 1930 and had had an important part in the development of improved flight test methods and with F. M. Thomas wrote a paper on "Airplane Flight Testing for Maximum Speed."

Brother Fairchild was a first lieutenant in the 118th Observation Squadron, 43rd Division Aviation of the Connecticut National Guard at Hartford, and at the time of his death was engineering test pilot in the research division of the United Aircraft and Transport Corporation at Hartford, Connecticut.

In commenting upon his death, Charles H. Chatfield, Assistant Director of Research, The United Aircraft & Transport Corporation, said, "In his death the aeronautical engineering profession loses one of the best of its younger members."

Theta Tau wishes to express sincere regret at the loss of Brother Fairchild.

HOWARD BRUNO HEGGLUND, Omega '34

HOWARD BRUNO HEGGLUND, son of Mr. and Mrs. A. L. Hegglund, was born on September 17, 1911, at Pierre, South Dakota.

He attended the grades and high school in Pierre and was graduated from the high school in June, 1930. While in high school, he took an active part in school life and was captain of the football team, mayor of the student body, and president of the senior class.

In 1930, Brother Hegglund entered the South Dakota School of Mines and became associated with the fraternity while it was still Phi Alpha Lambda.

At the School of Mines he made many friends and showed excellent prospects for success in his chosen field. He was a member of the football team and gave good account of himself on the gridiron. He was also a member of the drill and crucible club and was vice president of his class in '31-'32. Brother Hegglund would have been a member of the Senior Council and assistant in the Department of Metallurgy during his senior year.

Brother Hegglund was an outstanding member of the De Molay Chapter, filling many positions of trust and responsibility. He was also a faithful and active worker in his church.

He died on May 17, 1933. Theta Tau wishes to extend sincere sympathy to the relatives and friends of Brother Hegglund.

Edward F. Miller, son of Wm. Gibbs and Sarah Furber Miller, was born in Somerville, Mass., on Jan. 18, 1866. He was graduated in 1886 from M. I. T. and immediately joined the faculty as teacher of the mechanical engineering department.

In order to make a first-hand study of systems of engineering instruction in foreign technical schools, Brother Miller made a tour of educational centers of England and the Continent. Under his guidance, this division of the Institute made notable advances in equipment and technique.

Brother Miller was a member of the American Society of Mechanical Engineers, the Boston Society of Civil Engineers, the American Society of Civil Engineers, and the American Society of Refrigerating Engineers. He also held an honorary membership in the National Association of Stationary Engineers, and was a life member of the Massachusetts Charitable Mechanics' Association.

During the World War he had charge of the establishment and direction of eight schools throughout the country, in which thousands of men were trained as engineer officers for service in the Shipping Board fleet. He also carried on experiments for the U. S. Army, and following the war was commissioned a colonel in the ordnance department. In 1921 he was ap-

Edward F. Miller, Hon. Eta '86

pointed dean of army officers at M. I. T., where he was influential in establishing the ordnance school and the R. O. T. C. unit for undergraduates. He was a former president of the Boston Post of the Army Ordnance Association, and was the first president of the M. I. T. chapter of the Reserve Officers' Association.

In 1920, Brother Miller served as a member of the administrative committee which governed the institute prior to the inauguration of Samuel W. Stratton as president in 1923. In 1921 he was elected chairman of the faculty. In the same year he was awarded the honorary degree of Doctor of Science by Rhode Island State College.

Brother Miller was deeply interested in problems of public welfare, and served in various capacities on many boards and commissions appointed by the state for the investigation and regulation of engineering matters. He was an authority in problems of smoke abatement, and his extensive knowledge of steam boilers led to his serving as expert in numerous legal cases.

He wrote several books on engineering subjects, among them "Steam Boilers," articles on power plant design, heating, and ventilation, for engineering publications; and a pamphlet, "Training of Engineer Officers," published by the U. S. Shipping Board during the World War.

Theta Tau wishes to express sincere regret at the passing of Brother Miller on June 12, 1933.

Earle P. Luce, Beta '10

Earle P. Luce, County Engineer and one of the most prominent men in his profession in Florida, died at the age of forty following an emergency operation.

Brother Luce, a native of Michigan, attended the Michigan College of Mining and Technology, where he became affiliated with Theta Tau. During his college days, he was a conspicuous athlete; he was an amateur lightweight champion, a basketball star, and also excelled in baseball. He received the degree of Mining Engineer when he was graduated.

Prior to the World War, he was active in reclamation work and general construction in Louisiana and also practiced his profession in Central America.

At the outbreak of the war, Brother Luce was one of the first to volunteer as a private. He rose to the rank of lieutenant and was known for his bravery. He was wounded by machine gun fire and also by shrapnel. After the battle of the Argonne, he returned to this country after spending some time in the hospitals in France.

Since 1918, Brother Luce has resided in Jacksonville, Florida, where he came as an employee of the George B. Hills Co. and won recognition as a consulting engineer. In 1930 he became county engineer and held that position until his death.

To survive him, Brother Luce leaves his widow, Mrs. Mary Hill Luce, and his son, Hill Luce. Theta Tau wishes to extend sincere sympathy to those who feel the loss of Brother Luce most keenly.

The GEAR *of* THETA TAU
OFFICIAL PUBLICATION OF THE FRATERNITY

P. L. Meeker, Omicron '21 and J. W. Howe, Omicron '24
Editors

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WORTHY OF THETA TAU'S CONSIDERATION

The committee reports presented at the first annual meeting of the newly organized Engineers' Council for Professional Development should be of utmost interest to all members of the engineering profession. Here is a body whose only purposes are to elevate the standards of our profession and to make it possible for those and only those who fully measure up to these standards to be recognized as Professional Engineers.

These are noble purposes, truly. And an excellent start has been made toward fulfilling these purposes. The problem now comes to each of us, whether a member of one of the societies responsible for the Council or not: Do we believe this goal to be worth while? Do we think it can be attained? Are we willing to coöperate and work toward it?

We like to think that Theta Taus are always eager to assist in elevating the standards of engineering. As a group that is one of our most ambitious aims. The question of recognition too, we are sure, will find a sympathetic response in our fraters, though the kind of recognition may require a little explaining. Some of us, it is true, look a little enviously at the recognition the public accords the medical, dental and legal professions. To these, recognition means, to some extent at least, a setting apart as a social distinction without regard to character. But to others, and we believe to the E. C. P. D. the recognition wanted is of ability and accomplishment. This recognition is for the benefit of the public, to assure them that the Professional Engineer to whom they may turn for advice is competent to give it. This is the type of recognition many states have already demanded through licenses. It is certainly appropriate then, that engineers, through this single representative agency, should establish uniform standards of achievement as a basis for professional recognition.

THETA TAU RETURNS TO CHICAGO

Theta Tau is on the threshold of another convention! This, our 11th Biennial Convention, will be held in Chicago at the Medinah Michigan Avenue Club with our loyal Chicago Alumni Chapter again in the role of "Mine Host."

With all the practice Chicago has had this year entertaining conventions, we can surely expect something unusual to say the least. Of course, the Century of Progress will be closed for the winter season but doubtless we can peek over the fence and see the tops of the modernistic buildings and the

towers of the famous Skyride. Furthermore, we dare say, even though the Streets of Paris may be dark that an occasional Fan Dancer may be found performing in the night clubs and cabarets of the city.

But, as always in a Theta Tau Convention, there will be work to do and willing workers to do it. The N. R. A. perhaps will suffer for a day or two while 30 hour weeks are crowded into 30 hour days but out of it all will emerge a stronger and better fraternity.

To All Life Subscribers

During the past year I have received a number of letters from recent graduates stating that they had not received copies of THE GEAR since they had graduated. In every case this was because the member had not notified the editors of his change in address. As far as they knew he was still an active. To save mailing expense it has been our custom to send enough copies of each issue in one bundle to the chapters to take care of all actives and usually a few extra copies have been added. It is obviously impossible for the editors to mail copies to individual addresses unless such addresses are sent to them. As a convenience a printed slip has been enclosed in the spring issue. Life subscribers are entitled to THE GEAR. It will be sent to them promptly, if they will inform the editors of changes in addresses, and if they will notify them that they do not wish their copies included in the bundle that goes to their active chapter. We want the members to have copies but unless we get their coöperation this is not possible.

E. J. Schnader

Grand Scribe.

SOUTH DAKOTA ENGINEERING CONCENTRATED AT RAPID CITY

The Board of Education of the State of South Dakota last spring determined that the engineering courses at the state university would be discontinued and with the exception of a few engineering subjects at State College, all of the engineering courses would be transferred to the South Dakota School of Mines at Rapid City. This ruling was appealed to the Supreme Court by some of the alumni of the State University but in September this plea was denied by a unanimous decision of the court. It seems certain therefore that the concentration of all engineering courses at the Rapid City institution will in time materially increase the enrollment there and that it will become an important institute of technology in the West.

Prominent Theta Tau Actives

Walter J. Irwin, Iota '34

In his freshman year, W. J. Irwin became known as an outstanding aspirant on the cinder path. In his sophomore year, he broke the State half-mile run record and has retained it since. He was a co-captain of the track team during his third year in school and broke innumerable meet records. His part on the mile relay team undoubtedly was a factor in helping the team to establish many new records.

Before his sophomore year was over, he displayed prominence in most everything he undertook. He was made vice-president of the sophomore class, was elected into the Satyr Organization which he served as secretary, and was initiated into Theta Tau.

Walter J. Irwin

In his junior year he was the scribe of Iota Chapter. He was made a Senior Council Alternate and became a member of Blue Key. He was also secretary-treasurer of the local branch of the A. I. E. E.

He is now Regent of Iota Chapter and will be Iota's representative to the coming convention of Theta Tau. In the military department he is president of the Officers' Club and is second in command of his Company. Politically, he is active in the Senior Council, is an active Independent, and is on the Missouri-Miner-Rollamo Board of Control. His most recent laurel is his election into Tau Beta Pi.

Jim Westwater, Beta '34

Jim Westwater, Beta '34, has achieved a position of great prominence on the Michigan Tech campus. Besides Theta Tau, his fraternities are Tau Nu Tau and Blue Key. He is treasurer of Blue Key. In addition, he is secretary of the Mining Club, is editor of the college newspaper, The Michigan Tech Lode, and was twice Golden Gloves champion in the lightweight division. "Westy" has also been cheer leader, and is at the present time a Cadet Captain in the R. O. T. C. unit of Michigan Tech.

Jim Westwater

FRANK LOSEE, Chi '34

Last spring at the all University of Arizona election, Frank Losee was elected President of the Student Body, the second engineer and the first Theta Tau man to hold this most coveted office. Brother Losee was Regent of Chi Chapter last year, is a member of Blue Key and Scabbard and Blade fraternities, and is one of the most popular men on the University of Arizona campus.

FRANK LOSEE

JACK HAYS, Epsilon '34

Due to the untiring efforts of Regent Jack Hays of Epsilon Chapter, the University of California now has a polo team actively competing with other Pacific Coast teams. Brother Hays is not only the promoter of the sport there but is also captain, coach, and star player of the team. Also, he is President of the Students Mining Association to which all students in the College of Mining belong.

JACK HAYS

MYRON O. JENSEN, Sigma '35

Myron O. Jensen bids fair to become Sigma's most prominent active for the year. This year he finishes a four year course in Civil Engineering, which has been a creditable one to say the least. He started out by making Phi Eta Sigma, men's Freshman Honorary. Soon after he became a Theta Tau, he was elected Treasurer and house manager. Last spring he made Tau Beta Pi and before that he was initiated into Scabbard and Blade, of which he now is First Lieutenant. This fall he was appointed Brigade Colonel. He will be in the Student Senate and will have charge of the Brigade Prom.

MYRON OSVAL JENSEN

CLAIR WOOD, Zeta '32

Last Spring Clair Wood was named "Honor Man," which is the highest honor the University of Kansas bestows upon a young alumnus. Every spring the outstanding graduate of the preceding year who is making a successful start in life after graduation is thus honored.

The Jayhawker says: "Clair Wood was entirely self-supporting while in the University. He was janitor at the gymnasium and an assistant in the Engineering Library. At other times he was chauffeur to Chancellor Lindley

and steward at the Theta Tau house.

CLAIR WOOD

"An efficient worker, Clair Wood was well liked by his instructors. He was quiet, modest, conscientious, and prompt about his work. His pleasing personality made him popular among the students, and he was known to his associates as a 'prince of a fellow.'

"During his school years here, he participated in many activities: Sigma Tau and Tau Beta Pi, honorary engineering societies, claimed part of his attention; the Reserve Officers' Training corps commanded much of his time and efforts—during his senior year he was Cadet Colonel. Sachem, the senior men's honor society, elected him to their membership. As an engineering representative of the Men's Student Council and later as business manager of the Kansas Engineer, he became well acquainted with members of the Engineering School, who elected him as their president in 1931. In 1932 he was Senior Cakewalk manager.

"The Honor Award is without doubt the outstanding achievement made by Clair Wood during his college career. It marks him as a man of distinction and points to a successful life in the future.

"He is now a member of the Cadet Flying Corps, having been stationed at Kelly Field near Houston, Texas, and having graduated from there last week, October 14. This organization is composed of West Point graduates and outstanding students of other schools."

ANOTHER THETA TAU A LONG WAYS FROM HOME

The following is quoted from a letter by S. B. Henry, Epsilon '23, to Erich J. Schrader:

"Brother Robert P. Miller, Epsilon '20, and self are on this trick island (Bahrein Island, Persian Gulf) in the capacity of geologists for the S. O. C.'s Bahrein Petroleum Company. However, we have just completed outfitting for an extensive geological reconnaissance survey in eastern Saudi Arabia. Likely you know that California Standard recently secured a very large concession from the King of Saudi Arabia. We are informed that the company is now forming a subsidiary to handle that work but to date we don't know what the name is to be.

"Our Bahrein Concession promises to be a large affair. A beautiful low-angle dome about 20 miles long by 8 miles wide with Eocene surface exposures. Three wells have touched the oil horizon at a depth of about 2000 ft. and although no satisfactory production tests have been made, we feel assured of good production. The petroleum is encountered a short distance below the Eocene Cretaceous contact in porus limestone. Oil is 33° Be. asphaltic base."

Polite Repartee at Colorado Mines

HEAR YE! SISSIES!

We, the members of the honorable fraternity of Theta Tau, challenge the lame-brained members of Sigma Gamma Epsilon to a game of polo, to be played on Brooks Field during Homecoming.

We realize that the snipe hunters will encounter difficulties in procuring mounts with I. Q.'s below theirs. Theta Tau solemnly warns the sissies of Sig Gam that they will be publicly humiliated before the howling crowd in such a manner that they will be outcasts for the remainder of their earthly days.

Polo is a gentleman's game and, as such, we realize our social reputation will be jeopardized by contact with the uncouth members of Sig Gam. However, after the fray Theta Tau will cleanse themselves with acids and rare waters to forever banish the contamination contacted in the event with the unclean Sig Gams.

Theta Tau also warns the members of the Sig Gam crew to disguise themselves to such an extent that they will not be confused with the other donkeys gamboling about the field. Theta Tau does not want to become involved with the Humane Society for konking one of the mental giants of Sig Gam with a mallet. It has always been difficult for the Hammer and Tong men to distinguish the mounts and Sig Gams from each other. Especially when there is a leeward wind blowing the odors into the stands.

Therefore, ye stupid ones, prepare thy reputations as polo players for a funeral and be ready to meet defeat as bovines should.

WE HEARD YOU! BLOCKHEADS!

It sounded like the incoherent babling of weak and warped minds. Your brazen gall is disgusting. We administered a most crushing and humiliating defeat to your lousy fraternity last year.

However, we, the members of the exalted fraternity—Sigma Gamma Epsilon, accept the Theta Tau's ill-begotten challenge. We do so with the spirit of martyrs. We aim to make it certain that future Homecoming crowds shall not have to be bothered with such vermin as yourselves crawling on the sacred turf of Brooks Field.

Your usual ignorant nocturnal tactics will avail you nothing. The sight of a team of stalwart Sig Gams, riding out upon the field, can but make you, depraved numbskulls of Theta Tau, cringe with fear. This polo game will be out in the open where the use of boasts, bluffs, and vulgar actions will get you nowhere.

Therefore, on the day of Homecoming, see if you can arouse enough of your rock-knobs out of their lethargy. Then tie them to their mounts so that jackass can lead jackass to the stadium. We'll be there whether you nitwits find the stadium or not. Our battle cry will be: "Theta Tau! Rats! Exterminate 'Em."

From *The Oredigger*
Colorado School of Mines

Letters from the Chapters

Ambition Runs High At Alpha

Alpha Chapter celebrated Founder's Day with a banquet, Brother Comstock, Honorary, acting as toastmaster.

The officers are as follows: Regent, Wesley Johnson; Vice-Regent, Roger Bossen; Scribe, Lewis Martin; Treasurer, Floyd Robbins; Corresponding Secretary, Mirza Gregg; Marshal, Robert Barthelemy; Outer Guard, Ward Thompson; Inner Guard, Sidney Mitchell; and Steward, Richard Schuett.

The initiates last spring were: Finley LeCount and Fred Bohmbach. This fall's initiates are: Lee Paul, Don Heng, and Rolland Nugren. We have two pledges, Ralph Adrist and William Zehnder.

Our scholastic rating for last year was 1.331. Brother Roger Bossen is in Tau Beta Pi and Phi Lambda Upsilon, and Brother Lewis Martin is in Chi Epsilon. Brother Marvin Sedam was also elected to Tau Beta Pi last spring. Brothers Wesley Johnson and Roger Bossen were elected to Iron Wedge, all University men's Senior Honor Society, and Don Heng represents the chapter in Phoenix, all University men's Junior Honor Society. Brother Roger Bossen is also Senior President of the Chemical Engineers. Brother Lewis Martin is President of the student branch of A. S. C. E. and of the Technical Commission.

At Homecoming Alpha entertained six brothers from Omicron who made the trip for the game.

Alpha welcomes back Brothers Kenneth Johnson and Roy Dynesius who were out of school last year.

Last spring twelve of us made the annual canoe trip from Taylor's Falls to Stillwater.

We are working in hopes of winning the volley ball cup, for which we were runners up last year.

Yours in H. & T.,
LEWIS F. MARTIN

Nov. 4, 1933

Beta in Possession of Scholarship Trophy

Beta started this year with twenty-two actives, two alumni, and one pledge.

Regent Passenheim called the first meeting to order with Vice-Regent Sanabria, Scribe Webb, Treasurer Westwater, Marshal Lange, Inner Guard Collins, and Outer Guard Fitzgerald taking charge. Brother Anderberg is steward of the chapter.

The social season was opened with two impromptu dances.

The scholarship trophy, won for the

third time in the past four years, remains in the house along with the R. O. T. C. award, which was won for the second consecutive year.

A new asphalt driveway has been laid and numerous improvements have been made on the house.

At the last regular meeting, Hans Schou was initiated.

Last spring Brother Passenheim was elected to Tau Beta Pi.

Beta Chapter is represented in Blue Key by James Westwater, Carl Passenheim, Jim Wilson, Wally Webb, Russ Anderberg, John Sanabria, and Bob Andrew. In Tau Nu Tau we have James Westwater, Carl Passenheim, Hans Schou, John Sanabria, Bill Lange, and Bob Andrew.

Beta is also well represented on the staff of the Michigan Tech Lode, the college newspaper. Jim Westwater, editor, and Bill Collins, business manager, have just returned from the Associated Collegiate Press Convention in Chicago. Norman Shutes is sports editor and Bud Price, Bill Bates, and Gene Allyn are reporters.

On the football squad Captain Wally Webb, Norm Shutes, Lloyd Campbell, Dell Rogers, and Bruce Nekervis represented Beta Chapter.

In R. O. T. C. work we have Cadet Captains Westwater, Sanabria, and Passenheim; and Cadet Sergeants Andrew, Collins, Lange, and Price. We also have many second year men.

We have pledged the following men: Wesley Grosh, Jack Reid, and Robert Cosgrove.

Yours in H. & T.,
A. R. Andrew

Nov. 2, 1933

Delta Long On Activity Men

Delta Chapter has fifteen active men and ten pledges. Regent N. J. Ranney is president of Eta Kappa Nu, a member of Tau Beta Pi, a member of the Case Athletic Association, and Copy Desk Editor of the Case Tech. Vice-Regent T. W. Sayle is a member of the Glee Club, a member of A. S. M. E., and is on the business staff of the Tech. Treasurer Ben Kornhauser is a football man; a member of Gamma Phi, a gymnastic organization; a member of Tau Beta Pi; and a member of Pick and Shovel. Inner Guard J. E. Hannon is chairman of the local branch of the A. S. M. E., associate editor of the Tech, and an editor of the year book. J. M. McCoullough acts as the Outer Guard and is a member of Blue Key, A. I. E. E., band, and Glee Club; and is manager of the musical clubs. William Hall, Corresponding Secretary, is a member of Blue Key, treasurer of Eta Kappa Nu, and chairman of the membership committee of A. I. E. E. J. A. Collins is the Scribe and R. C. Nickerson is the Marshal and pledge master.

Chuck Leader is in the Glee Club and is Annual Editor on the Tech staff. Bob Gelts is swimming manager and a track man. Paul Owen is football manager, a member of Tau Beta Pi, a member of the Glee Club,

and is on the Tech and Annual staffs.

Two of the most outstanding men are John Donnell and Jimmy Crall. John is a member of Tau Beta Pi and of Blue Key, is an officer in Eta Kappa Nu, is on the Tech staff, is in the Glee Club, and is on the track team. Crall is president of the Case Senate, is a member of Blue Key, Gamma Phi, and Tau Beta Pi, and is a swimming and track letter man.

The following pledges will be initiated on November 15: J. O. Geissbuhler, R. Moeller, A. I. Sibila, H. L. Ginaven, W. G. Seck, R. G. Chapman, R. O. Hartman, R. R. Read, F. W. Cowdrey, and R. A. Taborsky.

Yours in H. & T.,
WILLIAM G. HALL

Nov. 6, 1933

Large Chapter At Epsilon

Epsilon Chapter has an active roll of twenty-nine men. At the rushing dinner, Professor R. W. Chaney told of his trip in China.

The following men have been initiated: John E. Kilkenny, Cyril Fox, Joseph Gregory, Norbert McKenna, A. E. McLaughlin, and W. R. O'Leary, Jr. Thirty-five men were present at the initiation banquet.

Brother Jos. Strutzel has been elected to Tau Beta Pi. Brothers prominent in athletics are Hogle and Ristrem in boxing, Tower in basketball, Scarfe in wrestling, and Hays in polo. Regent Hays is captain of the polo team as well as its founder.

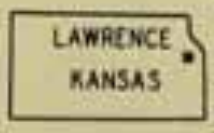
At a recent meeting, Dean Probert gave a memoriam to our deceased Brother Frederick W. Bradley.

The officers are as follows: Jack Hays, Regent; John Allen, Vice-Regent; Bill Badt, Scribe; and Wm. Smith, Treasurer.

Yours in H. & T.,
PAUL S. PUSTMUELLER

Nov. 2, 1933

Zeta Strong At K. U.



Zeta Chapter has a total roll of thirty-two, twenty-three actives and nine pledges. The men to be initiated on November 4 are as follows: Carl Kindsvater, Franklin White, Preston Cole, Glenn Hands, R. D. McKim, W. C. Wyatt, Robert Russell, and Louis Benz. Our new pledges are Bill Carter, Edward Heter, Howard Miller, Max Lamm, Dennis McCarthy, and Fred Smithmeyer.

The fall election of officers has not taken place yet. On the third of October we held our sixth annual freshman smoker.

Zeta has four members in Tau Beta Pi: Howard Oliphant, president; Glenn Hands, assistant treasurer; Chas. Spahr; and Paul Borel. In Sigma Tau

we have Glenn Hands, vice-president; James Smith; Chas. Spahr; Paul Borel; Howard Oliphant; and Carl Kindsvater. Borel and Spahr are managing editor and general editor respectively of the "Kansas Engineer." W. C. Wyatt is president and R. D. McKim is vice-president of the A. S. C. E. Bruzelius is vice-president of A. S. M. E. Borel is also president of the Engineering Council and Clayton Ott and James Smith are members of the Student Council.

Alumni who have been back for short visits this fall are Paul Shaad, '33; Elbert Youngstrom, '33; Karl Feldman '33; Fleming Scofield, '33; and Garold Kane, '30.

Yours in H. & T.,
HOWARD OLIPHANT

Nov. 2, 1933

Theta in Healthy Condition

With the initiation of six new men, J. Sherron, D. Read, T. Wilson, T. Raun, T. Quilty, and T. Lohr, Theta Chapter has fifteen active members and four faculty men.

The Fall rushing period is well under way now. We have had one professional meeting, at which time Mr. Pond of the Johns-Manville Co. was the speaker.

Two of the brothers, Fred Spellman and Tiny Raun, are regulars on the Columbia Engineering basketball team while three others, Stringer, Boyd, and Weir, are on the seconds. Dick Petersen is president of Student Council and Morley Weir is treasurer. W. Pregram, T. Quilty, L. Riconda, and T. Wilson are soon to be initiated by Tau Beta Pi. Seven of the men are also members of the Dumbell Society.

The present officers are as follows: Regent, Dick Petersen; Vice-Regent, Leo Riconda; Treasurer, George Stringer; and Scribe, Morley Weir.

Yours in H. & T.,
MORLEY WEIR

Nov. 7, 1933

Iota Holds the Reins At Missouri Mines

Iota Chapter opened the school year with fifteen actives including four graduates. These graduates are Brothers O. W. Garst, W. W. Coghill, J. D. Martin, and Dr. S. R. B. Cooke. Four pledges also returned.

Since Brother A. M. Gow was unable to return as Chapter Adviser, Brother H. A. Buehler, State Geologist, and Brother F. D. Devaney of the U. S. Bureau of Mines, have agreed to help us in this respect.

The officers are as follows: Regent, W. J. Irwin; Vice-Regent, T. G. LaFollette; Scribe, W. W. Westerfeld; and Treasurer, E. L. McReynolds.

At our initiation, which was preceded by a banquet, the following men

became members: O. W. Kamper, E. J. Nickel, R. J. Knoll, all of St. Louis, Mo.; and K. H. Sievers, of Webster Groves, Mo.

Brothers E. L. McReynolds and W. J. Irwin were recently elected into Tau Beta Pi, where they join five other Brothers including T. G. LaFollette and W. W. Westerfeld who are president and secretary. Brothers E. L. McReynolds, W. W. Westerfeld, and E. C. Kozeny were elected into Phi Kappa Phi.

Iota is well represented in politics. Brother M. H. Murray is president of the Interfraternity Council, while Brothers W. W. Westerfeld and G. A. Hale are respectively president and vice-president of the Senior Council, and in reverse order, of the Independent Organization. Brothers G. A. Hale and W. J. Irwin are serving on the Miner-Rollamo Board of Control. Iota is well represented on both the Rollamo Board, of which Brother Gilsdorf is business manager, and the Miner Board. Brother LaFollette presides over the Kappa Sigma house while Brother McReynolds heads the Pi Kappa Alpha house. Brothers K. H. Sievers and E. C. Kozeny are respectively, secretary and vice-president of the Senior class as well as vice-chairman and chairman of the local branch of the A. I. E. E., while O. W. Kamper is president of the Junior class, and secretary-treasurer of the Orten Society. E. L. McReynolds is chairman of the A. I. M. M. E. Brother W. J. Irwin is president of the Officers' Club and L. H. Beck is vice-president of the Rifle Team. Brother Sullentrup presides over St. Pat's Board and is secretary of the Mercier house.

Brother M. H. Murray is president of the Athletic Association while on the field W. J. Irwin retains his Missouri State half mile run record, and E. J. Nickel (a dash man on the track team) is now doing well as a halfback on the football team. R. J. Knoll merits mention as a tank man.

Brothers G. A. Hale and S. R. B. Cooke have recently announced their marriages. Iota Chapter wishes them the best of luck.

Yours in H. & T.,
E. C. Kozeny

Nov. 1, 1933

Kappa Penalizes Absentees

Kappa Chapter began the year with the following officers: G. O. Pohl, Regent; V. G. Kaufman, Vice-Regent; W. F. Barnes, Corresponding Secretary; G. W. Lonee, Treasurer; H. S. Shott, Scribe.

At our first fall meeting three men were formally taken into the chapter. They were as follows: P. H. Labus, C. O. Rheinhardt, and E. L. Wittenborn. A motion was passed at this meeting requiring members who are unexcusedly absent from a meeting to give a short talk at the following meeting. The topics are to be of a general engineering nature.

This year's list of speakers was headed by Prof. E. W. Lehmann, head of the Agriculture Engineering department, who presented the problem of "Soil Erosion."

Yours in H. & T.,
Wm. F. Barnes

Nov. 10, 1933

Lambda Goes For Boating

Lambda began the year with thirteen actives. George Carter, '33, and Sylvester Muir, '32, have returned for graduate work.

The officers are as follows: M. J. Kennard, Regent; S. C. Jacobsen, Vice-Regent; R. B. Bergh, Scribe; H. M. Hurst, Treasurer; J. I. Kasteler, Marshal; Cecil Sharp, Inner Guard; Kenneth Atwell, Outer Guard. R. P. Walker and A. L. Ahlf have been initiated.

A feature of last spring was a formal dinner dance.

So far this year we have had three meetings. Regent Kennard sponsored a trip on the Great Salt Lake in Brother Adams' boat last Sunday, and we are planning on several similar field trips.

The date for the Founder's Day banquet has been postponed until the 18th or 25th of November. The newly elected president of the Alumni Association is Brother N. H. Kuhre.

The pledges this quarter are as follows: Joe Kingsbury, Donald Newsome, Grant Bagley, Kenneth Abplanalp, Blaine Watts, and Joe Miller.

This year Regent Kennard is Vice-President of the Engineering Society, Pledge Blaine Watts is President; Brother Jacobsen, Treasurer; and Brother Kasteler, Athletic Manager. Brother Atwell and Brother Bergh have been elected to Tau Beta Pi.

Yours in H. & T.,
Ross B. Bergh

Nov. 1, 1931

Heavy Pledging At Mu

Mu Chapter began the year with twenty-three active members under the leadership of Robert Teague, Regent; Carl Schenck, Vice-Regent; Carl Bragunier, Treasurer; and Frank Larkin, Secretary.

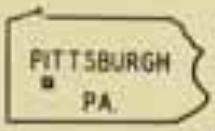
Mu Chapter has been active and the bi-monthly meetings have been well attended. In Tau Beta Pi we have four men; in Phi Eta Sigma, four; in Chi Beta Phi, eleven; and in Scabbard and Blade, two. Three Theta Taus now hold fellowships or assistantships in the various departments of Engineering and the names of four of our members were placed on the honor roll of the University for the past year.

On November 3 we held our semi-annual smoker, and Professors Fred Maxwell and Donald Du Plantier gave lectures. Twenty men were bid and will be initiated about the fifteenth of this month.

Yours in H. & T.,
Richard Nolde

Nov. 4, 1931

Nu Keeps the Plaque In the Family



With sixteen actives and six pledges, Nu Chapter is looking forward to a successful year. The officers are as follows: Regent, Westin; Vice-Regent, Harvey; Scribe, Burton; Treasurer, Daniels; and Corresponding Secretary, Harrod.

Last year, Nu Chapter awarded a Theta Tau Plaque to the most promising Senior Engineer, who, as chosen by an impartial committee of faculty members, was our former regent, Arch Matteson.

At the Spring initiation, the following men were initiated: J. W. Barto, Wm. J. Brown, E. R. Cole, T. W. Dana, R. P. Hanna, J. W. Herron, R. T. Mikesell, B. Netzer, R. B. Roberts, H. B. Stafford, H. A. Thomas, and E. P. Tillman. Mikesell, Stafford, and Tillman were unable to return this fall.

Nu Chapter continues to be represented in many activities. Regent Westin is a member of Pi Tau Sigma and President of Tau Beta Pi, of which Herrod and Burton are members. J. Harvey heads the local chapter of Eta Kappa Nu and manages the Glee Club. Harrod is also an E K N, besides heading the Tri-Publications staff and managing the band. Roy Grant is associate editor of the school paper, The Tartan.

Yours in H. & T.,
CHARLES D. BURTON

Nov. 3, 1933

Omicron Goes In For Decorating

This year Omicron Chapter has pledged the following four men: Neal Stivers, Carl May, Raymond Sulentic, and John Perry. At a recent initiation, eight men: McClintock, Broders, Vestermark, Cooke, Perry, Sherod, Marstellar, and Burton became active members.

Brother Jones was elected to the Union Board and is successfully managing the "Transit," the Engineering Student publication.

Brother McClintock has returned to his position on the university swimming team and has been elected to Tau Beta Pi. Brother Gearhart was elected to Scabbard and Blade, and is president of the Student Branch of A. S. C. E.

The chapter was well represented in the Homecoming decorating with Brother Noble as chairman of the Corn Monument committee, Brother Gearhart as chairman of the Civil Arch committee, and Brother Prichett as chairman of the Chemical Monument.

During Homecoming, the fall party was given and it was a real success.

Our prospects are good in basketball since all but one of last year's team is with us.

The active chapter numbers sixteen, and the officers are: Regent, Noble; Vice-Regent, Prichett; Scribe, Thomas; and Steward, Rohwedder.

Yours in H. & T.,
WILLIAM W. SHEROD

Oct. 28, 1933

Sigma To Publish Alumni Directory

Sigma Chapter began this year with eighteen men in the house. Hubert Wideman is Regent; Russell Morrison, Vice-Regent; Arden Hacker, Scribe; Lyman Reuwer, Marshal; Myron Jensen, Treasurer; and Joseph Bowen, Steward. We have two transfers, Brother Mikesell from Carnegie Tech and Brother Harrington from Case.

Charles Griffith, James Robinson, John Landahl, and Charles Smith are to be initiated next week.

We held our Homecoming dance on October 28, and ten alumni were back.

Sigma intends to publish a booklet containing the names, addresses and present occupations of our alumni and actives.

In regard to activities, Myron Jensen is Brigade Colonel, Hubert Wideman is the commanding officer of the Signal Corps, George Weiland is a Lieutenant Colonel, and George Dumbauld is a Major in the Artillery. Besides, we have two Captains and a First Lieutenant in the Artillery. Wayne Fischer and Joe Bowen are president and vice-president of the A. S. C. E., respectively. Charles Griffith is the S. S. I. E.'s representative to the Engineer's council and Fred Wagner is their treasurer. Arden Hacker is the vice-president of the A. S. M. E.

Yours in H. & T.,
ARDEN R. HACKER

Nov. 4, 1933

Not Superstitious At Tau

Thirteen active members have returned to Tau Chapter. The officers are as follows: Edward Durrwachter, Regent; James Jerry, Vice-Regent; Charles Sherman, Treasurer; W. Couse Page, Scribe; Edward Koch, Marshal; H. Crommett Jones, Inner Guard; and Milton Perrott, Outer Guard.

At the spring initiation the following six men were initiated: Russell Carpenter, Gordon Doane, John Leland, Sterling Mitchell, Parry Owens, and Conrad Reinhardt. Brother Daniels, Grand Outer Guard, gave a talk at the banquet.

The spring quarter was closed with a dance at Hotel Syracuse.

Three meetings have been held this semester. Brother Mitchell, Dean of Applied Science and charter member of Tau Chapter, talked to us on present economic conditions.

Brother James Jerry and Brother Edward Koch have been elected to Tau Beta Pi. Both are already members of Pi Mu Epsilon. Many of our members are active on intra-mural teams.

Yours in H. & T.,
WALDO PAGE

Nov. 6, 1933

Big Smoker At Upsilon

The officers of Upsilon Chapter are as follows: Richard E. Cope, Regent; Burnett Clemmons, Vice-Regent; Wayne Moody, Scribe; Rhemy Wagstaff, Corresponding Secretary; and Phil Herget, Treasurer.

The rushing season began with a smoker on October 21. Twenty-four were present, including two faculty members, Professors Stelzner and Spencer.

The chapter will be active on Engineer's Day and will probably publish a guide to engineering exhibits.

Upsilon proposed a voting ticket for the election of officers of the General Engineering Society, and for the Editor and Business Manager of the Arkansas Engineer, and every office was filled.

Ten actives have returned, which number we hope to increase to fifteen by our initiation.

Brother Charles Black is a member of the football team.

Yours in H. & T.,
WAYNE MOODY

Nov. 4, 1933

Professional Meeting at Phi

Phi Chapter has eleven actives and six pledges. The pledges are as follows: V. M. Wann, G. B. Roberts, L. R. Sedlar, S. J. Sietsma, H. C. Scott, and J. E. Burroughs.

The officers are as follows: Andrew Rankin, Regent; Sidney Matthew, Vice-Regent and House Manager; Earl Hanneforth, Treasurer; Leonard Parsons, Scribe; Donald Horsman, Corresponding Secretary; and Raymond Stokes, Steward.

Phi Chapter has sponsored one pro-

BOTTOM ROW—L. R. Sedlar, E. W. Hanneforth, G. E. Chapman, E. W. Minnen, S. M. Matthew, K. L. Timmin
TOP ROW—J. H. Smothers, H. C. Scott, L. D. Parsons, G. B. Roberts, R. R. Stokes, D. C. Horsman, A. W. Rankin

fessional meeting, at which Professor Serviss of the School of Chemical Engineering gave a talk.

Outstanding men in our chapter seem to be lead by A. W. Rankin, who besides being president of A. I. E. E. is a 6.1 Distinguished Student, the highest possible scholastic honor at Purdue. Brother Rankin was recently pledged to Eta Kappa Nu, honorary Electrical Engineering fraternity. E. W. Mintern and V. M. Wann have been pledged to Chi Epsilon, honorary Civil Engineering Society.

Yours in H. & T.,
DONALD C. HORSMAN

Nov. 4, 1933

Chi Sponsors Open Meeting

Chi Chapter officially opened the season with the annual Founder's Day banquet. Over twenty members were present, including Louis Fiscel, 1930 Regent; Pete Kiernan, 1931 Regent; and Frank Losee, 1932 Regent.

Since then Chi has held an open meeting featuring a talk on Boulder Dam by Brother E. S. Borgquist, Lambda '11. Chi Chapter is planning on sponsoring Engineer's Day, March 17, 1934.

Present officers are as follows: Regent, Wm. Kendric Cloud; Vice-Regent, George Paul; Treasurer, George Houston; Scribe, Harry Marcomb; and Corresponding Secretary, John McNary.

Chi Chapter is well represented in extra-curricular activities and scholastic organizations. Brother Frank Losee is president of the University Student Body and is a member of Blue Key and Scabbard and Blade. Brother Larry Kelly is president of Tau Beta Pi, and was recently pledged to Blue Key. Before graduating last spring, Brother G. M. Butler, Jr., was elected

Starting on far side of table and going from right to left around table—Louis Fiscel, W. A. Steenbergen, Robert Houston, Kendric Cloud, G. M. Butler, Jr., George Peters, H. A. Jimerson, Peter Kiernan, O. H. Polk, Frank Losee, Frank Lamb, Bob Bacon, Harry Marcomb, Harland Lane, E. S. Borgquist, Collins Powell, John McNary, Leon Magee, E. D. Gardner, M. L. Thornburg, Eino Jacobson.

to Phi Beta Kappa and Sigma Xi. Brother Eino Jacobson is president of the local chapter of A. S. C. E. Recently appointed to West Point, Brother Coy Curtis writes that he is a "Goat" in Company F. Also, we have in Tau Beta Pi, Harry Marcomb, George Paul, and Kendric Cloud; in Scabbard and Blade, George Paul.

Yours in H. & T.,
JOHN A. MCNARY

Nov. 1, 1933

Psi Leads in Scholarship

Psi Chapter now has thirty-six members; sixteen of these are active. Officers are: William Given, Regent; Ralph Seideman, Vice-Regent; Arthur Bovee, Scribe; Clarence Wendell, Corresponding Secretary; and Robert Dietrich, Treasurer.

The scholastic standing of the chapter, at the end of last school year, rated higher than that of any other organization in Montana School of Mines. Several members were on the Honor Roll, again headed by Brother Jess Smith.

Recent pledges include Jay King, Sidney de Barathy, Davidson Piper, Mel Williams, George McCraken, John Alley, and Ray Murphy.

A Founders' Day banquet and dance commemorated the birthday of Theta Tau.

Talks by Glacier and Yellowstone Park geologists have been planned for future meetings.

Yours in H. & T.,
ARTHUR J. BOVEE

Nov. 1, 1933

Omega Has Good Athletic Crop

With thirteen actives, Omega Chapter began the school year. At our Founder's Day initiation and banquet, six men were added; namely, Bernard Buns, John Henry Schipke, J. C. Spencer, Donald Gillmor, Francis Murphy, and Bertram Mulcahy.

In activities, we are represented by a number of men—six are in football, including Captain Noel Gagstetter; and others are busy with class offices in Board of Control, Tech., and Black Hills Engineer. As soon as the intramural program starts, we hope to be in there fighting for the cup.

Scholastically, we stand third high among all of the school organizations.

Due to the absence of Brothers Black and Mannick, Brother Verzaw was elected Treasurer and Lester Warren was appointed Inner Guard.

Yours in H. & T.,
HARVEY W. HELD

Oct. 21, 1933

Southwestern Alumni Association Active

Immediately following Chi Chapter's Founder's Day banquet the ten alumni members present met and elected officers for the year.

E. D. Gardner, Lambda '06, of the Bureau of Mines station in Tucson, Ariz., was elected President, and W. A. Steenbergen, Chi '29, of the College of Engineering, University of Arizona, Tucson, Ariz., was elected Secretary. They request that all chapters place them on their mailing lists.

It was decided to issue a circular letter to all alumni in Arizona at regular intervals and to continue to help the active chapter celebrate Founder's Day each year. The hope was expressed that all alumni visiting Tucson would get in touch with the alumni officers.

W. A. Steenbergen

PLANNING TO VISIT BOULDER DAM?

Two alumni of Theta Tau who are at the Boulder Dam have written to the Grand Scribe that they will be glad to show members around who might come there to visit, and that they ask all alumni who come there to work to look them up.

The men now there are:

Lawrence Booker, Chi '31, Room 239, Big Six Co., Dorm No. 3;

C. W. Burningham, Lambda '22, 1340 Colorado Street.

Employment Service

RULES

1. LENGTH: Notices are limited to 40 words.
2. DEADLINE: Copy for the Fall Gear must reach the editors by November 1 and for the Spring Gear by March 15.
3. CHARGE: A fee of 1% of the first month's salary will be charged those men who are successful in securing a position through the service.
4. REPEATED NOTICES: A notice will be published once unless a request to reprint it is received after its publication.
5. RESPONSIBILITY: The Gear does not assume responsibility for statements contained in employment notices.
6. EMPLOYERS: Employers may obtain from The Gear the name and address of any applicant by giving the number of the employment notice.

M.M. 1. Bachelor graduate in mining, metallurgy and arts with two years railroad, two years open pit and underground mining, one year explosives, and one year high school teaching experience.. Qualified to teach in any high school or college.

M.E. 2. B.S. in M.E. Carnegie Institute of Technology '33. Age 24. Single. Some experience as Junior Engineer and as Building Inspector. Best references. Willing to serve in any needed capacity. Live in New York City.

Recent Initiates

ALPHA

178 Robbins, Floyd M., Portland, Ore.
179 Thompson, Burton, Minneapolis, Minn.
180 LeCount, Finley E., Minneapolis, Minn.
181 Bohnbach, Fred G., Minneapolis, Minn.

BETA

159 Pittenheim, Carlton D., Manistique, Mich.
160 Andrew, Alexander R., Houghton, Mich.
161 Nikkevis, Bruce J., Hancock, Mich.
162 Verville, Francis J., Hancock, Mich.
163 Allyn, Eugene G., Iron Mountain, Mich.
164 Price, Jr., Oran O., Port Huron, Mich.
165 Kenneth, Herbert L., Frankenmuth, Mich.
166 Rogers, Dell P., Gaylord, Mich.
167 Bates, Wm., Bessemer, Mich.
168 Shuter, Norman L., Three Rivers, Mich.

GAMMA

423 Sheldon, Carl F., Denver, Colo.
424 Mitchell, Wm. E., Denver, Colo.
425 Neill, James F., Denver, Colo.
426 Schmitt, Otto L., Evanston, Ill.
427 Little, Wm. W., Denver, Colo.
428 Farrell, Carl, Leesburg, Fla.
429 Lay, Dent LeRoy, Rocky Ford, Colo.
430 Hall, LeRoy, Champa, New Mex.

DELTA

335 Nickerson, R. C., Circleville, Ohio
336 Geltz, R. W., Canton, Ohio
337 Withrow, R. E., Lakewood, Ohio
338 Seyle, T. W., Shaker Heights, Ohio
339 Collins, J. A., Lakewood, Ohio
340 James, R. W., Lakewood, Ohio
341 Kornhauser, B. A., Cleveland, Ohio

THETA

189 Raun, Eldred L., Sioux City, Iowa
190 Lahr, Theodore R., Rosedale, L. I.
191 Wilson, Wm. A., New York, N. Y.
192 Boyd, Burleigh, Augusta, Me.
193 Sherron, John, Norwalk, Conn.
194 Quilty, Thos. P., New York, N. Y.
195 Read, Donald B., Port Washington, L. I.

IOTA

202 Gilsdorf, Nicholas J., St. Louis, Mo.

KAPPA

416 Baur, J. W., Chicago, Ill.
417 Kirkpatrick, D. E., Hinkley, Ill.
418 Tanick, J. W., Streator, Ill.
419 Giles, R. H., Benton, Ill.
420 Parquette, A. A., Chicago, Ill.
421 Esch, G. H., Washington, Ill.
422 Heubach, H. G., Chicago, Ill.
423 Labus, P. A., Chicago, Ill.
424 Wittenborn, E. L., Chicago, Ill.
425 Reinhardt, C. O., Decatur, Ill.

LAMBDA

296 Walker, Roy, Salt Lake City, Utah
297 Adolf, August L., Ogden, Utah

MU

161 Partlow, Wm. G., Yonkers, N. Y.
162 Gurtz, Gayord M., Corydon, Ind.
163 Bishop, R. B., Albertville, Ala.
164 Woodruff, Frank S., Anniston, Ala.
165 Grafstrom, Paul A., Jamestown, N. Y.
166 Wakefield, George C., St. Petersburg, Fla.
167 Chadwick, Wm. C., Auburndale, Mass.
168 Slocum, Henry M., Freeport, N. Y.
169 Larkin, Franklin J., Bethlehem, Pa.
170 Luker, Howard W., Gloucester, N. J.
171 Hall, Keith W., Blinfield, Mich.
172 Grantham, Jr., Varley H., Kearney, Nebr.
173 Finney, Maurice, Ogdensburg, N. J.

NU

219 Barto, John W., Pittsburgh, Pa.
220 Brown, Wm. J., Pittsburgh, Pa.
221 Cole, Earle R., Pittsburgh, Pa.
222 Dana, Jr., Thos. W., Pittsburgh, Pa.
223 Hanna, Raymond P., Pittsburgh, Pa.
224 Herron, Jr., James W., Pittsburgh, Pa.
225 Mikesell, Raymond F., Lima, Ohio
226 Netzer, Bennie, Pittsburgh, Pa.
227 Roberts, Robert B., Fairmont, W. Va.
228 Stafford, Henry B., Pittsburgh, Pa.
229 Thomas, Jr., Harold A., Pittsburgh, Pa.
230 Tillman, C. Philip, Eugene, Ore.

OMICRON

184 Broders, Gilbert, Iowa City, Iowa
185 Vestermark, L. A., Iowa City, Iowa
186 Cooke, F. D., Sigourney, Iowa
187 Shrood, W. W., Kilbourne, Iowa
188 Perry, O. W., Elwood, Iowa
189 McClintock, J. P., Iowa City, Iowa
190 Burton, W. P., Corydon, Iowa
191 Marsteller, D. O., West Liberty, Iowa

PI

138 George, Joseph M., Catlett, Va.
139 Winston, III, Lucien D., Winston, Va.
140 Pratt, Jr., Richard T., Fredericksburg, Va.
141 Ballard, Jr., Leon W., Charlottesville, Va.
142 McCarty, Chas. A., Bethlehem, Pa.
143 Francke, Walter R., Brookings, S. D.
144 Harper, Holmes, Winchester, Va.
145 LaGiglia, Joseph L., Norfolk, Va.
146 Robinson, Clifford E., Santa Nita, N. M.

RHO

174 Abernethy, J. F., Gastonia, N. C.
175 Massari, C. J., Poughkeepsie, N. Y.
176 Sledge, W. F., Whiteville, N. C.
177 Stephens, Jr., R. W., Apex, N. C.

SIGMA

159 Weiland, Jr., George, Irvington, N. J.
160 McFee, James H., Lancaster, Ohio
161 Clark, Edgar C., Columbus, Ohio

TAU

151 Owens, Parry W., Whitesboro, N. Y.
152 Mitchell, Sterling R., Syracuse, N. Y.
153 Leland, John P., Mechanicville, N. Y.
154 Deane, G. Gordon, Syracuse, N. Y.
155 Carpenter, Russell S., Syracuse, N. Y.
156 Reinhard, Conrad A., Syracuse, N. Y.

UPSILON

92 Black, Chas. R., Corning, Ark.
93 Fowler, Lucien, Corning, Ark.

PHI

108 Rankin, Andrew W., Philadelphia, Pa.
109 Horsman, Donald C., W. Lafayette, Ind.
110 Matthew, Sidney M., Chicago, Ill.
111 Mathew, Thos. O., Hammond, Ind.

CHI

74 Davis, Arthur, Webb, Ariz.
75 Knowles, Ralph, Tucson, Ariz.
76 Lane, Harland, Durango, Colo.
77 McNary, John A., McNary, Ariz.
78 Morcomb, Richard H., Morenci, Ariz.
79 Powell, Collin M., Richmond, Ind.

OMEGA

59 Spencer, J. E., Hot Springs, S. D.
60 Boos, Bernard R., Lemon, S. D.
61 Schipe, John H., Newell, S. D.
62 Malcahy, Bertram A., Casper, Wyo.
63 Gilmore, Donald M., Miller, S. D.
64 Murphy, Francis E., Hermosa, S. D.

Honors

TAU BETA PI*

Alpha—Roger G. Bossen, Marvin G. Sedam.
Beta—Carlton Passenheim, Clyde S. Williams.
Delta—J. W. Crall, J. E. Donnell, B. A. Kornhauser, C. E. Leader, P. H. Owen, Jr., N. J. Ranney.
Epsilon—R. R. Coats, J. J. Strutzel.
Zeta—Paul Borel, Chas. Clutz, Glenn Hands, Henry Magruder, Eugene Manning, Howard Oliphant.
Theta—P. H. Blatterman, Jr., A. N. Hixson, W. A. Ticknor, F. M. Weir.
Iota—S. R. B. Cooke, E. C. Kozeny, E. L. McReynolds, R. A. Parker, R. Schumann, Jr., W. W. Westerfeld, W. J. Irwin.
Kappa—Harold S. Shott.
Lambda—Kenneth Atwell, R. B. Bergh.
Mu—Wm. Bradley, W. W. Cannon, Andrew Farrell, Chas. Kaeffer, Edw. Murphy, W. R. Purcell, Arthur Quackenbush, Cortlyn Rhodes, Jr., Edw. Romer, Carl Schenk, Albert Simmons, Newton Skelton, Thomas H. Smith.
Nu—W. J. Burns, C. D. Burton, H. T. Harrod.
Omicron—J. P. McClintock.
Pi—A. E. Palmer.
Rho—M. L. Bradley, A. R. Lippard, B. B. Petroff, J. L. Pleasents, J. A. Royal, R. E. Tew.
Tau—Edw. L. Brightman, James Jerry, H. J. Klotz, Edw. Koch.
Upsilon—R. P. Herget.
Chi—G. M. Butler, Jr., Harry Marcomb.

* Has chapters every college we do except Lambda, Psi, Omega.

PHI BETA KAPPA**

Epsilon—J. E. Allen, R. R. Coats.
Chi—G. M. Butler, Jr.

SIGMA XI

Delta—Wm. C. Jenner, L. B. Moore.
Epsilon—J. E. Allen, Richard Bramkamp, R. R. Coats, Cordell Durell, A. A. Fitch.
Theta—P. H. Blatterman, Jr., A. Norman Hixson, Geo. F. Jenkins.
Pi—G. G. Quarles.
Chi—G. M. Butler, Jr.

CHI EPSILON

Alpha—Lewis F. Martin.
Phi—A. Giannini, E. W. Mintern, V. M. Wann.

ETA KAPPA NU

Delta—John Donnell, Wm. Hall, N. J. Ranney.
Nu—H. T. Harrod, J. M. Harvey, W. R. Uffelman.
Phi—Andrew Rankin.

PI TAU SIGMA

Alpha—Morris C. Knight.
Nu—W. J. Burns, Harry Miller, R. R. Smith, W. A. Smith.

PHI LAMBDA UPSILON

Alpha—Roger Bossen.

PHI KAPPA PHI

Iota—O. C. Garst, E. C. Kozeny, J. D. Martin, G. H. Musson, E. L. McReynolds, Reinhardt Schuhmann, W. W. Westerfeld.
Lambda—S. C. Jacobsen, Simon Ramo.
Chi—G. M. Butler, Jr.

SIGMA TAU***

Zeta—Paul Borel, Chas. Clutz, Glenn Hands, Carl Kindsvater, Eugene Manning, Howard Oliphant, James Smith, Chas. Spahr.
Omega—Ralph Basler, James Forchtner, R. D. Marquardt, R. W. Nelson, A. L. Slaughter.

** At most colleges our men not eligible to election.
*** Located at only two schools where we are.

Alumni Notes

ALPHA

Arthur E. Larkin, '08, as president of the General Alumni Association addresses the spectators at the football games each Saturday in the Memorial Stadium.

Walter S. Olson, '12, was appointed director of drainage and water in the Minnesota Department of Conservation.

Maurice W. Hewett, '14, is with the C. C. C. in Southern Minn.

Howard Quinlan, '14, may be addressed c/o Colombian Petroleum Co., Cucuta, Colombia, S. A.

Wm. M. Winter, '23, according to Chester Marshall, '23, is running the best restaurant between Minneapolis and the Pacific, at Oliva, Minn.

John H. Moore, '24, has been transferred to the High Bridge Plant of the Northern States Power Co. in charge of the Results Dept. He is enrolled in the night classes of the St. Paul College of Law.

Hugo Erickson, '26, has been appointed Project Engineer with the Minnesota Highway Dept. in Minneapolis, Minn.

Fred C. Teske, '26, is in the City Assessors Office, Minneapolis, Minn.

Harold T. Pearson, '27, is at Morris, Minn., with the Highway Dept.

Walter R. Krueger, '29, has a position with the Northern States Power Co. in Stillwater, Minn.

Wells J. McLean, '29, is employed in a mine at Burgdorf, Idaho.

Rex S. Anderson, '30, is with the Bureau of Public Roads at Alexandria, Va. His address is 103 W. Alexandria Ave., Alexandria, Va.

William Eckley, '30, is employed by his father as an accountant.

Carroll Elliott, Ex. '30, is with the Austin Municipal Light and Power Co. at Austin, Minn.

James Finch, '30, is at 1010 Main St., Evanston, Ill.

Clarence C. Kutz, '30, is with the Freeport Sulphur Co. at Freeport, Texas.

Adolph G. Ringer, '30, and Paul A. Sanders, '29, are rooming together in New York City. Ringer is employed by the Ingersoll Rand Co. and Sanders by the B. F. Goodrich Co.

Irving Sommermeyer, Ex. '31, is Copilot with the United Air Lines out of Chicago. He reports a flight from Chicago to Cleveland, 418 miles, in less than two hours.

Harry Thorson, '31, has returned to Schenectady to continue his training course with the General Electric Co.

Stanton Smith, Ex. '32, has been promoted to inspector with the U. S. Engineers at the Whitman Dam, Winona, Minn.

John Herbert Willox, '32, is located in Culver City, Calif., with the Metro-Goldwyn-Mayer Studios.

John Danchertsen, '33, is with the Shell Petroleum Co. at Kilgore, Texas.

Harluf Petersen, '33 has been working in a mining office in Colorado since June.

Louis P. Schmitt, '33, is working for the Ottertail Power Co. out of Devils Lake, N. D.

Kenneth C. Shar, Jr., Ex. '33, is at 2211 Seventh St. South, Minneapolis, Minn.

BETA

Albert Hassekbring, '06, is Superintendent of the Aldermac Mine at Rouyn, Quebec, Canada.

Charles A. Kumke, '06, is now Engineer for the Wise mine, near Sonora, Calif.

Walker B. Longan, '09, is developing the old Zantgraf gold mine on the Motherlode in El Dorado County, Calif. His mailing address is Box 292, Auburn, Calif.

Ernest Klepetko, '10, may be addressed at Box 16, Pacific Palisades, Calif.

Charles G. Thielicke, '12, Supt. of the Lake View Star Mine in Finnston, Western Australia, recently returned to the mine after a three month's business trip to South Africa.

Curtis F. Burt, '13, is now living at 620 N. Eleanor St., Pomona, Calif.

Rowland B. King, '16, is General Manager of the Midas Gold Mining & Milling Co. of Libby, Montana.

Sinclair H. Lorain, '16, is at 100 Olympic Place, Seattle, Washington.

Clyde W. Nicolson, '16, may be addressed at West Salem, Wis.

J. Robert Van Pelt, Jr., '22, is at 1155 E. 56th St., Chicago, Ill.

GAMMA

Walter V. DeCamp, '08, is in charge of the Yellow Aster Mine at Randsburg, California, which is owned by the Anglo-American Mining Corp.

Donald Dyrenforth, '12, was elected President of the Colorado School of Mines Alumni at the spring election in 1933.

Edmund W. Westervelt, '13, is at Park-Wilshire Apts., 2424 Wilshire Blvd., Los Angeles, Calif.

Raymond V. Whetsel, '16, who was in Paris for some years, is now in Tampico, Mexico, where he is General Manager of the Cia de Gas y Combustible Imperio.

Lincoln Ehnbom, '17, is with the Argo Tunnel, Idaho Springs, Colo.

Donald D. Riddle, '18, is now at 639 East Amelia Ave., Orlando, Fla.

Guy E. Miller, '19, may be addressed 205 Professional Bldg., Long Beach, Calif.

Thomas B. Romine, '19, may be addressed at Box 1868, Fort Worth, Texas.

John A. Poulin, '21, is with the Sinclair Exploration Co., at 45 Nassau St., New York City.

Hugh M. Connors, '22, was elected Treasurer of the Colorado School of Mines Alumni at the spring election in 1933.

Bruce B. LaFollette, '22, has been

appointed assayer at the United States Mint in Denver, Colo.

RONALD F. CRAWFORD, '23, is at 149 Third St., Troy, N. Y.

PAUL A. GRANT, '23, is at Columbus, Montana.

BURTON F. AMSDEN, '25, is Manager of the Ingersoll-Rand Ltd., 4/1 Raffles Quay, Singapore, S. S.

D. LOWELL KESSLER, '25, 2009 S. Sherman, Denver, Colo.

DONALD M. RAY, '25, announces the birth of a son, Richard Drake, on June 20, 1933. Brother Ray is living at 711 S. E. Davis St., Des Moines, Iowa.

WAYNE H. DENNING, '26, is at 921 19th St., Golden, Colo.

MILWARD MILLER, '26, is with the Humble Oil & Ref. Co., Roswell, New Mex.

HUGO REICKEN, '27, is with the London Gold Mines Co., Alma, Colo.

ARTHUR Y. BARNEY, '28, is with the Piney Oil & Gas Co., 1139 Milam Bldg., San Antonio, Texas.

JOE MCNEILL, '28, is with the Abosso Mines Ltd., Gold Coast Colony, Africa.

DOUGLAS M. SHAW, '28, is at 1352 30th St., San Diego, Calif.

JAMES H. HOOK, '29, may be addressed at 2609 Waits St., Fort Worth, Texas.

CYRIL L. FLEISHMAN, '30, is now with the Braden Copper Co., Rancagua, Chile, South America.

MARION MERCER, '30, has changed his address to 6923 Merrill St., So. Shore Station, Chicago, Ill.

MAX C. SCHIEBLE, '30, is Supt. of the Sandow Lignite Co. at Marshall, Tex.

ROBERT C. WILLIAMS, '30, received an M. A. in geology at Columbia University in 1933.

IVAN G. BURRELL, '31, is with the Mid Kansas Oil & Gas Co., Livingston, Texas.

JOHN COOLBAUGH, '31, was married on Sept. 23, 1933, to Mrs. Sadie Mae Albi of Denver. They are living in Alma, Colo., where he is mill operator for the North London Mining Co.

LOUIS P. BARTHOLOMEES, '32, is with the United Gold Mines, Independence, Colo.

ARTHUR B. BENNETT, '32, was married on Sept. 19, 1933, to Miss Virginia Lee Barton of Elkton, Maryland.

JOHN M. GARDNER, '33, is with Phillips Petroleum Co., Route 8, Box 94, Oklahoma City, Okla.

RALPH JOHNSON, '33, is in the Observatory Dept. of the Carnegie Steel Co. His mailing address is 616 East 12th Ave., Munhall, Pa.

EPSILON

WALTER A. ENGLISH, '10, has been appointed technical advisor to General Johnson's committee administering the National Recovery Act.

A. WERNER LAWSON, '12, is manager of the mining and chemical department of C. W. Young & Co., investment managers, with offices in the Chrysler Bldg., New York City.

PROF. LESTER C. UREN, '12, was the guest of the Soviet in a trip through the Russian oil fields during the summer. He also attended the World Oil Conference in London.

Donald H. McLaughlin, '12, is Secretary of the Society of Economic Geologists. He is professor of mining engineering at Harvard University.

Graham B. Moody, '12, may be addressed Box 1390, Station C. Los Angeles, Calif.

Francis E. Vaughn, '12, is at 109 E. Foothill Blvd., Altadena.

Don Carlos Billick, '13, is in Nevada City, Calif.

Wm. D. McMillan, '13, is living at 5 Toulova St., Sofia, Bulgaria.

Omar A. Cavins, '15, is at 225 Bush St., San Francisco, Calif.

Roy S. Rhodes, '15, may be addressed at 1311 Edwards & Wildey Bldg., Los Angeles, Calif.

Emmerson M. Butterworth, '16, stays at Hotel des Indes, The Hague, Netherlands.

Roy T. Hazzard, '16, is with the Gulf Refg. Co. of La., Shreveport, La.

Carl H. Schilling, '17, may be addressed at Box 439, Muskegon, Mich.

Marcus A. Hanna, '20, is at 2910 Arbor, Houston, Texas.

Frank A. Morgan, '20, is at 774 Subway Terminal Bldg., Los Angeles, Calif.

Frank E. O'Neill, '20, lives at 2448 E. Flower St., Huntington Park, California.

Prof. Howel Williams, '20, took a European trip during the summer and made a study of the volcanoes of Italy.

Geo. M. Cunningham, '21, is at 2610 19th St., Bakersfield, Calif.

Dwight H. Thornburg, 21, is in Newhall, Calif.

Hugh L. Burchfiel, '22, may be addressed at Box 973, Midland, Texas.

James P. Fox, '23, is at Apartado 4, Puerto Mexico, Ver., Mexico.

Robt. J. Stewart, '23, lives at 1018 N. 11th St., Temple, Texas.

Gloyd M. Wiles, '23, is at 5927 213th St., Bayside, N. Y.

James B. Chamberlain, '24, is with the Fairbanks Exploration Co., Fairbanks, Alaska.

Bill Donaldson, '24, is with the Benget Mining Co., Philippine Islands.

John D. Gilboe, '24, is at 1614 Richland Place, Bakersfield, Calif.

Kenneth L. Gow, '24, may be addressed at 548 Subway Terminal Bldg., Los Angeles, Calif.

Norman Hardy, '24, may be addressed Ned. Pac. Petr. Mij. Batavia, Java, D. E. I.

David T. Hoenshell, '24, may be addressed Box 120, Coalinga, Calif.

Harold M. Horton, '24, may be addressed at 1104 Tower Petroleum Bldg., Dallas, Texas.

Thomas W. Koch, '24, has gone to Arabia to join Schuyler B. Henry, '23, and Robert P. Miller, '20, on a geological reconnaissance in the Kingdom of Saudi Arabia. The address for all three will be Hufuf, Saudi Arabia, via Bagdad and Bahrein.

Donald C. Perry, '24, is in Lemoore, Kings County, Calif.

Edgar A. Boadway, '25, is Supt. of the Utah Central Mines in Juab County, near Delta, Utah, for the Engineers Exploration Co. of New York.

Howard C. Pyle, '26, is at 1336 S. Westlake Ave., Los Angeles, Calif.

Lawrence L. Tabor, '26, is at 314 Panoramic Way, Berkeley, Calif.

Henry C. Rea, '27, is at 2307 Prince St., Berkeley, Calif.

Wm. L. deCarbonel, '28, is chief engineer for the Diltz Mine in Mariposa County, Calif.

Herman W. Weddle, '28, may be addressed Box 1390, Station C, Los Angeles, Calif.

James Huffman, '29, is at the Spanish Mine, Washington, Nevada County, Calif.

Prof. Ralph W. Chaney, Hon. '30, member of several Roy Chapman Andrews expeditions, made a paleontological expedition into China during the spring and summer.

Robt. L. Sprinkel, '30, is mining at Baguio, Philippine Islands.

Lloyd Bradley, '31, is with the Standard Oil Co., Richmond, Calif.

Louis R. Goldsmith, '31, is Tech. Asst. with the Shell Oil Co., Martinez, Calif.

Robt. Baker, '32, is assistant mining engineer in a mine in Grass Valley, Calif.

Allan P. Bowie, '32, is with the Yukon Gold Co., Ampang, Selangor, Federated Maylay States.

Louie Goldsmith, '32, is an assistant in the laboratory of the Shell Oil Co., Refinery, Martinez, Calif.

Thos. H. McClellan, '32, is working in the Engel American Mine near Randsburg, Calif.

Juan Victoria, '32, is with the Standard Oil Co., Argentina, S. A.

Edward Hassan, '33, is working in a mine in Oregon.

Fred King, '33, is with the Shell Oil Co., Martinez, Calif.

Fred Vincent Richard, '33, is with a mining company near Grass Valley, Calif.

Robt. Van Fleet, '33, is taking executive training with Kress Co., Richmond, Calif.

Arthur Werner, '33, is with the Arizona Comstock Corp., Virginia City, Nevada.

ZETA

John J. Jakosky, '20, was given the honorary degree of Doctor of Science by the University of Arizona last May.

Donald M. Black, '28, may be addressed at Apt. C-2, East Orange, N. J.

Virgil S. Carrier, '29, may be addressed c/o Ill. State Highway Dept. Dixon, Ill.

Irving Coffman, '32, was married in August to Miss Mildred Reardon. Brother Coffman is with the Phillips Petroleum Co. in Kansas City.

Leroy Sharp, '32, was married this September to Miss Juanita Hobbs and is now working with the Insurance Department of the State of Kansas.

Ansel Harbesty, '33, is working with the Phillips Petroleum Co. as a chemical engineer in the oil fields at Vernon, Texas.

Marcus Johnson, '33, is doing accounting work for the Kanotex Refining Co., Arkansas City, Kansas.

Eugene Manning, '33, is taking some graduate work at the University of Illinois.

Paul Shaad, '33, has been a radio operator with station WDAF during the past summer but is now taking the test course with the General Electric Co.

Elbert Youngstrom, '33, is with the Mills Mutual Insurance Co., working as an inspector, with Kansas City as his headquarters.

ETA

Edward Ryer, '20, is with the Barbour Stockwell Co. of Cambridge, Mass., and lives at 119 Allerton Road, Newton Highlands, Mass.

Malcolm Beattie, '23, has moved to Washington, D. C.

Geo. E. Faithful, '26, was married to Miss Lucia Frances Turner in February, 1933.

Guy S. Fribbe, '26, lives in Troy, Ohio.

John Jacob, '26, is with the Glen F. Martin Co. in Baltimore, Ohio.

Kenneth Lord, '26, reports the birth of a daughter, Caryl, on January 19, 1933.

Daniel C. Metzger, '27, is with the Grinnell Co. of Chicago.

Russell P. Westerhoff, '27, was married last year to Miss Matilda Katherine Wychoff.

Chas. H. Topping, '28, may be addressed c/o South Persia State Railways, Ahwaz, Persia.

THETA

Arthur L. Walker, Hon. '83, lives at Dongan Hills, L. I., New York.

Karl F. Klein, '16, is in Alma, Colorado.

Horatio Potter, '21, may be addressed c/o Mary Potter Love Inc., 344 N. Newstead St., St. Louis, Mo.

Glenn D. Hawkins, '23, is Dist. Geol. with the Carter Oil Co., Duncan, Okla.

Dudley P. South, '25, is with the Vocational Readjustment Foundation and can be addressed P. O. Box 24, Newark, N. J.

James L. Darnell, Jr., '28, may be addressed c/o S. G. Peticolas, 48 Williams St., Metuchen, N. J.

Heaton B. Heffelfinger, '30, is with the Brooklyn Union Gas Co. He lives at 93 Marble Hill Ave., New York City.

IOTA

Joseph C. Barton, '17, is at 30 Broad St., New York City.

Harold T. Herival, '17, formerly at Morenci, Ariz., is now with the Charleston Mining Co., Mt. Pleasant, Tenn.

Glenn D. Robertson, '18, lives at 2826 S. Norton Ave., Los Angeles, Calif.

Robt. L. Marston, '19, may be addressed at Box 807, Tyler, Tex.

Wm. J. Nolte, '19, is with the Stan-

olind Oil & Gas Co., Medical Arts Bldg., Fort Worth, Texas.

Mark L. Terry, '20, is at 824 S. Indianapolis Ave., Tulsa, Okla.

George F. Barnwell, 21, may be addressed Ned. Kol. Petr., Mij., The Hague, Holland.

John F. Hosterman, '22, may be addressed Box 832, San Angelo, Texas.

Guy V. Martin, '23, has opened an assay office at 1411 Roma St., Albuquerque, N. Mex.

Karl A. Schmidt, '23, is with the Tidal Oil Co., W. T. Waggoner Bldg., Fort Worth, Texas.

Kenneth A. Ellison, '23, is at 1311 N. Payne, Oklahoma City, Okla.

Karl F. Hasselmann, '23, may be addressed at 1912 Eperson Bldg.,

George L. Leisher, '32, is an electrical inspector for Carleton B. Fox and Company, and lives at 5317 Nottingham Ave., St. Louis, Mo.

Rex Monroe, '32, is working with the Shell Petroleum Co. of Wood River, Ill.

Bernard Gross, '33, is purchasing agent for the Citizens Committee on Relief Employment Unit B, 2331 Mullanphy St., St. Louis, Mo.

Atwood L. Hibbits, '33, is employed by the Timkin Bearing Co. in St. Louis, Mo.

Alfred H. Hesse, '33, is employed by the Standard Oil Co., and lives at 721 Newport Ave., Webster Groves, Mo.

George H. Munson, '33, [illegible] with the Tennessee [illegible]

Larry Baugh, '31, is on job location at Gladewater, Texas.

Henry P. Evans, '32, is a Junior Engineer with the Tennessee Valley Association, and is located in Denver, Colorado.

Jack E. Morris, '32, has obtained a position with the Jones & Laughlin Steel Corp., in Pittsburgh, Pa.

Wm. J. Burns, '33, has obtained a position with the Mine Safety Appliance Co., Pittsburgh, Pa.

Robt. S. Fish, '33, is working with The Westinghouse Electric & Manufacturing Co., in East Pittsburgh, Pa.

rth inspector with the National
oe Co., and is located in the Y.
C. A., Elyria, Ohio.
y P. Miller, '33, is teaching
ool in New York.
R. Smith, '33, has changed his
from basketball captain to an
cream maker for the Isaly Dairy
, Pittsburgh, Pa.
ed R. Uffelman, '33, is a
ber in the cashier's office at Car-
ie Tech.
L. Warrick, '33, is a Teaching
ow at Carnegie Tech.
y F. Zinsser, '33, is working in
research laboratory of the Cop-
weld Steel Co., Pittsburgh, Pa.

vith the Linde Air Products Co.
Cleveland, Ohio.
H. Niederman, '25, was
ried on May 20, 1933, to Miss
y E. Wade of Oak Park, Illinois.
y live at 431 E. Spruce St.,
lt St. Marie, Mich.
t Joseph Schrader, Hon. '21,
unces the birth of a son,
liam Cutler, on April 15, 1933.

XI

George C. Breitenbach, '26, was married on April 1, 1933, to Miss Nettie Nickum of Washington, D. C. They are living at the Park Plaza Hotel in Philadelphia, where he is representative of the Trane Co.

Wesley S. Walker, '26, announces the birth of a son, George Stoddard, on Jan. 6, 1933. Brother Walker

OMICRON

John S. Holbrook, '24, lives at 1008 S. Monroe Ave., Green Bay, Wis.

Clifford A. Von Hoene, '24, is with the Southern Bell Telephone Co., New Orleans, La.

Harry D. Brockman, '25, lives at Apt. 2106 Tudor Tower, 25 Prospect Place, New York City.

Gill Freyder, '25, lives at 5743 North Rockwell St., Chicago, Ill.

Arthur C. Boeke, '26, may be addressed at 833 South 16th Ave., Maywood, Ill.

Carl F. Tobson, '26, lives at 12339 Greenlawn Ave., Detroit, Mich.

Richard C. Aussieker, '27, lives at 4151 Ramona Dr., Riverside, Calif.

John H. Folwell, '27, is at 33 Acton St., Rochester, N. Y.

Frank W. Edwards, '28, is with the Army Engineers in Vicksburg, Miss. His address is 2406 Marshall St., Vicksburg, Miss.

Wallace "Wally" Elliott, '28, is head of the Inspection Dept. of the Shell Petroleum Corp. at Roxana, Ill.

Alfred I. Hess, '29, was married to Miss Elizabeth Buckner on August 21, 1933, at Watseka, Ill.

Byron Kunzman, '29, announces his marriage to Miss Virginia Barnard, of Des Moines, on October 9, 1933. They are living at 313 South Garfield Avenue, Burlington, Iowa.

Duane C. McCann, '29, may be addresses at Chemistry Bldg., S. U. I., Iowa City, Iowa.

Joseph O. Sherod, '30, lives in Gibbstown, N. J.

Olin Sogge, '31, is working with the U. S. Engineers in St. Louis, Mo.

Frank "Wack" Wells, '31, married Miss Ruth Birdsall of Sterling Illinois, on April 8, 1933.

Leslie R. Gregg, '32, is at West Liberty, Iowa.

Carroll F. Phelps, '32, lives at 508 N. Dubuque St., Iowa City, Iowa.

Edgar W. Steinbrenner, '32, is an editor with the Sioux City Journal and may be addressed at 5913 Peters Ave., Sioux City, Iowa.

John Garland Gearheart, '34, Emil Rausch, '31, John L. Rohwedder, '33, Ken Smith, '32, are with the U. S. Engineers at Rock Island, Ill.

TAU

Edwin Brightman, '33, George Lewis, '33, Rex Moulton, Andrew Paucek, '33, and Tony Spano, '33, are taking graduate work at Syracuse.

William Hourigan, '33, and Edward Yehle, '33, have secured positions with the Continental Can Corp.

Herman Klotz, '33, had his name inscribed on a plaque as the outstanding senior in the college.

Harry C. Wolf, '33, was injured in an automobile accident and is at Saranac Lake General Hospital.

Harold Wood, '33, is working for the International Business Machine Corp. at Endicott, N. Y.

UPSILON

Lloyd H. Pond, '29, is with the Arkansas Power and Light Co., at Pine Bluff, Ark.

Warren Furry, '30, is employed in the City Water Plant, Van Buren, Ark.

Harold Albrecht, '32, was awarded the contract for the building of the new transmitter for Radio Station K U O A, Fayetteville, Ark.

Hugh Nelson, '32, has a fellowship at Texas A. & M.

Bester B. Owen, '32, is working in Tulsa, Okla.

Kermit Potts, '32, is employed with the contractor of the new Federal Hospital, Fayetteville, Ark.

Frank Clegg, '33, is working in Pine Bluff, Ark.

Edwin Dean, '33, is working in Russelville, Ark.

Lucien Fowler, '33, is working in Corning, Ark.

Guy Kirkley, '33, who is employed with the Ark. Power and Light Co., was recently married in Little Rock, Ark.

Henry Lewis, '33, is with the Lion Oil Co., El Dorado, Ark.

Robert Osborne, '33, is with the Arkansas Highway Dept., Gurdon, Ark.

David Thornberry, '33, is working in Little Rock, Ark.

PHI

Roy Horstmann, '33, is playing professional football with the Boston Redskins.

Richard Lowry, '33, announces his marriage to Miss Jean Munger of Lafayette, Indiana. Brother Lowry has a job with the Municipal Gas Co. in St. Louis, Mo.

CHI

Louis Fiscel, '26, is County Engineer at Florence, Ariz.

Orval H. Polk, '27, is Assistant Professor of Electrical Engineering at the University of Arizona.

Charles McCash, '30, is Assistant Agriculture Agent, engineering capacity, for Pima County, and lives in Tucson, Ariz.

David C. Minton, '30, is in Tucson recovering from injuries received in the Las Animas Mine, Sonora, Mexico, where he is employed.

Mark Clardy, '31, is with the Humbug Mine at Wickenburg, Arzi.

Jacob "Jake" Ericson, '31, is with the U. S. R. S. at Boulder City, Nev.

Don Farver, '31, is an Engineering Foreman in the C. C. C. camp at Portal, Ariz.

Robert Houston, '31, is an Erosion Engineer with the C. C. C. camp at Sunnyside, Ariz.

George Peters, '31, is with the Humbug Gold Mine at Wickenburg, Ariz.

Albin H. Wadin, '31, is with the Highway Dept. in Phoenix, Ariz.

Walter Wahler, '31, has a good job at a mine near Tombstone, Ariz.

Lin D. Barry, '32, is in Murray, Ohio.

WALTER BROWN, '32, is in Covina, Calif.

CARL BRUCE, '32, is with the National Air Transport Corp. in Chicago, Ill.

EDWARD P. FRAPS, '32, is at his home in Tucson, Ariz., where he is recovering from an operation.

GEORGE DELOS GARDNER, '32, is Engineer for the Consolidation Gold Mine at Constellation, Ariz.

WALDO HUBER, '32, is on a Mormon Mission in Germany. His address is Flensburg Sodermarkdt 4, Deutschland.

PETER KIERNAN, '32, is Lieutenant in the C. C. C. camp at Pine Valley, Calif.

ED NOVELL, '32, is with a mine near Monrovia, Calif.

EMIL PEARSON, '32, is with the United Verdi Copper Co. in Jerome Arizona, on steel construction work.

LAWRENCE BOOHER, '33, has recently returned to Tucson, Ariz.

GILBERT O. CLASON, '33, is studying in New York City.

COY CURTIS, Ex. '33, is a cadet in F Company at West Point.

R. D. GARDNER, '33, is with the Monte Christo Gold Silver Co. at Constellation, Arizona.

ALVIN GERHARDT, '33, is working at a mine in Tucumari, New Mexico.

EARL "HAM" HAMILTON, '33, is running a service station at Picacho, Ariz.

WM. KILLIP, '33, is working at Morenci, Ariz.

PSI

JOHN E. BLIXT, '32, is with the Virginia City Gold Mines Co., Virginia City, Montana.

OMEGA

BURTON BEILER, '32, is now operating a grocery store at Faulkton, S. D.

EDWIN SAYLER, '32, is employed by the State Highway Department and is located at Pierre, S. D.

RALPH BASLER, '33, is working for the South Dakota State Cement plant.

FRANCIS ESTRUP, '33, is with the Federal Land Survey as an instrument man. He is located at Dupree, S. D.

ALBERT HALL, '33, announces his marriage to Miss Donna Jokander of Rapid City, S. D. He is employed by the State Highway Department and is located in Pierre, S. D.

CLIFFORD HIXON, '33, is an electrical engineer for the Homestake Mine at Lead, S. D.

RICHARD DONALD MARQUARDT, '33, is working for the South Dakota State Cement plant.

New Publications

ALPHA

Lewis, J. Whitney, '12,
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Gow, Alexander M., '23,
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Gardner, Harold W., Hon.,
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Buwalda, J. P., '12, and others,
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Murphy, Raymond E., '23,
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Gardner, E. D., Lambda '06, and Vanderburg, W. O., Beta '23,
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Information Circular No. 6691, U. S. Bur. of Mines, 1933.

Lost Theta Tau Alumni

NOTE: Mail has been returned from the best addresses available for the following:

Alpha Chapter

Elliott, Harry C., '17

Beta Chapter

Alsip, Albert A., '09
Evans, Carl W., '11
Fay, Wm. W., Ex '22
Fiedler, Harry L., '11
Phillips, Robt. B., '06
Riker, Eugene A., '10

Gamma Chapter

Auman, Egbert E., '24
Clothier, Conrad F., '24
Davis, Thomas, '21
Gibson, Robt. W., '18
Young, Guy K., '18

Delta Chapter

Arma, Chas. S., '12
Jenks, Karl E., '19
McMillan, Maynard W., '12
Moseley, Edgar T., '24
Rinn, Robt. F., '21
Severin, Carl, '10
Sprowl, Norman E., '17
Whitry, Harry B., '21

Epsilon Chapter

Davis, Sherwin B., '12
Vail, Randolph R., '11

Zeta Chapter

Diehl, Clifford K., '21
Gobo, Robt. B., '29
Grant, Thos. W., '29
Henderson, Russell S., '20
Hines, Howard H., '28
Moss, Rycroft G., '27
Myers, Foster, '21
Pierce, Herbert, '27
Roseveat, Herman M., '27
Sinnard, Melbourne F., '22
Smith, Lewis B., '14
Tyson, James L., '11

Eta Chapter

Benton, Herbert G., '11
Brotherton, Wm. G., '13
Dickson, Benj. A., '22
Polley, Ernest E., Ex '11

Iota Chapter

Stuart, Samuel H., '21
Watkins, Marion W., '21

Kappa Chapter

Tucker, Morrell L., '26

Lambda Chapter

Christensen, L. A., Ex '11
Farnsworth, Wayne H., '24
Frederickson, Louis J., '27
Rumph, Lee M., '21
Stephens, Leone R., Ex '21

Nu Chapter

Carson, Alphons F., '26
Patton, E. R., '24
Poe, Nelson H., '24
Sullivan, Wm. G., '24
Wendlandt, Vernon L., '26

Omicron Chapter

Bowman, P. F., '22
Fisher, Darrell, '21
Gunderson, Wendale, '26
McGuire, John R., '28
Mead, Chester I., '23
Moran, John R., '23
Stickney, Chas., '21
Thinnes, Arnold R., '11
Tock, Wilbur C., '29

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Miller, Noel H., '26
Rye, Frederick S., '26
Thayer, F. W., '26

Pi Chapter

Weir, Paul L., '23

Rho Chapter

Smith, Perry M., '28

Phi Chapter

Anderson, Herbert J., '23
Brooks, Donald C., '21
Curtrem, Hilton B., '21
Hume, Willis L., '26
Maginnis, Lorenz Julien, '18
Mitchell, Chas. Sidney, '11
Mueller, Thomas, '29
Russell, Leslie R., '27
Weaver, Harold V., '28

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P. L. MERCER *and* J. W. HOWE,
GEAR *Editors.*

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