

THE GEAR

—OF—

THETA TAU

OFFICIAL ORGAN OF THE FRATERNITY

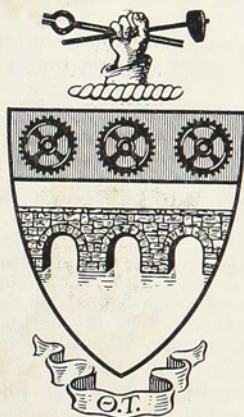


ELEVENTH DIRECTORY NUMBER



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G. D. LOUDERBACK
Grand Regent

By Order of the Executive Council of Theta Tau

This 1920 Directory Number is Dedicated to the
Memory of

Our Beloved Brothers Who Died During the Great War

*Edward P. Alexander (Lieut.).....	Eta
*George A. Beach (Lieut.).....	Eta
*Martin F. Bowles (Lieut.).....	Iota
*William W. Colquhoun (Capt.).....	Theta
*William Eastman, Jr. (Instr.).....	Eta
*Walter G. Farnlacher (Lieut.).....	Epsilon
*Gilman C. Harding.....	Zeta
*Bernhardt E. Heine (Lieut.).....	Beta
*Elting W. Houghtaling.....	Alpha
*Julien Mathieu.....	Epsilon
*John J. O'Malley (Lieut.).....	Gamma
*John P. Slade (Lieut.).....	Zeta
*Bert R. Smith.....	Theta
*Leroy A. Swan (Lieut.).....	Eta
*Herbert M. Tichborne (Lieut.).....	Theta
Emmons Blaine.....	Eta
Edward J. Dittus.....	Gamma
Robert L. Downing.....	Beta
Eugene E. Grygla.....	Alpha
Wendell Hawthorne.....	Kappa
A. Stanley Hill.....	Alpha
George S. Patterson.....	Theta
Robert A. Perry (Lieut.).....	Kar
George O. Randolph.....	
Louis Schafer.....	
Percy W. Thompson.....	Epsilon
Paul H. Wilkinson.....	

*Men who died in service.

Theta Tau Fraternity

Founded at University of Minnesota

October 15, 1904

FOUNDERS

Erich J. Schrader

Edwin L. Vinal

W. Murray Lewis

Isaac B. Hanks

GRAND OFFICERS OF THETA TAU

1920-1921

Grand Regent—Prof. G. D. Louderback Epsilon
Mining Bldg., Univ. of Calif., Berkeley, Calif.
2713 Derby St., Berkeley, Calif.

Grand Vice Regent—M. W. Vickery Delta
1271 Edwards Ave., Lakewood, Ohio
708 Williamson Bldg., Cleveland, Ohio

Grand Scribe—E. J. Schrader Alpha
Box F, Tonopah, Nev.

Grand Treasurer—P. J. Laurence Alpha
544 Builders Exchange, Minneapolis, Minn.

Grand Marshal—I. B. Walling Alpha
502 Armas Bldg., Minneapolis, Minn.

Inner Guard—J. Walling Beta
209 N. 4th St., Spokane, Wash.

Outer Guard—H. A. Rice Zeta
1304 Ohio St., Lawrence, Kan.

Gr Historian—O. C. Budde Delta
1579 Compton Rd., Cleveland Heights, Ohio.

The Gear

The Annual Publication of

THETA TAU

A Professional Engineering Fraternity

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1579 Compton Road, Cleveland Heights, Ohio

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Theodore H. Crook '19	Epsilon
Clifford K. Diehl '21	Zeta
Trevor O. M. Davidson '21	Eta
A. A. Hassan, Jr., '21	Theta
Evan E. Ashlock '20	Iota
Foster M. Poole '21	Kappa
Herman P. Winn '19	Lambda

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THETA TAU FRATERNITY

Chapter and Alumni Association Directory

Alpha—Established October 15, 1904

University of Minnesota, Minneapolis, Minn.

Address 1306 7th St., S. E., Minneapolis, Minn.

Beta—Established March 26, 1906

Michigan College of Mines, Houghton, Mich.

Address Theta Tau Fraternity, 233 College Ave.,
Houghton, Mich.

Gamma—Established November 8, 1907

Colorado School of Mines, Golden, Col.

Address Theta Tau Fraternity, Golden, Col.

Delta—Established May 23, 1911

Case School of Applied Science, Cleveland, Ohio.

Address Theta Tau Fraternity, 11439 Mayfield Road,
Cleveland, Ohio.

Epsilon—Established May 4, 1911

University of California, Berkeley, Cal.

Address Mining Bldg., University of California,
Berkeley, Cal.

Zeta—Established April 17, 1912

University of Kansas, Lawrence, Kansas.

Address Theta Tau Fraternity, Marvin Hall, Law-
rence, Kan.

Eta—Established March 28, 1912

Massachusetts Institute of Technology, Boston, Mass.

Address Trevor O. M. Davidson, 4 Ames St., Cam-
bridge, Mass.

Theta—Established May 7, 1914

Columbia University, New York City, New York.

Address A. A. Hassan, Jr., 534 W. 114th St., New
York City, N. Y.

Iota—Established February 5, 1916

Missouri School of Mines, Rolla, Mo.

Address Joe Wilson, Rolla, Mo.

Kappa—Established March 25, 1916

University of Illinois, Champaign, Ill.

Address Theta Tau Fraternity, F. M. Poole, 202 E. Daniel St., Champaign, Ill.

Lambda—Established May 1, 1920

University of Utah, Salt Lake City, Utah.

Address Charles M. Anderson, 1859 Lake St., Salt Lake City, Utah.

Chicago Alumni Association—Established 1910, Chicago,

Ill. H. H. Hopkins, Jr., 111 W. Lake St., Chicago, Ill.

Cleveland Alumni Association—Established 1913, Cleve-

land, Ohio. V. C. Fugman, 1676 Lee Road, Cleveland Heights, Ohio.

Southwestern Alumni Association—Established 1908,

Douglas, Ariz. Roswell W. Prouty, Box 2654, Globe, Ariz.

Twin City Alumni Association—Established 1912, Minne-

apolis, Minn. Arther E. Larkin, 828 Plymouth Bldg., Minneapolis, Minn.

Inter Mountain Alumni Association—Established 1920,

Salt Lake City, Utah. Rees W. Davis, Sec'y., 265 I St., Salt Lake City, Utah.

EDITORIAL

The Gear was not published for the past two years for more than one reason. True it was, that the Editor entered the service in September, 1917, and was not released until August, 1919, but he was only one of the many members who sacrificed to serve. From the alumni reports that have been received and the active records that were sent in—fifty per cent of the members were engaged in some branch or other of the service. There were three hundred and two officers in the army and forty in the navy.

You will be interested to look through the pages of the military record to see what the members were doing. Perhaps you will know of some additions or corrections that will help to make this record more complete, do not delay to send them in. Use the enclosed sheet in the back of the book.

Due to the fact that it was impossible to keep in touch with the alumni and active members during the war and also because of the fact that Theta Tau members are located in every country of the world, it has been extremely hard to get in touch with all of the members on time for this issue. Those of you who have responded on time to the first letter sent out, no doubt have become a bit impatient because The Gear did not reach you by May 1st. Having looked over the material on hand at that date it was found advisable to hold the copy open until more of the members and chapters were heard from. Whether the delay was justifiable or not will be left to the members.

Just keep in mind that it takes over four months to get a reply from some of the brothers who are located in the interior of South America, and other inaccessible places. But then—many of these members, as soon as they do get the fraternity news are right on the job to

reply. It's those members who are near at home that are slow to reply.

The record blanks that were sent out did ask for a lot of information and as one of the members expressed it—"it was some questionnaire," but after two years it was necessary to get a fresh start and an accurate one. Those who didn't send them in will do this office a great big favor to either look up the records sent you or ask that new ones be supplied.

In many cases letters were returned and held because no other forwarding address was available—then there must have been a large percent of the undelivered letters—by that I mean letters that were received at the address designated, but not forwarded to the brother that we wanted to reach. Can't you see that unless you keep your chapter posted of changes in address or leave a correct forwarding address you are going to lose the fraternity news? Not only that, but if the fraternity mail can't reach you how will you get the other mail you should and are entitled to get?

The chapter alumni letters such as Beta, Iota and a few others are issuing is the thing that keeps the alumni interested in the doings of the fraternity. Beta has continually kept this letter going and that's one reason why their alumni are always on the job. If you want suggestions for your chapter get in touch with Beta and let them show you how it is done.

There are over a thousand alumni this year. Look through the directory and see if you can help to correct either address listed there or make any changes regarding the other information given. A special page will be found in the back of the book that may be used for corrections and additions. Send them in.

The following brothers are located in some of the principal business centers. If you are passing through

stop long enough to look them up; you will be more than welcome:

Leland C. Angevine, 318 Reliance Bldg., Kansas City, Mo.

Paul H. Buxton, 19 Migeon Ave., Torrington, Conn.

C. Burch Cameron, Bessemer, Ala.

Roland B. King, 1103 W. Gordon Ave., Spokane, Wash.

Phil J. Laurence, 544 Builders Exchange, Minneapolis, Minn.

Many of the active members who left school to enter service have returned to finish their course. From those that I have talked to, school means an awful lot more to them than it did before they got out and had a chance to see some of the things that this old world is made up of.

Brother Moon has had charge of some of the Americanization classes at Houghton, Mich., this past year. Such work cannot be appraised at the present time. This is a new and undeveloped field. Only by trying it out in the mills, mines and camps will it be possible to realize its benefits.

If your address or that of any man you know is not correct in this issue, fill out the card below and mail it to the Editor. Lack of address is due to failure to reply to circular letters from the Editor.

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If you want to subscribe to the 1920 issue of The Gear of Theta Tau enclose this card, properly filled, and send with \$1.25 to the Editor of The Gear.



E. J. SCHRADER, Grant Regent 1905-1919

You have heard it said if you want anything well done, do it yourself. But if you want anything well done along the fraternity line, as far as Theta Tau is concerned, ask Brother Schrader to do it. It does seem strange that no matter how busy some folks are they will always manage to find time to do the next thing.

One of the first names I heard mentioned when Delta Chapter was installed was that of Brother Schrader. It was only a short time before I realized some of the work he had gotten behind and done up in that ship shape manner of his. And then when in 1915 I was called upon to get out the next issue of *The Gear* I again had more opportunities to marvel at the numerous bits of data regarding Theta Tau that were at his disposal. It's not periodic or spasmodic at all; that was his habit even before he was elected to the position of leadership he has continually held up to the beginning of this year.

The fraternity is to be congratulated on having such an able leader these many years, but better still, Theta Tau is fortunate to have Brother Schrader not only ever ready, but continually at the fraternity work that he long ago launched at the University of Minnesota in 1904.

ALPHA CHAPTER

Total number of initiates.....	193
Active members 1919-1920.....	25
Members initiated 1919-1920.....	10

CHAPTER ROLL

Arnold, Lewis E.	'20
Bernt, Hans E.	'20
Dawson, Loren W.	'21
Ek, Walter S.	'
Enke, Fred A.	'21
Frank, Harry O.	'20
Gerow, Theron G.	'20
Halladay, Leslie L.	'21
Hougan, Sander	'20
Johnston, Kenneth A.	'21
McKenzie, Leonard F.	'20
Miller, George W.	'20
Noble, John F.	'21
Reuter, Peter T.	'21
Rounds, Charles K.	'21
Seeman, Ernest W.	'20
Siverson Garfield C.	'22
Smith, Lyle W.	'22
Webster, William H	'22
West, Herbert S.	'21
Zanger, Eugene	'21



ALPHA CHAPTER—1919-1920

Siverson	Smith	Reuter	Enke	Webster
West	Ek	Rounds	Halladay	Noble
Zanger	Hougan	Seamon	Miller	McKenzie
Gerow	Bros	Johnston	Arnold	Dawson
		Prof. Zelner	Wunderlick	Bernt

ALPHA CHAPTER

By Lewis E. Arnold, Associate Editor

Alpha Chapter, after a somewhat troubled existence of several years, takes great pleasure in again being able to welcome the sister chapters of Theta Tau.

In the fall of 1918 we closed our house and stored the furniture, all of the active men going into the different branches of service. At the beginning of the second quarter, January 3, 1919, another house was rented and Alpha started the new year with thirteen active brothers.

Since the last Gear was published Alpha initiated, on April 30, 1918, Dr. William Harvey Emmons, professor and head of the Geology Department at the University of Minnesota.

During the spring quarter of 1919 we initiated Brothers W. S. Ek, P. T. Reuter, W. H. Webster, L. W. Smith, F. A. Enke and H. S. West.

An enjoyable time was had by the active chapter and several of the Twin City Alumni at an informal dance, held at the Tamarack Inn. Dr. and Mrs. W. H. Holman chaperoned the party.

On May 1st the Sophomore and Junior Miners left on their field trips, the Juniors spending three weeks in the West studying mining, milling and smelting operations at Lead, South Dakota; Salt Lake City, Utah, and Eureka, Utah; and the Sophomores getting practical surveying and geological experience on the Messabi and Vermillion Ranges of Northern Minnesota.

In June Brothers Kapphahn, Wunderlich, Bros, Kroeze, Marshall, Coe, Elliott and E. I. Anderson graduated, leaving an active chapter of thirteen men to take up the work for the coming fall.

On October 8, 1919, Alpha held its first meeting with twenty members present. Brothers Coe, Bros and Wunderlich returned to take up post-graduate work, while Brothers Miller, Rounds, Frank and Gerow, who had re-

turned from active service in France, were also present.

Much time and energy was taken up in finding a new house, moving and getting settled again. This done, the chapter undertook the fall quarter's work.

A Smoker was held in November, at which all the members, together with several prospective candidates, made themselves acquainted and had a general good time. Professor Comstock wandered far from his natural courses of Mathematics and Mine Plant, completely taking in everyone with a maze of card tricks. The party was brought to a close after everyone's appetite was satisfied by sandwiches, cake and coffee.

On November 14, 1919, Alpha indulged in a little social pastime, the chapter turning out for the first dance of the year, held at the Calhoun Commercial Club. Professor and Mrs. E. H. Comstock chaperoned the party, which was a complete success.

During this quarter we initiated Brothers L. L. Halladay; G. C. Siverson; F. R. McKenzie and J. F. Noble. We finished the year by selecting Brother Harry O. Frank to represent us at Cleveland, the other boys going to their homes for the Christmas vacation.

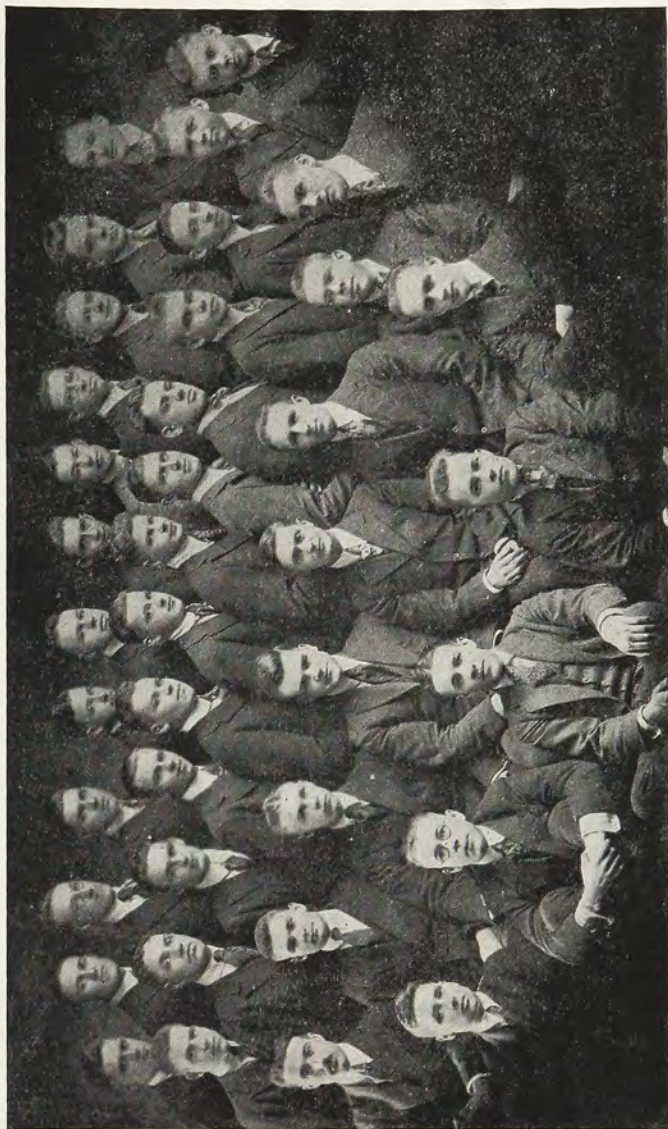
The chapter at present has five Tau Beta Pi men, two varsity football men, one varsity basket ball man and several track men. All of the men are more or less active in social life at the University. Alpha prides herself on the fact that over eighty-five per cent of her members are graduates or students. Alpha wishes all the chapters of Theta Tau a most prosperous and successful year.

BETA CHAPTER

Total number of initiates.....	214
Active members 1919-1920.....	40
Members initiated 1919-1920.....	26

CHAPTER ROLL

Abrahamson, C. Walter	'21
Beck, W. A.	'22
Bjork, Clarence A.	'22
Bjork, Dewey	'21
Breton, Ernest J.	'20
Cookson, Everett E.	'22
Coughlin, Daniel E.	'15
Endress, Arthur L.	'21
Engels, John L.	'21
Fairweather, James M.	'22
Ferneau, Werner	'19
Frimodig, Meidell H.	'22
Griffith, Francis B.	'22
Hanson, N. D.	'20
Humel Arthur C.	'21
Johnson, Carl E.	'21
Krannenburg, Harold	'22
MacDougal, Henry A.	'22
MacLeod, William	'22
Moon, Ralph M.	'18
Moore, Henry F.	'20
Myners, Thomas F.	'21
Paull, Elmer	'22
Richards, Alvin B.	'22
Satterly, Reuben G.	'20
Seamon, Lawrence	'22
Shea, Gerald B.	'21
Smale, Lawrence	'22
Suverkrop, Lew A.	'17
Thielman, Thomas C.	'18
Travers, John T.	'22
Winters, Arthur W.	'22



BETA CHAPTER—1919-1920

Moon Richards	Hanson	McDougal	Coughlin	Cooksan	Macleod	Woodlief	Satterley	Moore	Myners	Fairweather
Hayley Endress	Thielman	Humel	Seaman	Bjork, C.	Bjork, D.	Fernau	Breton	Johnson	Shea	Cranenburg
Engels	Lund	Winters	Suverkrop	Prickard	Bemis	Abrahamson	Beck			
Griffith	Frimodig	Travers	Travena	Paul						

BETA CHAPTER

By Gearold B. Shea, Associate Editor

The recent manifesto of that doughty scholar and adventurer, Steffanson, extolling the sublimities of Arctic residence, was merely a reiteration of long known facts to brothers of Beta. In short, it was old stuff. Certainly Beta thrives in the vigorous cold of upper Michigan. These snow bound months from which we now emerge have been notable ones for the chapter; a season of great activity and advancement. And now spring has come. The encircling hills thrust their dark brown heads through rapidly wilting collars of grimy snow, the trees put forth a tentative finger and the melting ice of the pavements races away in miniature torrents and Beta bestirs herself to days of greater activity than ever.

It is in this period of awakening, when all the world looks forward to the spectacle of a new year slowly unravelling its frosty cocoon, that the distracted editor racks his vacuous brain for long past history of the chapter.

Looking backward we find that the years 1917 and 1918 were lean ones for Beta. With the formation of the First Battalion of the 107th Engineers, the thinning of our ranks began. With the subsequent training on the campus the actives had dwindled to six in number by the end of the summer.

With the beginning of the fall term of 1917, seven brothers returned to the house. These men got on the job at once and eight pledge pins were soon in prominence about the campus, and on November 24 the following men became brothers:

William J. Whatley of Birmingham, Ala.

Kenneth A. Rogers of Sopertown, Wis.

Russel F. Barden of Boyne City, Mich.

N. D. Hansen of Sheboygan, Wis.

Z. P. Laufer of Wyandotte, Mich.

Reuben G. Satterly of Hubbell, Mich.

Paul R. Melcher of Barre, Vt.

Werner Fernau of Flatonia, Tex.

From all reports a hilarious banquet followed the initiation. Social events of the ensuing year, winter 1917-1918, were limited to a "sleigh ride party," followed by a lunch at the house and a dance given some weeks later. For some weeks following, the odor of pungent Fatima ruled the atmosphere of the house, undisputed by the fragrance of sweet lavender and the obiquitous powder puff. The remainder of the winter and the first half of spring term were uneventful, but with the approach of May first, the number of parties per week varied inversely as the days left in April, reaching a maximum on Prohibition Eve.

By the summer of 1918 most of the seniors had enlisted. Things went on at the school about the same as ever with the exception of a short course in drill running, which was given to several hundred soldiers. Upon the completion of their work they joined the 27th Engineers, a mining regiment at Camp Meade.

On October 1st, 1918, the college was taken over by the Government as a training school for the S. A. T. C. All students were enlisted. Brothers Ocha Potter, Byron O. Pickard, Nick Henderson and Art. Allen arranged with the Government for the rental of the house as a barracks. December 21 saw the disbanding of the S. A. T. C. and the school began on the old schedule. After the house committee's survey of the desolated remains of our old home, it was concluded that it must have been used as a guardhouse. If not, its inmates most certainly deserved confinement. After a lapse of several months the place was once more ready for occupancy. We moved in on May 1st. The \$1200 rent from the Government paid the taxes, insurance and most of the repairs on the house.

With the beginning of the winter term under the regular schedule Beta had but six active members. Fraternity proceedings were hampered during the renovation of the house, but on January 25th the Douglas House was the scene of an initiation and banquet.

The initiates were:

Henry F. Moore of Benzonia, Mich.

Arthur L. Endress of Detroit, Mich.

Albert R. Trevena of Calumet, Mich.

Carl E. Johnson of Marquette, Mich.

Arthur C. Humel of Cleveland, O.

Carl W. Abrahamson of Ishpeming, Mich.

Gerald B. Shea of Osceola, Mich.

On July 2nd three more men were initiated:

Thomas F. Myners of Vulcan, Mich.

Roy W. Drier of Calumet, Mich.

Dewey Bjork of Crystal Falls, Mich.

The beginning of the current school year found the chapter "all set and rarin to go" for a big year. Subsequent events have brought the materialization of more than we had anticipated. Beta has had a most successful year scholastically, financially and socially.

Eighteen brothers appeared on the scene of action at the beginning of the term and things began to hum from the start. The extraordinarily large Freshman class and the good material that it contained offered a fine field to work in. The class is rather unique in that 90 per cent of its number are ex-service men. The rush committee put on a vigorous campaign and pinned pledge pins on nineteen men.

Freshman-Sophomore activities took their usual place in the first week of school, and a new lot also fell to the Freshmen this year; that of painting the bolders in the large M. C. M. sign built on the hill back of the gym.

On Saturday evening, October 11th, the Houghton Chamber of Commerce held a get-together and wel-

come gathering for the students. It was in the nature of a "booyau" and was held in the old assay laboratory, formerly used by the Students' Army Training Corps as a mess hall.

Beta has, as perhaps never before, been prominent in the activities of the school. Brother Satterly is president of the Students' Organization, and is liked by everyone. The different committees have four of our men among their numbers.

Under the able management of Brother Endress the basket ball team has just finished a season, more successful than any on record. Successful not merely in the number of games won or points scored, but in the style and make up of her schedule.

Think of old M. C. M. playing the University of Chicago. Well, she did on the 13th of December. It matters little to us that Chicago won by a few points, in that basket ball took on a new aspect from then on. Games were also played with the Marquette Normal, Lawrence College and M. A. C. The schedule of next year will contain more teams of national reputation and it won't be long before we will be drawn out of the isolation we now are enrapped in.

The squad this year could rightly be called an H and T team. Brothers D. Bjork and C. Bjork were the shining lights, and were well assisted by Brothers Satterley, Beck and Cookson.

Brother Paull, as assistant manager to Brother Endress, had full charge this spring of the biggest high school basket ball tournament ever held here.

The school also had a hocky team this year. Brother Travers of Canada was captain of the team, and was easily the star. He also played with the Portage Lake Hocky Club.

Among the members of the faculty are the names of Brothers Moon and Suverkrop. Brother Moon is on

the geology staff, and Brother Suverkrop instructs in the mechanical department.

The problem of Americanization and Human Engineering, which is becoming materialized in most every section of the country, has for its center in the Copper Country, the Michigan College of Mines. Brother Moon is in charge of the committee. Classes in English and mathematics are held each week at the different shops of the vicinity by the students. Both instructors and pupils are very enthusiastic over the movement.

The evening of October 24th was marked with a smoker for pledges. We prepared our work previously and the whole evening was given to the entertainment of the new men. We enjoyed some music, lots of singing, eats and smokes. Everyone enjoyed himself thoroughly.

Among the new Tau Beta Pi men are Thielman, Johnson, Endress and Myners.

November 6th was the occasion of the annual school smoker, held at the College Gym. The traditional badger fight was the crowning event.

Our annual initiation was held Friday evening, November 31st, when the nineteen pledges were taken in. It is perhaps the largest delegation in the history of the chapter, and coming after several lean years is a considerable event.

The initiates were:

Alvin B. Richards, John L. Engels, Ernest J. Breton, Clarence A. Bjork, Meidell H. Frimodig, W. A. Beck, Wm. MacLeod, Lawrence Smale, Arthur W. Winters, Harold Kranenburg, Francis B. Griffith, Thomas M. Hawley, John T. Travers, Henry A. MacDougal, James M. Fairweather, Otto R. Lund, A. Lawrence Seamon, Everett E. Cookson and Elmer Paull.

On Saturday, the following evening, the Douglass House was the scene of the banquet. After the inner man was satisfied, Brother Suverkrop, who acted as toastmaster,

introduced the speakers. The following toasts were ably responded to:

Welcome—Brother Woodlief.

Fraternity and College—Brother Bemis.

Alumni—Brother Clark.

Work—Brother Moon.

The impromptus were excellent and the singing and general all round good spirit was there from beginning to end.

Since that time we have pledged seven new men, namely: L. Vocke, W. Murray Ross, J. T. Huyge, J. T. Bransfield, W. M. Fay, Alfred P. Bianchi and R. Van Pelt.

These men will be initiated in the near future.

On Friday evening, April 9th, the chapter will hold its first annual dance at the College Gym. It is going to be one of the big social events of the year.

Koenig Hall, our chemistry building, was destroyed by fire on March 4th of this year. The building and equipment were a total loss; the work of the department is now being carried on temporarily in the Metallurgy Building.

In closing we hope that all the chapters have fared as well in the past as we, and have as bright prospects for the future.

GAMMA CHAPTER

Total number of initiates.....	150
Active members 1919-1920.....	21
Members initiated 1919-1920.....	13

CHAPTER ROLL

Bailey, Donald L.	'21
Benbow, Jules C.	'20
Brinker, Fred A.	'21
Brown, Prentice F.	'20
Buck, Luther J.	'20
Bunte, Ernest B.	'20
Case, William B.	'20
Charles, Iestyn M.	'21
Cunningham, Samuel D.	'21
Dunn, G. V.	'20
Edgeworth, J. E.	'21
Flint, Horward T.	'20
Garnett, S. A.	'20
Henderson, J. S.	'21
Lynch, V.	'20
Poulin, John A.	'21
Prentiss, Louis W.	'21
Schade, Roger M.	'21
Schneider, C. M.	'20
Strock, Hale	'21
Thomas, G. D.	'21

GAMMA CHAPTER

By Prentice F. Brown, Associate Editor

In 1917 Gamma Chapter took an active part in the strike at the Colorado School of Mines; all of the members of the Class of 1918 joined the two lower classes in leaving school. The exodus took place the first of May; the result was a new faculty the next fall with the election of Dr. Victor C. Alderson as president. Under Dr. Alderson's term of office the Colorado School of Mines has grown considerably with an enrollment of over 400 students.

We lost one of our most influential members last spring when Dr. Victor Ziegler resigned his office as professor of geology. Professor Ziegler still retains his residence in Golden, so we have occasion to see him once in a while. Members of the school will always remember him to be one of the best liked professors on the faculty.

Those who graduated last year have all taken positions in remote places. Brother Coulter took his wife to the East, where he is employed in the steel mills. Brother Parker went one step farther and landed in South Africa. Brothers Mechin, Romine and Conley are in Old Mexico, they find time to do some mining every time Villa leaves town. Brother Miller is the only one who remained in our country. He is working for the Roxana Petroleum Corporation with Brother Gibson; both drop in on us once in a while. Brother Metzger has gone to Cuba to straighten out the mining problems of that island. They were all good mines men and will promote the high standing of H & T wherever they go.

Eight members of last year's chapter returned to school this fall, also Brother Tongue of '18. We pledged thirteen men and initiated them this February. In honor of our newly initiated members we gave the

second annual dance of Theta Tau on February 27th. About one hundred couples were present, including many of our alumni.

Many of our men were active in the service. L. J. Buck was a lieutenant in an anti-aircraft battery just outside of Paris. J. A. Poulin was a lieutenant in the Air Service of the A. E. F. Johnny and Buck have many interesting stories about the times they had over there. R. M. Schade held a lieutenant's commission in the engineers. S. D. Cunningham was also a lieutenant in the air service. C. M. Schneider was a cadet in the aviation with V. Lynch. Benbow and Henderson were our only Gobs. The rest were in the S. A. T. C., where they entertained hopes of reaching officers' training camps, only to get nothing. W. B. Tongue was a lieutenant in the aviation corps.

Gamma Chapter suffered the loss of Brother John J. O'Malley, a lieutenant in the aviation corps. He fell in a tail-spin at Ellington Field, Houston, Tex., during May, 1918. Joe was one of the most popular men in school; we hoped to see him back with us when the war was over.

Our men have made a record in the athletic events of the past year. Benbow, Bunte, Dunn, Brinker, Poulin and Schneider made letters in football. In basket ball Bunte, Dunn and Edgeworth made their letters. Charles was elected manager of boxing, while Prentice is the baseball manager. Strock made his letter in boxing this fall, as well as in baseball last year. Of the twenty-one members of our chapter fifteen are "M" men.

This year's Prospector promises to be one of the best produced in a long time. Brothers Edgeworth, Bailey, Brinker, Charles and Prentiss are on the Prospector Board. We are sure that they will meet with great success, since Fred and Joe are on the advertising end of it. It is reported that after selling a full page to a harvester manufacturer, he turned around and offered

them positions as salesmen in this company. They even sold Prexy a ticket to the Theta Tau dance.

The Tau Bets caught a few of our men hiding under the bed last week and pledged them. Case, Bailey, Charles, Bunte, Prentiss and Brown are members of Tau Beta Pi.

Our alumni are scattered about the country in such a manner that it is very difficult to keep track of them. Some of the last ones from whom we have heard of are Billy Williams, who was a lieutenant in France. He returned and coached the Manual Training football team last fall. Duggleby returned from France last October and came to Golden for a couple of months, he was a lieutenant in the engineers. He is in California now managing a mine. Wayne Harrod returned from overseas, where he was a lieutenant in the artillery; after staying around school for three months he took a position as engineer for a mining company in Utah. Gibson and Snick Schneider drops in from Wyoming once in a while. We only wish that there was some way to keep in closer touch with our alumni, but very few live in the vicinity.

Nine of our men will graduate this spring, leaving a good strong bunch to carry on next year. Brother Bailey will remain in school and will be an able advisor, as he had the advantage of meeting so many of the big men of the fraternity when back at the convention. He brought back an interesting report of the convention and the cordial manner with which he was treated by Delta Chapter.

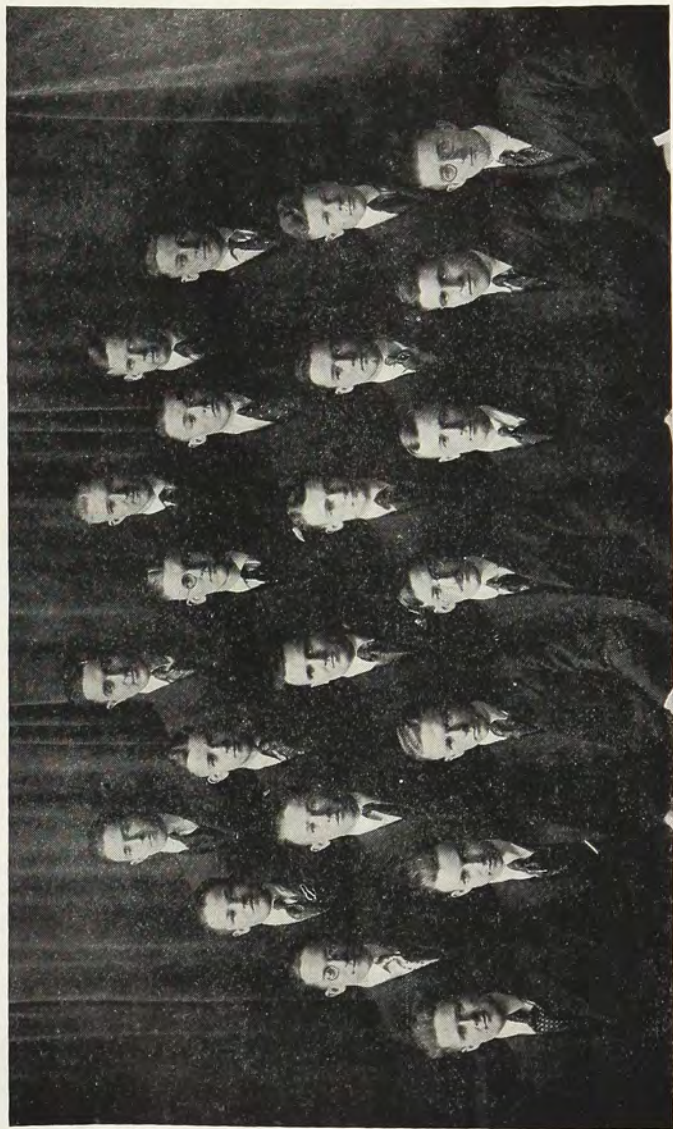
Gamma Chapter extends an invitation to all brothers of H & T to come and visit us whenever in Colorado. Though we have no chapter house, we have a room laid aside in the gymnasium where we hold our meetings. When you land at the foot of Lookout Mountain just ask for O. T.s, and you will find them in every house on the hill, now that Paul's is closed. It may be that even in the desert you will thus find an oasis "Where the Moon shines on the Moonshine so merrily."

DELTA CHAPTER

Total number of initiates.....	120
Active members 1919-1920.....	28
Members initiated 1919-1920.....	10

CHAPTER ROLL

Barrett, G. N.	'21
Binder, G. P.	'20
Campbell, Henry W.	'22
Carlson, E. A.	'21
Chapman, T. M.	'23
Cobbledick, Stanley E.	'20
Davis, G. N.	'23
Diemer, Alan J.	'20
Dugan, William K.	'22
Faubel, Cedric P.	'22
Fish, Russel C.	'22
Gertz, N. E.	'23
Griggs, Kenneth C.	'22
Helwick, Theodore W.	'21
Klopsch, Otto Z.	'21
Krill, Leonard H.	'20
Laisy, Harold K.	'20
Laisy, Rudyard E.	'21
Pancoast, Donald F.	'20
Rask, Morris L.	'22
Savage, Paul M.	'22
Seager, Arthur F.	'22
Stevens, Hoy	'22
Torreson, O. W.	'23
Walton, Allyn K.	'20
Walton, George M.	'22
Werner, Edward J.	'22
Wicks, Herbert A.	'22



DELTA CHAPTER—1919-1920

Walton, G. N.	Werner	Carlson	Wicks	Campbell	Rask
Griggs, K. C.	Faubel	Savage	Dugan	Laisy, H. A.	Krill
Barrett	Stevens	Pancoast	Cobblestick	Diemer	
Walton, A. K.	McDowell	Laisy, R. E.			
	Binder				

DELTA CHAPTER

By Leonard H. Krill, '20, Associate Editor

Just as all inherent good things thrive midst adversity, so Delta Chapter, after the three years of national anxiety is here again stronger than ever to give her sister chapters the best of wishes for a continued prosperity.

Even the rampages of the world war in the spring of 1917 causing a very sudden depletion of our ranks did not dampen the enthusiasm of the few Theta Tau men left to continue the good work. The chapter house was maintained even in competition with the free lodging offered by the S. A. T. C. and today we look back with all praise for those few persevering brothers.

However, Theta Tau men were not only distinguishing themselves here at Case, but in the field of battle. Some fifty of our brothers were in active service, most of whom were officers of note, two of our men, Brothers Pancoast and Churchhill, receiving the Belgian War Cross. Like true Americans, the job being finished, many of the men have returned to college and this year our chapter numbers twelve ex-service men. The war almost forgotten, our minds have reverted to pre-war activities and, of course, to Theta Tau and so it happened that the fourth National Convention of Theta Tau was held last winter and Delta Chapter was the honored host.

The convention was indeed all that a convention should be, for several years had lapsed since the previous get-together and a great volume of business had to be transacted. In fact, the various delegates were so busy getting the floor and then keeping themselves balanced that very little time was left for sightseeing or the other amusements that Delta Chapter had planned for the convention. However, the tired delegates all joined with the chapter in a big banquet as the grand finale of the convention and a more fraternal crowd has

never been witnessed. The convention was a big boost for this chapter, and we hope that every chapter will some day have the same opportunity of being so honored.

One of the big advances made by Delta Chapter in the past year has been the formation of the Delta Theta Tau House Co. Incorporated under the laws of Ohio to sell stock at \$10 a share for the purchase of a fraternity house. Due to the untiring efforts of our active brother, Hoy Stevens, the plan is meeting with wonderful success, and another year will probably find the chapter in its own home. Any of the sister chapters contemplating such a move are welcome to all the details of our venture, and we heartily recommend this plan.

Action, action and then more action has been Delta's policy in the last few years, and so we find Theta Tau one of the leading fraternities at Case in every way, for every man is doing something for his Alma Mater and his fraternity. A brief retrospect will show some of the activities represented.

The declaration of war found seven Theta Tau men in Tau Beta Pi, one of them being the highest Junior, Robert Mix, '18; Krill, '20, was editor of the Case Tech, the official college paper, and was also leader-elect of the Glee Club. In 1917-18 school activities were necessarily of small moment, but in 1918-1919 Theta Tau men were the foremost in every line. Brother Klaustermeyer was captain of the track team and with Brothers Chesney and Klopsch took the laurels for Case in the Big Six meet of Ohio. Klopsch was a letter man in basketball, while Helwick became manager of the track team. In student government we had Ward in the senate and he was also a member of the Junior dance committee, an enviable position. Ward also made Owl and Key a Senior Honorary Society. Brother Hansbarger was a very able assistant football coach.

But this year has eclipsed all previous ones in activity. Brother Savage was assistant football manager, Klopsch has again made his letter in basket ball, as has Rask. Helwick is manager of the track team and about five of our men are out for track. Out of the ten men on the Case senate, Savage and Krill are Theta Tau men, while Savage, Binder and Krill are three men of fourteen on the Boost Case Association. The Musical Clubs has Diemer, Walton, Krill, Wicks and Torreson, and the College Paper has Savage and Krill on the editorial staff.

Delta Chapter has also held up the reputation for scholarship. The Owl and Key has taken in its second Theta Tau man in Krill this year. Pancoast and Walton have made Eta Kappa Nu the honorary Electrical Fraternity, while Binder and Krill are officers in Tau Beta Pi. Brother Hansbarger was honored with Sigma Xi.

Aside from individual honors Theta Tau has been the runner-up on every inter-fraternity event, including a very close second in the swimming meet, track meet and also basket ball. But for our best men being on the varsity we might have taken firsts on these events.

And then the social side of our education has not suffered in the least, for each month brings a fraternity dance or party which always includes many alumni and, of course, the fairest of fair in this city.

The beginning of this term found only eighteen returning men, but we now number twenty-nine actives and five pledges. Six of our seniors will be graduated from Case this spring, but they seem not to worry about positions, for each man has at least a dozen offers this year.

In summarizing our efforts of the past three years we are happy in making the above report to our many alumni and sister chapters to show that we have been up and doing since our last report in The Gear and that we men leaving the college, graduate with the satisfaction of knowing Delta Chapter of Theta Tau will constantly strive to make its best better.



EPSILON CHAPTER—1919-1920

Bailey	Crook	Inman	King	Orynski, J. B.
Woodford	Brussola	Christie	Collins	Deane
Fraser	Grinsfelder	Harter	Hawkins	Hulin
Morgan	O'Brien	Pascoe	Peterson	
Richards	Tracie	Trescher		

EPSILON CHAPTER

Total number of initiates.....	151
Active members 1919-1920.....	28
Members initiated 1919-1920.....	14

CHAPTER ROLL

Bailey, T. L.	'17
Brussolo, V. A.	'20
Christie, L. G.	'20
Collins, D. B.	'20
Crook, T. H.	'19
Fraser, S. E.	'17
Grinsfelder, S.	'20
Harter R. L.	'20
Hawkins, J. T.	'20
Howe, H. V.	'16
Hudson, F. S.	'12
Hulin, C. D.	'20
Inman, W. E.	'17
King, K. V.	'19
Klingaman, G. L.	'20
Morgan, F. A.	'20
Morse, R. R.	'13
O'Brien, G. T.	'20
O'Neill, F. E.	'20
Orynski, J. B.	'14
Pascoe, H. L.	'20
Peterson, M. C.	'20
Richards, J. A.	'19
Taliaferro, N. L.	'13
Tracie, R. G.	'18
Trescher, F. G.	'20
Wittlesey, H. C.	'19
Woodford, A. O.	'13

EPSILON CHAPTER

By Theo. H. Cook, Associate Editor

With the opening of the college year just terminated, Epsilon Chapter found its roll increased to greater than pre-war proportions, twenty-five active members in all, including the veterans from both sides of the water.

The older men returning were told of Epsilon's experiences since the summer of 1917. In the spring semester of 1918 the following brothers had held office: Regent, J. B. Stevens; Vice Regent, R. Donald; Scribe, G. H. Alvey; Treasurer, G. S. Borden. The end of that semester has seen the initiation of ten neophytes: A. O. Woodford, L. W. Henry, A. M. Sperry, H. C. Whittlesey, G. T. O'Brien, M. C. Peterson, T. H. Crook, A. Folger, G. L. Klingaman, and S. Grinsfelder. Brother F. H. Probert, dean of the College of Mining, was host at the initiation banquet at the Claremont Country Club, Oakland—a "high light" long to be remembered by those present.

Election for the fall semester of 1918 had installed the following brothers as officers: Regent, G. H. Alvey; Vice Regent, J. A. Richards; Scribe, J. Mathieu, and Treasurer, T. H. Crook, but the disruption of normal campus conditions in the fall of 1918 had prevented any chapter meetings.

With the spring roll call Brothers Farnlacher and Mathieu were missing. Both had died while in the service. We grieve deeply for those two gold stars in our service flag. Brother Kerr had been elected to fill the vacancy in the Scribe's position. Of the members who had joined the colors, ten had resumed their college work this spring. Initiation, April 25, 1919, had added eight to the roll: C. D. Hulin, K. V. King, H. L. Pascoe, F. G. Trescher, L. G. Christie, J. T. Hawkins, R. L. Harter and T. L. Bailey. The initiation banquet was held at the Iroquois Cafe in Oakland. The chapter was fortunate in having Grand Regent Schrader present

at this gathering. For the fall term of 1919 Brother Sam Grinsfelder was elected regent; Bailey, vice regent; Richards, scribe, and Trescher, treasurer.

With the first rap of the gavel Epsilon Chapter steamed into full speed. The first meetings were occupied with the discussion of "ways and means" of acquiring a chapter house, but more immediate and pressing business of assembling material for the national convention, postponed a final decision. Brother R. L. Harter was elected delegate to the national convention, with Brother H. L. Pascoe alternate. Due to a conflict of dates Brother Harter was unable to attend, and the chapter was represented by Brother Pascoe. Prior to the conclusion of the semester an initiation added to the roll the names of Brothers H. V. Howe, D. B. Collins, F. E. O'Neill, F. A. Morgan, Jr., and V. A. Brussolo.

With Brother H. L. Pascoe in the chair as regent for the spring semester and Brothers Hulin, Fraser and Trescher installed as vice regent, scribe and treasurer, respectively, the events of the national convention were related to the chapter in its first meeting of the new year, 1920. Epsilon Chapter of Theta Tau congratulates itself upon the acceptance of the grand regency by Brother Geo. Davis Louderback, for California is the professional laboratory of that busy man.

Brother Pickard of Beta Chapter has recently taken the position of district engineer, in charge of the Mine Rescue and Safety Station here, for the United States Bureau of Mines. He was introduced to and greeted Epsilon at the last initiation banquet. At that banquet the following neophytes were welcomed as brothers into Theta Tau: D. H. Thornburg, R. T. Salsbury, J. M. Rogers, D. A. McMillan, A. Livingston, Jr., L. A. Bond, H. W. Franklin, H. Hardison and J. B. Leiser. These nine initiates refill the chapter ranks to be depleted by spring graduations, ten in number graduating in geology

and mining. This leaves a nucleus of nine older men to "carry on," with the new brothers, into the year 1920-1921.

Epsilon's members are conspicuous in campus activities. Brother M. C. Peterson is the captain of the track team for the present season, and Brother Rogers has won a place on the varsity boat. Brother R. L. Harter is chairman of the Rally Committee, and Brother Morgan is president of the Glee Club. The key of Tau Beta Pi is worn by Brothers Pascoe, Hulin, Trescher, Whittlesey and O'Neill. Brother Pascoe has recently been honored by Phi Beta Kappa.

ZETA CHAPTER

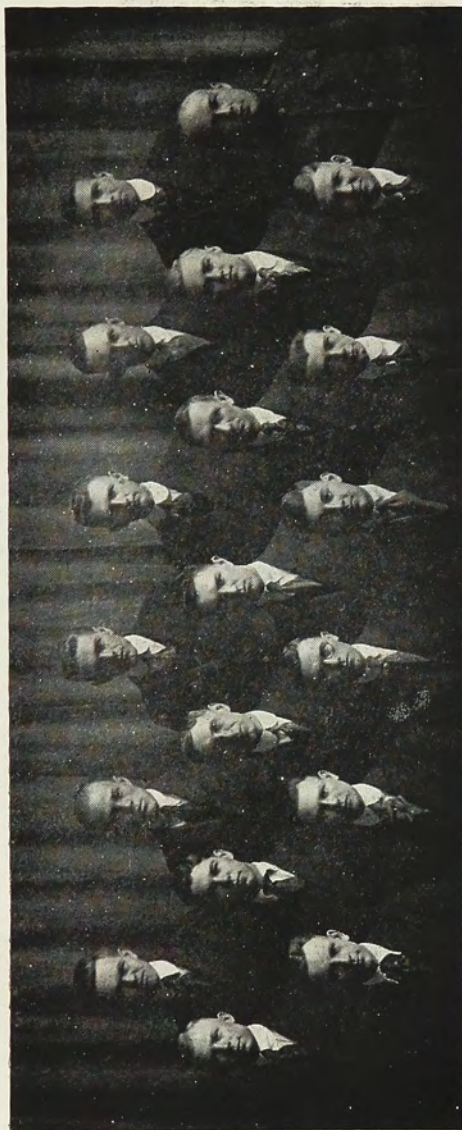
Total number of initiates.....	116
Active members 1919-1920	32
Members initiated 1919-1920.....	5

CHAPTER ROLL

Bell, Arnold A.	'20
Bown, William F.	'21
Bunn, John W.	'20
Clawson, John	'21
Davis, John C.	'21
Diehl, Clifford K.	'21
Doane, Philip D.	'21
Eagles, Homer M.	'20
Evans, R. W.	'22
Ferguson, Robert E.	'22
Fox, Paul S.	'20
Gregory, H. G.	'22
Henderson, Russell S.	'21
Jacowsky, J. Jay	'20
Johnson, Martin M.	'21
Kinkle, John F.	'21
Mathews, W. R.	'22
McFarland, Paul W.	'21
McGee, Richard R.	'21
Meyers, Foster	'21
Munch, G. O.	'22
Penticuff, J. A.	'22
Putney, David H.	'21
Reid, Theodore C.	'20
Ruble, Roland O.	'20
Rutledge, R. M.	'22
Saunders, Seymoor G.	'21
Schanze, A. E.	'22
Sinnard, M. F.	'22
Wahlstedt, John R.	'21
Wells, William B.	'21
White, E. L.	'21
Williams, James O.	'20



ZETA CHAPTER - 1917-1918



ZETA CHAPTER—1918-1919



ZETA CHAPTER—1919-1920

Johnson	Mathews	Bell	Ruble	McFarlan	Diehl	Meyers
Evans	Wells	Gregory	Fox	Schanze	Reid	McGee
Putney	Sinnard	Bunn	Wahlstedt	LaMer	Prof. Jones	Saunders
Jaykowsky	Eagles	White	Davis	Caleene	Doan	Wright
						Rutledge
						Clawson

ZETA CHAPTER

By Clifford Diehl, Associate Editor

Last fall Zeta Chapter was fortunate to have twenty-two active members returned for another school year. Of the twenty-two men, five, namely, Bell, Ruble, Reid, Davis and Ferguson, are older men that have been absent during the period of the war.

Our great handicap this year is having no chapter house, but we are assured that this condition will be overcome by next year. Up to 1915 we had a house located on the hill and near by the campus, but during the past few years we have been compelled to be without a house due to the common condition brought on by the war.

Regardless of all of the difficulties we are drawing near to the close of a very successful year. As the result of a smoker held early last fall, we pledged eight men and since that time we have pledged eight more men. This year we have held four combined social mixers and rushing parties and by this means have obtained a choice bunch of pledges.

We have been rather successful in keeping our fraternity well represented in the various activities of the school. We had three varsity football men and one varsity basket ball man, too, and we will have at least two varsity baseball men this year. Besides athletics we are well represented in the Sachems, Owls and Ahoku honorary societies. The present and the past four presidents of the engineering school are members of the Zeta Chapter and in addition to this we have Student Council representatives and other political offices.

Our scholarship, although not the highest, was very good for the last semester and much above the average. In relation to this we have four men that made Tau Beta Pi and one has been elected to Sigma Xi.

We have passed a period that has been rather hard for the fraternity to withstand, but now after a short time for reorganization there is a bright and growing future in store for us. We are looking forward with pleasure to the time of the next convention, when we will have the members of every other Theta Tau chapter as our guests.



ETA CHAPTER—1919-1920

Stetson

ETA CHAPTER

Total number of initiates.....	126
Active members 1919-1920.....	34
Members initiated 1919-1920.....	17

CHAPTER ROLL

Abbott, Norris G.	'20
Akers Kenneth F.	'20
Butler, Spencer W.	'21
Casey, Bart F.	'20
Clark, Myron H.	'20
Davidson, Hobart O.	'20
Davidson, Kenneth S. M.	'20
Davidson, Trevor O. M.	'21
Etter, Harold P.	'20
Fales, Herbert G.	'20
Fiske, David L.	'20
Gage, Frank D.	'22
Gatewood, Arthur R.	'21
Gibson, James W.	'20
Harlin, Eugene L.	'20
Harvey, Alexander D.	'21
Howard, Edward M.	'21
Jakobson, Irving D.	'21
Junod, Henri P.	'21
Kittredge, Francis B.	'21
Knox, Merrill B.	'20
MacDonald, Edmund J.	'21
Marine, J. Sidney	'18
McBroom, Earle H.	'21
McGrath, Leigh J.	'22
McKeen, William R., Jr.	'21
McKenney, Walter R.	'20
Nash, John C.	'20
Nixon, Stuart	'21
Owens, George F. B.	'21
Patterson, Robert P.	'20
Ryer, Edwin D.	'20
Shirley, Hugh M.	'21
Stuart, Lyall L.	'22

ETA CHAPTER

By Kenneth S. M. Davidson, Associate Editor

In the spring of 1917 Eta Chapter had forty-one members. We have never had a house, most of the members being also members of general fraternities. And so Eta's big activity was its meetings, held every two weeks. At these meetings, in addition to the regular chapter business, one of the men read a paper, prepared in advance, on some scientific subject of sufficiently general interest. Afterwards the meeting was opened to discussion of the subject of the paper and to say that sometimes the discussions waxed hot and heavy is putting it very mildly. In this way the chapter filled a very big place in our lives at the institute, even though we had no house and all of the fraternal associations of a house. And it was with very real feeling that we shook hands in June of that year and wishes all those going into the service the best of God speed. That the toll of those going into the service was a heavy one was evident the next fall when the chapter was called together. The rush of things then, with the constantly diminishing number made it hard to get the old spirit. However, meetings were held during most of the year and a new delegation elected in the spring. The fall of 1918 brought, of course, the S. A. T. C. and the suspension of all fraternity activities.

There was a new term started at the institute in January, 1919, for all men returning then from service, and soon after the opening of school a meeting was called of all Theta Taus. There were seven or eight, all just from the army and activities were re-started. Checking up on the old bunch of the 1917 chapter it was found that every man in the chapter at that time and since had been in the service, in some other branch than the S. A. T. C. One or two meetings were held to enable us to get straightened out, and then we initiated fifteen

men. Regular meetings were held all through the year and something of the old spirit of the chapter regained. Papers were given, the regular dinner meetings at one of the hotels were resumed.

There is not much to add for this year. We all came back with the old Eta spirit and enjoyed our meetings. The same system was carried out except that occasionally we had outside speakers, usually professors who were kind enough to come and give us some of the "other side," which doesn't often come out in the class room. Along in January another old custom, that of holding an annual rushing smoker, was revived. The smoker was a great success, Professor Miller our honorary member, talked to us about oil fuel and, funny, as I remember it, he didn't kill more than half a dozen men by boiler explosions and so forth during the whole course of the talk. Seventeen men were bid and all accepted. Initiation was held at the annual initiation banquet at the Hotel Lenox on February 24th. We were now up to our old strength and the rest of the meetings this year have seemed like really old times.

One day along in November we were all given a very pleasant surprise. "Sid" Marine, whom we had given up all hope of ever seeing again, blew in, just a little the worse for playing with an airplane in southern France—or letting the airplane play with him—I never could make out which way he likes the story told—but the same old "Sid" just the same. He's going to do the piloting for Eta next year, and just wait till you see him when he gets started.

LOST

During spring initiation Lawrence Davis, Eta '17, loaned his pin to one of the initiates. It has not been returned as yet. Will the holder of it please see that it is sent to Brother Davis at either 6 Summer St., Southbridge, Mass., or American Optical Co., Southbridge, Mass. I am sure he will more than appreciate it.

THETA CHAPTER

Total number of initiates.....	57
Active members 1919-1920.....	7
Members initiated 1919-1920.....	6

CHAPTER ROLL

Clendenin, Thomas P.	'21
Foster, Walter L.	'21
Hassan, Ali A. Jr.	'21
Kreutzer, Louis G.	'21
McKay, Richard	'21
Meagher, Edward	'21
Slover, Edwin A.	'21

THETA CHAPTER

It wasn't even necessary to have a roll call for the members of Theta Chapter at the beginning of the last school year. Brother A. A. Hassan, Jr., was the only active member left in school. Due to many unexplainable causes, it was impossible to get things going single handed and alone. This fact explains why Theta was not represented at the last convention at Cleveland.

All that was necessary to re-establish the chapter was the help of another live member. Brother J. Sidney Marine of Eta was delegated by Brother Schrader to assist Brother Hassan to this end. After some few conferences six members were pledged and initiated on April 20, 1920. With the possibility of several more pledges before the close of the school year, Theta Chapter will again be ready for the routine work when the fall term opens.

Although the roll of the other chapters dropped to a dangerously low number during the period of the war, none were as hard hit as Theta. The work of Brothers Hassan and Marine is to be commended, and it is to be hoped that the work for the coming year will not be so heavy, thus permitting some little time to be devoted to the necessary duties of the fraternity.

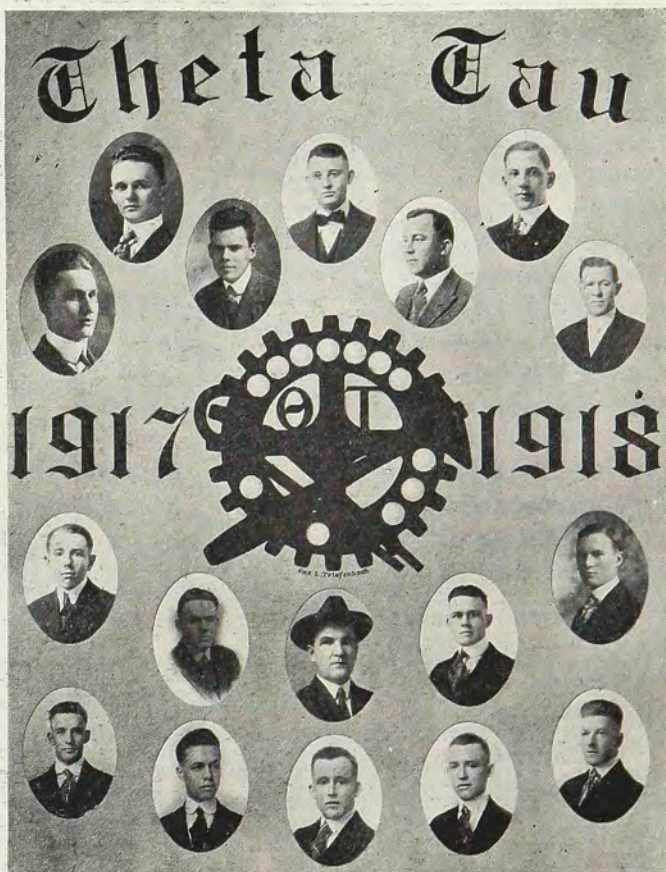
May this be a most successful year for the chapter and may the new members realize the ideals of Theta Tau.

IOTA CHAPTER

Total number of initiates.....	64
Active members 1919-1920.....	34
Members initiated 1919-1920.....	14

CHAPTER ROLL

Aid, Kenneth	'21
Ashlock, Evan E.	'20
Bailey, H. L.	'21
Beyer, Daniel C.	'20
Brazil, M. P.	'20
Charles B. E.	'21
Cunningham, Lorain H.	'20
Davidson, Lewis E.	'21
Gettler, R.	'22
Harlowe, Leslie S.	'20
Hoppock, Harland H.	'20
Hummel, Carl B.	'20
Hurst, H. W.	'21
Jewell, J. E.	'22
Marston, Robert L.	'20
Mutz, Herman J.	'21
Nolte, William J.	'20
Norville, Howard O.	'21
Potts, Allen D.	'20
Schuman, Edwin K.	'20
Stevens, Thomas A.	'21
Stoner, Oscar E.	'20
Stroup, R. J.	'21
Stubbins, John R.	'21
Stubbs, Robert N., Jr.	'20
Swayze, Ronald O.	'20
Terry, Mark L.	'20
Uthoff, Frederick W.	'20
Webb, Albert L.	'21
Weiser, Hanley	'20
Williams, A. C.	'21
Wills, Ronald B.	'20
Wilson, Joseph M.	'21
Wright Kenneth M.	'20



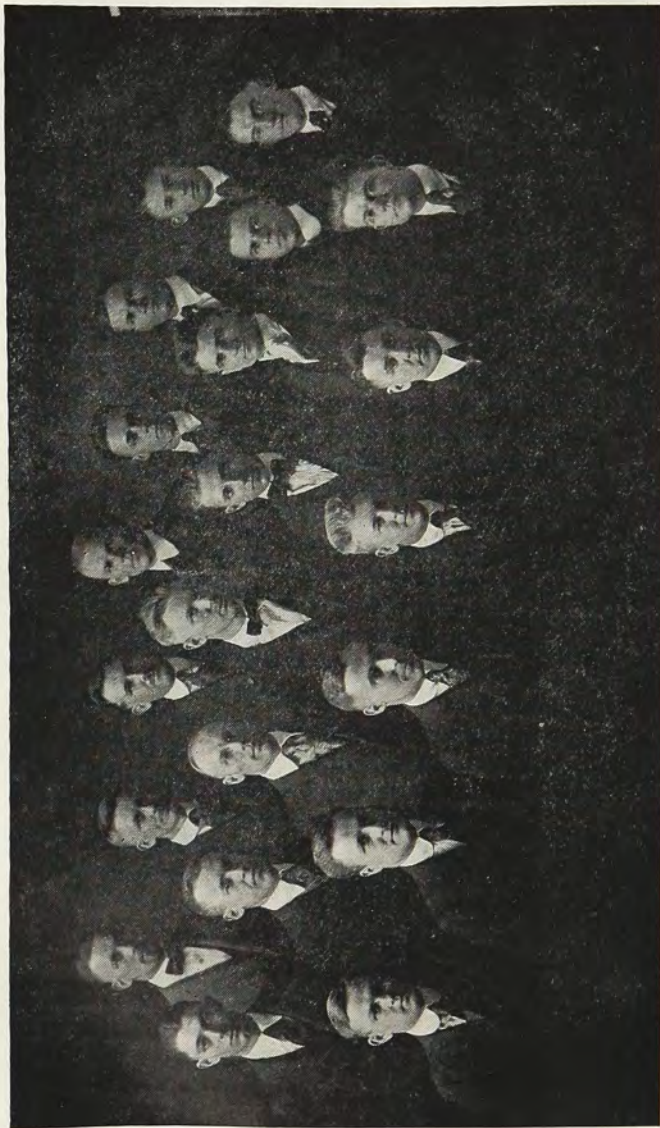
IOTA CHAPTER—1917-1918

Gill	Triefenbach	Mann
Housholder	Weiser	
Smiley	Prof. Buehler	Ashlock
Hummel	Stroup	Wills
Geib	Weimer	
Maness	Wright	
Stubbs		



IOTA CHAPTER—1918-1919

Hoppock	Hummel	Stubbs	Stroup	Schuman
Wilson	Beyer		Wright	Webb
	Uthoff			Wills
Gill				Potts
	Norville	Prof. Buehler	Aid	
	Swayze	Nolde	Mutz	



IOTA CHAPTER—1919-1920

Hummel	Potts	Marston	Nolde	Stubbs	Ashlock	Aid	Mutz
Wilson	Wright	Stoner	Swayze	Weiser	Cunningham	Harlow	
Hoppock	Uthoff	Beyer		Wills	Stevens	Webb	

IOTA CHAPTER

By E. E. Ashlock, Associate Editor

Our first meeting in September was a real reunion of brothers. The new men of the year before had the pleasure of meeting as brothers, some of the older men whose names had been mentioned so often in the hot air sessions, even while they were away from school. The men that had been away from school for a year or two were more than eager to meet their younger brothers. This spirit of pep and brotherly friendship has been present throughout the entire school year.

At our first meeting Brothers Beyer, Potts, Stoner, Cunningham, Weiser, Uthoff, Swayze, Nolte, Ashlock, Hummel, Wright, Hoppock, Mutz, Norville, Webb, Wilson, Schuman, Stubbins, Stubbs and Wills answered first roll call. Meetings were to be held every two weeks.

The first group of men to be initiated in the fall were Terry, Marston, Davidson, Harlowe, Aid and Stevens. Immediately following the initiation ceremony, which was held on the evening of November 22, in the Metallurgy building, we convened to the dining room of the Baltimore Hotel for our eighth semi-annual initiation banquet. The guests at this banquet included Dr. McRae and six members of the faculty.

Brother Fred Uthoff represented us at the convention. His report, on returning, was a real inspiration to us.

With one or two exceptions, meetings were held every two weeks during the spring semester. March 6th the following men were initiated in the fraternity: R. J. Stroup, R. C. Gettler, H. W. Hurst, H. Bailey, J. E. Jewell, B. E. Charles, M. P. Brazil and A. C Williams. At the ninth semi-annual banquet thirty-five plates were set.

One definite task assumed by the present chapter is the launching of a movement among the alumni of Iota to form a stronger fraternal bond between the alumni

and the active chapter. This will be started with the annual Iota news letter which we intend to send to press in a few days.

It seems that the men in school this year are proving themselves worthy of H. & T. by their school records. Eleven of our members are members of Tau Beta Pi. We are represented in all of the student activities by one or more of our men.

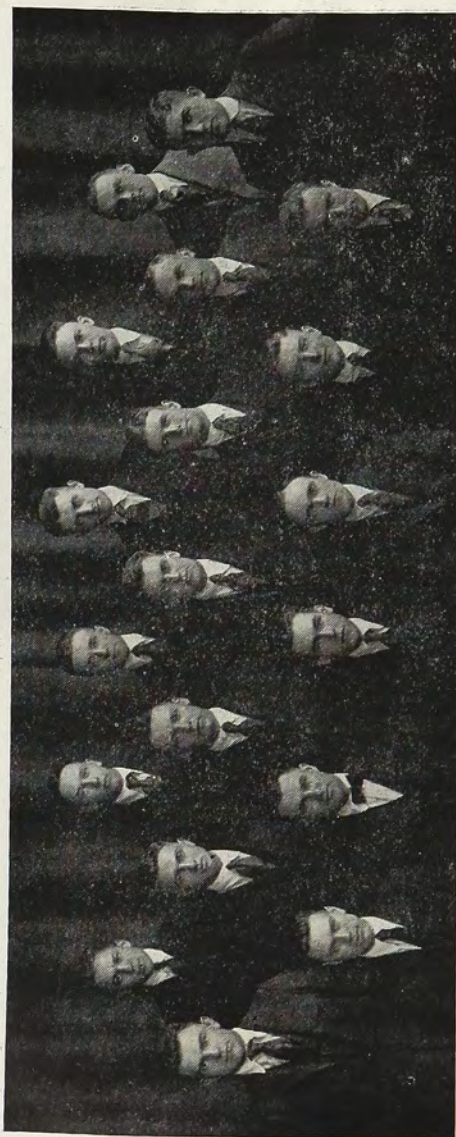
As seen from the outside this is practically all of our work. The invisible results of our work are the seeds of the H. & T. spirit sown in the hearts of the men. The development of that spirit in our men is our true object. The best testimonial as to the degree of our success in this work is the attitude of the student body toward the fraternity. To be a member is regarded as an honor by all and a thing to be coveted.

KAPPA CHAPTER

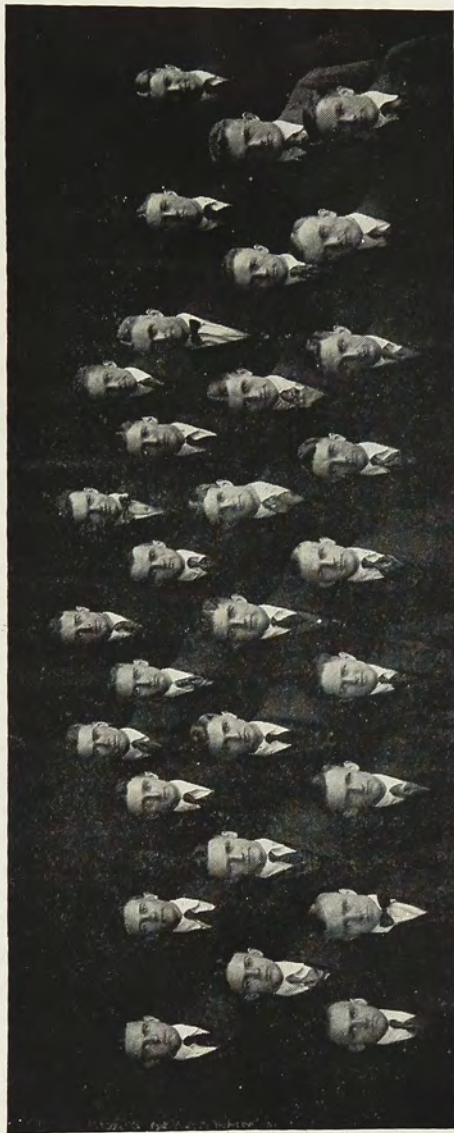
Total number of initiates.....	98
Active members 1919-1920.....	33
Members initiated 1919-1920.....	13

CHAPTER ROLL

Allman, J. C.	'21
Burke, J. A.	'20
Burley, P. B.	'20
Carlson, P. L.	'21
Christ, R. J.	'20
Davis, C. J.	'21
English, F. J.	'20
Fleming, O. J.	'20
Gould, C. B.	'20
Hollingsworth, D. M.	'21
Ingwersen, B. A.	'20
Johnson, R. B.	'20
Langdon, P. E.	'20
Leeming, J. W.	'21
Lilley, R. W.	'20
McClelland, R. L.	'21
Mezek, F. W.	'21
Miller, C. W.	'21
Mohr, J. S.	'20
Poole, F. M.	'21
Quigley, O. F.	'20
Reece, H.	'20
Risley, R. E.	'20
Skinner, M. B.	'20
Sternaman, E. C.	'20
Thorsell, A. A.	'20
Tourtlot, F. J.	'21
Vogt, F. W.	'20
Walters, G. G.	'21
Whitney, H. B.	'20
Wilton, O. N.	'21
Wright, C. S.	'21



KAPPA CHAPTER—1918-1919



KAPPA CHAPTER—1919-1920

Miller	Hollingsworth	Carlson	Burley	Burke	Sternaman	Quigley	Vogt	Allman	Davis	English	Christ	Mezek	Wright
												Fleming	Ingwersen
												Johnson	Langdon
												Whitney	

KAPPA CHAPTER

By F. M. Poole, '21, Associate Editor

It was with renewed vigor that the returning remnants of the formerly very energetic Kappa Chapter, Theta Tau's youngest, gathered together last fall. To establish again and even to increase the former prestige of Theta Tau at the University of Illinois was their earnest determination.

Kappa believes that internal organization and the personnel are the deciding points in the life and success of a chapter. With this belief in mind, she first turned her attention to the systematical outlining and the perfecting of her organization and to the wiping out of the remaining effects of the war. The need of new blood that this work may continue was apparent. Accordingly thirteen men were pledged against strong competition and initiated into knowledge of H. & T.

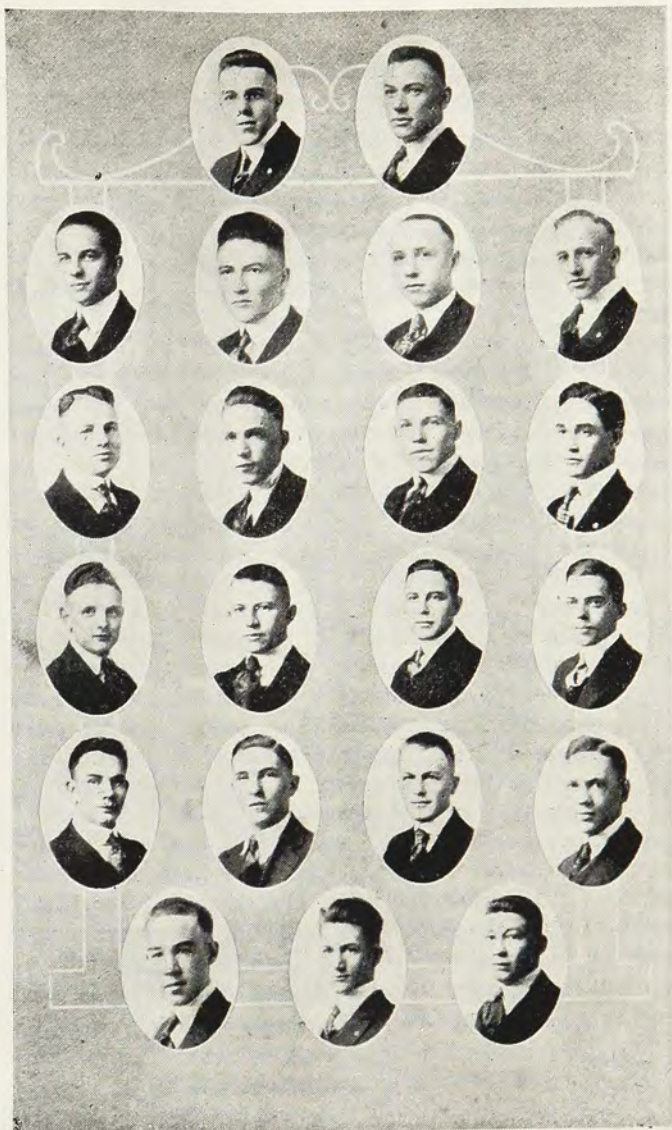
As may be surmised Kappa has given the major part of her attention to the perfection of her internal government. The coal shortage which resulted in the early closing of the university for Christmas vacation cut short our plans for the first semester. To create and foster the true spirit of Theta Tau, Kappa meets bi-monthly as a guest of one of the brothers at a dinner in his fraternity home. It is our endeavor to have some faculty member address us on a topic of instructive interest at these dinners. Our attendance is good, for our meetings are interesting and our host always favors us with a good menu.

As to social activities, we have laid plans for two dances. One of these was given on February 14th. Several of the faculty members with their wives were our guests. It is our intention to entertain again with a dance on April 24th.

Kappa has never lost sight of the necessity for campus activity. At present our organization incorporates

a permanent committee on activity. It is the function of this committee to act as a clearing house for all tentative schemes for campus activity that arise through the suggestions of the brothers and also to initiate those that are considered favorably. To date, the work of this committee has been in large part preparatory. The main event of the year in the College of Engineering is the Open House which this year was given in conjunction with the Watt Centennial Celebration. The brothers were much interested in this and lent valuable assistance toward its success. But, too, in other parts of the campus Theta Tau men are well known.

By way of such a summary, it might be mentioned that two members of the championship football team of Illinois were Brothers Ingwersen and Sternaman. Brother Mohr with Brother Wright, as Junior Assistant, is managing the varsity track team of which Brother Allman is a member. Brother Hollingsworth is a member of the varsity swimming team. Brother Haake edited the 1919 Illio, the yearbook; Brother Poole is business manager of the Illio of the present year. The advertising manager of the Illinois Magazine is Brother McClelland. Two members each of the Senior Honorary Society, Ma-Wan-da and the Junior Honorary Society, Sachem, are brothers in H. and T. Kappa has retained the presidency of the Junior class for both of the past semesters. In other activities, the Student Council, the Illinois Union, the Honor Commission, the departmental societies and fraternities and the various committees, you will find H. and T. men. It is the endeavor of each brother to carry successfully some activity.



LAMBDA CHAPTER—1919-1920

Jacobsen	Watkins	Haynes	Cannon
Gray	Anderson, C. M.	Baddley	Lerwill
Benson	Blake	Stevenson	Barnes
Parmley	Walker	Anderson, A.	Hayward
Robertson	Simmons	Leaf	
	Bonner	Browning	

LAMBDA CHAPTER

Total number of initiates.....	55
Active members 1919-1920.....	25
Members initiated 1919-1920.....	55

CHAPTER ROLL

Anderson, Arvid E.	'20
Anderson, Charles M.	'20
Baddley, Henry A.	'21
Barnes, Charles D.	'20
Benson, William T.	'
Blake, A. Harold	'20
Bonne, James T.	'20
Browning, George L.	'21
Cannon, Abraham H.	'21
Gray, Ralph S.	'21
Hales, Miles	'20
Haynes, Howard H.	'
Hayward, John E.	'20
Holdaway, Vaughn L.	'20
Jacobsen, Andrew T.	'
Leaf, Walter B.	'20
Lerwill, Joseph R.	'21
Parmley, Thomas J.	'21
Robertson, Glenn D.	'19
Simmons, Trul H.	'
Stevenson, Merlon L.	'21
Troselk, Olaf A.	'19
Walker, William J.	'21
Watkins George R.	'20
Winn, Herman P.	'16

LAMBDA CHAPTER

By Herman P. Winn, Associate Editor

As Lambda is the youngest of all the chapters of Theta Tau, the brothers will no doubt be anxious to learn more about it and the university at which it is located, the character of the men and the doings of the U Techs Club, from which the new chapter was formed.

The University of Utah is located at Salt Lake City, the capital of the state and the center of a very important mining district. The largest copper mines in the world are only a short distance from the city. Vast areas of coal in a partial state of development underlie eastern Utah and lead, silver, potash, etc., are mined extensively in various parts of the state.

The school itself is composed of colleges of law, medicine, commerce, arts, education, mines and engineering.

There are many clubs and fraternities, both local and national upon the campus. The U Tech has for ten years been the leading society for engineering students. It was organized for the purpose of furthering the interests of the profession and has always been conducted as an honorary organization. Only Juniors and Upper Classmen were eligible for membership, and only such of these as were considered first class scholars, as well as being good fellows. Only a limited number were taken in each year.

During the past winter, the club has held meetings every two weeks, having on such occasions lectures from prominent engineers in the state. Among the speakers were Mr. S. P. Scott of the Scott and Welch Co. of Architects and Engineers at Salt Lake City; H. L. Pascoe of the Epsilon Chapter of Theta Tau; Prof. A. L. Taylor of the University of Utah Automotive School; Mr. Pharis of the Utah Power and Light Co.; H. T.

Plumb, head of the General Electric Co., at Salt Lake City; Thomas Varley of the U. S. Bureau of Mines, and H. G. Clark, also of the United States Bureau of Mines.

At frequent intervals busts and socials of every kind were held at the houses of the various social fraternities. Upon installation into H. and T., a banquet was held at the Hotel Utah, about fifty being present, including Dr. Louderbach, Grand Regent, and Erich J. Shrader, Grand Scribe of the fraternity. Dr. Richard R. Lyman, H. L. Baldwin and R. B. Ketchum, honorary members of the local chapter, were also there, together with about twenty-five active and twenty alumni members.

Richard R. Lyman acted as toastmaster for the evening. The toasts were many and of excellent character. For over four hours we mingled together at the festival, leaving only as the hour of midnight reminded that the dawn would soon be calling us forth to work.

The Lambda chapter is awake to the ever-changing condition of society. Its purpose has always been not merely to keep abreast of the times, but actually ahead of them. We realize the importance of the engineer in society and the need of fraternal relations to make ourselves most useful in that respect. We are glad to become members of H. and T., and hope to always act in such ways that the fraternity as a whole may be proud of us. Whenever any of the brothers chance to be in Salt Lake City they will always find a most hearty welcome. We want to meet you and help make you feel at home. We want to show you the school and city. We want to help you appreciate the state. In short, we want to do all that one brother can do for another.

TOAST BY PAST GRAND REGENT AT INSTALLATION OF LAMBDA CHAPTER

By Erich J. Schrader, Alpha '05

My Brothers:

The few words I have to say to you tonight are based on a parable with which we are all familiar. It is that of the house which was built upon sand and on which it is written, "that the winds and the waves beat upon the house, and it fell, for it had no foundation."

Now this is true also of Theta Tau, for if our organization is based on a foundation of moral and intellectual fallacy, it can not live and prosper.

The foundation upon which the fraternity rests is the strength and character of the under-graduate chapters. The super-structure rests with the alumni. The material furnished you consists of those moral axioms and those of engineering ethics with which we become familiar during initiation. The Constitution is nothing more than a practical explanation of the proper application of rules of conduct, to keep the organization tied to the basic principles which give it life.

In 1914 I had occasion to address a chapter on what I thought was a strong chapter of the fraternity. I'm of the same opinion today. I said then: "To my mind a large number of men locally prominent, personally likeable, and possessing some latent engineering ability, may present to others a desirable organization and yet be weak as a chapter.

On the other hand, a small chapter of men less popular in college, and less in the swim of college activity, but bound together by strong fraternal ties, living up to their obligations and working at the duties of such offices as have been entrusted to them, and with all earnest students, are the men who constitute a chapter that brings results.

If your chapter is simply an organization to which

it is good to belong, and from which the members hope to realize benefits because of the strength of other chapters, or through the alumni; if your chapter lacks cohesion and its officers think that their election was purely a personal compliment carrying no duties; then I would consider it a failure and living up neither to its possibilities nor to the ideas upon which Theta Tau was founded."

In other words, "it is not the fine houses you may have, it is not alone your large numbers, it is not alone the professional prominence of your alumni; but it is more the fraternal spirit by which you can measure your chapter."

The fruit of this spirit is the service you render your chapter, your college, and the profession which you expect to join. Your chapter and you will prosper in accordance with what you do to make good the promises you made when you became a member.

Since it follows that the results of active chapter interest will show itself when you are an engineer in fact, let us now consider in what way the profession should then appeal to us.

Our members are not limited to one branch of engineering, nor did we ever do so. It is only an accident, and incidental to our desire for expansion to all good engineering colleges, that might have made it appear so. The start of this fraternity was in the conception that while colleges did prepare us for material things in a thorough technical education, whereby we might apply science to pioneering or "to industry"; yet all this had only to do with the practical and financial end of our futures.

To be an engineer in accordance with the basic principles of Theta Tau was to be something more than a mere dollar machine. There were spiritual and moral factors we were to apply.

We no longer consider an engineer to be the greatest success whose ideas are ^{only} along lines of material advancement. We no longer ask only "How much has a man got," but also, "How did he get it, and what is he doing with it." The "new mastery over the forces of nature has been applied to those things which make life easier and whereby the drudgery is taken from every day existence. The industrial revolution has also meant a social and a moral progress." (Dr. J. W. Powell in "Social Progress.")

So today it is no longer a matter of boasting that a great engineering work has been completed at so many dollars alone. We are asked today to show that while this monument to engineering skill was erected, the lives of those whose labor contributed to the task were protected, that there were decent living conditions, that there was sufficient nourishment, and that there was a moral environment. Not expediency, but right is demanded also of engineers today.

The object in modern labor adjustments should be not for temporary social peace, but for social justice. The laborer, as well as the engineer, should feel that they are all "soldiers for the common good."

We have come to recognize that the object of engineering accomplishment is not alone in the earning of profit, the bringing into circulation of new wealth the use of science in the reduction of costs, but also the broad service rendered to man by such things, and the proper protection of natural resources from destruction by greed or careless waste.

To the young engineer must be pointed out that his real education begins after college and that we state an old truth when we say that the limit to what he may become is only what he has it in him to be. The superstructure that he builds in after life is not produced by a miracle, by pull, or by graft, but by hard work and

faithful services. But the integrity of the individual is the cornerstone of his career. Believe me, my brothers, more and more, honor and truth are the first things by which engineers are to be measured.

So more and more, we must consider that the individual engineer is serving a trusteeship for his profession, and the member of Theta Tau is taught that this is particularly true of him with respect to his fellow members.

We teach our brothers that there are certain things that man can not do, that there are certain rules of professional conduct that we must obey, that we owe our members a share in those technical experiences which will aid their own work, and that we have before us a vision of that ideal engineer whom we may never see, but whose equal it is our duty to endeavor to be.

The practical symbolic truths we present are that whatever we try to do, we must do it with all our hearts, and then only will we prosper and have happiness.

So with this I close tonight, that you realize with me that the foundation of our fraternity rests first with you as actives, and that it is through you our ideals are inculcated and that obedience to our laws will make our members better engineers and more honorable men than they might otherwise have been.

A foundation of industrious, of faithful and happy chapters; a prosperous, an energetic and loyal alumni; that is a fraternity in fact, as well as name. That is the Theta Tau we hope and strive for.

On behalf of all our absent brothers, I join in greeting you and wishing you all the good things that come in life throughout the coming years.

INSTALLATION OF LAMBDA CHAPTER OF THETA TAU

On the evening of April 29th, 1920, Lambda Chapter of Theta Tau was installed. Brothers Louderback and Schrader were masters of the ceremonies—and who could have been better chosen to start off this, the youngest of the members? Brother Schrader, one of the founders of Theta Tau, and Brother Louderback, Grand Regent of the Fraternity, with a few other alumni in the vicinity of Salt Lake City had the pleasure of initiating and instructing the active, alumni and the three honorary members taken into Theta Tau.

Twenty-five members were initiated from the active U-Tech Society. On the following evening about thirty alumni were taken in. Then on the next day the three honorary members were initiated. The banquet that same night was the crowning feature of the whole affair.

Lambda Chapter has rather an interesting history and it is well worth knowing. Her alumni have lived through some stormy times, but always managed to survive them. They are back of the active chapter and are going to help them by building up a strong alumni association. Perhaps by this time they have received their charter, granted to some of the alumni to form the Inter-Mountain Alumni Association. This association will draw its members from Utah and the surrounding states.

To these two additions Theta Tau is extending the greetings of the fraternity. May they have the same progressive spirit that has won them to Theta Tau and carry them on through the years to come bigger and better for having found this fraternity spirit.

THE HOUSE AND COLLEGE

(Beta's Quarterly Letter)

The predictions for a large Freshman class were realized when the college opened for the fall term. The ninety-two who entered constitute the largest class since 1908. Army life has been part of the experience of a large percentage of them, and is evidenced by the number of O. D. shirts and breeches to be seen about the place. The latter offer a fine excuse for the wearing of high top boots by the future mining engineers, and holding up traditions of bygone days, but the funeral of John Barleycorn has sounded the death knell of some of the old familiar scenes.

On October 4th the Houghton Chamber of Commerce held a get-together meeting in the form of a "booyaw" in the mass hall used by the Students Army Training Corps. The party made a decided hit. The annual smoker took on a rather new aspect in that the business men of Houghton were more prominent than before. The college taking that opportunity reciprocated for the "booyaw." The usual badger fight was the crowning event.

As to the Freshmen-Sophomore activities the week's hair cutting, the football game, and the rush took their usual places. A new task fell to the Freshmen this year, that of painting the large M. C. M. sign on the hill back of the gym. The sign was made last summer by the Sophs. It is of boulders and is several feet high.

In school Beta has perhaps been more active. Brother Satterly as president of the Students' Organization is acknowledged a success and liked by everyone in school, which, we think, may be something new for this job. Under the able managership of Brother Endress basket ball is going through one of the most successful years in her career. Successful not merely in "beating them up,"

but in the grand and glorious makeup of her schedule. Did you ever think that the University of Chicago would have the honor of playing M. C. M.? Well she did, on December 13th. And we think that night marked the beginning of a new style of basket ball schedule for M. C. M. It will be one in which bigger schools, colleges with basket ball teams of national reputation, will be played. Because of that it matters little to us that Chicago won by a few points. Brother Paul is assistant manager to Brother Endress. The rest of the committees count among their numbers Brother Engels, Chairman of the Athletic Committee; Brother Winters, Dance Committee. Brothers MacLeod and Coughlin, House Committee, and Brother Suverkrop, senior advisor on the "Engineer."

We even have two of the brothers on the faculty. Brother Moon, eminent geologist, is giving the dope on the mm angle of Amphibole and on Calcite Rhombs. Brother Suverkrop, famous in the electric world, is teaching the hidden mysteries of the direct and alternating currents.

The school has a hocky team this year. Brother Travers, of Ontario, Canada, is the star of the team. He is also a member of the Portage Lake Club.

The Americanization movement, which is now being worked vigorously on all un-Americanized citizens of the country, finds its center in the copper country at the Michigan College of Mines. Brother Moon is chairman of the committee and Brothers Suverkrop, Abrahamson, Johnson and Pledge Fay are among his assistants. The first purpose of the movement is to better the citizenship of the country and incidentally give the student at M. C. M. some training in dealing with men before he graduates. The engineer has the position peculiar to his profession, and especially so in those years immediately

following his graduation from college, of being a sort of buffer between capital and labor. It is his task to handle labor for capital. We imagine that it usually takes him a few years to accustom himself to this business. By taking active part in this movement the young engineer has the opportunity to know men before he has to handle them. Several classes in English at the different mines and shops in the vicinity are being held by the students. Both students and pupils are very enthusiastic in the work of the movement.

The annual election of Seniors to Tau Beta Pi came off early in November. The result is that besides Thomas Thielman here at H. and T., there are four Sigs and one independent wearing new Bents. The Sigs have done very well with Tau Beta Pi—much better than they usually do, but the brothers promise to have the figures reversed next year so that it will be as of old, with H. and T. in the lead.

The fall terms brought eighteen brothers back in school, and this number was increased to thirty-seven by the fall initiation on November 21st, when nineteen new men were taken in. The new brothers are:

John L. Engels, Calumet, Michigan.

Ernest J. Breton, Point Mills, Michigan.

Clarence A. Bjork, Crystal Falls, Mich.

Meidell H. Frimodig, Laurium, Michigan.

William A. Beck, Calumet, Michigan.

William MacLeod, Calumet, Michigan.

Laurence A. Smale, Flint, Michigan.

Arthur W. Winters, Marquette, Michigan.

Harold Kranenburg, Grand Rapids, Michigan.

Francis B. Griffith, Wyandotte, Michigan.

Thomas M. Hawley, Detroit, Michigan.

John T. Travers, Sudbury, Ontario, Canada.

Henry A. MacDougal, Copper Cliff, Ontario, Canada.

James M. Fairweather, Imlay City, Michigan.

.. Otto R. Lund, Michigamme, Michigan.

A Laurence Seaman, Grant, Michigan.

Everett E. Cookson, Manistique, Michigan.

- Elmer H. Paull, Hancock, Michigan.

The banquet was held November 22nd at the Douglass House.

After the inner man was satisfied, Brother Suverkrop, who acted as toastmaster, introduced the speakers and the following toasts were responded to:

Welcome—Brother Woodlief.

Fraternity and College—Brother Bemis.

Alumni—Brother Clark.

Work—Brother Moon.

The impromptus were excellent, brothers MacLeod and Engels spoke for the new men and Brother Kendall chose for his topic "The Young Engineer on the Job." The singing and general all around good fellowship was there, too.

THE CONVENTION

(Beta's Quarterly—Moon, '20)

The fourth convention of Theta Tau was held in Cleveland December 30th to January 2nd at Delta's chapter house. Brother Schrader was unable to attend so the task of grand regent fell to Brother Vickery, Delta, grand vice regent. All chapters were represented except Theta, Columbia, who, due to the war, now has no men in school.

A charter was granted the U-Tech Society, University of Utah, Salt Lake City. The new chapter, Lambda, will be installed in the near future, and promises to be one of the strongest. Effort is being made to get Theta Tau, Columbia, back on the list.

The following national officers were elected at the convention.

Regent, Dr. G. D. Louderback, Epsilon, Berkley, Cal.

Vice regent, M. W. Vickery, Delta, 127 Edwards street, Lakewood, Ohio.

Scribe, E. J. Schraeder, Alpha, Tonopah, Nev.

Treasurer, P. J. Laurence, Alpha, 544 Builders Exchange, Minneapolis, Minn.

Marshal, B. B. Walling, Alpha, 502 Andrus Building, Minneapolis, Minn.

Inner guard, R. B. King, Beta, Spokane, Wash.

Outer guard, H. A. Rice, Beta, Laurence, Kan.

Brother Hopkins refused to accept any office on the executive council because his business is demanding so much of his time. The convention marks the twelfth year of untiring effort on the part of Brother Hopkins to make Theta Tau a bigger and better fraternity. Beta takes this opportunity to express her thanks for the co-operation and loyal support she has always had from the past grand scribe.

Delta is to be complimented for her part in the convention. Most of the delegates were billeted at the chapter house and all of them boarded there. Seventy Theta Tau men banquetted at the Hollenden on New Year's night. The "spirits" were shy, but a good H. and T. spirit made up for it.

THREE NEW HONORARY MEMBERS FOR BETA

Professor F. W. Sperr, Dr. C. M. Carson and Professor A. E. Seaman have been elected to honorary membership in Theta Tau.

Measuring "Cap" by the number of mining engineers he has furnished to the world he must be placed among the most successful men in his profession. He is far too well known by the alumni to require lengthy mention here, but we would like to remark that we all heartily feel that his becoming one of us would be a really worth while honor to Beta and it would give us great pleasure to give him what honor we are able to confer.

Those of you who left school before 1914 may not know Dr. Carson—"Doc," as he is called about school. He came to the College after the death of Brother Koenig, to take charge of the chemistry department. Carson graduated from Toronto and took his doctor's degree at Chicago. He is one of the most capable chemists in the country and has the reputation about school of being the best instructor we have. He is a quick, clear, precise independent thinker, and the best read man in the college. As an instructor there is no doubt of his superior capabilities for presenting his subject so as to be understood by all. He is more respected and liked quite as much as any other instructor. Beta needs such a man as Dr. Carson.

A. E. Seaman has been at the college so long he is about as well known to all as is Hubbell Hall. His modesty is his only fault—it is out of all proportion to his worth to the mining profession at large, and particularly to the largest iron district in the world. He is liked by all who have gone to the college and have had the pleasure of meeting him. It is true that he takes an interest in the chapter that, while at present is properly quiet, is great enough; potentially, he will be a most valuable addition to the chapter.

Suverkrop.

IOTA'S FUTURE NEWS LETTERS

It is with the idea of bringing the alumnae into closer touch with the chapter that this news letter is published. After leaving school a man's interest is directed toward his work, but we know there are times when he wonders what the "old bunch" is doing, where they are located, and how they are getting along in the world; also who belongs to the chapter at the present time and what success they are achieving. It is our desire that this news letter will give you some of the desired information. If our finances permit, it is the plan of the chapter to get out a news letter at least every semester. It is a good thing both for the chapter and the alumnae. When we write you asking what you are doing and how you are "making it," don't put off answering it, but sit right down and write. Let us hear from you often.

Rolla, Mo., April 19, 1920.

Dear Brothers in Theta Tau:

The news letter should be a compilation of letters from nearly all of the men. However when they do not come in quite so quickly, the active chapter editor must supplement with a letter of his own.

To the men that responded so quickly with their replies I want to apologize for the delay in getting this letter out. To the men whose letters will not appear in this letter I want to issue an appeal for an early letter in the fall.

The alumni of Theta Tau, especially those from Iota, should be bound to each other. It is for their mutual benefit that they hear what all of their brothers are doing. Their successes and it certainly seems as if the men from the chapter are meeting with more than ordinary success, should be an inspiration to those once so closely associated with them. Their advice and kind sympathy could be of still more value.

Of course one or two news letters per year will not accomplish all of these results, but we do hope that they will at least be an exchange for addresses and in that way start a movement of correspondence. We hope to make the news letter a clearing house of letters between alumni and between alumni and active members. With best wishes, I send this.

Yours in Theta Tau,
E. E. Ashlock.

THE CONVENTION

(Iota's News Letter)

The Theta Tau convention which was held at the Delta chapter house in Cleveland, O., December 30th, 1919, to January 2nd, 1920, was a success from every point of view. There was at least one representative present from each of the ten chapters, as well as representatives from the alumni associations. Everyone seemed to realize that there was much work to do in order to straighten out the affairs of the national association, which was naturally more or less disorganized during the war. All of the chapters, with the exception of Theta, presented reports which showed that with the more settled conditions Theta Tau anticipates greater success and activity than ever before. The Gear of Theta Tau is being edited by Brother Budde and we can expect a very interesting one. Brother Budde, as every Theta Tau knows, wishes to keep in closer touch with the alumni. In the alumni alone lies the strength of the fraternity, and they are urged to keep their chapter advised of their whereabouts.

Delta Chapter proved to be a very capable host and never from the time of opening of the sessions until the question "Has any one anything to offer for the good of Theta Tau" was asked at the close of the convention was there a moment that was not well and pleasantly spent.

E. E. Ashlock, '20.

THE FIFTH BIENNIAL CONVENTION

(Zeta Chapter)

Zeta Chapter is looking forward to the fifth convention of Theta Tau when she will be able to greet the brothers from the far west, north and east.

A little history of the school will probably be interesting to prospective delegates or visitors. Kansas University, established in 1867, is located at Lawrence, Kan., a town of 15,000, on the Union Pacific and Santa Fe railroads, forty miles west of Kansas City, Mo. The university buildings are located on a high hill and the campus and views thus afforded are conceded to be among the most beautiful of this country. The school has an enrollment of 4000, of which seven hundred are in the engineering school. There are twelve main buildings, including the new one millior dollar administration building now under construction. We hope that by the time of this convention that the present plans for our one million dollar stadium will have been carried out and its construction well under way.

We are sorry that we cannot entertain our brothers with a Buffalo hunt or Indian pow-wow, but we will insure them all a most enjoyable time from the many interesting factors offered by this institution.

THE LIGHT SIDE OF THE CONVENTION

By Hoy Stevens, '22

The powers that be decided to accept the invitation of the Cleveland chapter and hold the fourth biennial convention in our fine little city on the lake from December 29 to January 2. This decision was made for divers reasons, fair accessibility, wonderful climate and so forth, also just because Cleveland is Cleveland, you know. Hopkins admitted, however, that he was acquainted with Sylvia's, as it used to be, and he had something to say about the selection. However, far be it from me to say that such a fact influenced his choice this year, as the country is chiefly dry. At any rate, a few days after Christmas the delegates began to arrive in our wondrous city. We met them some miles outside the village with a copious quantity of our very select winter weather, for which the town and lake is noted.

Pascoe, from dear old California, said he knew where he was going to make his fame and fortune, right next to the equator, where, for recreation, he could let the warm sea breezes blow through his wavy locks (granted, of course, that they are wavy) and watch the swordfish play leap-frog in the briny deep—poor **** fish. But as I hear that he has since gone to Alaska, I think he must have grown rather fond of the cold on his trip east.

By the evening of December 29th all of the delegates were on deck. A get-acquainted smoker was held that evening. By way of amusement and instruction the officers of Delta Chapter initiated Brother G. N. Barrett before we submerged for the evening, can you imagine that, entertainment?

The next morning Brother Vickery, grand vice regent, opened the convention in the main hall of the Delta Chapter House. The grand regent, Brother Schrader, was unable to be present much to his regret, and

everyone elses. When the grand scribe called the roll the following answered: H. O. Frank, Alpha; R. M. Moon, Beta; D. L. Bailey, Gamma; R. E. Laisy, Delta; H. L. Pascoe, Epsilon; A. A. Bell, Zeta; J. Sidney Marine, Eta; F. A. Uthoff, Iota; A. A. Thorsell, Kappa; H. H. Hopkins, Chicago, A. A. grand scribe; Phil J. Lawrence, Twin City A. A., treasurer; Hoy Stevens, Cleveland A. A.

Theta Chapter was not represented at the convention.

The next thing on the program was the presentation by the delegates to the convention their carefully worded worries upon which they desired some action by the convention. These resolutions were then issued out to the different committees to be quietly, but effectively killed in the committee meetings, which were scheduled for the afternoon.

The reception committee had no plans for the evening, as they thought it would be devoted to committee meetings. Most of the committees, however, got their reports ready by early evening and hence, one and all stepped out under the guidance of the "natives."

The guidance was pretty good, though, as they were all on deck the next morning when the session opened right on time, one hour late. Marine just got under the wire with a wierd tale about being lost in the great city and he comes from Boston, too. Business boomed from then on and there sure was a lot of it. In fact there was so much that the delegates voted to forego an inspection trip through some of the important industrial plants of Cleveland in order to clear up all the work. They used discretion, too, when they stayed by the fire.

A flock of seats had been reserved at the Hippodrome for New Year's Eve and we all stepped out to the show. After the show the mob scattered around in smaller groups and spent New Year's Eve in as be-

fitting a manner as was possible under the circumstances.

Sometime the next morning the delegates resumed business. Although it was New Year's day the delegates stuck right to their seats and as a result the end was in sight and we knew that nothing would have to be left hanging over from the convention nor would we have to prolong the sessions.

That evening we gathered around the banquet table at a famous hostelry. A large number of Delta men, both active and alumni, helped swell the crowd. There was no call for seconds of anything when we had finished licking up the turkey; everybody had that satisfied feeling, you know. Brother "Romy" Malm presided as toastmaster and sang a lengthy "poem" about a tadpole and a frog who would a wooing go or words to that effect. The grand officers and delegates were each given the floor in turn to orate at greater or less length. One interesting stunt of the evening was the rendition of the various school yells by the different delegates. The old hotel sure did hear some wierd and rousing yells. We finished up with a husky Case "HooRah" and adjourned.

Thus the 2nd of January, 1920, saw the convention brought to a close. The final goodbys were said and the new acquaintances parted company as the delegates high-balled for their respective schools, to resume the eternal grind.

The big feature of the convention was the great desire of the delegates to stay with the job and really accomplish something constructive. There was no desire to leave things go and to step out and see the place to the detriment of the convention. This convention set a precedent for staying at it, which future conventions will do well to follow. With the inspiration of the convention in helping solve the after the war problems we should be able to "carry on" to a bigger and better fraternity of Theta Tau.

All of you have seen the name of Herman H. Hopkins, Jr., among the list of national officers. Some have not only seen his name there for the past twelve years, but have known him in college at Houghton, Mich., or else met him at the conventions. He is the same old "Hop." Wish more of the brothers could have met him and learned to know him before he found it necessary to ask to be relieved from the national office which he has held so faithfully.

In 1913 Brother Hopkins, besides being secretary of the H. H. Hopkins Co., found time to devote to the national office, the Chicago Alumni Association and to the many brothers who would chance to drop in on him for just a visit. He's a busy man, our Brother Hopkins, and busier since he has been made president of the H. H. Hopkins Co., but stop off any time and you'll find he has just as much time to talk over fraternity matters as he used to have.

We are all proud of the record he has made in Theta Tau and feel sure that he will make just as good a record in the business world.



H. H. HOPKINS, Jr.

CLEVELAND ALUMNI ASSOCIATION

By Welby E. Gillett

The Cleveland Alumni Association is at present composed of some fifty graduate and ex-men from Delta Chapter. During the past year meetings have been held at the chapter house on an average of once a month, but at a reorganization meeting, held the first of the present year, some changes in policy were made. Instead of monthly meetings we are now planning but two business meetings a year.

In addition to the two business meetings we are having at least two supper and get-together meetings, as well as two more or less social functions. The first of these suppers was held at the chapter house on the night of May 1, and as to the success of it—well an interview with one of those present will soon convince you that you are missing something—if you fail to attend them.

The association has also gotten behind the active chapter campaign to own their own house and the fact that subscriptions are coming in from almost all the members insures the active chapter of this in the near future.

The present officers are V. C. Fugman, who presides; W. E. Gillette, who is chief correspondent, and Walter Hoffman, whose name makes the checks good. As to the members we have, besides the majority of Clevelandites—Delta men from Badger over in Boston to Churchill out in Oregon all working for the success of Theta Tau.

The next meeting is scheduled for early this fall, and as soon as a definite date and speaker is decided upon announcements will be sent out and preparations made to make it "bigger and better" than ever. You had better start now to save that necessary railroad fare, if need be, in order to meet the rest of the "Bunch" at the next big reunion.

INTER-MOUNTAIN ALUMNI ASSOCIATION

By Rees W. Davis

We sincerely send greetings to all our brothers in Theta Tau. Being the youngest alumni association, and composed mostly of men who are graduates of our newest chapter we think that you would like to know our origin and life prior to the granting of the Lambda charter last December.

Our history dates back to 1904, when the mining students at the University of Utah organized the Tech Club. This organization selected the best men in the school of mines and its purpose was to aid the technical and social welfare of its members while they were in school. To this end papers were prepared and read to the club once or twice a month; socials were held periodically. This organization was the only one of its kind in the engineering school and therefore there was some jealousy among the men who were taking other courses of engineering. This lead to the organization of a rival, the U-Tech Society, in 1911 and the two were more or less enemies until 1913 when the mining students at the school were in the minority. At this time the U-Tech Society took in the other organization and continued to select its members from the upper classmen from the school of mines and engineering. After the union the society continued to live up to the high ideals of its predecessors. The society held meetings twice a month for the purpose of hearing an experienced engineer talk or hear a paper from one of the members; after each meeting a smoker would be held.

The charter members of U-Tech Society had hopes that at some future date it would become a part of a national fraternity, and it was for the class of 1919 to work toward this end. It was in February, 1919, that President R. Allen Perry appointed Brothers Maurice E. Roche, O. A. Troseth and Marshal Young to investigate

the possibility of petitioning and also to select a national fraternity to petition. Their selection was Theta Tau. The society accepted their recommendations and set to work on the petition. By the end of the school year we had favorable word from Brother Schrader, but owing to its being the end of the year little was done. Brother R. W. Davis was appointed corresponding secretary for the summer, and he compiled the necessary information about our alumni and forwarded same to Brother Schrader.

Before the work had gone far it became apparent that the alumni should revive the organization which the war had stopped, so on August 18, 1919, we reorganized with Brother Richard W. Robinson as president, Brother Hiram W. Clark as vice president, and Brother Rees W. Davis as secretary-treasurer, Brothers Richard B. Ketchum, Howard L. Baldwin and Howard Barker as an executive council. This organization continued the petition work until school started and then aided the active society in the preparation of the petition, and the final appeal before the convention in Cleveland. The U-Tech Alumni Association had a membership of about 250, 120 of these being alumni of the U-Tech Society and the rest alumni of the Tech Club. There were ten honorary members. The following alumni were initiated into Theta Tau April 30th 1920: Frank Allen, Lawrence Anderson, Stephen Besley, William Billings, George Bywater, Hiram Clark, Fred Coffman, Lawrence Christensen, Rees Davis, Perry Erickson, Harold Groesbeck, Raymond Gillis, Alvin Harris, Gammon Hayward, Hubert Hall, William Kelsey, John Langford, Hugh Lewis, William Maughan, Peter Marthakis, Heber Nelson, Fred Pack, Roy Penman, Richard Robinson, Maurice Roche, Rodney Sutherland, Herbert Spriggs, Clarence Stevenson, Thomas Varley, Marshal Young. The honorary initiates were Dr. Richard R. Lyman and Professors Richard B.

Ketchum and Howard L. Baldwin.

We thank all members of the convention who aided the cause of the U-Techs and especially are we indebted to Brother Herbert Pascoe, the Epsilon delegate. We cannot speak too highly of the officials, Grand Regent George D. Louderback and Grand Scribe Erick J. Schrader, they both won places in the hearts of the Inter-Mountain Alumni, and we look forward to their return visit.

Our officers are the same as the U-Tech Alumni Association until we get our charter, which, Brother Schrader informs us, is on the way. We invite any members of Theta Tau to look us up when they are in Salt Lake City, the secretary's address is 265 I street.

Here's hoping that Lambda and Inter-Mountain may be an asset to Theta Tau and that the fraternity will be proud of its Utah chapter and association.

PUBLICATIONS AND PAPERS
BY THETA TAU MEMBERS

Robert J. Anderson, '14, Delta, is the author of a paper on "Recent Developments in the Ferro-Alloy Industry," presented at the meeting of the American Electrochemical Society, April 8-10, 1920. This is a discussion of conditions in the ferro-alloy industry, particularly during the last five years, with especial reference to the relations of the industry in the United States to that in foreign countries.

Walter V. de Camp, '08, Gamma. "How maximum benefits were derived from a carefully considered bonus system."—Mining Practice.

Clifton W. Clark, '13, Epsilon. "The Geology and Ore Deposits of the Leona Rhyolite." Nov. 8, 1917. (Gift of Kirby Thomas).

Zay Jeffries, '10, Hon., Delta. "Physical Changes in Iron and Steel Below the Thermal Critical Range." Feb., 1920. (A. I. M. & M. E.)

Brother Jeffries of the Aluminum Manufacturers, Inc., spoke at a meeting of the Detroit section of the Society of Automotive Engineers, on February 27, presenting data on the physical properties of various aluminum alloys and the additional structural purposes in the automotive field to which it is contemplated they shall be put.

Robert W. Pack, '08, Epsilon. A paper on the geology and oil resources of the Sunset-Midway oil field of California, just published by the United States geological survey, department of the interior, as Professional Paper 116, is a good example of the results of a detailed geologic study in a producing field. This paper contains detailed descriptions of the formations in the Sunset-Midway district—their age, extent, thickness, color, composition and fossil contents and their relation to deposits of petroleum—as well as maps showing the area distribution and underground form of the beds, and photographs and sketches illustrating special features of their composition and structure. Particular attention is given to the beds in which the petroleum originated and to those in which it is most commonly found, though other beds are not neglected, for it is quite as desirable to know the

formations that are not likely to contain oil as to know those that may contain it.

The geologic structure of the oil fields and of the surrounding country is described in detail, and the points brought out are illustrated by numerous maps and diagrams. Maps of areas where much drilling has been done show by contours the forms of the surfaces of the several district beds.

Victor Zeigler, Hon. Gamma. "Popular Oil Geology."—Mining and Scientific Press.

William H. Emmons, '04, Hon., Alpha. "Principles of Economic Geology."

James A. Barr, '07, Beta. "Testing for Metallurgical Processes."

William H. Emmons. "Enrichment of Ore Deposits."

ALPHA ALUMNI NOTES

John Adams, '12, again won the Minnesota state tennis championship last fall.

William Atkinson, '10, has not been able to do much since 1914 because of contracted illness. Our best wishes go out to Brother Atkinson with this issue. Would be pleased to report him in better health before the next Gear is printed.

Leo W. Capser, '15, was sent to Serbia as food commissioner in 1919.

Wendell Chapman, '14, reports one fine boy, but that's not all. Here is how he put it on his report "HE IS A HUNDRED PERCENTER." I am sure he was too modest to say more.

Axel Elfstrum, '11. Congratulations to you Brother Elfstrum. Nothing like getting a nice little family all at once.

Harry C. Elliott, '19, not only is well located with the Packard Motor Car Co., of Detroit, Mich., but he is much interested in his work in the factory.

George Geib, '16. Those of you who know Brother Geib better will understand what he means when he says "Still single and going strong."

Ralph L. Goetzenberger, '13, has had the legion of honor conferred upon him "for scientific and military collaboration with the French army." Brother Goetzenberger is one of the few from Minnesota upon whom this honor has been bestowed.

W. W. Jones, '11, has had more than both hands full. He has constructed and operated five coal mines in Carbon County, Utah.

George A. Kristy, '09, is president and manager of the Brilliant Searchlight Co. Brother Kristy is manufacturing acetylene lamps that are to be worn on the head. All you miners take note if you want a good lamp, well made.

Edward W. Leach, '10, is superintendent for Balcan Mining Company, a Pickands Mather corporation. Operating open pit mine with washing plant on western Mesaba Iron range.

Roswell W. Prouty, '12, writes from the southwest that although there are many Theta Tau members in that locality it seems impossible to get more than just a few together at a time. Brother Prouty is hoping to get the bunch together for another real alumni meeting in the near future.

Elwin L. Vinal, '07, is doing consulting civil and mining engineering at Seattle, Wash. Brother Vinal is also managing trustee, Central Oregon Associates (building and real estate). During 1919 he was construction engineer for Western Coke and Collieries, Inc.

H. J. Wasson, '14, was the only one to remark about the record blank. Having been through the army he shouldn't have objected much to such a brief "questionnaire" as he called it. Brother Wasson will be interested to know that even with that report it has been impossible to get the members to fill them out right. What changes would you suggest?

Otto S. Zelner, '05, was on leave of absence from June, 1918, to August, 1919 as civil engineer with the Minnesota & Ontario Paper Co. Brother Zelner was located during the period at International Falls, Minn.

BETA ALUMNI NOTES

Arthur Allen, '14, is efficiency engineer at the C. & H. in Calumet. He drops in at the house every once in a while.

Harry Aldrich, '17, has forsaken the mining game, and is now superintendent of a mill of the American Coffee Company at New Orleans.

"Gid" Apell has taken a position at Parimaribo, Dutch Guiana. "Gid" was a second "Louie" in the army. Since his discharge he has been mining Bauxite deposits in South Guiana. Shall we call another war, "Gid"?

John I. Ballard, '10, couldn't find any place suitable on that record blank to let us know what he is doing. Would be pleased to have him suggest the proper form for the next blank that will fill the bill.

E. L. Bemis, '18, and Brother "Art" Kendall are both working for the Quincy Mining Co., Hancock, Mich. "Ed" is busy mining and accumulating dope. Speaking of beginning at the foot of the ladder, "Ed" claims he has the record, if depth has anything to do with it. Eight thousand feet is pretty low. Is it not?

Maurice L. Brandt, '16, left for El Salvador, Central America last December as engineer for the El Salvador Silver Mines., Inc. He was in Peru when war broke out—returning by way of San Francisco, he soon enlisted in the navy, getting his training at the Great Lakes Training School. At Stevens Institute, New York, he received his commission as ensign. Brother Brandt served in this capacity on transport duty until the armistice was signed. Having finished his army career, he spent some time with the Detroit Edison Co., in the engineering department, working on power plant layout.

"Pi" Brown, '17, when last heard from by the fraternity was in an O. T. C. camp in France. Lately a letter was received by Prof. Fisher from the city engineer of Globe, Ariz., stating that if he had any more men like "Pi" to send them on.

C. Burch Cameron, '10, has collected several Beta men in the southeast and with a few more live brothers around there soon ought to be regular get-to-gether meetings.

J. C. Clark, '16, for the past few years in charge of the leaching plant of the C. & H. Mining Co. Lake Linden, Mich., is at present oil prospecting in Texas. We will all miss Jack, as will several of the fairer sex who live in our neighborhood.

R. B. Earling, '08, resigned as superintendent of the Metcalf division of the Arizona Copper Co. to accept a position with the U. S. S. R. & M. Co.

"Merle" Foard, '17, after a few years of travel with the A. E. F., has accepted a position as drill salesman for the Sullivan Machinery Co. He says traveling agrees with him.

Fred Gibbs, '14, is another sufferer in the torrid zone. He and "Gid" Apell had quite a visit in Georgetown, British Guiana, when "Gid" passed through on his way to Dutch Guiana.

Edgar H. Gould, '11, having done such a good job at examining some silver property for the Co-Operative Mining Co. last September, was made superintendent of the new company.

Ernest R. Graham, '07, is at present farming at Crosswell, Mich. He writes that the simple life appeals to him after two years in the army. We don't blame him.

Jack Harrington, '17, until recently assistant superintendent at the Mass Copper Co., left some weeks ago for the benzine buggy game in Detroit. Jack got the flu and is now back in the copper country recuperating.

Thomas M. Hawley, '20, was forced to leave school during the middle of January on account of illness. We hope that Brother Hawley will be in the best of health by fall, so that he will be able to finish his course.

Paul E. Hinckley's, '14, thoughtfulness regarding Brother M. L. Bradt, who is located in C. A., is appreciated. Will gladly send him a Gear.

J. F. Holmes, '19. Family was augmented by one during the course of the last year. We congratulate Brother Holmes.

Arthur Kendall, '17, during 1917-1918 was mucker, miner, powderman, sampler for the Old Dominion Co., Globe, Ariz. Since then he was graduated to the rank of shift boss for the Quincy Mining Co. Hancock, Mich.

Rowland B. King, '16, has kindly offered his offices as western headquarters for any of the brothers who should happen to stray out and up to Spokane, Wash.

W. F. Koepel, '18, writes from Chile, S. A., that summer is just about over. As our winter is just about over, we don't propose to move south.

Charles A. Kumke, '06, has resigned his present position with the Magna Chief Copper Co. to accept a position as mine superintendent of a large silver mine at Somberrette, State of Zacetacas, Mexico. This is part of the Mexican Metallurgical Co. This mine is one of the oldest silver mines in Mexico. It was operated as far back as 1560. There are over 60 miles of old workings, the greater portion of which is filled with water. The very first job to be tackled is dewatering the old hole, and this is some job when you consider that the mine has been shut down since 1913.

Ralph A. Loveland, '14, major 107th Engineers, pays us a visit now and then. "Bunny" is employed as engineer for the C. & H. Mining Co., Calumet, Mich.

"Swede" Peterson, '19, engineer for the Copper Range Consolidated Copper Co., drops in at the house very

often. "Swede" visits another place in town more often than he visits the house, though. We wonder why.

Byron O. Pickard, '07, was transferred from position as district engineer for U. S. Bureau of Mines to district engineer, Pacific and Coast headquarters, Berkeley, Cal.

C. Remington, '18, and Brother "Slim" Woodlief, '19, are working in the research department of the Anaconda Copper Co. Knowing them as we do, we wonder if their research is confined to solving the mysteries of Covellite and Chalcocite. Rumor hath it that "Rem" will soon take unto himself a wife. Is it so, "Rem"?

"Bud" Schemmel, '16, was in from the Mesabi the other day. "Bud" says there are many H. and T. men in his vicinity.

William J. Shedwick, '09. "When in Seattle or Tacoma look me up, will be more than pleased to see you."

C. P. Shields, '15, has forsaken the mining industry for the more fruitful field of metallurgy. "Park" is at present in Flint, Mich., working for the Buick Motor Car Co.

Robert R. Van Valkenburg, '13, will be disappointed to learn that the next convention of Theta Tau will not be held in Cuba, but at Lawrence, Kan.

Ralph R. Wiggings, '14, was planning to go to New York about the 1st of April to take active partnership in an established contracting business. Brother Wiggings will, however, retain his connection with the Marmatite Mining Co.

GAMMA ALUMNI NOTES

George M. Cheney, '17, has wandered off to Chile, S. A., from Ecuador, S. A. Brother Cheney is with the Anderson's Copper Mining Co. We are indebted to Mrs. S. B. Cheney for the information received and the filling out of his records.

William A. Conley, '19; Rene J. Mechin, '19; Thomas B. Romine, '19, left for Mexico some time ago. Don't know if they arrived there in good shape, if they are still there or if anyone or all of them have departed. Who does know about them?

Walter V. DeCamp, '08, superintendent Blue Bell Mine at Mayer, Ariz., has applied the bonus system to mining.

"How maximum benefits were derived from a carefully considered bonus system."—Mining Practice.

Max T. Hofius, '17, was the first member of Colorado School of Mines to receive the Harry J. Wolf gold medal for high scholastic attainment.

Otto H. Metzger, '19, is reported to be in Cuba solving some of the mining problems of that island. It's not such a large island, but it would look better to have more of an address than just Cuba.

Russel J. Parker, '19, is now located somewhere in South Africa. Anyone who knows his address please let the editor know, so he can get in touch with Brother Parker.

Eugene G. Snedaker, '14, previous to the war was field engineer for Goldfield Cons. Mines Exploration Co. of San Francisco, Cal.

Stanley M. Walker, '11, after three years devoted exclusively to management of several companies, has resigned, and is now back in general consulting practice.

DELTA ALUMNI NOTES

George Alderson, '09, returned from the wilds of Venezuela to go into military service, but the kaiser's cold feet thwarted his plans to "do" Europe.

Allen Badger, '14, has the right idea—now that he is located in Boston, he is going to look up some Theta Tau brothers. Let me suggest that you get in touch with Brother C. P. Fiske, 75 State street, Boston 9, Mass.

Donald B. Frisbie, '11, is displaying his products in one of the New York show rooms at which twelve allied construction machinery companies are assembled. It is the biggest display in the world, so Don says. Guess he means, of its kind, though.

Russell M. Greenslade, '15, never having been caught speeding while in the air service and still on deck after his many experiences—he reports from Douglas, Ariz. Brother Greenslade is flying border patrol with the 12th squadron, using D. H. 4 ships. "Fat" only made two requests in his report—he says, "am hoping they raise our pay and declare war on Mexico."

Robert P. Heston, '14, "started as a miner, but has since degenerated to civil. Aim in life is to raise a family and still eat three square meals a day. Who started that joke about two being able to live as cheaply as one? Charley Arms please reply." Doesn't that sound just like Bob Heston when you knew him?

Homer L. Hunscher, '19, is making rapid strides at the Park Drop Forge Co. He is heat treating foreman at the present time.

Howard W. Kaiser, '17, wrote a most interesting letter in reply to the report sent out to all of the alumni. From the tone of it one would think he were several thousand miles from the old chapter house. To make sure of his present location I looked up his record and found that Brother Bill Kaiser is way down in AKRON, Ohio. Yes, and they run an auto buss line between Akron and Cleveland every hour or two. Better drop around sometime soon "Bill."

Lynn B. Riddle, '12, who for the past years has been out west somewhere doing something, reports from Columbus, Ohio. Mighty glad to have Brother Riddle back where we can hear from him every now and then.

John C. Scott, '15, has deviated from engineering fields since he left Case, but then maybe it takes an engineer to get some folks to do things as they ought to be done. Brother Scott was first stage manager—later assistant director to Norma Talmadge, assistant director to Mary Pickford, assistant director to Douglas Fairbanks, and now director at Famous Players-Lasky Corp., New York City.

Zay Jeffries, Hon., has been giving a series of lectures on non-ferrous metallurgy at the graduate school of Harvard University.

EPSILON ALUMNI NOTES

Sidney Bretherton, Jr., '15, spent two years in Burma as metallurgist for Burma Mines, Ltd. He left on account of his health. At present Brother Bretherton is engaged in the electrical business in Atascadero, Cal.

Clifton W. Clark, '13, is doing geological work in the oil fields of Texas. Due to that fact that he is away from home most of the time we have not heard from him for this issue.

Arthur Eaton, '13, member of the firm of Harrison & Eaton, isn't losing much time to get the greater part of western Oregon covered. They have some thirty-five men in the field looking up oil and gas possibilities. They have charge of all of the geological work of the Midwest Refining Co., also Texas & Pacific Coal & Oil Co.

Frank S. Hudson, '12, has been doing graduate work the past year in geology, at the University of California.

John B. Kerr, '15, was geologist for General Petroleum Corp. during March-Sept., 1919. Geologist, Sinclair Oil Co., Oct.-Dec., '19; assistant petroleum technologist, United States Bureau of Mines, headquarters Dallas, Tex., Jan. 1st, '20, to date.

William D. McMillan, '13, has been in the Belgian Congo since 1917. He returned last November, hoping to get in some branch of service. All his hopes were frustrated, for the day he landed the armistice was signed. Brother McMillan left for the Congo shortly after getting married.

Frank H. Probert, '97, was a member of the American Mining Mission to Europe to report on the damage done to the mines of France and Belgium by the Germans.

Frank H. Probert, Hon., is delivering a series of lectures on mining at Yale University.

John R. Suman, '12, from July, 1917-July, 1919, was technical superintendent for Roxana Petroleum Co. in Texas and Louisiana. He is now assistant manager of Rio Bravo Oil Co., Houston, Tex.

Lester C. Uren, '11, associate professor of mining, University of California, is specializing in petroleum engineering.

Clarence E. Waldner, '15, is now located in Tonopah, Nev., where several of the brothers are holding forth. Brother Waldner does manage to see Brother Schrader every week or two.

ZETA ALUMNI NOTES

Deane E. Ackers, '16, is located in Manhattan, and is devoting his time to construction work.

Leland C. Angevine, '14, left the employ of the Burns & McDonnell Co., and is now associated with Mr. J. H. Dousman. They are selling power plant equipment in Kansas City, Mo.

Willard A. Burton, '16, was employed by the state and located here in Lawrence, but he is now with the Santa Fe, Emporia, Kan.

Henry A. Champion, '13, sailed Jan. 30, 1920, for India. Brother Champion will be with the Tata Iron & Steel Co. for the next three years as superintendent in charge of all pipe laying. They are erecting some large steel mills in the town of Jamshedpur, India.

"Slats" Cole, '16, has followed the mining profession to Chile, S. A.

Hugh Crawford, '17, has located in Independence, Kan., as a city official.

Paul A. Diehl, '18, is working for Black & Veatch of Kansas City. He has been at Garber, Okla., for the past six months overseeing the installation of the city water works.

Leslie H. Dodd, '14, is in charge of designing and general superintendent of field work with the Finton Construction Co. They are specializing in elevators and industrial buildings.

"Jick" Fast, '18, the one man of football fame, is now in the St. Joseph Hospital of Kansas City. This comes as the result of an injury he received while a member of the A. E. F., and perhaps will confine him to his bed for several months. We extend our heartfelt sympathy to "Jick" and hope for his speedy recovery.

Tony James, '16, also favored us with a nice visit last fall. He is now employed with Swift & Co. of Kansas City.

Adrian H. Lindsey, '17, is assistant coach in football at the University of Kansas.

Joe R. Mahan, '19, is taking a post-graduate course at Boston Tech.

Ross I. Parker, '12, has migrated to Chicago—the home of H. H. Hopkins and Soot, last April.

Don Rankin, '15, is with the Santa Fe, and now has headquarters at Topeka, Kan.

Charles L. Shughart, '18, is the man that is selling the farmers "them thar new fangled litricit lits."

James O. Williams, '20, returned to us this last semester to finish the last lap toward his degree. We welcome "Shanks" with a most hearty handshake.

George H. Yeokum, '17, and **Brother George R. Murphy**, '13, are building hard surfaced roads in Oklahoma.

ETA ALUMNI NOTES

Paul H. Buxton, '16, isn't just exactly lonely, but he would like to see some of the brothers come up his way. Torrington, Conn.

Lawrence Davis, '17, loaned his pin during spring initiation and as yet it has not been returned. It would be an easy matter for all those initiated at that time to take their pins off long enough to see whose name is engraved on it—their own or Brother Davis's.

Charles W. Drew, Jr., is American vice consul to Antwerp, Belgium.

Otto Fick, '14, wants the members of '13 and '14 to know that he believes in preparedness. **Otto William, Jr.**, was born December 19, 1918.

George P. Igleheart, '17, is at present getting under way in an effort to make up for two years given to the country in the navy.

Henry L. Leeb, '15, was radio officer, U. S. S. *George Washington*, during the presidential trips.

Guy A. Swenson, '13, is a member of the *John Swenson Granite Co.* of Concord, N. H.

Edward I. Williams, '14, was connected with *General Chemical Co.* from the time of graduation. Except for the months spent in the army he has been with them ever since. Brother Williams is now superintendent of mines at Monarat, Va.

THETA ALUMNI NOTES

Adna Gibson, '17, is in China with the *Standard Oil Co.* His present address is unknown. It might be easy enough to locate the *Standard Oil Co.* in China, but to get in touch with Brother Gibson seems to be a different matter. Does anyone know his correct address?

Felix E. Wormser, '16, has left the bureau of mines to assist *Mr. J. E. Speer*, editor of *The Engineering & Mining Journal*.

IOTA ALUMNI NOTES

Harry Aid, '19, was field assistant for the U. S. G. S. from September, 1917, to February, 1918, when he enlisted in the air service.

Harry Ambler, '16, is at present in the hospital at Fort Sheridan on account of an injury received in battle while in France. His foot, although in a bad condition, did not prevent him from making a trip to Rolla in the fall. He attended our fall initiation banquet.

Fred Grotts, '16, is metallurgist and inspector for the Holt Manufacturing Co. at Peoria, Ill. This is the original caterpillar tractor company.

James L. Head, '16, who is now with the Braden Copper Co., Rancagua, Chili, S. A., spent more than two years in service. We are indebted to Mr. and Mrs. J. L. Head for the filling out of Brother Head's reports and the information of his whereabouts. It takes so many weeks to get mail to him that we were not sure of a reply before the Gear went to press.

Gunnard E. Johnson, '16, seems to revel in the fact that he is "still happy and single."

Paul D. Kearns, '18, has broken into the mining game on his own account and with a partner is operating a lead silver mine near (about twenty eight miles) Lordsburg, New Mexico.

William H. McCartney, '16, is engineer and assistant to the superintendent for the Cubo M. & M. Co. at Guanajuato, Mexico. He writes that Mexico is a great country for experience. How about experiences, too?

William Nolte, '20, is doing highway work for Phelps County, Mo. This gives us a chance to see "Bill" rather often.

Colwell A. Pierce, '16, is owner of the Patagonia Engineering and Assay Co., doing general engineering (mine) work and leasing mining properties. But he is working hard; making money; and happy and contented as Brother Pierce puts it.

John H. G. Reilly, '17, resigned his lieutenancy in the regular army to go back to the mining game. He is at present employed as engineer at the Peregrina Mining and Metallurgy Co. at Guanajuato, Mexico.

Robert K. Stroup, '21, is holding down the position of "flunky" engineer for the Utah Fuel Co. at Clear Creek, Utah.

Brothers Terry, Marston, Stoner and Beyer are somewhere in the Oklahoma oil fields doing oil geology.

KAPPA ALUMNI NOTES

Charles M. Clark, '17, is connected with the Chicago Northwestern railroad, and is located in Chicago, Ill.

Elwood B. Cole, '19, is connected with the Avery Co. of Peoria, Ill.

Arthur E. Giertz, '17, is located in Elgin, Ill., with the Giertz Construction Company.

Everett E. King, '01. Brother King was professor in railway engineering at Iowa State College from 1911-1918, he then came to the University of Illinois as professor of railway civil engineering and is acting in that capacity at the present time.

Charles A. Nagel, '19, is teaching mathematics at the Idaho Institute of Technology.

John T. Nolan, '18, just recently transferred from the engineering department, to take charge of construction work for the Oliver Iron Mining Co.

Harold P. Owen, '18, taking the students' training course at the Fairbanks Morse & Co. preparatory to sales work.

Morris J. Reed, '17, is affiliated with the Cameron Pump Co. at Springfield, Mass.

Arthur K. Sanderson, '19, is affiliated with the Aurora Door Hanger Co. of Aurora, Ill.

Delmont J. Schneider, '19, is affiliated with the Bannock Engineering Co. at Pocatello, Idaho.

Charles H. Sheppard, '17, is assistant engineer to the county superintendent of roads of Winnebago County. He is located at Rockford, Ill.

Norman E. Sprague, '18, is with the Illinois state highway commission and is located at Springfield, Ill.

James P. Tuthill, '17, is connected with the state highway commission at Springfield, Ill.

LAMBDA ALUMNI NOTES

Laurence A. Christensen, '11, is building and operating irrigation projects in Utah and Arizona.

CRADLE ROLL—1920

Angevine, Davia Walker.....	July 12, 1917
Applegate, James Worley.....	Dec. 9, 1918
Atwood, Charles Wellman.....	Dec. 12, 1919
Barton, Mildred Jacqueline.....	May 25, 1919
Bever, Enid Louise.....	July 7, 1918
Bliss, Richard L.....	Oct. 30, 1918
Brown, James Steele.....	Dec. 10, 1919
Burton, Williard A., Jr.	Dec. 3, 1918
Bush, Mary Louise.....	Aug. 14, 1918
Coates, Esther Jane.....	March 31, 1917
Coffman, Shirley Louise.....	July 23, 1919
Cramer, Bille Lucile.....	Nov. 27, 1918
Craun, E. P.....	Feb. 21, 1918
Curtis, Mary Emily.....	Oct. 11, 1918
Davis, Richard William.....	June 20, 1919
Eaton, Arthur, Jr.	July 2, 1917
Elfstrum, William Dean	Jan. 1, 1919
Elfstrum, Barbara Jean	Jan. 1, 1919
Fellman, Paul W.	Jan., 1918
Fick, Otto W., Jr.	Dec. 19, 1918
Fiske, Charles P., Jr.	May 2, 1917
Fiske, Grace Marie	Feb. 12, 1920
Freeman, Charles W.	Feb. 15, 1919
Gould, Jean	1913
Gould, Betty	1917
Griffin, Robert Maxwell	Oct. 25, 1918
Hall, Betty Virginia	June 29, 1918
Hartley, Will Brooks	Jan. 21, 1920
Herres, Jean.....	June, 1918
Heston, Robert P., Jr.	Dec. 12, 1917
Heston, Richard L.	March 29, 1919
Hilsdale, Katharine	April 13, 1917
Hinckley, John Paul.....	May 25, 1917
Holmes, Jean Eleanor.....	Feb. 25, 1920
Hopkins, John Robert.....	March 13, 1917

Huncher, Ernest Henry.....	
Huncher, Samuel Thomas	
Jerome, Frank Jay, Jr.	Sept. 26, 1918
Kendall, Giles Arthur.....	March 7, 1918
Kendall, Loraine Margaret.....	Jan. 28, 1920
Kilbourn, Florence Janet.....	Aug. 10, 1918
Kruse, Margaret Elizabeth.....	Sept., 1918
Lowell, Deborah	1917
McEnary, Robert Reed.....	Feb. 10, 1919
Metcalf, Robert Emmett.....	Sept. 24, 1917
Mills, Helen Edith.....	June 20, 1918
Miner, Robert William.....	1918
Moree, Janice Ona	
Morse, Robert A.	Sept., 1917
Moses, John E., Jr.	June 12, 1918
Ogilvie, Samuel James, Jr.	Jan., 1919
Ormsbee, Margaret Ashley.....	July, 1917
Ormsbee, Louise Nathurst	July, 1919
Pancoast, Robert H.	Nov. 8, 1918
Parker, Elizabeth Jean	Oct. 1, 1917
Prouty, Emily Jeannette.....	Nov., 1918
Prouty, Velma Jane.....	March, 1917
Riddle, Jean Lovell.....	Jan. 19, 1919
Schaber, Barbara Dale.....	Oct. 12, 1918
Shepard, George M., Jr.	June, 1915
Shepard, William.....	Jan. 21, 1919
Staples, Everett.....	Sept. 18, 1917
Stickney, Robert A., Jr.	Jan. 5, 1918
Stickney, Thomas J.	July 22, 1919
Strauch, Grace Frances.....	March 2, 1918
Suman, John R., Jr.	June 2, 1917
Troppman, George L., Jr.	
Troppman, William Joseph.....	
Troppman, Daniel August.....	
Uren, Donald E.	Dec. 18, 1918
Walker, Stanley M., Jr.	Aug. 7, 1918
Vinal, Marienne	May 22, 1919

White, Barbara Jean.....	Sept. 8, 1918
Williams, Edward I., Jr.	Jan. 1, 1918
Winchell, Meredith.....	Aug. 4, 1919
Woodrich, Paisley Ann.....	Oct. 1, 1919

TWINS SECURE RELEASE OF DAD FROM UNITED STATES ARMY

Twins, a son and a daughter, secured Lieutenant A. E. Elfstrum's release from the 115th Engineers in France and his orders to return to his home in Oakland. Lieutenant Elfstrum is now in Washington and is expected to arrive home within a few days.

Four months ago the twins were born. The father was then with his regiment, having spent the last six weeks before the armistice in the front line. Mrs. Elfstrum, who lives with her mother, Mrs. F. Levy, at 912 Lake Shore avenue, immediately applied for the father's release, and the government decreed that he might return and meet the twins.

William Dean is the son's name, while the daughter has been christened Barbara Jean. The son now weighs fifteen pounds, the daughter only ten. When first born it was necessary to place the little daughter in an incubator, where she remained for a month.

Mr. and Mrs. Elfstrum came here from Salt Lake, Elfstrum enlisting shortly after their arrival. He left for France last August—Oakland Tribune.

Alpha, '11.

BABY BOY ARRIVES IN THE WALDNER FAMILY

Congratulations are being extended today to Mr. and Mrs. C. E. Waldner on the arrival of a lusty boy in their home last evening. Mr. Waldner is mine surveyor of the West End Mining Co., and resides near the Ohio shaft. This makes the second child in the family, the former being a girl.—March 25, 1920.

Epsilon, '14.

MARRIAGES

Alpha

Brother Theodore S. Abbott and Miss Dorothy Church. ✓

Brother Wendell P. Chapman, June, 1918.

Brother William R. Dorr and Miss Dorothy Countryman, of St. Paul, in St. Paul on May 27, 1919.

Brother Roy O. Dunham and Miss Elodie B. Johnson, at Hamline, Minn., on June 16, 1917.

Brother Howard N. Eidemiller and Miss Marguerite Adams, at Negaunee, Mich. ✓

Brother Thomas H. Granfield and Miss Mary Louise Allen.

Brother Charles F. Haglin, Jr., Oct. 27, 1918.

Brother Maurice W. Hewett and Miss Jesse Lee Berry, of Lutherville, Md., on Dec. 10, 1919.

Brother Robert Jacques and Miss Margaret O'Brien, of Grand Haven, Mich., on Dec. 27, 1919.

Brother George W. Jevne, March 22, 1919.

Brother Ralph E. Johnston, June 2, 1917.

Brother Walter F. Kasper, 1918.

Brother Neil S. Kingsley and Miss Florence Nunan, of Minneapolis, Minn., on July 29, 1918.

Brother Helmer V. Kruse, Jan., 1917.

Brother Greeley Ladd and Miss Margaret Levings on June, 1917.

Brother Walter D. Luplow and Miss Marguerite I. Lange, of Sault Ste. Marie, Mich., on April 5, 1918.

Brother Henry J. Matchett, Dec. 4, 1917.

Brother Rufus H. Milne and Miss Ruth Adams on Oct. 18, 1919.

Brother Fletcher Rockwood and Miss Irene Eddy on Aug. 16, 1917.

Brother Eldreth L. Sawyer and Miss Corinne Heitman, of Helena, Mont., on Dec. 25, 1919.

Brother Charles A. Siekkinen, May, 1917.

Brother Howard S. Starrett and Miss B. Ruth Schofield, in Duluth, Minn., on Sept. 14, 1917.

Brother Robert A. Stickney and Miss Mildred Bishop, of St. Paul, Minn., on Feb. 15, 1917.

Mildren Morse, daughter of Mr. and Mrs. W. W. Morse (Mrs. Morse was Bertha Alden, '88), and Harvard S. Rockwell, Eng., '14, were married last Thursday in this city. Mrs. Rockwell was a former student at the university who completed her college work at Smith. Lieutenant and Mrs. Rockwell will be at home to friends at 2 Harvest road, Baltimore, Md. Lieutenant Rockwell is connected with the chemical battalion of the United States gas warfare section. For the past year the bride had been secretary of the local women's committee of the council of national defense.

Beta

Brother Harry S. Aldrich and Miss Keitha Bolles of Houghton, Mich., on Feb. 2, 1918, at Coronada, Cal.

Brother Arthur P. Allen and Miss Margaret Mansfield.

Brother George A. Anderson and Miss Irene Dupuis on July 24, 1919.

Brother Maurice L. Bradt, 1919. Sailed to Central America, where they will make their home.

Brother Roy B. Earling, Sept. 2, 1919.

Brother John G. Edwards and Miss Grace G. Martin on Oct. 10, 1918.

Brother Roy J. Griffin and Miss Marjorie E. Dotzauer, of Flint, Mich., on Dec. 11, 1917.

Brother Frank V. Hicks, Jan. 1, 1917.

Brother John F. Holmes, Aug. 13, 1917.

Brother Arthur Kendall and Miss Annis M. Giles on June 2, 1917.

Brother Rowland B. King, and Miss Nina M. Rose, of Spokane, Wash., on Dec. 2, 1919.

Brother Carl E. Mills and Miss Ynez O. Reynolds, of Los Angeles, Cal., on Aug. 10, 1918.

Brother Clyde W. Nicholson and Miss Anna M. Johannes, of West Salem, Wis., on Oct. 1, 1919.

Brother William A. Rigby and Miss Grace Tunnicliff at Moline, Ill., on Dec. 27, 1919.

Brother Carl F. Schaber, Aug. 16, 1917.

Brother Julius P. Schemmel, Feb. 3, 1920.

Brother Stanley V. Weed and Miss Marion W. Harper on July 17, 1919.

Brother Charles G. Thielicke and Miss Carrie E. Bacon, of Escanaba, Mich., on Oct. 25, 1919.

Brother George E. Welker, July, 1917.

Brother Theodore J. Welker and Miss Gladys Gianelsoni on April 10, 1919, at Baton Rouge, La. At home, 867 Third avenue, Salt Lake City, Utah.

Brother William J. Whatley and Miss Virginia Ford on Oct. 11, 1919.

Brother Russell B. Wortley, July 5, 1919.

Brother Stanley H. Zimmerman and Miss Marjorie B. Richards on Jan. 1920.

Gamma

Brother Charles B. Gauthier, 1916.

Brother John V. Harvey and Miss Marguerite Abbott, of Sioux City, Ia., on May 5, 1917.

Brother Mearle G. Heitzman and Miss Elanor Agnes Fraser at the home of the bride's parents, Saturday, June 2, 1917.

Brother Charles R. Vorck and Miss Anne Lowe on Dec. 27, 1917.

Brother John H. Winchell, Jr., and Miss Harriet Meredith, at Mount Vernon, N. Y., on June 3, 1918.

Davison—Whetsel. 1917.

Miss Elizabeth Davison, of Golden, and Raymond Whetsel of Fortville, Ind., were united in marriage Thursday evening of last week at the home of the

bride's parents, Mr. and Mrs. Isaac C. Davison, the Rev. H. C. White officiating.

Both are popular in Golden and vicinity. The bride is a graduate of Golden High school and of Smith College at Hampton, Mass. Mr. Whetsel is a graduate of the school of mines and a member of the Sigma Chi fraternity. Mr. Whetsel has entered artillery officers' school at Camp Taylor.

Parmelee—Winchell. 1917.

Miss Harriette Parmelee, formerly of Golden, and J. H. Winchell were united in marriage recently at the home of the bride's sister in Mount Vernon, N. Y. Both are well known in Golden. Miss Parmelee is a sister of H. C. Parmelee.

Delta

Brother George E. Alderson and Miss Edna J. Gillis of Woodstock, New Brunswick, Canada, on Feb. 11, 1920.

Brother John S. Applegate, 1917.

Brother Charles R. Atwood, May 11, 1918.

Brother Allen C. Badger and Miss Janet McGregor Stuart, on Dec. 26, 1919.

Brother Carl A. Braun, Oct. 8, 1919.

Brother Edward J. Buell, Jan. 13, 1920.

Brother Clarence P. Diemer, 1918.

Brother Harley L. Freeman, May 16, 1919.

Brother Homer L. Hunscher and Miss Eloise Wellman Tobin on July 28, 1917.

Brother Howard W. Kaiser, Sept. 10, 1918.

Brother Adelbert R. McLaughlin, Oct. 1, 1919.

Brother John E. Moses, May 27, 1916.

Brother Donald F. Pancoast, May 9, 1917.

Brother Harold C. Peace and Miss Marie Strouse on March 25, 1919.

Brother Normal Sprowl, July 24, 1919.

Brother Melville W. Vickery, May 20, 1918.

Brother Roy C. Wallis, June, 1917.

Epsilon

Brother Louis J. Brunel and Miss Hilda M. Bettoli, of San Francisco, Cal., on July 27, 1919. They will reside in Oakland, Cal.

Brother Harrison L. Coles, 1917.

Brother John M. Denbo and Miss Doris Bulkley on Oct. 1, 1919.

Brother William S. W. Kew, Dec. 22, 1917.

Brother Travis P. Lane, July 12, 1919.

Brother William D. McMillan and Miss Helen Henry (University of California, 1916), of Porterville, Cal., on Jan. 11, 1919.

Brother Samuel J. Ogilvie, Dec. 1917.

Brother John B. Orynski and Miss Edith Clarken on Dec. 29, 1919.

Brother Roy Starbird, 1918.

Brother Whitney B. Wright and Mrs. Mildred Mackenzie, of Sussex, England, in Paris, France, on June 16, 1919.

Zeta

Brother Glenn L. Alt and Miss Viola L. Feas, of Toledo, O., on Feb. 18, 1919.

Brother Willard A. Burton and Miss Mabel Mackie, on Nov. 29, 1917.

Brother Hugh W. Crawford, Nov. 24, 1917.

Brother John C. Fast, April 25, 1917.

Brother Woodman L. Gibson, 1917.

Brother Fred E. Johnston, Aug., 1917.

Brother Karl W. Kaiser, July 31, 1918.

Brother Lawrence W. Kinnear, June 14, 1918.

Brother Albert H. Mangelsdorf and Miss Hazel Kelly (Pi Phi, Kansas University), of Paola, Kan., on May, 1920.

Brother James W. Orton, June, 1917.

Brother Carl E. Painter and Miss Gladys Dwight (Gamma Phi of University of Idaho), on May 10, 1919.

Brother Charles J. Painter in New Orleans on July 5, 1918.

Brother Harlan A. Russell and Miss Ethel Keller (Kansas University, 1916) at Louisville, Ky., on June 10, 1918.

Brother George Smee, Dec., 1918.

Brother Richard L. Templin and Miss Mabel J. Harper on June, 1919.

Brother Ellwood G. Washburn, May 27, 1918.

Eta

Brother Lawrence Davis, 1918.

Brother Charles P. Fiske, June 16, 1916.

Brother William H. Fleming, July 28, 1917.

Brother Ralph L. Fletcher, Feb., 1917.

Brother Hovey T. Freeman, Nov. 24, 1917.

Brother George P. Igleheart, 1918.

Brother Wendell H. Kayser and Miss Lida Ellen Nichols, of Washington, D. C., on Dec. 7, 1918.

Brother Dale R. McEnary and Miss Frances A. Reed on April 20, 1918.

Brother William L. McPherrin and Miss Beatrice Klein of Kansas City, Mo., on Sept. 21, 1918.

Theta

Brother Theodore H. Barrett, Nov. 29, 1919.

Brother Charles M. Brister and Miss Margaret Miller, of Philadelphia, on Sept., 1917.

Brother Walter L. Medding, July 15, 1919.

Brother Edward I. Williams and Miss Georgene Tobin on Jan. 3, 1917.

Iota

Brother Theodore C. Gerber, 1918.

Brother Oscar E. Stoner, Aug. 26, 1917.

Kappa

Brother Elwood B. Cole and Miss Ruth Hays on June 10, 1919.

Brother Frank W. Foster and Miss Nettie Bellinger on June 26, 1919.

Brother Hollis O. Frey, Nov. 15, 1919.

Brother Daniel W. Hickey, Jr., 1917.

Brother Harry W. Miller, June 30, 1917.

Brother Arthur K. Sanderson, Aug. 11, 1919.

Brother Donald J. Strauch and Miss Frances E. Woost on Dec. 30, 1916.

Lambda

Brother Fred Coffman, Dec. 2, 1916.

Brother Rees W. Davis, March 30, 1918.

Brother Hubert G. Hall, June 1, 1917.

Brother Vaughn L. Holdaway, Feb. 18, 1920.

Brother Richard W. Robinson, June 25, 1919.

Brother George R. Watkins, 1918.

DEATHS

On February 8, 1920, Mrs. T. J. Welker, wife of Brother Welker, died.

On February 5, 1920, Mrs. Paul Hilsdale, wife of Brother Hilsdale, died.

On November 25, 1919, Mrs. Karl W. Kaiser, wife of Brother Kaiser, died.

THESE HAVE JOURNEYED JUST BEYOND THE SUNSET

(J. P. McEvoy, Chicago Tribune)

"There is no Death! The leaves that fade
And softly drift to silent doom
Are not to cold oblivion laid
In some forsaken, hopeless tomb—
They are not dead; 'neath snow and rain
They live, and with the Spring's first breath
All glorified they'll come again—
There is no Death!

There is no Death! The boys who pass,
Like falling stars in glory's glow,
Will live again when dewy grass
And poppies on those craters grow;
When all the world is fair and free,
Because they gave their soul's own breath
They'll live in millions yet to be—
There is no Death!"

EDWARD PORTER ALEXANDER, 3rd**Eta Chapter**

First Lieut., Engineers.

Killed in France.

Brother Alexander was a graduate of Massachusetts Institute of Technology, class 1914, and held an S. B. degree in civil engineering. After graduation he was employed by the Alexander and Farrrell Co., of Duluth, Minn. He was with them when war broke out.

Brother Alexander was one of the first to enlist in the service of his country.

It is with a great deal of regret that we find it impossible to contribute more details of his noble part in the war. Theta Tau mourns his loss.

GEORGE ALBERT BEACH**Eta Chapter**

First Lieut., Air Service, U. S. A.

Killed January 20, 1918, Foggia, Italy. In aerial collision.

Born at Fort Collins, Col., 1893. He was educated in the public schools and later attended Colorado State College. In 1914 he graduated from Massachusetts Institute of Technology, having made one of the highest records in the history of the institution.

Brother Beach was in the first squadron at Massachusetts Institute of Technology aviation school. After four weeks of training he sailed for France to continue his course in the flying school. From France he was sent to Italy and was awaiting his commission, after having completed the last brevet of the Italian system.

Wire Sent by C. O. to Mr. Tom Beach
(Father of Brother Beach)

Foggia, Italy, Jan. 20, 1918.

Mr. Tom Beach,
Fort Collins, Col.

Your son of the Aviation Corps, Cadet George A. Beach, American Air Service, killed instantly January 20, 1918, in aerial collision at this station.

Condition requires burial here.

A great loss to his country, and I extend my deepest sympathy. Details by letter follow.

MAJOR RYAN,
Commanding

Letter from Brother John Park

Italy, Feb. 27, 1918.

Dear Brother Schrader:

I am very sorry to tell you of the death of Brother George A. Beach of Massachusetts Institute of Technology.

Brother Beach was a graduate M. E. and one of the finest men we had with us. He was a wonderful flyer and a first lieutenant in the U. S. Air Service.

Lieut. Beach was killed on Jan. 20, 1918, in a collision in the air.

Fraternally,

JOHN PARK,
Lieut., A. S. S. C.

EMMONS BLAINE

Eta Chapter

Died Oct. 9, 1918.

Graduated from Harvard, class 1914, with an S. B. degree, was also a member of the class of 1916, Massachusetts Institute of Technology.



MARTIN FRADY BOWLES

Iota Chapter

Lieutenant 1st Battalion, 355th Infantry, 89th Division.
Killed in action September 3, 1918.

Martin F. Bowles, born April 25, 1893, at Bonne Terre, Mo., and graduated from the Neodesha, (Kan.) High school, had finished all but one month of a four years' course in Metallurgical Engineering at the Missouri School of Mines, Rolla, Mo., when on May 12, 1917, he entered the first officers' training camp at Fort Riley, Kan. At the close of the training period he was commissioned a second lieutenant and assigned to Company B, 355th Infantry, 89th Division, and stationed at Camp Funston. He left this camp with his company on

May 21, 1918, and sailed from an eastern port on June 4th, arriving in England on June 15, 1918. After a short stay at a rest camp there, he proceeded to France. On August 14th he wrote that he was with battalion headquarters as scout officer, 1st Battalion, 355th Infantry, 89th Division. The last letter received from him, dated Sept. 2nd, was written in his dugout and contained the following: "Here it is 2:45 a. m. Sitting in a dugout waiting for some patrols to report back in, I am writing this by the light of two candles." He was killed in action on the night of Sept. 3, 1918. The letter of notification received from Brigadier General Thomas G. Hanson said: "It is my painful duty to communicate to you the fact of the loss of your son, Martin F. Bowles. About 11 o'clock on the night of Sept. 3, Lieut. Bowles, with Lieut. Joseph B. Keckler, 355th Infantry, in command of a reconnoitering patrol of our troops, encountered the enemy. In the ensuing engagement your son received a rifle bullet through the heart. His death was instantaneous and painless. His remains were interred with full military honors on the 4th of September." He was promoted to first lieutenant, but his commission did not reach him before his death. He was president of the Missouri Mining Association, Missouri School of Mines, for the year 1916-1917.

Brother Bowles is buried near Madres, France.

In the death of Brother Bowles Iota lost a true and faithful brother. Theta Tau lost a faithful brother and the profession a true and valuable worker.

WILLIAM WALLACE COLQUHOUN**Theta Chapter**

Captain 11th Highland Light Infantry.

Born at San Francisco, Cal., on the 13th of October, 1890. After leaving Glenalmond he went to Columbia University, where he graduated in June, 1914, having finished his work in the mining department. During his holiday in England war was declared against Germany. He at once offered his sword to the government and was one of the first hundred thousand who did so. He received his commission as second lieutenant in September, 1914, was promoted by rapid stages to the rank of company commander, and that was the rank he held when he fell in the battle of Loos on the 25th of September, 1915.

Brother Colquhoun was a charter member of Theta Chapter of Theta Tau. Having just graduated, he did not hold a technical position, but was with his father, James Colquhoun, former president of the Arizona Copper Co., on many of his technical trips and tours of inspection. Not only does Theta Tau mourn the loss of so valuable a brother, but it is to be regretted that young men of his caliber and type who had spent their entire life in study for the advancement of mankind and nation must needs be sacrificed to stem the greed of that Hunish desire for power.

In Memoriam

Extract from The Glenalmond Chronicle, April, 1919.

William Wallace Colquhoun, Captain 11th Highland Light Infantry, Killed in action, September 25th, 1915 (previous reported "missing"). Aged 25. Glenalmond, 1904-1910:

W. W. Colquhoun was the elder of two brothers, sons of Mr. and Mrs. J. Colquhoun, 31 Ferndale, Tunbridge Wells, who were at College between the years 1904 and 1912. He was made a prefect in Michaelmas term, 1908,



W. W. COLQUHOUN

and captain of school in the following Michaelmas term. He won the engineering prize in 1908, the engineering prize and the prize for Science A in 1909, and the Engineering Drawing Prize in 1910. He was a member of the football fifteens of the seasons 1907-08, 1908-09 and 1909-10. He was cadet officer of the corps, passing for Certificate "A" in 1909, was a member of the Shooting VIII of 1909 and 1910, and won the Bombay cup for the best score at Bisley in the former year.

He left behind him at school a memory of a thoroughly "wholesome" boy, upright and honest to the core, true and just in all his dealing; an influence for good that left a mark on all it touched; strenuous and steady in endeavour, sure and sound in achievement.

After leaving college he entered at Columbia University, U. S. A., and in 1913 captained the university football team. He graduated in metallurgical engineering in 1914 and was elected a member of the American Institute of Engineering.

On the outbreak of war he obtained a commission in the Highland Light Infantry in November, 1914. He fell in an attack on a position between Auchy and the Hohenzollern Redoubt, well in advance of his men. As in a subsequent counter attack, the enemy occupied the ground, it was hoped that Captain Colquhoun had been removed, wounded, by their Red Cross men, but, no further news having been received of him, it is now presumed that he was killed in action. Sir James Hume writing of him says: "He was out in front of his company, gallantly leading his men. Of late years I have met no young man for whom I had a more sincere liking. He had a wonderful influence over his men."

His colonel writes: "His conduct was beyond all praise, and his courage and devotion to duty cannot be expressed. He is the greatest loss to his battalion and myself." That he was keen on soldiering, as he was on

all he set his hand to do, is evident from his last letter, written on September 23rd, 1915 (during the battle):

"We are up in the line again and for a couple of days the bombardment has been going on. The noise is tremendous. The whole earth shakes and there is dust everywhere. It is quite exciting, and I am enjoying it. I am in perfect health, and I have nothing to complain of." That was written under the trench warfare conditions of 1915.

EDWARD J. DITTUS

Gamma Chapter

Brother Edward J. Dittus graduated in the class of 1911, mining department, having received the degree of E. Met. In 1913 he was instructor in metallurgy, Colorado School of Mines, Golden, Col. Later on in the same year he was made assistant manager of Colorado School of Mines, testing plant.

Through later reports, Brother Dittus, in 1916, was in charge of the department of testing and research at the Colorado School of Mines.

In Brother Dittus the fraternity has lost a man of noble worth in the engineering profession.

ROBERT LEE DOWNING

Beta Chapter

WILLIAM EASTMAN, Jr.**Eta Chapter**

Brother Eastman was appointed instructor in United States Army School of Military Aeronautics at Cambridge, Mass. He had joined the Massachusetts Institute of Technology Engineers Corps in 1915.

It was while he was instructor in the ground school at M. I. T. that Brother Eastman was injured by a propellor accident, November 2, 1917. Because of the seriousness of the injuries received he died on November 8, 1917.

Brother Eastman was on the committee which planned the Tech. Club in Paris, which became part of the American University Union, Europe.

Because he was among the first to enlist in the service he did not complete his course in Mechanical Engineering, class 1918.

WALTER GEORGE FARNLACHER**Epsilon Chapter**

First Lieutenant, Infantry, 363rd Regiment.

Killed in service.

EUGENE ERASM GRYGLA**Alpha Chapter**

Born, 1886, at Minneapolis, Minn., where he graduated from the public schools and spent three years in the University of Minnesota. He was a member of the

class of 1908, and had taken up the study of mining.

Brother Grygla was one of the first members of the Alpha Chapter of Theta Tau. He held the office of scribe during the years 1906-1907.

After leaving school he went west to engage in mining. With the exception of one stay in Leamington, Utah, the rest of his time was spent in Nevada.

It was in 1908 that he was married to Miss Essie E. Carson at Nephi, Utah.

Before coming to Tonopah he and his family were located at Round Mountain, Nevada, for three years. At the time of the divide excitement he was

one of the first to move to Tonopah. Having applied himself to his work from the time of his arrival he was completing preliminary work on a eased block of ground on the Montana, from which he expected to clear a good amount.

Brother Grygla was just getting located here when the entire family was taken sick with influenza which resulted in the deaths of the son Vernon, February 20, 1920, and the father, March 3, 1920.



Due to the heavy snows in Tonopah and the surrounding country where the whole community was snowed in for days at a time, few knew of Brother Grygla's illness in time. Brother Schrader wrote at that time that they were so snowed in that not even the truck could get out to make a trip to town. He says, "I knew 'Gene' well and the fraternity loses a very loyal member."

All the fraternity mourns his loss and extends its deepest sympathy to Mrs. Grygla.

GILMAN CASE HARDING

1891-1918

WHEREAS, It has been the will of God to take from us our beloved Brother Gilman Case Harding; and

WHEREAS, The Theta Tau Fraternity, in the death of Brother Harding has lost a true and faithful member, one who has done honor to his country, to his profession and to our fraternity; and

WHEREAS, We, the members of Zeta Chapter, do deeply mourn his loss; therefore, be it

RESOLVED, That the members of Zeta Chapter of Theta Tau extend their deepest and most sincere sympathy to his bereaved family; and be it further

RESOLVED, That a copy of these resolutions be sent to the family of Brother Harding; that they be published in The Gear of Theta Tau, and that they be recorded in the minutes of Zeta Chapter.

GILMAN CASE HARDING of Zeta Chapter.

Brother Harding was one of the first members of Zeta Chapter, and graduated from Kansas University in 1915. After leaving school he was actively engaged in his profession until he entered the army. Brother Harding died of pneumonia in training camp October 11, 1918. His home was in Leavenworth, Kan.

WENDELL ZEANIS HAWTHORNE

Kappa Chapter

Pledge

News of the death of Wendell Hawthorne '21 on December 14 came as a shock to friends returning from the Christmas holidays last Monday. Death occurred at the university isolation hospital after ten weeks' illness of typhoid pneumonia.

For several days preceding his death Hawthorne's condition seemed to be improved, and physicians held out hope for his recovery, but on December 13 a change for the worse came suddenly and death resulted shortly after. Members of his family were present at his bedside.

Funeral services were held in the First Methodist Church of Waukegan, home of the deceased. O. J. Fleming, F. W. Voght, P. E. Langdon and P. L. Cailson, students in the university, were present at the services. Mr. Voght spoke in behalf of the student body.

During the time he was a student in the university Hawthorne was identified with many campus activities, and by his rare personality won for himself a host of friends.

Wendell Zeanis Hawthorne, 1921, entered the Great Beyond on December 14, 1919. In our brief acquaintanceship with him we found him to be a man of the highest Christian character. His actions showed that wonderful essence of Christian brotherhood that characterized him as a man and friend to hold. Our loss is inestimable and our sympathy goes out to his family and to all his closer friends.

**BERNHARDT E. HEINE****Beta Chapter**

Lieutenant, Aviation Service, U. S. A.

Born at Mount Clemens, Mich., in 1895. After attending the local high school he entered the Michigan College of Mines, and graduated with the degree of B. S., E. M. While still a student he became a junior member of the institute.

Brother Heine had been in the army since 1916, having served with the troops at the Mexican border. He had been in the aviation section since August, 1917.

Lieutenant Bernhardt E. Heine died as the result of a fall in an aeroplane at Fort Sill., Okla., on August 10, 1918. The accident occurred on August 2 when the machine in which he was flying with Lieutenant Carsons fell from a height of 1,500 feet; Lieutenant Carsons was instantly killed, but Lieutenant Heine died from his injuries a week later.

A. STANLEY HILL**Alpha Chapter**

He was born in Minneapolis, Minn., in 1888 and received his early education in the high schools. In 1911 he graduated from the School of Mining, University of Minnesota, with an E. M. degree.

He was captain of the university track team in 1911 and was the holder of two Minnesota records. His feat of setting three records in one day will long be remembered by university track men. Hill established a mark of 9 4-5 seconds in the 100-yard dash, ran the 220 in 22 1-5 seconds, and in the same meet tore off 440 in 50 1-5 seconds.

After graduation he went to Magpie Mine, Ontario, Canada. He was there only a short time and then went to the Coeur d' Alene district, Idaho. Here he was assayer and chemist for the Hecla Mining Co., Gem, Idaho, and later was millman, finally taking charge of the flotation department, which position he held at the time of his death.

Brother Hill died at the Wallace (Idaho) Hospital on February 25, 1918, from injuries received in the Black Cloud mill. Caught in the shafting, one arm was torn off, a leg was broken and internal injuries were inflicted from which he never rallied.

Brother Hill was regarded as one of the best mill men in the district, where his contributions to the science of the industry were placed freely at the disposal of others.

His discussion of the paper on "Handsorting of Mill-feed," which is a description of mill practice at the Hecla Mill, was not yet published when he died.

Brother M. F. Quinn writes of him, "Stan" was doing very well—his flotation work was as good if not the leader of many in the district, and he had won a large circle of friends in the district."

ELTING WADE HOUGHTALING**Alpha Chapter**

Graduated from the University of Minnesota in 1916 in the electrical department, having received an E. E. degree.

The last position he held was switchboard operator at the Montana Power Co., Canyon Ferry, Mont.

On May 24 his father and mother, who live in Fairmont, Minn., were notified by telegram of their son's illness. Upon their arrival at Camp Lewis, Wash., they found him considerably better. Shortly after his condition changed again, but this time for the worse, and he died on June 5, 1918.

JULIEN MATHIEU, Jr.**Epsilon Chapter**

A member of the class of 1919, the University of California, Berkeley, Cal., and enrolled in the petroleum engineering department.

Brother Mathieu died in service.

JOHN JOSEPH O'MALLEY**Gamma Chapter**

Lieutenant, Aviation, U. S. A.

Gamma Chapter suffers the loss of Brother John J. O'Malley, a lieutenant in the Aviation Corps. He fell in a tail-spin at Ellington Field, Houston, Tex., during May, 1918. "Joe was one of the most popular men in school; we hoped to see him back with us when the war was over."

Brother O'Malley was a member of the class of 1918 in the mining engineering department of the Colorado School of Mines.

GEORGE S. PATTERSON**Theta Chapter**

Died April 14, 1920.

George Schroter Patterson was accidentally killed April 14, 1920, at the zinc mine of the Northern Ore Co. at Edwards, N. Y. While taking measurements in the 900-foot shaft the cage was lowered, and he was struck by the counter weight which balances the cage, carried 25 feet up the shaft and crushed against the timber work and pulleys forming the head frame.

Mr. Patterson was born in Denver, Col., Oct. 9, 1892, graduated from Denver High School and from Columbia School of Mines, New York City, class of 1914, receiving the degree of Engineer of Mines. He was for two years at the Franklin Furnace mines of the New Jersey Zinc Co. as surveyor, shift boss, etc. In 1916, he was appointed mine superintendent for the Northern Ore Co., and had been promoted to general manager of the same company about two months previous to his death.

ROBERT ASHMAN PERRY**Kappa Chapter**

Lieutenant, Naval Aviation.

Born May 4, 1892, at Helena, Mont.

Robert Perry Ex '18 died in Los Angeles, Cal., Jan. 2, 1920, following injuries received when his motorcycle skidded on the Ascot Speedway that afternoon. Perry was riding in the qualification trials for the 100-mile race held there Saturday, and was circling the track at a speed estimated to be in excess of sixty-five miles an hour when his machine skidded. His skull was fractured.

Perry withdrew from the university in 1918, his senior year, to enter the service, enlisting in naval aviation. He received his commission as flying officer and was stationed in Florida until the armistice was signed. Perry planned to return to the university in February to take the needed semesters work for his degree in mechanical engineering.

He was connected with the Excelsior Motorcycle Company, and was considered a valuable inside man, but kept at the racing in order to increase his funds, so that he might return for his second semesters work. The race in which he met his death was to have been the last one in which he would participate before returning to the university.

GEORGE OSCAR RANDOLPH

Beta Chapter

Graduated from the Michigan College of Mines, Houghton, Mich., in 1907 with the degrees of B. S., E. M. From the time of graduation he has been associated with the Porcupine Tisdale Mining Co. at Porcupine, Ontario, Canada. When last heard from Brother Randolph was general manager for the mining company.

LOUIS SCHAFER

Gamma Chapter

Died October 27, 1918, at Silverton, Col., of influenza. Graduated from the Colorado School of Mines in 1909, having received the degree of E. M. In 1911 he was leasing at Hesperus, Col. From there he went to Silverton, Col., as mining engineer. In 1916 he was manager of the Colorado Metal Co. at Silverton.

JOHN PAUL SLADE**Zeta Chapter****1893-1918**

Second Lieutenant, Field Artillery.

WHEREAS, The Almighty, who knoweth and doeth all things well, has seen fit to take from our midst our beloved Brother John Paul Slade; and

WHEREAS, The Theta Tau Fraternity, in the death of Brother Slade has lost a faithful and conscientious brother, loved and esteemed by all who knew him; and

WHEREAS, We, the members of Zeta Chapter, do deeply mourn his loss; therefore, be it

RESOLVED, That the members of Zeta Chapter of Theta Tau Fraternity extend their deepest and most sincere sympathy to his bereaved family; and be it further

RESOLVED, That a copy of these resolutions be sent to the family of Brother Slade; that they be published in The Gear of Theta Tau; and that they be recorded in the minutes of Zeta Chapter.

JOHN PAUL SLADE of Zeta Chapter.

Brother Slade was one of the many men who left school to enter the service of his country. He was initiated into Zeta Chapter in 1916, and proved himself a very active member, as well as a popular student. Brother Slade responded to the first call and received a commission as second lieutenant, Field Artillery, at the first officers' training camp at Fort Riley, Kan. He was immediately assigned to overseas duty and saw much action during the summer of 1918. Brother Slade was killed in action on the Vesle river, September 17, 1918. His home was in Clay Center, Kan.

BERT R. SMITH**Theta Chapter**

Died in service June 18, 1918.

Graduated from Columbia University in the class of 1917 and received an E. M. degree in the mining department. He was twenty-four years old when he died of appendicitis at the Madison Barracks Training Camp Hospital, after an illness of several days.

The death was the first in the camp, and it depressed both officers and men with whom the candidate had proved very popular. He had been married just before joining the camp.

Mr. Smith, whose home was at 1053 East Thirteenth street, Brooklyn, had specialized in the field artillery arm. With the camp reorganization he was ordered to change from Company 1 to Battery 11. He was in the hospital during the reorganization, however, and though his name is on the company roster, he never had the opportunity of taking his new place.

Full military honors were accorded him when the body was removed to a train at New York Central Station. The parents, Mr. and Mrs. Smith, and the young widow followed the flag-draped coffin. Next in line came Mr. Smith's company, augmented by a number of others of the camp personnel. At the train a salute was fired and taps were blown. The camp flag was placed at half-mast.

Private funeral services were conducted in Brooklyn late the next afternoon.



LEROY A. SWAN

Eta Chapter

Lieutenant, Aviation, U. S. A.

Graduated from Massachusetts Institute of Technology in the class of 1917 and received his B. S. degree.

Lieutenant Leroy Swan of Norwich, Conn., was instantly killed at the Wilbur Wright aviation field on the afternoon of June 19, 1918, when the airplane collapsed in mid-air. At an altitude of about 10,000 feet the pilot lost control of his machine after going into a swift nose dive. Lieutenant Frank S. Patterson of Dayton, O., was flying with Lieutenant Swan.

PERCY W. THOMPSON**Epsilon Chapter**

Born in Ontario, Canada, October 21, 1881. He came to California at the age of 12 and attended the Los Angeles High school soon after. He then entered Throop Institute of Technology, Pasadena, Cal. He graduated from the College of Mining, University of California, in 1912, having received the B. S. degree.

After graduating he became geologist with the Standard Oil Co. of California. Later assistant superintendent of one of the leases, then superintendent and at the time of his death he was superintendent of operations, in charge of all work in Colorado, New Mexico and Washington.

Brother Thompson was married August 20, 1907, to Carolyne Grey, Pasadena, Cal. They have two children, John Stanton Thompson, age 8, and Jane Elizabeth, age 6.

On April 11, 1920, following a six weeks' illness due to complications following an attack of influenza, Brother Thompson entered the Great Beyond.

HERBERT M. TICHBORNE**Theta Chapter**

Lieutenant, Aviation.

Graduated from Columbia University in the class of 1917 and received an E. M. degree in mining.

Brother Tichborne was killed at March Field, California, in an airplane accident on December 23, 1919.

PAUL HARRIS WILKINSON**Beta Chapter**

Through the kind favor of the A. I. M. & M. E. we are permitted to reprint the cuts of Brothers Heine and Bowles. Both were members of the A. I. M. & M. E.

DEDICATION

To the days I spent in Durance Vile in the Quartier
Espanne Caserne at Angers, France, December, 1918

RETROSPECTION OF AN ENGINEER

I enlisted in the Engineers in nineteen seventeen,
To cross the pond and fight the Hun, I'll say that I was
keen;
We left the States September tenth, my oath was one
month old,
And we hit old France October sixth, the weather was wet
and cold.

We carried packs and rifles, the same as doughboys do,
And we hiked and worked from sunup until it sank from
view.
We built a big base Hospital, a Reservoir, some roads,
And when 'twas done—in two months' time—we shouldered
again our loads.

We rode down to Chalindrey, a quiet burg near Langres,
But right after Christmas Tide we were packed again and
gone—
Hitting the rails for Sauvville, our future training camp,
Where the billets were widely scattered and the floors
were always damp.

'Twas New Year's Day when we got there, after a weary
hike thru the snow,
We were wet and sore and hungry, not another foot
could we go.
But after we'd warmed by the fires that the Frenchmen
built on their stones
The dampness went out of our clothing and the aches
went out of our bones.

For a long, wet month we logged it, providing the winter's
fuel;
To a gang of erstwhile civilians the pace was hard and
cruel.
But we hardened to the weather and the labor made us
strong,
When we started in a-training, we did it with a song.

Thru gas drill and the bayonet, "Skirmishers and Squads
right,"
We did 'er with a gusto and soon were "fit to fight."
So to "Lorraine" we journeyed, "We're off to the front,"
they said,
But alas, for two long rainy months, in a "dump" we
earned our bread.

Then off again with packs and bags we motored on to
Blesme,
Where we wrangled horses, mules and grain, "dog-rob-
bing" for Q. M.
Our bed was a floor, strewn o'er with straw, in a porous
roofed barn,
Nestled in the famous bloodstained valley of the Marne.

Our next stop was at Parnes, not far from gay Paree;
Paree;
Spring had touched the flowers and trees, they sure were
fine to see.
For seven months we'd been in France, with nothing but
mud and rain;
I'll tell the world, it sure was great to bask in the sun
again.

At Parnes we learned 'bout "half Platoons, combat
groups," more gas,
While the Huns were coming toward the Marne, thousands
of men "en masse."
They hustled our Division into trucks and sped away,
Bound to stop the Huns' advance and get into the fray.

At Chateau Thierry, Belleau Woods and also at Bouresches;
We stopped 'em, held 'em, drove 'em back; our troops were
young and fresh.
Many a husky doughboy, Marine and engineer,
Gave up his life that month of June without a bit of fear.

We lived in two-man dugouts, covered with logs and
earth,
Under the guns of the Fifteenth Field, shooting for all
they were worth.
On July first with the famous Ninth we took the town
of Vaux,
Upon the C. O.'s promise that to Paris we would go.

We had the Heinies on the run, they were getting badly
scared;
You can never tell what a Yank will do when all his teeth
are bared,
So up to Soissons, near the Vesle, we took the "Chinee
Trail,"
And surprised the Bosche in the early dawn, and put a
lot in jail.

From the Soissons front we hoofed it many a weary mile,
The sun was hot, the packs bore down, we were cussing
all the while;
We reached a town named Monthyou, not very far from
Meaux,
Some of the boys got passes and put on quite a show.

At Champignoulles, near Nancy, we slept on the school
house floor,
The people seemed glad to see us, each house held an open
door.
'Twas not for long we stayed there, we had to produce
the goods,
So, up near the Marbache sector we camped again in the
woods.

Then to the "Barracks on the Hill," 'twas a long and dusty march,
All up grade and water was scarce, we thought our throats would parch.
But once we hit the barracks, we stayed there eighteen days.

Drilling in the morning and resting in the shade.
At a big review we had one day—'twas a pretty sight for fair,
The "D. S. C." was pinned on some, some got the "Croix de Guerre."
Thirteen seven day passes were issued to our bunch,
They got away that self-same day, the rest of us got-- lunch.

At San Mihiel we went like mad, I guess we did our bit,
It wasn't such an awful fight, but with the French we made a hit.
Our doughboys and marines went fast, their pace cannot be beat,
Except by Bosches, scared most to death, beating a quick retreat.

As "Special Reserves" and "Shock Troops" we hurried to Champaigne,
To capture a bunch of hills and woods and stun old Frits again.
'Twas a badly shot up country, not fit for much I'll swear,
What with ruins, "Bob Wire," trenches, and shellholes everywhere.

But poor old Bill, he'd had enough, he beat it for the Aisne.
We left the French to watch him and boarded our trucks again.
Headed for the Argonne front where our boys were having hell,
But why they wanted us there, too, not anyone could tell.
In the darkest hour before the dawn, November first it started,
The last big fight of the war was on, not a single man faint-hearted.
Three thousand guns roared forth their wrath, painting the sky dull red,
Prisoners came pouring back—thousands of Huns lay dead.

Oh glorious day it came at last, the Armistice was signed;
Silence spread o'er all the fronts where before the big shells whined,
The boys could scarce believe it, "You can't kid us," they said:
"We've heard that line of stuff before, tomorrow we'll go ahead."

But the good news was official; the boys all near went wild,

Boxes and brush were gathered and into big heaps piled;
That night they celebrated and sat by the welcome heat,
Praising the arms of the Allies and rejoicing at "Bill's" defeat.

For a week they stayed where they'd halted, cleaning up their junk;

Sleeping at night in their "pup" tents, with a shell hole for a bunk.

A long, hard hike was before them, they were going to the Rhine;

The Army of Occupation was to travel on schedule time.

The outfit is quite different now, from that of a year ago,
If you knew us when we left the States, hardly a man now would you know.

For most of the bunch were wounded, a lot are under the sod,

They've done their bit for Freedom and now are safe with God.

SERGEANT F. B. NEWELL,

Company A., 2nd Engineers,

2nd Division, U. S. A.

*Note—"Chinee Trail" refers to the "luxurious" rides we had in French Camions driven by Chinamen of questionable experience and intelligence.

NOT ALL NATURAL CAMOUFLAGE IS SAFE EVEN ALONG THE FIRING LINE.

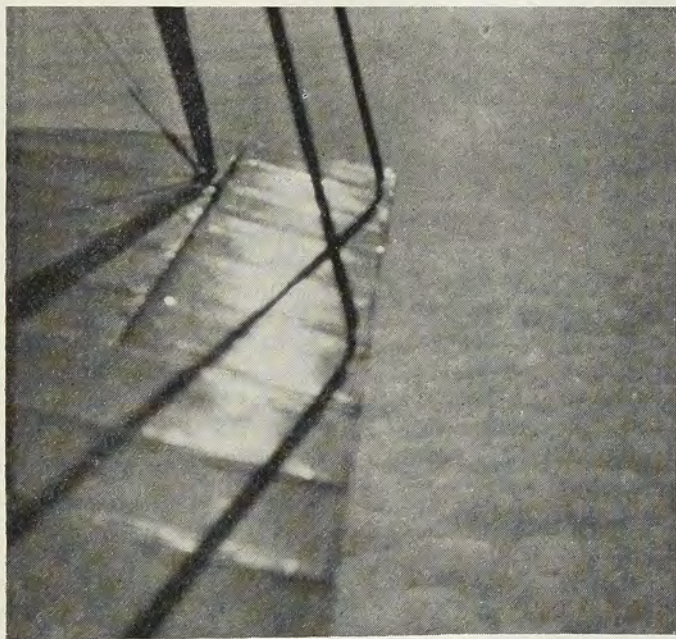
Shortly before the Armistice, the 92nd Division (colored) was holding the front in the vicinity of Pont a Mousson. The front line trenches ran through the top of Xon Hill, a bare conical shaped hill situated on the east side of the Moselle River. Our section, which was Flash Ranging Section No. 4, of the 2nd Bn., 29th Engineers, had an observation post on the extreme crest of this hill. At about 12:30 P. M. of a certain day, the negro company holding this hill was ordered over the top on a day light raid. The day was clear and the Boche machine guns and artillery opened up on them immediately. In order to protect their advance somewhat, a negro machine gun crew set up a gun in the trench beside our observation post and began throwing a machine gun barrage ahead of their advancing comrades. A couple of Boche planes flying overhead immediately spotted this crew and signaled their artillery to direct their fire on the crest of the hill. In about two minutes hell was popping around us, and the gun crew lost no time in scrambling into our observation post to get a little cover. In about fifteen minutes the intensity of the shelling let up somewhat and the crew returned to their gun. However, they hadn't any more than gotten it started, when the "Whiz Bangs" concentrated on us again. Back the crew crawled into the post. In about fifteen minutes the shelling again diminished and a negro Lieutenant came scouting along the trench looking for his machine gun crew. He spotted them in the post and ordered them out. They hung back, but finally all were out except one. He halted to go, but as he crawled slowly out he said "Well Lieutenant, I'll go, I'll suttainly obey orders, but I ain't no shell proof".

FRED K. HOUSTON,
1st Lieut. Engineers,
29th and 74th Regiments.

"UP IN THE AIR"

I regret that at your request I have not submitted to you before this the following account of one of the many similar experiences with the Squadron. It is uneventful and unsensational from a moving picture standpoint and simply portrays the every day work of our Squadron. You can take it for what it's worth; change it to suit yourself, or leave it out altogether. It is taken verbatim from my diary under date of July 19, 1918.

"At 3 P. M. Edwards and I, pilots, with observers Preston and MacLachlan, respectively, started out. We all wore our new leather coats and all carried the ne-



ABOVE THE CLOUDS

cessities for an overnight stay if we had a forced landing. Each plane carried three machine guns. Mac and I were to do the actual work; Eddy was to fly in circles above us as protection, and also to take up the work if we should be forced down for any reason at all.

"When I climbed in to try the motor, I found the tachometer wasn't working; but it was too late then; we had to take off at 3.15 to arrive before 3.55 over our objective, so I flew without it, a thing I don't like to do. I had Simone's "Ninette et Rintintin" tied on the left wing, and Lucienne's on the right one. Also had two long white streamers tied on to show the Infantry which plane was meant to do the actual work.

"We took off on schedule time, circled the field till I had 800 meters, then headed southeast down the railroad from Luxeuil—Saint Sauveur and Lure. It was a beautiful day and the visibility was good, though it was so hot there were many up and down currents and we got some fearful bumps, especially crossing the mountains, which we did at a sort of pass or small valley just east of Lure.

"Belfort lies on the other side of this range in the foot-hills, and soon I picked it up. It is a good sized town and has a canal running through it, also a fairly prominent rail center. We were at 1300 meters and dropped down to 900 for the work. I shall always remember the picture as it first showed itself,—Belfort under us,—one range of mountains just behind us,—before us a tremendous level valley (The Rhine Valley of Alsace) running north and south for miles and miles,—just northeast of us two Allied observation balloons swinging in the breeze,—and due north a circle of five little Allied villages, smoking and burning from Boche shell-fire. Beyond us—east—was "Bocheland" and another range of mountains and the "Black Forest".

"We took the railroad due east from Belfort to Alt-

kirch (Alsace and Boche now); not quite half way to Altkirch, or about ten minutes out of Belfort, we came to the "Rhine et Rhine Canal" and saw south a little, our objective, the Village of Bretagne, where the American Infantry were. I should judge the town to be about eight miles from Altkirch. We were right in the corner where Alsace and Switzerland join France. Ten minutes flight west or south would have made first a prisoner of us, and second an intern had we landed.

"I circled round the village a couple of times, Mac working his wireless furiously to get in touch with the Infantry, which he soon did. Then for over an hour we circled above them, turning this way and that as I could see Mac signal me in my mirror. Mac led me here and there while he worked with wireless and signal rocket, always keeping one eye open for Boche. Above I could see Eddy circling around, which gave me confidence and dispelled that lonely feeling.

"It got terribly monotonous, and very trying, for it was rough, and when we'd go in one direction the sun was in my eyes till I could hardly see the instruments, and when reversed I'd get it directly in the mirror. With the monotony of the work and the roar of the motor, I came to act mechanically, while my mind was elsewhere. I thought of Mother; and as I looked off across the valley my imagination made me wonder if there were Boche autos on that road and what was doing down there in the trenches. And I thought all I had to do was to cut the motor and glide, when my wheels touched, the war would be over for me, for I would be a prisoner if they didn't shoot me before then. Mac finally gave me the signal. We were through. We flew over Suarce, where Division Headquarters are, while he dropped a message can, then we headed for Belfort and home!

"I didn't see a Boche, though the boys claim there

was one very high up and that French anti aircraft had taken a shot at him. We successfully crossed the mountains, following the railroad, passed over Lure from where I could see our camp, and glided in, landing O. K. We were both worn out; my arms and hands were aching, and my feet and legs to the knees were numb from the vibration on the rudder bar. Eddy and Preston landed O. K. just behind us.

"Another day's work done, and 'All our machines returned, as the reports say.

As I have my diary before me, If you want something "bloody", I will quote the incident of my accident, which occurred on Sunday afternoon September 1, 1918.

"At about 3 P. M. Powell and I climbed aboard the dear old bus and after the usual "bon voyages", headed for Luxeuil. For fifteen minutes, I guess, we travelled O. K., when we came to a sharp turn in the national highway we were following. I looked back at Powell and he motioned me a direction. After about five minutes I looked at the compass, S.W. (Luxeuil is S.E.). I shouted to Powell to look at his compass, and indicated I was lost, but he motioned me on.

"Soon I was startled by seeing ahead on our right a series of big lakes. That stumped Powell, too; we both agreed we were lost and decided to turn around to get back from where we started. So I headed north-east. Everything looked the same to me; I couldn't recognize a thing; but soon on our left we saw what looked like a good sized town. We flew over it a few times. Powell motioned me to land, and together we looked for a place. It's very bad country and the fields are quite deceiving, but he finally picked out one and I made for it, skimmed over a small forest and dropped down into a rough field, a pasture with sloping sides.

"We landed O. K., and the crowd from the town came running. We found out where we were, the direction

and distance to Luxeuil, and surveyed the prospects of the take off. It was a very difficult one, for the crest of the hill was full of holes, a short run ending in a slope down into a small valley filled with fences and cows. Part way down this slope was a big stake about six feet high. My idea was to take off to the right of the holes on the crest, and if we couldn't get up before the crest ended, to steer a little to the left. At the same time I felt sure we could clear that stake.

"Powell cranked up, climbed in, and with the crowd waving, we gained speed along the crest, missed the holes and started down the slope. I tried to pull into the air and had probably 70 miles and about 4 feet, when there came a jolt on my right side. Things happened fast. I closed the throttle, the lower right wing dropped off at the center section, dragging the upper wing with it, and that side dropped till we were banked nearly vertically.

"My first thought was "This is the end", but I was not very excited. The next thought was "Keep her nose up and hit in a wing slip". So I gave her all the up rudder and we wing slipped about 200 feet. I saw the herd of cows, cut both contact buttons—oblivion!!

"I remember becoming half concious, lying in Powell's arms, groaning, gurgling, and spitting blood, around me a curious crowd and a doctor with a black mustache tying a piece of the propeller on my leg for a slint. I remember the start of the ambulance ride, but it was so rough across fields that I slept some more."

The rest you yourself know, Dear Brother, since you see me walking around Tech, where I came after fourteen months in army hospitals.

Sincerely,

J. SIDNEY MARINE,

ETA '21,

1st Lieut. Air Service, U. S. A.
99th Aero Squadron (Observation).

"A TWENTY MONTH VACATION"

The first feeling that one has on being wounded in action is one of distinct relief. All responsibility is gone, and there is nothing to do but wait for the stretcher-bearers. The trip back, in my case was a little exciting, for my stretcher consisted of an old barn door, picked up no one knows where, for we were in the midst of an attack, and my stretcher bearers either slightly wounded men or prisoners, so that the Boche had no scruples about firing on us. In going back we had to cross a road under machine gun fire, and snipers occasionally took pot shots at us, so that the bearers had to drop me in a shell hole and stop to return the fire more than once. We finally crossed a little rise in the ground and were out of sight of the actual firing line, but here ran into the barrage of gas and high explosive used to keep our supports from coming up. We managed to work our way thru this without anyone getting hurt, and after a few rests for the men and a few falls for me when they would slip in the mud on the edge of a shell hole, we came to the first aid station and here I started on a twenty-month vacation, said vacation to be spent in the hospital.

H. A. AMBLER,
Captain 30th Infantry.

Brother L. S. Harlowe Iota, '20 has one humorous experience. He says that all thru the war he met only one H. and T. man. The humor of it lies in the fact that the one Brother he met was holding down the job of permanent K. P. at the embarkation camp.

"Chief" Buehler of the Missouri Geological Survey never attends one of our meetings but that he is reminded of an experience of his during the war. He was serving on a war committee in Washington, D.C. at the time when rooms were as scarce as hens teeth. By using all of his salary and nearly all of his political pull, however, he secured a good room. Who should he meet about the first day after he secured the room but Brother Householder and Weiser from the Engineers R.O.T.C. at Camp Humphreys. They looked pretty much under the weather and the "Chief" took pains to show them Washington as best he could, after which he invited them to share his bed for the night. They accepted double-time. Brother Buehler declares that one minute after they were in the room they were fast asleep and snoring in five different tunes. The best he could do that night was to sit up and listen to their noise.

A BIT OF THE AMERICAN PRESENCE OF MIND.

Here is a little experience as seen by Brother E. B. Cole while in training at Key West, Florida. A class-mate had just started out with an officer for a "hop". It had been some time since the officer had made a flight but he wanted a little stunt hop. They left the beach and rose to a height of about 1,000 feet when the Lieutenant, I believe he was, started to do a loop. However, it had been so long since he had tried one, that he rather forgot himself and pulled the nose of the plane up before he had acquired sufficient flying speed and the result was a "snap stall". The tremendous strain of the "snap" broke one of the ailerons and the plane started down out of control. My friend who was just a cadet at the time took the controls and tried his best to rudder into the steep bank that the machine had assumed, with the hope that he could spiral down safely.

The Lieutenant was in the forward cockpit and he realized the predicament they were in and very sensibly left the management of the controls to the cadet. As they neared the water their bank became steeper and steeper and as a last chance, the officer climbed out on to the uppermost wing, crawled out as far as the second strut and they very luckily landed with but one broken wing and no casualties.

This little experience on the part of one of the men with whom I was associated, seemed to me to present a wonderful example of nerve, and quick thinking and I hope it may be of some service to you in getting out the Gear.

"THAT TERRIBLE SHELL FIRE"

About the middle of October 1918 while with G-1 of the 7th U.S. Corps in the Vosges mountains, I made a tour of the Corps sector with a regular army Colonel who had just been sent up from the S.O.S. He had not yet been far enough forward to hear any more than the far off rumble of desultory firing. One morning after leaving the 6th Division H.Q. at Gerardmer we passed up and over the pass of Col de la Schluct thence took the top road which was under fire and observation from the Boche. A few light calibres were sprinkled near our car without damage. The Colonel became somewhat excited and suggested that we take the valley



240 M. M, H, E. SHELL AT CLOSE RANGE

road. To turn around would have been fatal; so we continued for about 2 kilometers more till we came to a fork with three branches. Under stress from the ranking officer I went forward to palaver with what appeared to be a French Colonial Colored Trooper on guard at the cross-roads. After making several attempts, without any effect whatsoever to question him in French, and when I was about to give up in disgust, he cocked his black head sideways and said, "Say Boss-Cap'n ah don know any of that ther frog talk youse guine gib me 'cause I'se a membah of the 'Nited States Army," but we niggahs aint got else'n these frog duds and rifle." Further questioning in "United States" failed to discover any knowledge that this dusky soldier had of the surrounding country and its roads. This was evidently due to the fact that this brigade of the 93rd U.S. Division had just moved into this locality following a long tour of duty with the French in the Champagne sector and were not yet conversant with their terrain and arteries of communications. Upon returning to the car I found the Colonel pulling himself heavily out of a mud-puddle where he just flopped, and wildly exclaiming "for God's sake lets get down in the valley,—a shell just exploded over there in the bushes and I hit the ground just in time." Investigation revealed that a French battery was camouflaged in those bushes only 15 meters away and had just fired one of their "soixante-quinze". We proceeded along the ridge and arrived at Col du Bonhomme unscathed and then dipped down into a very quiet and peaceful valley for lunch at the little French town of Fraize. Here with a bottle of good French wine and a fine dejeuner the Colonel regained his composure and later that afternoon at the 81st Division H. Q. at St. Die vividly told of the "terrible shell fire" which we had encountered at the cross-roads and enroute.

DAVID L. SUTHERLAND,
Captain 112th Regiment Infantry, 28th Division.

YPRES A MASS OF RUINS.

A glance at my diary of several days ago reminded me that on March 5th, 1918, I was for a time with the British 4th Army at Ypres, Belgium. At four o'clock on that afternoon I happened to be just behind the British lines at Zonnebeck Ridge, inspecting a 12-inch railway mount that was stationed very close to their front. Just 100 yards from this mount was the scene of the first gas attack of the entire war. At the time of that attack, the Germans held Zonnebeck Ridge and had rolled a wave of gas down into this hollow, strangling hundreds of British soldiers. A group commander in charge of 8-inch howitzers and 6-inch guns informed me that at 4:30 an engagement was to commence in which they would attempt to silence a number of German batteries that continued to pay their respects each day at five o'clock. At 4:15 I noticed several British planes climbing to their 6,000 and 12,000-foot levels to observe the effect of the bombardment. The two planes on the 12,000-foot level were supposed to protect the plane on the 6,000-foot level, which was doing the observing.

As far as the eye could reach from this particular spot, there was not a space of ground 10 feet square that did not contain a shell hole. To the west the ruins of the city of Ypres could be seen and off to the southwest a distance of about half mile, on what was known at "Hell's Corner," a British band was actually giving a concert. At all opportunities this band gave a concert in the afternoon to bolster up the spirits of the men out in that forsaken region. The only indications of trees were the stumps, splintered and sticking from two to three feet above the ground.

About 30 8-inch howitzers and 6-inch guns took part in this engagement and the first shot was fired at 4:30. The observer was flying in a path the shape of a figure 8 above, doing his observing while going in one direction

and making his calculations and sending down messages by wireless while coming in the other direction. On the second volley, which were fired at 5-minute intervals, German planes could be seen climbing from the other side to observe for German batteries which were to reply. The two British planes on the 12,000-foot level at once came down and succeeded in bringing one of the German planes down and British anti-aircraft guns chased the other one back over his lines. For nearly a half hour the Germans made a half-hearted reply to the bombardment, shells dropping here and there about the batteries, but none of them doing serious damage. At 5:15 the bombardment was discontinued on the report from the observer that the German batteries had been completely demolished. Quite unfortunately one of the German projectiles had exploded very near to my car, which I had sent quite a distance off, damaging it quite seriously, blowing out all the glass and banging it up quite generally.

While the engagement was in progress, I was interested to observe a line of "Tommies" trudging out in single file over the shell holes to relieve the men in the front line. Other men with soup cans on their backs were going in various directions to feed the men who were to remain on duty.

I shall always retain this picture of absolute desolation in front of Ypres as approximately the extreme of the effect of war. This country had once been prosperous farms, substantial homes, fine roads, beautiful trees, and at the time there was nothing but ruins, mud, shell holes, stumps of trees, piles of brick, battered tanks, broken guns, caissons, etc. It was a delight to see a large group of guns located at approximately the site of the first gas attack, delivering their respects in so effective a fashion to the German batteries on the other side.

HARRY W. MILLER,
Lieutenant Col. Ord., U.S.A.

A RUSH MISSION

By Harry S. Aldrich, Beta '17

Pilot with 1st Aero Squadron, A. E. F.

On the first day of the St. Mihiel drive just after noon mess a "rush" mission was turned over to the first Aero Squadron for execution. Ten minutes later found my buddie an observer, Lieutenant David Ker, (Columbia University) and myself climbing up through the wet air. Owing to the exigencies of the day we were forced to set out alone. Against this handicap we kept a closer watch for the enemy.

The clouds were at about 3000 feet and we found ourselves just under them and a couple thousand feet on the other side of the rather indeterminate front line. To the south few of our men could be seen. To the north, many of the enemy having forsaken shelter for speed (reverse) were easily discernable on the roads and in the open fields. No hostile planes were to be seen and it was suddenly realized that no archives were snarling about us. As I thought to myself that they had probably been moved back I heard the muffled bark of Ker's two machine guns and then the slightly more muffled sound of guns answering. I looked thru the mirror at my right. Ker had disappeared and I realized that he had stopped firing after but five or six shots. Meanwhile a hail of bullets flew past us. I recall most clearly the white, yarnlike paths traced by a flock of them over each of my shoulders. It resembled confetti. I distinctly remember wondering why a bullet did not hit me in the small of the back and thinking that for each bullet I could see, there were three or four that were not tracers. I tried to turn my front gun on the nearest of the three planes I could see. It like the others, being smaller and quicker, turned as I turned, easily keeping behind us, and firing continually. Gasoline

began to pour into the cockpit at my feet and I knew that the gas tank had been pierced. As I looked my eyes caught a red glow and I just had time to throw back my head and avoid as much as possible the sheet of flames that followed. By this time my controls were useless except for the rudder gear which still worked. The plane made a dive, slipped, fluttered and dived. The cockpit was a furnace but the wind blew the flames back over my shoulders keeping my face fairly well protected. I was thankful for the fur flying suit, goggles and helmet I had on and regretted from the bottom of my soul having left my gloves at home.

All this seemed like hours but in reality it could have lasted but a minute or so. The ground was coming up pretty fast. I loosened my life belt —

Opening my eyes I saw that three men were lifting me into an ambulance. From them I learned that five Hun planes had attacked our plane, diving from the clouds just above us. Almost immediately we had burst into flames and fallen out of control. At about fifty feet to go, the gas tank exploded, breaking the momentum of the plane which stopped in mid-air crumbled into four or five pieces and fell to the ground. Ker died and was buried where he fell. He now lies in the U.S. cemetery at Romagne.

A DAY IN THE MEUSE-ARGONNE OFFENSIVE

My story starts at about five o'clock in the afternoon, on the twenty-eighth of September, 1918. As practically everyone knows this was the third day of the Meuse-Argonne offensive. Our outfit, the Hundred and thirty seventh Infantry, had dug in for the day and were trying to keep out of the way of big shells and machine gun fire until darkness came. German 77's had played havoc that day and different units were considerably mixed up. However two platoons of our Company had managed to stay together.

Finally it became dark enough to enable us to put out our guards for the night. Just as we had our post and had commenced to dig it for the night, it began to rain as only a person who has been in France knows that it can rain. The Sergeant in charge of our platoon and myself had dug in together, and had broken off small twigs to put in the hole to help keep us off the wet ground. However these were of little assistance as the hole we had dug was half full of water in the morning. Morning came and the night had been unusually quiet. Several of the fellows were seen getting drinks out of the mudholes, for any water was good as long as it was wet.

We hadn't any more than organized until orders came to go over. These orders were confirmed very shortly by the voice of Major John O'Connor saying, "come on hundred and thirty-seventh." Then we started through about a mile of the Montrebeau Wood, but the Boche, except for an occasional sniper, had deserted the woods for the more open country. Arriving at the edge of the woods, we formed in a scrimmage line and started to advance. It seems as if the Germans had placed their machine guns to good advantage during the night for as soon as we got into the open they began to sweep the entire ground ahead of us. How any man came through

that alive is more than I know. We advanced about a mile under this fire and finally received orders to retire back to the edge of the woods and wait for support. The fire had not ceased any and if anything it was worse than ever. I was in the rear of the half platoon that I had charge of and suddenly I heard someone calling me. I turned around and about a hundred yards back was my buddie. He had a machine gun bullet through the leg, so I threw away my pack and went back after him. I had carried him about three hundred yards when a sergeant saw me and came to help me. With his assistance we got him to within about three hundred yards of our lines, and then I got hit. The sergeant could not assist both of us so he went on in. I finally discovered I could walk and my buddie said he could crawl so we started in. That was the last I saw of him until about three months later, and as luck would have it we were both in the same hospital and were getting along fine.

ROBERT E. FERGUSON,

Corporal 137th Infantry.

This is Brother Ferguson's own story of a little affair that was the cause of him being awarded the Croix de Guerre and the D.S.C.

A FLIGHT, 12th AERO, SQUADRON

Douglas, Arizona April, 16, 1920

Brothers in Theta Tau, I Greet You.

Never having been lucky enough to get to France, I will tell about my first flight in England. It was at Boscombe Downs, a small Royal Flying Corps Field near Salisbury, and my first solo hop on a D H 6. I intended going to Beaulie Field near Southampton. Due to a very heavy British fog I flew over the field and lost my way. Coming down to see where I was, I saw nothing but water and had no idea where I was. This would never do, so I started flying in a very large circle at a height of about one hundred feet, and finally saw some land.

It looked good to me and I landed in a field, and found out that I had landed on the Isle of Wight, and that if I had kept on I would run out of gas which would have forced me down in the English Channel, where I probably would crash and have been seen no more. I think that I was very lucky to find even the small Island that I did. From the Isle of Wight I hopped over to Southampton and from there to Beaulie. After training for some time, I was finally assigned to a Royal Flying Corps Home Defense Squadron on the East coast of England, flying at night looking for Zepps. that never came.

At present I am patrolling the border at Douglas, Arizona, looking for Spics and hoping for a little action. With best wishes to all, I am

Yours truly,

R. M. GREENSLADE,

1st Lieutenant, U.S.A.

It's a mighty good thing that a few Islands were scattered around England long long ago. Glad to hear that Brother Greenslade is flying in the United States where he isn't so liable to be speeding over the briny deep every now and then.

Shotten Hall,
Castle Eden,
Co. Durham,
England,
29, 3, 1920.

Dear Budde:

I am sorry that your letters didn't reach me in time for an earlier reply, I am afraid this will be too late for this year's Gear.

Afraid I haven't much in the way of experiences to relate.

After leaving California in the fall of 1912, I came across to London to put in a year at the University of London, getting an advanced diploma in Civil Engineering; on the completion of this I took a position as resident engineer on various construction jobs in the south of England and on the outbreak of war got a commission right away in the Royal Engineers. I was in training in England till June, 1915, when my Division embarked for Gallipoli and made the Suola Bay Landing in August. I was present there till the evacuation, being made Adjutant in September; by the time the evacuation took place there were only two of us left out of the twentyone Royal Engineer Officers who had landed. We were then sent down to Egypt and spent four months fortifying the Suez Canal and were then pushed on to France, arriving just in time for the Somme Offensive of 1916.

We spent the remainder of the time wandering up and down the line between the Somme and Flanders, being in all the big battles up to the end, including Arras in early 1917: Messine Ridge: Ypres Fall of '17; when the Boche offensive in the spring of '18 came off we were in the Belleau Section and luckily didn't get the full brunt of it, but got the full benefit of the preliminary bombardments and gas which they put over

to deceive the powers that be as to the real point of attack.

On the opening of the counter offensive, we pushed in in front of Arras, helped to take Cambrai and passed close to Valenciennes and were following hard across the Mons Manbeuge Road when the Armistice was signed and stopped the advance. Had some very interesting work, bridge building and so on on the advance and were about played out by the time the end came.

Commanded a Field Company of Royal Engineers from December '17 as Major and later got promotion and was appointed C.R.E. of my Division, which I held until the Division was disbanded.

Since I was demobilized I have joined the Newcastle Ship Building Company and am at present in charge of Construction of a new yard to build ten ships up to 12000 tons.

Yours in H. & T.,

G. A. BUDDLE,
Lieutenant Colonel,
Royal Engineers.

19 Council Road, Tientsin, China.

March 25th, 1920.

Dear Brother Editor:

You are asking for something to put in *The Gear*. War experience? Well, I am sorry to say I have had none. After my graduation in 1918 I went to China, where I came from in 1916 to rejoin the Chinese Maritime Customs as River Inspector for the Upper Yangtsekiang River between Ichang and Chungking, respectively 1100 and 1500 miles from the sea coast. It is the wildest of the wild China. What was I doing there? Just trying to supervise the shipping through all the rapids and gorges and make some decent surveys of some of the harbors and difficult passages along the river.

I left the United States on the 12th of June and arrived at Shanghai on the 6th of July, where I received instructions to proceed at once to Chungking. Civil war was raging in China at the time and the major operations were just going on full blast sixty to eighty miles upstream from Ichang. I expected interesting and exciting times, but was somewhat disappointed. The river, however, proved far more exciting and interesting than the Chinese soldier bandits who mostly amused themselves with killing innocent women and children. The fighting itself had come to a stand still just when I arrived and sniping was the only real danger. As I always flew the neutral flag of the Chinese Maritime Customs from my house boat I had only occasionally trouble in getting through the lines. I had been careful enough to secure passes from both the Southern and the Northern commanders, and it was only when I was stopped by some fool of a Chinese lieutenant that could not read his own language that I had to use forceful language in order to get by. It was certainly a joke. Of

course, I was often shot at "by mistake," but everything went O. K. as long as I was up there.

Yangtsekiang, between Chungking and Ichang, is a series of rapids and gorges, ferocious whirlpools and dangerous rocks. Hundreds of thousands of dollars' worth of goods are lost every year between these two towns. An old man is never seen, as the river claims the lives sooner or later. Small, specially built, powerful steamers trade between Ichang and Chungking in the summer time when the river stage is high. The general fluctuation every year between high and low water is more than 100 feet, and it may rise fifty feet in twenty-four hours. During such periods no craft can move. The discharge during such freshets is more than 1,000,000 c. f. s. Just fancy the lower Mississippi rising fifty feet in twenty-four hours! It is awe inspiring to stand high up on a cliff and see this yellow, swirling water rushing through the notorious Kuei Fu gorge with its 600 feet high perpendicular sides. I shall never forget this sight as long as I live. During the winter this gorge is as calm and quiet as a mill pond. The Hsin Lung Tan or New Dragon rapid is another notorious stretch. This rapid, formed forty years ago by a landslide, is a low water rapid and can be passed only at great risk. Hundreds of lives are lost here every year. I have for fun gone down it twice in native boats. But I won't do it again. Walk down for me next time. Whenever that will be I cannot tell, for at present I am at Tientsin in North China working for the Chinese government in the Chih Li Province River Improvement Commission, a job I was offered while in Chungking in the beginning of 1911. Needless to say I jumped at the offer. Rather fight floods in some sort of civilized place than have to choose between snipers' bullets and being ground to pieces on sharp limestone rocks by dirty yellow whirling water.

It is interesting work here in the flat plain of the

Chih Li Province. Some contrast to the Upper Yangstekiang, where the hills towered up 2000 to 3000 feet only a mile away. Half the country gets flooded every other year here. It makes fine skating during the winter; but they say the Chinks don't like it. And I do not blame them for seeking a little foreign advice in this matter. They have so far been wrestling with the flood problems for more than 4000 years or perhaps much longer and have not been very successful at it either, so it is only fair that other people should get a chance to try their hands at this game, even if they are foreign devils. John R. Freemann was over here the other day in connection with the Grand Canal. He had a great time. Amongst other things he tried to drown himself in the Yellow River, that is, he had an accident. He is a very interesting man and he certainly made the most of his short stay here in China. I could write you tons of stuff from this old great country, but I am afraid I shall bore you with technical details.

Chin-Chins to all brothers,

Yours, H. & T.,

SIG. ELIASSEN,

Alpha Chapter, Minnesota, 1918

A WORD FROM THE EDITOR

It's been a long time since I have had a chance to blow my little whistle which helped to win the war. You see I was stationed at Aberdeen Proving Ground, Md., for over fifteen months, and what I didn't test myself I usually got a chance to see tested in the way of ordnance. As you know Aberdeen was the clearing house for all tested material. This included everything that the army used with the exception of small arms ammunition and small arms.

After a five weeks' course in the Proof Officers Training School, I was turned loose on shell acceptance tests. Started out on the 75 M. M. gun ammunition and as the larger caliber tests began to come in and mounts were turned over for our use I left the smaller to develop the larger tests.

Most of my time was spent in the development of the 6-inch Sea Coast wheel mount and the 8-inch S. C. Ry. Mount shell tests. Never before have any satisfactory tests been made on the larger caliber shell. Through a specially designed plaquette which was used on this shell it was possible to make a 95-100 per cent recovery. Many things that were never dreamed of were found to exist in the firing of this type of shell.

One of the most pronounced changes that was instituted was the modification of the copper rotating band upon recommendations from the acceptance section's findings. This one change alone increased the range and decreased the large area of dispersion without materially changing the propellant or other conditions.

Before I was released I had made firing tests on every caliber of gun used from the 37 M. M. up to the 14-inch Ry. Mount. I fired the first test on the 8-inch Howitzer Tractor Mount—made more firings on the 8-inch Ry. Mount than any one else in the country.

Enjoyed the work immensely, but found the development program tests even more interesting.

Two things stand out as I look back over the things that happened at the Proving Ground. The first is the burning and blowing up of the entire trench warfare range one noon while we were at mess. Will only say that the major hole left after the biggest detonation will serve to tell the effect (90-100 feet on diameter and 35 feet deep). The second sensation was during the burning and blowing up of some fifty-five car loads of German ammunition of all kinds sent for tests. All I can say is—that those times can't be described—you can only feel the thrill if you are as close as a few of us were foolish enough to venture—to see the spectacular effect of its complete destruction.

Alpha '17 Eng.—Ernest T. Bros is engineer of tests for the United States army and is in the inspection section of the ordnance department. He has been stationed in New York, Cleveland, Pittsburgh, Detroit and is now in the district office at Minneapolis, located at the Minneapolis Steel & Machinery Company plant. Mr. Bros was put into this line of work on account of his special knowledge of metallurgy and the great need for men trained in this line. In a letter, he says that the government still needs more men with this special training. Mr. Bros entered the Officers' Training Camp at Fort Snelling in 1917, was transferred to Fort Monroe, Va., in the heavy artillery and later transferred to the ordnance department.

Alpha '17 Mines—Ensign Leo W. Capser was in Salonika when America entered the war. He went to France, shortly after obtained his commission in the navy, and was stationed at Bordeaux. Early in 1919 he was sent as Food Commissioner to Servia. What William T. Ellis, of the New York Herald, says of him inci-

dentally, among others, quoted here from a recent reprint, is almost as satisfyingly decorative as a Croix de Guerre: "On the Agean Sea, April 5.— * * * An American feels justifiable pride in the men who wear the uniform of his country. They are fit for the task. I have seen them in action and their efficiency is the prophecy of the near day when the United States as a mandatory of the league of nations, will have assumed a large share of the white man's burden amid the peoples of the Near East. Such men as * * * and Ensign Casper of the navy are of the breed that make a nation both noble and great."

Alpha '15 Eng.—Roy A. Dunham is still working on submarine control apparatus for United States submarines, even though it now looks as if the submarine and kindred apparatus would not be used quite so much in the future. He says, "The G. E. Company has been handling a great deal of war work and with the coming of peace and the cancellation of orders, the first indications of possible labor trouble became apparent today in the form of a strike of a few hundred of the men."

Alpha '09 Eng.—George M. Shepard was discharged from the service on January 10, 1919, and is now with L. P. Wolff, consulting engineer of St. Paul, with offices in the Guardian Life Building. For a part of his time in the army, Mr. Shepard was captain in the 3rd U. S. Engineers at Honolulu, Hawaii. In September, 1918, he was ordered to the United States and at the signing of the armistice he was commanding a battalion of the 606th engineers at Camp Humphreys, Va.

Alpha Ex. '18 Mines—Dan C. Sullivan, who has been in service overseas, has returned to his home, 618 West Myrtle St., Stillwater, Minnesota.

(Minnesota Alumni Weekly)

Alpha '17 Mines—Captain Carleton Wallace of the Marine Corps, has recently been promoted to that rank. Captain Wallace, who is the son of Carl Wallace, Law '97, has been twice wounded and is now in a hospital. It is feared that he will be permanently lame as a result of his last wound. He is with the 79th company of the 6th regiment of Marines.

Carleton Spicer Wallace, captain of last year's Minnesota track team, was slightly wounded April 29. Wallace went to France in January. He was one of four 1918 seniors selected to receive a marine corps commission and is a son of Senator Carl L. Wallace. Alpha '17.

Carleton S. Wallace was wounded in action a second time July 19. Lieutenant Wallace was first wounded April 29. He was sent to France last January. He received his commission as second lieutenant in May, 1917, and three months later was made first lieutenant. While at the university he was captain of the track team and was prominent in various lines of university activities.

A recent letter from Walter H. Newton, Law '05, reads: "The other day I made arrangements to meet Major General Barnett, commandant of the U. S. Marine Corps. In talking with him I mentioned the fact that the City of Minneapolis and the University of Minnesota had given a goodly number of fine young men to the Marine Corps. He heartily agreed with me, mentioning in particular Captain Carleton Wallace as being a high type of Minnesota man and an excellent young officer.

'06 Mines—Walter H. Wheeler, of Chas. H. Wheeler & Son, of this city, is a member of this corporation described below: "A new organization, the International Concrete Ship Association, composed of engineers and business men from all parts of the country, has recently

been founded with a view to developing a practical working plan for building concrete ships to be utilized in aiding the overseas transportation problem. With ample capital, recognized engineering skill, and labor and shipway facilities at their disposal, the association proposes the building of 500 large reinforced concrete river, lake and canal craft, 60 per cent of the tonnage of which it proposes to offer to the government at government rates. The capital of the component corporations and individuals is said to run into billions of dollars and their plants spread over the entire country."—From Marine Engineering.

(Minnesota Alumni Weekly)

Torrey H. Webb, Lieutenant Aviation Section, Sig. R. C., has been carrying the mail by aeroplane between New York and Washington. He made a very successful flight to Boston on Thursday, June 6, but met with a slight accident in alighting. He made the trip in three hours, eighteen minutes, lapsed time between points, but had to alight once on account of fog and rain to get his bearings.

(American Institute of Mining Engineers)

Gamma Beta, '17—Lieutenant Howard Birkett completed a trip from Houston, Texas, to Washington, by way of Dayton, Ohio, in a De Haviland "Bluebird" on May 23rd, and then flew on to New York City. The flying time for the distance between Houston and Washington, 1505 miles, was 15 hours and 1 minute. Brother Birkett had previously flown from coast to coast.

THE SOLDIER

Since no man knows where we will be
A year from now, as time drifts by;
Since no man knows that he will see
Another old year fade and die—
We'll take each day just as it comes
Still shrouded in the mists of Fate,
And move on with the calling drums
Without a thought of what may wait.

Of course each knows, deep in his soul,
That all who leave will not come back—
That some must pay the closing toll
And "go West" on the twilight track;
That Fate has marked, from pawn to king,
The name of each who has been drawn.
To look upon his final spring
When April's sky rides out from dawn.
But what of that, where, down the road,
Each has the chance to prove, at par,
The steel-shod manhood of his soul
Against whatever odds there are;
The chance to suffer—and to grow—
That some day, when the flags are furled,
The children of today may know
A finer and a better world.

And so—here's to the mists that wait;
To what they blur from eager eyes—
A sprig of laurel tossed from Fate—
A cross beneath midsummer skies;
Here's to the chance to prove that men
Still set their dreams beyond the grave;
Here's to the chance to prove again
The Flag still waves above the brave!

—Lieut. Grantland Rice, Phi Delta Theta.

THETA TAU IN ARMY AND NAVY SERVICE

Citations and Awards

- Aldrich, Harry S., 2nd Lieut.—Croix de Guerre.
Ambler, Harry A., Captain—C. O. No. 1, G. H. Q.,
A. E. F. Citation.
Bond, Lewis A., 1st Lieut.—Citation Par. 1 S. O., 260
H. Q. 4th Div. Oct. 9, 1919.
Buddle, Geoffrey, A., Lieut. Col.—Distinguished Service
Order, Military Order, Serbian White Eagle and
twice mentioned in dispatches.
Churchill, Harry D., Captain—Belgium War Cross.
Coats, Charles M., Private—Regiment Decoration.
Cobbledick, Stanley E., 1st Lieut.—G. H. Q. Citation.
Goetzenberger, Ralph L., Major—French Legion of
Honor.
Helmick, Dan S., Captain—Distinguished Service Cross,
Croix de Guerre, two 1st Div. Citations.
Hostetler, Curtis B., 1st Lieut.—Mentioned in S. O.
August, 1918.
Howry, Hamilton H., Captain—Citation in G. O. No. 31
H. Q. 77th Div., April 16, 1919.
James, Darl S., Captain—Distinguished Service Cross.
Knox, Charles R., 1st Lieut.—Personal Citation, Official
confirmation one German Plane.
Lane, Travis P.—Croix de Guerre
Lorain, Sinclair H., Captain—Croix de Guerre.
Loveland, Ralph A., Major—Croix de Guerre.
Miller, Harry W., Lieut. Col.—French Legion of Honor,
Citation from General Pershing.
Newell, Fenn B., Sergeant—Croix de Guerre, Citation
dated Oct. 8, 1918.
Pancoast, Donald F., 1st Lieut.—Belgium War Cross.
Park, John, Lieut. Aviation—Military War Cross of Italy.
Richmand Kenneth C., Lieut. Jr. Gr., Navy—Recom-
mended for Distinguished Service Cross.
Snedaker, Eugene G., Captain—Distinguished Service
Cross, Croix de Guerre with Gold Star.
Walker, Harlan A., Wagoner—Two Battalion Citations.
Wallace, Carleton S., Captain—Croix de Guerre.
Wood, Luther E., Captain—Belgium War Cross.
Wright, Whitney B., 1st Sergeant—American Field
Service Medal, Letter of Felicitations from French
Army.
Young, Vertrees, 1st Lieut.—G. H. Q. Citation—Meritor-
ious Service.

Wounded, Gassed and Injured

- Kenneth Aid—Argonne Offensive. Nov. 7, 1918.
Harry S. Aldrich—Thieucourt. Sept. 12, 1918.
Harry Ambler—Argonne Offensive. Oct. 9, 1918.
Charles M. Coates—Argonne Offensive. Oct. 12, 1918.
Robert E. Ferguson—Meuse-Argonne Offensive. Sept. 29, 1918.
Dan S. Helmick—Argonne Offensive. Oct. 9, 1918.
Darl S. James.
Travis P. Lane—Gassed.
J. Sidney Marine—Luxeuil. Sept. 1, 1918.
Harry W. Miller—Gassed (twice).
Fenn B. Newell—Oct. 8, 1918.
Harlan A. Walker—Gassed at St. Benoit, France. Oct. 1, 1918.
Carleton S. Wallace—Chateau-Thierry, April 29, 1918; Soissons, July 19, 1918.
Stanley H. Zimmerman—Bois de Sheppy-Argonne. Oct. 19, 1918.

Military Record

- Abbey, Nelson D.—2nd Lieut., Co. C, 107th Engineers, 32nd Div.
Abbott, Norris G., Jr.—2nd Lieut., Coast Artillery Corps.
Abbott, Theodore S.—1st Lieut., Co. B, 509th Engineers.
A. E. F.
Abrahamson, C. Walter—S. A. T. C., Houghton, Mich.
Ackers, Deane E., Captain—A. E. F.
Adair, Samuel E., Jr.—1st Lieut., Field Artillery, 346th F. A.
Adams, Bernard W.—Sgt. Engineers, 28th Regiment, A. E. F., 14 months.
Africa, Walter M.—Toluol Unit, U. S. Ord. Dept., with Koppers Co.
Aid, Harry—Cadet, Air Service.
Aid, Kenneth—Sergeant, 312 M. G. Bn., 79 Div. Argonne Offensive, wounded Nov. 7, 1918, A. E. F.
Akers, Kenneth F.—Private, S. A. T. C., Mass. Inst. of Tech.
Alderson, George E.—Lieut., Engineers.
Aldrich, Harry S.—2nd Lieut., 1st Aero Squadron, Pilot and Flight Commander 1st aero squadron at Chateau Thierry and St. Mihiel. Shot down in plane at Thiaucourt Sept. 12, 1918. Croix de Guerre.

- Alexander, Edward P.—1st Lieut., Engineers, A. E. F.
Died in France.
- Alt, Glenn L.—Instructor Univ. of Mich. during S. A.
T. C.
- Ambler, Harry A.—Capt. 30th Inf., A. E. F. Wounded
in Argonne offensive Oct. 9, 1918. C. O. No. 1,
G. H. Q., A. E. F., Citations. Ward 26-A, Ft.
Sheridan Hospital, Ill.
- Andersen, Edward I.—Emergency Fleet Corp., progress
and inspection work on Destroyers at the Fore
River Ship Building Corp., Quincy, Mass.
- Anderson, Charles M.—2nd Lieut., Coast Artillery R. C.
- Anderson, George A.—Captain, Engineers, 28th Regi-
ment. In St. Mihiel and Meuse-Argonne Offensive,
Sept. 12 to Nov. 11, 1918.
- Anderson, Lawrence A.—2nd Lieut., Engineers, Casual,
C. O. Casual Company, Engr. Sup. and Pur. Officer,
Engr. in Charge of Const., Asst. Adjt., Sec. Engrs.
B. S. No. 2.
- Anderson, Robert J.—Metallurgical Engineer, U. S.
Bureau of Mines, Pittsburgh, Pa.
- Apell, Gideon A.—17th Coast Artillery Corps.
- Arms, Charles S.—Capt., Ordnance Dept. Chief Asst.
in design, equipment and operation of \$6,000,000
gun plant at Watertown Arsenal, Watertown, Mass.
- Arnold, Lewis E.—Private, Eng. Reserve Corps.
- Ashlock, Evan E.—Sgt., Depot Brigade, 164th Regiment.
- Askew, Thomas A., Jr.—Private, 33rd Engineers Regi-
ment. 14 months in S. O. S., last 4 months in Univ.
of Paris.
- Atwood, Charles R.—Corporal, 331st Inf., Co. 1, A. E. F.
- Badger, Allen C.—Student officer, Artillery. U. S. Army
Ordnance Dept., Tech. Staff. Chief Inspector, French
Commission, Hildreth & Co., New York.
- Bailey, Thomas L.—Asst. Instructor, S. A. T. C., Univ.
of the South.
- Baird, Lyman S.—Capt., Air Service, A. E. F., one year.
- Baldwin, Howard L.—Private, S. A. T. C., Presidio of
San Francisco, Cal.
- Barden, R. E.—Sgt. Motor Transportation Corps., 308
Regiment Co. A, A. E. F., thirteen months.
- Barkis, Henry B. Jr.—27th Engineers, Camp Meade, Md.
- Barnes, Charles D.—Private, S. A. T. C., Presidio of
San Francisco, Calif.
- Barney, Frederick W.—Ensign, Navy.
- Barrett, George N.—S. A. T. C., Cleveland, Ohio.

- Barrett, Theodore H.—1st Lieut., Engineers, 28th Regiment. Quarry Work, A. E. F.
- Bartell, Albert R.—1st Lieut., 168th Inf., Twentyone months A. E. F. (A. C. S., A. E. F.), 42nd Div.
- Bayless, George E. S.—U. S. Navy., Supply Dept., U. S. Submarine Base.
- Beach, George A.—1st Lieut., Aviation, Killed in collision in the air, Foggia, Italy. Jan. 20, 1918.
- Beck, W. A.—Sergeant, 107th Engineers, A. E. F.
- Behr, Ernest E.—Chairman Rice Distribution Comm. of Food Administration for Calif.
- Beinhorn, Paul—H. Q. Co., 151st Field Artillery, 42nd Div., A. E. F.
- Bell, Arnold A.—1st Lieut., Coast Artillery, 72nd C. A. C.
- Bemis, Edwin L.—2nd Lieut., 29th Engineers, Eighteen months in France and Germany.
- Benbow, Jules C.—Navy.
- Benson, William T.—2nd Lieut., Air Service.
- Bernt, Hans E.—Private, Eng. Reserve.
- Bever, Howard L.—S. A. T. C., Cleveland, Ohio.
- Beyer, Daniel C.—Lieut., Jr. Gd., U. S. Naval Reserve.
- Binder, George P.—Private, S. A. T. C., Cleveland, Ohio.
- Birkett, Howard—Lieut., Aviation Section, U. S. Signal Corps, Ellington Field, Texas.
- Bjork, C.—5th Engineers, A. E. F.
- Bjork, Dewey—S. A. T. C., Houghton, Mich.
- Blackmar, Don C.—Non-ferrous metallurgist in charge of inspection of non-ferrous metals for aircraft, Detroit District, Bureau of Aircraft Production.
- Blake, A. Harold—2nd Lieut., 76th Infantry.
- Boman, Arthur L.—2nd Lieut., C. A. C., 70th Reg., A. E. F., seven months (8" Howitzers).
- Bond, Lewis A.—1st Lieut., 13th Field Artillery, A. E. F., May 1918—July 1919, A. of O. Dec. 1918—May 1919. Citation Par. 1-S. O., 260 Hdqrs. 4th Div., Oct. 9, 1919.
- Bonne, James T.—Wagoner, Chemical Warfare Service, 1st Gas Reg., A. E. F., July 1918—Jan. 1919.
- Bowles, Martin F.—1st Lieut., 355th Infantry, 89th Div., A. E. F. Killed in combat with the enemy while in command of reconnoitering party on the night of Sept. 3, 1918. Buried near Madres, France.
- Bown, Wm. F.—S. A. T. C. Infantry. Lawrence, Kas.
- Bradt, Maurice L.—Ensign, Navy.
- Brazil, Matthew P.—1st Lieut. Engineers, 76th Regiment.

- Bretherton, Sidney E. Jr.—Poing munition works in India, belonged to Co. L., Upper Burma Rifles.
- Breton, E. J.—S. A. T. C., Houghton, Mich.
- Brett, Henry A.—Department of the Interior.
- Brister, Charles M. Jr.—Capt., Coast Artillery, 38th Regiment, A. E. F., Garrison and special guard duty.
- Brodie, James S.—1st Lieut., Engineers, 475th Regiment.
- Bros, Ernest T.—Engineer of Tests, Ordnance Dept., Inspection Section.
- Bros, Raymond J.—U. S. N. R. F.
- Brown, Landon N.—Sergeant, 107th Engineers, A. E. F.
- Brown, Nathan W.—Capt., Inf. Replacement Troops.
- Brown, Percy D.—Capt. Transportation Corps. Headquarters Staff, A. E. F., 22 months.
- Brunel, Louis J.—1st Lieut., Engineers, 7th Regiment, U. S. Regular Engineers, A. E. F. 13 months, Aide de Camp to Brig. Gen. W. C. Rivers.
- Brussolo, Vito A.—Corporal, Engineers, S. A. T. C., Univ. of Calif.
- Buck, Luther J.—Lieut., Anti-Aircraft Battery, Paris, France.
- Buckhannan, Joseph P.—2nd Lieut., Field Artillery, 121st 18 Regiment, F. A., A. E. F. 16 months and asst. Post Officer at St. Nazaire, France.
- Budde, Otto C.—2nd Lieut. Ordnance Dept. Engineering Dept. of The Gun Div., Washington, D. C., 8 months, Asst. Proof Officer in charge of Shell Acceptance Tests, and Development Programs, 15 months at Aberdeen Proving Ground, Md.
- Buddle, Geoffrey A.—Lieut. Col., Royal Engineers, British Expeditionary Force in France, Mediterranean Exp. Force in Egypt and Gallipoli. Distinguished Service Order, Military Order, Serbian White Eagle, and twice mentioned in dispatches.
- Buehler, Henry A.—U. S. Bureau of Mines.
- Buell, Edward J.—1st Lieut., Co. E, 1st Engineers, 1st Div., A. E. F.
- Bunn, John W.—S. A. T. C., Navy. Lawrence, Kansas.
- Burg, Robert S.—2nd Lieut., Field Artillery, A. E. F.
- Burns, Jay J.—Co. 1, B. E. R. O. T. C.
- Bush, Kenneth B.—2nd Lieut., Co. G, 4th Infantry.
- Butler, John S.—Capt., Ordnance Dept. Engineering Div., Machine Gun Section, two years service.
- Buxton, Paul H.—2nd Lieut., Aircraft Armament, H. Q. Air Service, A. E. F.

- Caine, Frederick E.—American Ship Building Co., Cleveland, Ohio. Electrical work on Merchant Marine Boats for U. S.
- Calene, Edwin L.—Private, Infantry, S. A. T. C., Lawrence, Kansas.
- Calhoun, Robert—Officers Training Corps.
- Camp, Orton P.—Sergeant, Signal Corps. Meteorological Section.
- Campbell, Henry W.—S. A. T. C., Cleveland, Ohio.
- Campion, Henry H.—Lieut. Jr. Gd., U. S. Navy. Instructor in U. S. Naval School of Turbine Engineering at Carnegie Institute, Nov. 1918—Dec. 1919.
- Campredon, Philip A.—S. A. M., Austin Texas.
- Casper, Leo W.—Ensign, U. S. Navy, Bordeaux, France. Was sent to Servia as Food Commissioner in 1919.
- Carlson, Arthur E.—2nd Lieut., Engineers, 107th Engineers, A. E. F.
- Carlson, Everett A.—S. A. T. C., Cleveland, Ohio.
- Carroll, William F.—1st Lieut., Air Service, Military Intelligence Div. Designing high altitude apparatus, Ruggles Orientator. In service since Aug. 1918, still in Service.
- Casey, Bart F.—2nd Lieut., Coast Artillery Corps.
- Chapman, Harry H.—U. S. N. R. F.
- Chapman, Wendell P.—2nd Lieut., Air Service.
- Chesney, Gray L.—Private, Engrs. Reserve, S. A. T. C.
- Christensen, Laurence A.—Engr. Target Ranges, Camp Kearny.
- Churchill, Harry D.—Captain, Co. B, 112th Engineers, 37th Div., A. E. F. Belgium War Cross.
- Clark, Clifton W.—Cadet, Aviation, Mass. Inst. of Tech.
- Clark, Myron H.—2nd Lieut., Air Service.
- Clendenin, Thomas P.—Captain, Field Artillery, Fort Sill, Okla.
- Coats, Charles M.—Private, H. Q. Co., 353 Inf. 89 Div., Argonne Offensive, wounded Oct. 12, 1918. One of the few regiments to be decorated.
- Cobbedick, Stanley E.—1st Lieut., Trans. Corps., Co. B, 54th Engineers Railway Transportation Officer, Paris. A. E. F., G. H. Q. Citation.
- Coe, Harold E.—Army.
- Coffey, George W.—2nd Lieut., Engineers, 27th Engineers, Camp Meade, Md.
- Coldwell, John S.—Gy. Sgt., U. S. M. C. R., Aviation. In training at Marine Aviation Ground School at M. I. T.

- Cole, Elwood B.—C. G. M. (A)., Naval Aviation, Flight 27 M. I. T., Great Lakes, M. I. T. Cambridge, Mass. Key West, Florida.
- Coles, Harrison L.—2nd Lieut., Coast Artillery Corps. Hdqts.
- Coller, Walter A.—Supervisor of tests, Cleveland Ordnance Office.
- Collins, Donald B.—Sergeant, Engineers & T. C., 167th Co., N. Russia T. C. A. E. F. Engrs. & Trans. Corps, France, England, N. Russia.
- Colquhoun, W. W.—Captain, Highland Light Infantry. Killed in action—Battle of Loos, Sept. 25, 1915.
- Colvin, James A.—Capt., Tank Corps., 302 Battalion Hdqrs. Co. Tank Corps., A. E. F., 7 months.
- Cooley, Samuel J.—Private, Meteorological Service, Signal Corps., A. E. F.
- Coughlin, Daniel E.—Ensign, Navy, A. E. F.
- Countryman, Ralph—Q. M. C., Casual Detachment, Presidio of San Francisco, Calif.
- Craig, Stewart D.—2nd Lieut., 1st Regiment Marines.
- Craun, John M.—Private, Motor Transport, 381st Co., Camp Sherman.
- Crawford, Hugh W.—Capt., Engineers, 110 Regiment. At Ft. Riley during construction of Camp Funston. Trans. to Doniphan, Oct. 1917 here until March '18. Enlisted in U. S. Naval Reserve March, 1918. Was sent to Officers Material School at Pelham Bay, Comm. Ensign Oct. 1918., Made one trip on U. S. S., Absaroka.
- Cristal, Philip N.—Captain, 309th Engineers.
- Crocker, Bertram E.—Private, Field Artillery, Battery D., 143rd F. A.
- Crook, Theodore H.—Private, Engineers, S. A. T. C.
- Cunningham, Lorain H.—1st Lieut., Field Artillery (75's) 129th Regiment F. A., A. E. F. May 1918—May 1919.
- Cunningham, Samuel, D.—Lieut., Air Service.
- Curtis, Brian C.—1st Lieut., Field Artillery, A. E. F.
- Curtis, Horton K.—S. A. T. C., Cleveland, Ohio.
- Curtis, Thomas H.—2nd Lieut., Air Service, Kelley Field, Texas, Concentration Brigade.
- Cutler, Fred A. Jr.—Sergeant, Q. M. C., Co. C.
- Cutter, Paul F.—2nd Lieut., Coast Artillery Corps., Co. H., Engineer of Tests, Ordnance Dept.

- David, Carl E.—1st Lieut., Engineers, 27th, 103rd and 318th Regiments Engrs. A. E. F. July 1918, July 1919.
- David, Joseph—1st Lieut., Engineers, 29th and 74th Regiment, Engineers. A. E. F., June, 1918, June, 1919.
- Davidson, Hobart O.—Private, S. A. T. C., Mass. Inst. of Tech.
- Davidson, Kenneth S. M.—2nd Lieut., Air Service, A. E. F., Bombing Pilot.
- Davidson, Lewis E.—Cadet, U. S. N. R. F.
- Davies, Fred A.—Sergeant, C. W. S., A. E. F., Research Laboratory, Paris.
- Davis, Elmer F.—Investigation of Mineral Resources of Calif. under Prof. G. D. Louderback, Chairman of Committee on Geology and Mineral Resources, State Council of Defense.
- Davis, John C.—Sergeant 1st Cl., 258th Aero Squadron, Air Service, A. E. F.
- Davis, John W.—1st Lieut., Aviation Section, Signal Officers Reserve Corps., School of Military Aeronautics.
- Davis, Lawrence—1st Lieut., Engineering Div. Ordnance Dept., Machine Guns., A. E. F.
- Davis, Rees W.—Private, Engineers, Instructor in Radio at the Univ. of Utah.
- Davis, Thornton—1st Lieut., 13th Field Artillery, A. E. F., Army of Occupation, Coblenz, Germany.
- Dawson, Loren W.—U. S. Army.
- Dean, Kemerton—2nd Lieut., Air Service.
- DeLaittre, Horace H.—1st Lieut., Infantry, 104th Inf., A. E. F., Continual service with the 26th or Y. D.
- Denbo, John M.—Lieut., Co. D 23rd Engineers, Laurel, Md.
- Denison, Horace W.—Ensign, Navy.
- Dennis, Richard C.—Lieut., U. S. Army.
- Derby, Sylvester R.—Lieut., Jr. Gr., U. S. N. R. F., USS Massachusetts, Commanding Officer, USSC 138, 255, 323, C. D. 94 Wm. F. Green.
- D' Evelyn, Wright E.—2nd Lieut., Engineers, 211th Regiment, A. E. F. with 1st Engrs. from March to May 1918.
- DeVey, Charles H.—Lieut., Engineers.
- Diehl, Clifford K.—Seaman 2nd Cl., U. S. N. R. F.
- Diehl, Paul A.—1st Lieut., 18th Field Artillery, A. E. F.
- Diemer, Alan J.—S. A. T. C., Cleveland, Ohio.
- Dobson, Delos I.—Corporal, 310th Engineers, A. E. F.

- Dopp, James L.—Lieut., 313th Engineers.
Dorr, William R.—1st Musician, U. S. Naval Reserve Force. (Too Light for the Engineers.)
Doten, Everett F.—2nd Lieut., Engineers.
Douglas, James M.—Aviation.
Dowd, James J.—2nd Lieut., 33rd Regiment, Artillery, Orientation Officer of 2nd Bn.
Drake, Morris C.—2nd Lieut., 317th Infantry, Instructor in 3" Trench Mortar platoon, Hdqrs. Co., A. E. F.
Drew, Charles W. Jr.—American Vice Consul, Antwerp, Belgium.
Drier, Roy W.—S. A. T. C., Houghton, Mich.
Driscoll, Gerald A.—Flight Sergeant, Air Service, 111 Aero Squadron.
Dugan, W. K.—Private, M. E. R. C., U. S. Army, Base Hospital No. 4 Lakeside Unit, A. E. F.
Duggleby, Alfred F.—Lieut., Engineers, A. E. F.
Dunham, Roy O.—Working on main motor control equipment for U. S. Submarines during the war and still working on the same kind of apparatus.
DuToit, George A., Jr.—Purchasing Agent, Ordnance Dept., Minneapolis Steel and Machinery Co., Minneapolis, Minn.
Dyer, Allison C.—2nd Lieut., 28th Engineers, A. E. F.
Eagles, Homer M.—Apprentice Seaman, U. S. N. R. F.
Earling, Roy B.—Capt., Field Artillery, Reserve Corps.
Eastman, William, Jr.—Instructor, Aviation Ground School at M. I. T. Was appointed Instructor in U. S. School of Military Aeronautics. Joined the M. I. T. Engineers Corps 1915. Member of Committee to plan Tech. Club in Paris. This later became part of American Univ. in Europe. Killed Nov. 8, 1917, Cambridge, Mass. Airplane propellor accident.
Ek, G. Albiun—Ordnance Dept., Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Ek, Walter S.—U. S. Navy.
Elfstrum, Axel E.—2nd Lieut., Engineers, 115th Regiment, A. E. F., 9 months.
Elliott, Harry C.—Private, S. A. T. C.
Embury, Philip A.—Cadet, Aviation, Air Service, A. E. F.
Endress, A. L.—S. A. T. C.—Houghton, Mich.
Engles, J. L.—Sergeant, 106th and 529 Engineers, A. E. F.
Enke, Fred A.—U. S. Army.
Etter, Harold P.—Private, C. A. School Corps.

- Fairweather, J. M.—Private, 5th Marines, A. E. F.
Fales, Herbert G.—Ensign, Naval Aviation, U. S. N. R. F.
Farnum, Julien P.—Lieut., Engineers, A. E. F.
Farnlacher, Walter G.—1st Lieut., Infantry, 363rd Regiment. Killed in Service.
Fast, John C.—1st Lieut., Field Artillery, 342nd Regiment. Euvezin Sector, Army of Occupation.
Faubel, Cedric P.—S. A. T. C., Cleveland, Ohio.
Feely, John C., Jr.—Army.
Ferguson, Robert E.—Corporal, 137th Infantry, A. E. F. Wounded. Distinguished Service Cross, Croix de Querre. Meuse-Argonne Offensive, Sept. 29th, 1918.
Fernau, W.—Sergeant, Med. Dept.
Ferris, Albert L.—1st Lieut., Engineers, 212th Regiment.
Fick, Otto W.—Designed and built shell filling machines for the Government. These machines made by the Liquid Carbonic Co., were installed at Edgewood Arsenal, Md.
Fiske, Charles P.—1st Lieut., Ordnance, Engineering Div. of the Ammunition Section.
Fiske, David L.—2nd Lieut., Coast Artillery.
Fleming, William H.—Supervised the manufacture of Gas Masks and parts for aeroplanes at the Good-year Tire & Rubber Co.
Fletcher, Claude C.—1st Lieut., 354 Infantry.
Fletcher, Ralph—Mfg. of Coke and its by-products, Tar, Ammonia, Benzol and Toluol.
Foard, Merlin W.—1st Lieut., Engineers, Casual. School of Military Mining, Camp A. A. Humphries, Va., A. T. S., A. P. O., 701 France.
Foley, Lyndon L.—Private, F. A. C. O. T. S. Camp Taylor.
Forbes, Henry H.—C. Q. M., U. S. N. R. F., Aviation.
Foster, Frank W.—2nd Lieut., Air Service (Radio).
Foster, William C.—2nd Lieut., Air Service. Instructor, Flying, Aerial Gunnery and Combat Work at Selfridge Field, Mich.
Foulke, Ronald E.—2nd Lieut., Coast Artillery. Instructor, C. A. School.
Fox, Milo P.—Lieut. Col., U. S. Regular Engineers, A. E. F.
Fox, Paul S.—Seaman 2nd Cl., S. A. T. C., Navy, Lawrence, Kansas.
Frank, Harry O.—Sergeant, Engineers, 55th Regiment, A. E. F., 1 year.

- Franklin, Howard W.—M. M. 1st Cl., U. S. N. (A).
Fraser, Sydney E.—2nd Lieut., Engineers.
Freeman, Harley L.—Student Officer, Naval Aviation, Ordnance Dept. 7 months.
Freeman, Hovey T.—Capt., Ordnance, 1 year at Sandy Hook and Aberdeen Proving Ground; 8½ months acting aide and interpreter for Chief Ordnance Officer, Gen. Rice.
Frey, Hollis O.—Ensign, Navy, U. S. S. Neponset.
Frimodig, M. H.—Sergeant, 107th Engineers, A. E. F.
Gage, Frank D.—Seaman 2nd Cl., Navy.
Ganzenmueller, Carl H.—2nd Lieut., Engineers, Reserve Corps, 308th Engrs., 83rd Div. Aisne-Marne, Oise-Aisne and Meuse-Argonne Offensives.
Gauthier, Charles B.—Ensign, Naval Aviation.
Gedney, Kenneth H.—2nd Lieut., 360th Infantry.
Geib, Francis H.—2nd Lieut., Engineers.
Geib, George A.—Capt., Engineers, 527 Regiment. A. E. F., one year, in St. Mihiel and Argonne Offensives.
Geiber, Charles T.—M. O. T. C.
Gerber, Theodore C.—1st Lieut., Infantry, 48th Infantry. Still in service, Student Officers, Ordnance Dept.
Gerow, Theron G.—Capt., 338th Field Artillery, A. E. F.
Gester, George C.—Reported on Manganese property for Council of National Defense.
Gibson, Algernon T.—Ensign, U. S. N. R. F.
Gibson, A. Wallace—1st Lieut., Air Service.
Gibson, James W.—1st Lieut., Infantry.
Gibson, Woodman L.—3rd Cl. Qm., Navy Deck School.
Gilchrist, Arch—30th Engineers, A. E. F.
Gillis, Raymond A.—S. A. T. C.
Giltinan, David M.—Lieut., Jr. Gr., U. S. N. R. F. Shore Duty under Bureau of Ordnance, Navy Dept., Inspector of Ordnance, Asst. in charge of Plant.
Goetzenberger, Ralph L.—Major, Ordnance, A. E. F. Frankfort Arsenal, Philadelphia, Pa. French Legion of Honor.
Golick, Tony F.—Private, Infantry, 14th Provisional Tr. Regiment, Inspector of ammunition, Ordnance Dept.
Graham, Ernest R.—Capt., Engineers, 309th Regiment, A. E. F., Adj. 1st Bn. 309th Engrs., Engineer Officer in charge of construction, Montoire, Loiret Cher.
Gray, Ralph S.—Corporal, S. A. T. C., Univ. of Utah.
Granfield, Thomas H.—2nd Lieut., A. S. S. R. C., Air Service, Radio Div.

Greenslade, Russell M.—1st Lieut., Air Service. Night flying in England with British home defense squadron as protection against Zeppelins.

Grimm, Glenn—T. E. R., U. S. N. R. F., Stationed at Great Lakes, Ill.

Groft, Andrew J.—Private 1st Cl., Engineers, 23rd Regiment, Co. A., A. E. F.

Grotts, Fred—2nd Lieut., Field Artillery.

Haake, Harry G.—2nd Lieut., Heavy Coast Artillery. Instructor, Coast Artillery School, Fort Monroe, Va.

Hackett, Robert P.—Sergeant, Gunnery, Marine Corps, Reserve, Aviation.

Haerberle, Carl F.—Private, Infantry, Co. D. 2nd Bn.

Hagerman, Oliver S.—Ensign, Navy.

Haglin, Charles F., Jr., 1st Lieut., Infantry, 338th Regiment.

Hall, Hubert G.—Bn. Sgt. Major—Engineers, Asst. Inst. Non. Com. School.

Halladay, Leslie L.—2nd Lieut., U. S. Army.

Hanks, Isaac B.—Expert in Business Administration, Ordnance Dept. U. S. Army.

Hansbarger, Earl D.—S. A. T. C., Cleveland, Ohio.

Harding, Gilman C.—Supervisor at Terry Shipbuilding Corp., Savannah, Ga. Preparation of detail drawings for 17,000 ton of steel to be used in 18 3,500-ton Ocean Going Composite Cargo Steamers for the U. S. Shipping Boards Emergency Fleet Corp. Died of pneumonia while in service, Oct. 11, 1918.

Hardison, Harvey—Sergeant, 12th Infantry, A. E. F., 1st Army Corps. School, Gondrecourt, France.

Harlowe, Leslie S.—Wagoner, Engineers, 29th Regiment, A. E. F. and American Forces in Germany.

Harrington, John M.—2nd Lieut., Engineers.

Harris, Alvin E.—Sergeant, 20th Engineers, A. E. F., Railway Engineering.

Harrod, Wayne A.—Lieut., Artillery, A. E. F.

Haserodt, Herbert G.—Ensign, U. S. N. R. F.

Hassan, A. A. Jr.—Pilot, Aviation Section. 1st Lieut., Air Service, Dorr Field.

Hasse, Albert C.—1st Lieut., Battery B, 73rd Coast Artillery Corps.

Hauser, Kenneth D.—Captain, Infantry, A. E. F.

Hauser, R. V.—Captain, Field Artillery, A. E. F.

Hawkins, James T.—Private, Infantry, C. I. O. T. S., Waco, Tex.

- Hawthorne, Wendell Z.—(Pledge). Died Dec. 14, 1919, Champaign, Ill.
- Hayne, Walter E.—2nd Lieut., Air Service.
- Haynes, Howard H.—Private, Infantry, S. A. T. C.
- Haynes, Stanley H.—Lieut., Med. Dept.
- Hayward, John E.—Sergeant, Medical Corps, 86th Div.
- Hayward, William G.—2nd Lieut., Engineers.
- Head, James L., Jr.—1st Lieut., Engineers, 513th Regiment. Quarry work at Naute and St. Nazarre, France; member of College unit, Cambridge, England.
- Heena, Carl R.—Corporal, Truck Co. E, 112th Supply Train, Camp Sheridan, Ala.
- Hegeman, Alanson K.—2nd Lieut., Field Artillery, 145th Field Artillery.
- Heine, Bernhardt E.—Flying Lieut., Aviation Section, Signal Reserve Corps. Mexican Border Patrol Duty. Killed in Airplane fall at Fort Sill, Okla., Aug. 10, 1918.
- Helmick, Dan S.—Capt., Engineers, First Engineers, A. E. F., one and one-half years with the 1st Engineers. Wounded in the Argonne Offensive Oct. 9, 1918. Two 1st Div. Citations, Distinguished Service Cross, Croix de Guerre.
- Helwick, Theodore W.—5th Engineers.
- Henderson, J. S.—Navy.
- Henry, Leonard W.—Private, Coast Artillery Corps.
- Hepinstall, Jack—Navy, Bureau of Yards and Docks.
- Herbig, Rudolph O.—Private, Infantry, 158th Depot Brigade.
- Herival, Harold T.—2nd Lieut., Engineers, 530th Engineers Sec. Bn.
- Hewett, Maurice W.—1st Lieut., Engineers, 508th Sec. Bn. Stationed at Bazoilles, Meuse, Vosges, France, and at La Rochelle.
- Hickey, Dan W., Jr.—Capt., Coast Artillery. Anti-aircraft artillery in A. E. F. Still in service, Fort Banks, Winthrop, Mass.
- Hicks, Frank V.—2nd Lieut., Field Artillery.
- Hill, Lucius T.—Capt., Trench Mortars, 2nd Trench Mortar Bn., A. E. F. fifteen months. Gassed.
- Hinckley, Thomas L.—Captain, Hdqrs. Engineers, A. E. F.
- Hoenigmann, Frank J.—1st Lieut., Infantry, 62nd U. S. Infantry.
- Hoffman, Walter R.—Ensign, Navy.

- Holbrook, Frederick C.—2nd Lieut., Field Artillery, 303rd Regiment. A. E. F. nine months.
- Holdaway, Vaughn L.—Private, S. A. T. C., Univ. of Utah.
- Holmes, John F.—1st Lieut., Engineers, 107th Regiment, 32nd Div. Was with the 107th Engineers from the time it was mustered into Federal Service. 3rd American Army of Occupation, Oberbieber, Germany.
- Holzhauser, William—Engineer of tests, Ordnance Dept.
- Hopkins, Harry H.—2nd Lieut., Infantry and Quartermaster Corps. Asst. Quartermaster, Maplehurst Field, Mineola, L. I., N. Y.
- Hoppack, Harland H.—Private, S. A. T. C., Rolla, Mo.
- Hostetler, Curtis B.—1st Lieut., Machine Gun Bn., A. E. F. Mentioned in S. O. Aug., 1918.
- Hougan, Sander—U. S. Navy.
- Houghtaling, Elting W.—Died at Camp Lewis, Washington, June 5, 1918.
- Housholder, E. Ross—Lieut., Engineers.
- Houston, Fred K.—1st Lieut., Engineers, 29th and 74th Regiments, A. E. F. seven months.
- Howbert, Van D.—1st Lieut., Engineers, 314 Regiment of Engineers. With the 89th Div. in France and Germany, Army of Occupation, from June 1918, to June, 1919.
- Howry, Hamilton H.—Capt., Engineers, 302nd Regiment Engineers, 77th Div. A. E. F. thirteen months, 77th Div. Citation in G. O. No. 31. Hq. 77th Div. April 16, 1919.
- Hudson, Frank S.—Geological work for War Minerals Investigation. Calif. State Council of Defense.
- Huff, Thomas H.—Chief Engineer, Standard Aero Corp., Plainfield, N. J. Contractor U. S. A. and U. S. N.
- Hult, George A.—1st Lieut., Engineers, 313th Regiment. A. E. F., 88th Div.
- Humel, A. C.—S. A. T. C., Houghton, Mich.
- Hurley, John J.—307th Engineers, A. E. F.
- Idema, Robert D.—1st Lieut., Tank Corps.
- Igleheart, George P.—Lieut. Jr. Gr., U. S. N. Reserve Flying Corps.
- Jacobson, Andrew T.—S. A. T. C., Univ. of Utah.
- Jakowsky, J. Jay—Lieut., Infantry.
- James Darl S.—Captain, 110th Engineers, A. E. F. Wounded. Distinguished Service Cross.
- Jagues, Robert—Captain, Field Artillery, 59th F. A., Brigade Hq.

- Jeffries, Zay—Member Sub-Committee on Light Alloys of National Advisory Committee for Aeronautics.
- Jenks, Karl E.—Corporal, 112th Engineers, 37th Div., A. E. F. nine months.
- Jensen, Jorgen E.—Aviation Corps.
- Jerome, Frank J.—U. S. R. R. Administration Asst. Div. Engineer, N. Y. C. R. R.
- Jevne, George W.—2nd Lieut., Artillery.
- Johnson, Carl E.—S. A. T. C., Houghton, Mich.
- Johnson, Martin M.—Private, Field Artillery, Officers' Training School. Civil Service, The A. G. O., War Dept., Washington, D. C.
- Johnson, Robert E.—2nd Lieut., Field Artillery, 105th Regiment F. A., 42nd Div. (Rainbow Div.)
- Johnston, Fred E.—Capt., Engineers, Combat Div., A. E. F. Jan., 1918-Jan., 1919.
- Johnston, Kenneth A.—Lieut., Army.
- Johnston, Ralph E.—2nd Lieut., Engineers, 313th Regiment Engineers. Airplane service under Forestry Dept., Asst. Engr. in Forest Production, Forest Products Laboratory, Madison, Wis.
- Kaiser, Karl W.—Sergeant, F. A. C. O. T. S., Camp Taylor, Ky.
- Kayser, Wendell H.—Worked on the design of army railway artillery from May, 1918-March, 1919.
- Kennedy, Duane E.—S. A. T. C., Cleveland, Ohio.
- Kenvin, Thomas B.—2nd Lieut., Engineers, 27th Regiment and Replacement Troops.
- Kerr, John B.—2nd Lieut., Engineers, 125th Regiment Engineers.
- Kerr, Richard C.—Seaman 2nd Cl., Naval Reserve Flying Corps.
- Ketchum, Richard B.—Supervising Engr., Explosive Plant "C," War Dept.
- Kew, William S. W.—Occupied in war work for the U. S. Geol. Survey in interests of increasing production of petroleum.
- King, Rowland B.—1st Lieut., Engineers, Hdqrs. Staff.
- Kingsley, Neil S.—Capt., Engineers, 313th Regiment Engineers, A. E. F., Aug. 1917-May, 1918, with 313th Engineers.
- Kinkel, John F.—Sergeant, Aviation, S. A. T. C., Lawrence, Kansas.
- Kinnear, Lawrence W.—1st Lieut., Air Service, A. E. F., Officer in charge of construction.
- Klaustermeyer, Paul H.—S. A. T. C., Cleveland, Ohio.

- Klopsch, Otto Z.—S. A. T. C., Cleveland, Ohio.
- Knepper, Chester M.—Capt., U. S. Navy, Retired. Shore duty, Bethlehem Steel Co., Bethlehem, Pa.
- Knox, Charles R.—1st Lieut., Aviation, Signal Corps., Aerial observer, 20th Aero Squadron, 1st Day Bombardment in Meuse-Argonne Offensive, 1st Army A. E. F. Personal Citation, Official confirmation one German Plane.
- Knox, Merrill B.—Seaman 2nd Cl., Naval Unit, Mass. Inst. of Tech.
- Kodet, Gustav—Corporal, Signal Corps, 53rd Regiment C. A. S., A. E. F. ten months.
- Koepel, Norbert F.—Corporal, Mining Detachment.
- Krill, Leonard H.—Sergeant, Ordnance Dept., Nitrate Div. In charge of drawing room.
- Kroeschell, Roy S.—Q. M. 2nd Cl., Naval Reserve.
- Kroeze, H. A.—U. S. Army.
- Kruse, Helmar V.—U. S. Army.
- Lagerquist, Carl S.—Navy.
- Laisy, Harold K.—S. A. T. C., Cleveland, Ohio.
- Lamer, Joseph S.—2nd Lieut., Heavy Railroad Artillery, Coast Artillery School, Fort Monroe, Va.
- Lane, Travis P.—Aspirant, Artillery, 102 R. A. L. College Unit Volunteer, American Ambulance, six months, French Army one year, American Red Cross six months in France. Gassed. Croix de Guerre.
- Langford, John Q.—Private, A. S. A. P.
- Lansing, Jack C.—2nd Lieut., Air Service. A. E. F. six months.
- Lauffer, Zephaniah P.—S. A. T. C., Houghton, Mich.
- Laurence, Philip J.—U. S. N. R. F.
- Lavan, Thomas J.—Sergeant, 308th, Ammunition Train.
- Lawrason, Levering—Corporal, 156th Chemical Warfare Service.
- Leeb, Henry L.—Lieut. U. S. Navy, Radio and Communication Officer U. S. S. Agamemnon, force radio officer and aide on staff Vice Ad. Gleaves. Radio officer U. S. S. George Washington during Presidential Trips. Duty with U. S. Naval Railway Battery, Soissons, France.
- Leonard, Thomas K.—Lieut., Field Artillery.
- Lerwill, Joseph R.—Private, S. A. T. C., Univ. of Utah.
- Lewis, John W.—2nd Lieut., Engineers, Military Mapping, U. S. G. S.

- Lewis, W. Murray—Asst. Purchasing agent for Air Nitrate Corp. in N. Y. during war. On Government nitrate plants. Purchasing engineer of plant equipment for Muscle Shols, Toledo and Cincinnati nitrate plants.
- Lieber, George M.—2nd Lieut., Coast Artillery Reserve Corps.
- Liebing, William—Aeronautical Engineer, A. P. S., Division Airplane Engineering, McCook Field, Dayton, O.
- Lindsey, Adrian H.—1st Lieut., 342 Field Artillery, A. E. F.
- Little, Thomas W.—Captain, Ordnance Dept., Engineers. Experimental and Design work on Machine Guns.
- Lorain, Sinclair H.—Capt., Engineers, 107 Regiment Engineers, A. E. F. (C. O. of Company). Croix de Guerre.
- Louderback, George D.—In charge of war minerals investigation (Chrome and Manganese) in Calif. by co-operative arrangement with U. S. Geological Survey, U. S. Bureau of Mines (as consulting engineer at \$1.00 per year), and Calif. State Council of Defense (Chairman of comm. of Geol. and Mineral Resources), 1917-1919.
- Loveland, Ralph A.—Major, Engineers, 107th Regiment, A. E. F., Jan., 1917-May, 1919. Croix de Guerre.
- Lowell, James B.—Legal advisor of Draft Board.
- Lowengard, Richard O.—Lieut. Field Artillery, 328 Regiment F. A., A. E. F.
- Luce, Earle P.—30th Infantry, A. E. F.
- Lund, Jack V.—Lieut., U. S. Navy. Served as civil engineering officer with the marines and as line officer with the navy.
- Lund, Otto R.—Private, S. A. T. C.
- Lunn, John A.—1st Lieut., Engineers, A. E. F.
- Luplow, Walter D.—1st Lieut., Infantry, 41st Regiment. Regular in the service.
- Lutb, Richard E.—2nd Lieut., 313th Engineers, Train, Camp Dodge, Iowa.
- Lynch, V.—Navy.
- MacDougal, H. A.—Cadet, R. A. C., Toronto, Canada.
- MacLeod, William S.—Sergeant, Engineers, 107th Regiment. A. E. F. Jan., 1918-May, 1919.
- Madden, Frank A.—Master Electrician, Air Service, 89th Aero Squadron.

Mahoney, William L.—2nd Lieut., Aviation Section, Signal Corps.

Maness, Orie N.—Private, 1st Engineers.

Manglesdorf, Albert H.—1st Lieut., Coast Artillery, Casual, A. E. F., Instructor Cours Pratique d'Artillerie a Tracteur, American Section, Vincennes.

Marine, J. Sidney—1st Lieut., Air Service (Army), 99th Aero Squdn. Pilot observation. Trained French Flying Schools 16 months, France. Airplane accident Sept. 1, 1918, in The Voges, 14th months in hospital; permanently lame.

Marshall, D. E.—U. S. Navy.

✓ Marshall, Emory M.—Lieut., O. T. C., Presidio, San Francisco, Calif.

Marston, Robert L.—Ensign, Navy.

Matchett, Henry J.—Capt., Infantry, Regular Army. Fort Leavenworth, Kansas, U. S. Disiplinary Barracks, Leavenworth, Kansas.

Mathieu, Julien, Jr.—Died in service.

May, Andrew J., Jr.—Master engineer, 27th Engineers Army Eng. School. Aisne, Marne, Vesle.

May, Arthur R.—Chief Gunners Mate, U. S. N. R. F., Naval Proving Grounds, Chemical duty, Naval Proving Grounds, Indian Head, Md.

McCartney, William H., Jr.—2nd Lieut., E. O. T. C.

McClintic, Howard H.—2nd Lieut., Field Artillery.

McCormack, Thomas H.—1st Lieut., Air Service. A. E. F. one year.

McDowell, Robert A.—S. A. T. C., Cleveland, Ohio.

McEnary, Dale R.—Candidate for Comm. in F. A. Central Officers T. Camp. With engineering branch of Const. Div. War Dept., Washington, D. C.

McFarland, Paul W.—Private, S. A. T. C., Lawrence, Kansas.

McGee, Richard R.—S. A. T. C., Infantry, Lawrence, Kansas.

McGivra, Donald B.—Lieut., U. S. Army.

McGinnis, William H.—Civilian Inspector, purchasing branch Class A 1 supplies, Depot Quartermaster's Office, Fort Mason, San Francisco, Cal.

McKenney, Walter R.—2nd Lieut., Coast Artillery Corps.

McKenzie, Leonard F.—Private, Engineers Reserve.

McLaughlin, Donald H.—2nd Lieut., Infantry, 63rd Infantry.

McMillan, Dan A.—2nd Lieut., Signal Officers R. C., Aviation Section.

- McNabb, William T.—1st Lieut., Engineers, 319 Regiment Engineers, A. E. F., with the 8th Div., Sept. 1918-March, 1919.
- McNaughton, Clark H.—S. A. T. C., Houghton, Mich.
- McPherrin, William L.—Asst. General Supt., Keystone Steel and Wire Making Steel for U. S. and Allied Governments.
- McRae, Randolph—Canadian Expeditionary Force.
- Meagher, Edward—2nd Lieut., Coast Artillery School, Fort Monroe.
- Medding, Walter L.—Capt., Engineers, 7th Regiment of Engineers, A. E. F., 318th Engineers, Army Engr. School, 601st Engineers, Hdq. 2nd Army and still in service.
- Melcher, Paul R.—Private, S. A. T. C., Houghton, Mich.
- Meyers, Foster—Seaman 2nd Cl., U. S. N. R. F.
- Miller, Arthur M.—1st Lieut., 144th Field Artillery, A. E. F., Saumur Artillery School, Gien Tractor Art. School, France.
- Miller, C. W.—Lieut., 331st Engineers, A. E. F.
- Miller, George W.—2nd Lieut., Field Artillery.
- Miller, Harry W.—Lieut. Col., Ordnance. Chief engineer on all heavy Artillery of A. E. F. Gassed twice. French Legion of Honor, Citation from Gen. Pershing. Still on active duty, Washington, D. C.
- Miller, William B.—1st Lieut., Engineers, 1st Gas Regiment; A. E. F., Chauteau-Thierry and Meuse-Argonne, Jan. 1918-Feb., 1919.
- Mills, Carl E.—Private, Engineers, E. O. T. S.
- Milne, Rufus H.—1st Lieut., Infantry, 41st and 69th Regiments.
- Miner, Robert I.—In charge of manufacture of mine sweepers for U. S. Navy; also in charge of manufacture of helmets, shrapnel, depth bombs, booster casings, etc., at plant of Bossert Corp., Utica, N. Y. (Production Engineer.)
- Mitchell, Frederick R.—Ensign, Naval Flying Corps, Submarine Patrol and convoy work in the Atlantic in flying-boats and captive balloons on destroyers.
- Mittendorf, Ralph F.—S. A. T. C., Cleveland, Ohio.
- Mix, Robert C.—Private, Coast Artillery, Coast Defense of Delaware.
- Moon, Ralph M.—2nd Lieut., Engineers, 27th and 6th Regiments of Eng., Army of Occupation, Germany.
- Moore, H. F.—S. A. T. C., Houghton, Mich.

- Morgan, Frank A., Jr.—2nd Lieut., Coast Artillery Corps.
- Morgan, George H.—Major, Engineers, Hdqrs. 5th Army Corps, G3 Section. A. E. F., Instructor, Second Corps, School Chatillon, sur Seine. In mining (explosives, demolitions and dugouts). Asst. G3, 5th Army Corps, St. Mihiel offensive, Meuse-Argonne offensive.
- Morrison, A. S.—Captain, Ordnance Dept.
- Morse, Roy R.—Research work for "War Minerals Investigation."
- Murphey, George R.—1st Lieut., Coast Artillery, 62nd Art. C. A. C., A. E. F. seven months.
- Mutz, Herman J.—Private, S. A. T. C., Rolla, Mo.
- Myners, T. F.—S. A. T. C., Houghton, Mich.
- Nash, John C.—2nd Lieut., Coast Artillery Corps.
- Needler, Julien H.—2nd Lieut., Co. M, 57th Infantry.
- Nelson, William O.—2nd Lieut., 19th Infantry.
- Newell, Fenn B.—Sergeant, Engineers, 2nd Regiment of Regulars, A. E. F., 2nd Div. Oct. 6, 1917, to Nov. 1, 1918. Nov. 1, 1918-Nov. 27, 1918, Hospital at Vichy, France. Croix de Guerre (French), Citation dated Oct. 8, 1918.
- Newton, Robert K.—2nd Lieut., Signal Corps. Radio Section. Senior Signal Corps Officer, Univ. of Calif., Berkeley, Calif.
- Nicolson, Clyde W.—Captain, Coast Artillery Corps, 51st Regiment Art. C. A. C., A. E. F., Dec. 19, 1917-Feb. 3, 1919.
- Noble, John F.—U. S. Navy.
- Nolan, John T.—Private, Engineers and Ordnance.
- Nolan, Philip E.—Lieut. Air Service, Military Aeronautics, R. M. A.
- Nolte, William J.—Corporal, S. A. T. C., Rolla, Mo.
- Norris, Robert V. A., Jr.—2nd Lieut., Engineers, Casual. A. E. F. Sept., 1918-May, 1919.
- Norville, Howard O.—Private, Engineers, Reserve, Rolla, Mo.
- Nutting, Floyd L.—2nd Lieut., Air Service. Learned to fly, although engineering officers in Air Service.
- O'Brien, John C.—1st Lieut., Field Artillery, 103 F. A. Regiment, 26th Div., A. E. F. fifteen months.
- O'Donnell, Ottomar—Major, Field Artillery, 5th Regiment F. A., A. E. F., 1st Div. France and Germany.

- Ogilvie, Samuel J.—Captain, Coast Artillery Corps, 67th and 53rd Arty. Regiment C. A. T., 67th Arty. C. A. C. A. E. F. and 53rd Arty C. A. C. Army of Occupation Jan.-April, 1919. Germany., Coast Defenses of San Francisco, April 1917-May, 1918.
- Oliveros, Reginald P.—2nd Lieut., Field Artillery, Unassigned.
- Olson, Walter S.—2nd Lieut., C. W. S.
- O'Malley, John J.—Lieut., Aviation Corps. Killed in fall of Plane in Tail-spin at Ellington Field, Houston, Tex., May, 1918.
- Orton, James W.—C. Q. M., U. S. N. R. F., Naval Aviation. Chief Draftsman Dept., Engineers Office, Northwestern Dept. U. S. Army Engineers.
- Orynski, Leonard W.—1st Lieut., Engineers, 2nd Replacement Regiment. One year in A. E. F. with the 516th Engineers.
- Ott, John E.—1st Lieut., Engineers, 56th Regiment.
- Owen, Harold P.—Seaman 2nd Cl., U. S. N. R. F., Officers Training School.
- Painter, Carl E.—2nd Lieut., Sanitary Engineers.
- Painter, Charles J.—2nd Lieut., Q. M. C., Washington, D. C.
- Pancoast, Donald F.—1st Lieut., Engineers, 112th Regiment. A. E. F. Meuse-Argonne, 1st Ypres-Lys, 2nd Ypres-Lys Offensives, Baccarat Sector, Pannes Sector. Belgian War Cross. "Exceptionally gallant conduct in action."
- Park, John—1st Lieut., Air Service, A. E. F. and Pilote Militare, Italy. Military War Cross of Italy.
- Parker, James L.—2nd Lieut., 13th Corp U. S.
- Parker, Ross I.—U. S. Housing Corp., Bureau of Industrial Housing and Transportation, Dept. of Labor, from July, 1918.
- Parkhurst, Frederick S., Jr.—Engineer of Sonstruction of Utilities, Bureau of Industrial Housing and Transportation, Dept. of Labor. Washington, D. C.
- Parmley, Thomas J.—Private, Infantry, S. A. T. C., Univ. of Utah.
- Pascoe, Hubert L.—1st Sergeant, Engineers, S. A. T. C.
- Patterson, Robert D.—Seaman 2nd Cl., Navy.
- Peacock, C. D.—Captain, 311th Engineers, A. E. F.
- Pearson, Francis H.—C. Q. M. (A), Naval Aviation.
- Pease, Harold C.—Sergeant, S. A. T. C., Cleveland Ohio. Shipbuilding.
- Peck, Roy L.—1st Lieut., Coast Artillery Corps.

- Penman, Roy F.—2nd Lieut., 98th Engineers.
- Perry, Joseph B.—Working on War Minerals.
- Perry, Robert A.**—Lieut. in Naval Aviation, Stationed at Florida. Died from injuries received from skidding motorcycle Jan. 2, 1920, at Ascot Speedway, Los Angeles, Calif.
- Peterson, Carl W.—Private, S. A. T. C., Houghton, Mich.
- Petter, Stanley D.—2nd Lieut., M. G. Bn., 331st Regiment.
- Polley, Ernest E.—1st Lieut., Engineers, 115th Regiment Engineers, with 86th Div. at Camp Grant. Peace Commission, War Damages Board, Paris, A. E. F., 115th Engineers in Army of Occupation.
- Potts, Allen D.—Private, S. A. T. C., Rolla, Mo.
- Poulin, John A.—Lieut., Air Service, A. E. F.
- Price, William F.—Asst. Signal Supervisor, A. T. and S. F.
- Probert, Frank H.—Consulting Engineer, Bureau of Mines, Washington, D. C. Committee War Minerals Investigation. Member American Mining Mission to Europe. One of the three members of the committee appointed by President Wilson to estimate the damages to be paid by Germany for destruction of Mines in France and Belgium.
- Putney, David H.—S. A. T. C., Infantry, Lawrence, Kansas.
- Pyle, Oden B., Jr.—2nd Lieut., Engineers Corps., A. E. F.
- Quinlan, Howard—Captain, 338th Field Artillery.
- Randall, Larcum—Ensign (T), U. S. N., Navy Submarine Ship U. S. S. H-6. Executive Officer U. S. S. H-6, San Pedro, Calif.
- Rankin, Donald M.—Private, Met'l. Section S. C., A. E. F., with 2nd Army.
- Ranney, Alfred G.—Captain, C. A. C., 65th Regiment Arty., C. A. C., Coast Defenses of San Diego, Calif. A. E. F. ten and one-half months, 65th Arty. C. A. C. Comdg. Batt. A in action 73 days, Comdg. 1st Bn., 65th Arty. C. A. C., Oct. 19, 1918-Feb. 20, 1919.
- Rashleigh, Charles J.—C. M. M., Navy.
- Rawson, George R.—S. A. T. C., Cleveland, Ohio.
- Reed, Morris J.—1st Lieut., Air Service, 135th Aero Squadron, A. E. F. Jan. 9, 1918-Jan. 24, 1919.
- Reid, Theodore C.—Sergeant, 110th Engineers, A. E. F.
- Reilly, John H. G.—1st Lieut., Cavalry, 13th Regiment U. S. Cavalry. Texas border Service and A. E. F.

- Remington, Clyde A.—2nd Lieut., Engineers, 219 Regiment.
- Reuter, Peter T.—U. S. Navy.
- Rhoades, Roy S.—Instructor in Aviation School, Berkeley, Calif.
- Richards, Alvin B.—S. A. T. C., Houghton, Mich.
- Richmond, Kenneth C.—Lieut., Jr. Gr. Navy. Naval Cadet School, Boston, Mass., June-Oct., 1917. In charge of short battle practice range, L. I. Sound, Oct.-Dec., 1917. Executive Officer, U. S. S. C. No. 34, Dec. 1917-June, 1918. Foreign Service, C. O., U. S. S. C. No. 34, June, 1918-Feb., 1919. Unit Commander, Subchaser Unit No. 3 (3 boats), Sept., 1918-Feb. 1919. Div. Com., Subchaser No. 4 (6 boats), and C. O., U. S. S. C. No. 206, at Kirkwall. Material Officer, Staff of Commander Mine Force at Kirkwall, Dec. 19.
- Rigby, William A.—1st Lieut., Infantry, Co. K, 308 Infantry. A. E. F., April 6, 1918-Feb. 7, 1919.
- Ringsred, Gerhard J.—Lieut., 151st Field Artillery, A. E. F.
- Ritchie, John R.—Ordinance Dept., Minneapolis Steel and Machinery Co. Mech. Engineer, designing Jigs, Fixtures and special machinery for manufacturing purposes in dept. handling Shell and Gun Carriage Work.
- Robertson, Glenn D.—Private, Engineers R. C.
- Roche, Maurice E.—Corporal, Engineers R. C. and S. A. T. C., Univ. of Utah.
- Rockwell, Harvard S.—Lieut., Chemical Bn., U. S. Gas Warfare Section.
- Rockwood, Fletcher—Major, 339th Field Artillery.
- Rogers, Kenneth A.—S. A. T. C., Houghton, Mich.
- Rogers, Harry T.—1st Lieut., Infantry, 314th Regiment, Pioneer Infantry.
- Rollins, Wingate—Lieut., Jr. Gr., U. S. N. R. F.
- Ross, Ralph H.—War work with American Tel. & Tel. Co.
- Rounds, Charles K.—Sergeant, Co. F, 313th Engineers, A. E. F.
- Rowell, Joseph H.—Private, Prov. Field Hospital, Co. L., Camp Greenleaf Annex, Fort Oglethorpe, Ga.
- Ruble, Roland O.—Sergeant, Co. A, 110th Engineers, A. E. F.
- Rufsvold, Olaf M.—2nd Lieut., Engineers.
- Russell, John A.—2nd Lieut., Field Artillery, Unassigned.

- Russell, Donald O.—Officer in British engineer corps. Served three years in the trenches.
- Russell, Harlan A.—1st Lieut., Field Artillery, Replacement. Commanded Battery of Replacement Regiment.
- Ruth, B. Alvin—Master Engineer, Jr. Gr. Hdqrs. Detachment, 316 Engineers.
- Eta — Ryer, Edwin D.—2nd Lieut., Coast Artillery Corps.
- Salsbury, Ralph F.—Elec. Sergeant 1st Cl., Coast Artillery Corps.
- Sandifer, Robert P.—Naval Officers Deck School.
- Satterly, Reuben G.—S. A. T. C., Houghton, Mich.
- Saunders, Seymour G.—Sergeant, 110th Ammunition Train, A. E. F.
- Savage, Paul M.—S. A. T. C., Cleveland, Ohio.
- Sawyer, Eldreth L.—1st Lieut., Engineers, 313th Regiment Engineers. A. E. F. ten and one-half months, 88th Div.
- Schaber, Carl F.—1st Lieut., Infantry, 37th Regiment. Mexican Border duty, Laredo, Tex.
- Schade, Roger M.—Lieut., Engineers.
- Schneider, C. M.—Cadet, Aviation.
- Schuman, Edwin K.—Corporal, S. A. T. C., Rolla, Mo.
- Scott, John C.—Sergeant, M. G. Bn., 323rd M. G. Bn., also Photographic unit. After armistice in entertainment work at LeMans.
- Seaman, Arthur L.—S. A. T. C., Kalamazoo, Mich.
- Seeman, Ernest W.—U. S. Navy.
- Settle, William C.—Candidate, F. A. C. O. T. S., Louisville, Ky.
- Shaad, George C.—In charge of training detachment before and during S. A. T. C., establishment at Kansas University. On Naval Consulting Board.
- Shea, Gerald B.—S. A. T. C., Houghton, Mich.
- Shepard, George M.—Captain, Engineers, 3rd Regiment Engineers, A. E. F., Commanding Co. D, 3rd U. S. Engineers, Honolulu, Hawaii, and 2nd Bn., 606th Engineers, Camp Humphreys, Va., after discharge.
- Sheppard, Charles H.—1st Lieut., Coast Artillery Corps, 68th Regiment Arty. C. A. C., Fort Wright, N. Y., then A. E. F., 68th Reg., Arty., C. A. C.
- Shick, Harvey B.—1st Lieut., 164th Depot Brigade, Camp Funston, Kansas.

- Shields, Chester P.—1st Lieut., Engineers, 107th Regiment. Six months' service in U. S., A. E. F. sixteen months in France and Germany with 107th Engineers, 32nd Div.
- Shreve, John D.—Chief Machinst Mate, Navy.
- Shriver, Ray O.—1st Lieut., 314th Engineers, A. E. F.
- Shughart, Charles L.—2nd Lieut., 215th Engineers.
- Shultz, Edwin C.—Sergeant, Engineers, 56th Regiment, A. E. F., July, 1918-Feb., 1919, St. Mihiel Front.
- Siekkinen, Charles A.—C. M. M., Navy. Placed on inactive duty as instructor to sailors.
- Simmons, Trul H.—Private, Field Artillery O. T. C., Camp Z. Taylor, Ky.
- Siverson, Garfield C.—U. S. Army.
- Slade, John P.—2nd Lieut., Field Artillery, A. E. F. Killed in action on the Vesle River Sept. 17, 1918.
- Smale, Lawrence A.—Seaman, Navy, A. E. F.
- Smee, George—Corporal, I. O. T. S., 1st Co., 5th Bn.
- Smiley, Vivian Y.—S. A. T. C., Navy, Rolla, Mo.
- Smith, Bert R.—Battery 11 F. A. Madison Barracks. Died at the Madison Barracks Training Camp Hospital June 18, 1918.
- Smith, Donald C.—Ensign, U. S. N. R. F. Transport Service.
- Smith, Hugh A.—Ensign, U. S. N. R. F., Navy.
- Smith, Lyle W.—U. S. Army.
- Snedaker, Eugene G.—Captain, Engineers, 4th Regiment Reg. Arrived in Franch May 12, 1918. Through five campaigns, slightly gassed. Distinguished Service Cross, Croix de Guerre with Gold Star. After Armistice was assigned as Adjutant to military Commander of Coblenz until end of Administration, July, 1919.
- Snow, Leslie W.—Major, Ordnance. In Ordnance Dept., Washington, D. C., June, 1917-March, 1918. A. E. F., Head Armament Officer at American Aviation Acceptance Park No. 1, Orly-Seine, France. In charge of Arming all planes purchased from French and British until end of Dec., 1918. Detailed to U. S. Postal Express Service, Dec., 1919, and placed in charge U. S. Courier Service in Eastern and Central Europe, with Hdqs. at Vienna, Austria, Jan.-March, 1919.
- Sommerville, W. B., Jr.—1st Lieut., Coast Artillery Corps. 37th Regiment, C. A. C.
- Sperry, Arlo M.—Seaman, U. S. N. R. F.

- Sprague, Norman E.—Ensign, U. S. N. R. F.
- Spriggs, Herbert S.—Sergeant, 1st Gas Regiment, A. E. F.
- Sprowl, Norman E.—1st Lieut., Engineers, 34th Regiment Engineers. A. E. F. one year.
- Spurney, Emil—Private, M. D. U. S. A., U. S. B. H. No. 2, attached to Gen. Hospital No. 1, B. E. F.
- Starbird, Roy—Private, Infantry, 63rd Regiment.
- Starrett, Howard M.—Senior inspector of Liberty Motors at Trego, Motors Corps., New Haven, Conn. Was sent to France by the U. S. Gov. to study motors.
- Stenberg, Walter M.—Corporal, Engineers, 112th Regiment, A. E. F. Served in France and Belgium.
- Stevens, John B.—2nd Lieut., Field Artillery, Camp Taylor.
- Stevens, Hoy—Private, Aviation, 25th Aero Squadron, Signal Corps.
- Stevens, Thomas A.—U. S. Navy.
- Stevenson, Clarence C.—2nd Lieut., 545th Engineers Corps, A. E. F. Meuse-Argonne Offensive.
- Stevenson, Merlon L.—Private, Engineers, R. C.
- Stickney, Robert A.—Inspector, Franklin Ry. Supply Co., Inc., and American Arch Co., New York City, N. Y.
- Stifel, Carl G.—2nd Lieut., Aviation, A. E. F.
- Stoner, Oscar E.—1st Lieut., Field Artillery, 340th Regiment, 89th Div. A. E. F., Sept., 1918-Nov., 1918. Euvizen Sector Nov., 1918-May, 1919, Army of Occupation, Muelenbach, Germany. Service Chevrons.
- Strand, Carlyle H.—Bureau of Aircraft Production, Pittsburgh, Pa. Civilian metallurgist during war.
- Stribling, Simpson R.—Captain, 64th Artillery, C. A. C.
- Storme, Paul C.—S. A. T. C., Cleveland, Ohio.
- Stroup, Robert K.—Private, S. A. T. C., Rolla, Mo.
- Stubbs, Robert N., Jr.—Private, Tank Corps.
- Sullivan, Daniel C.—Corporal, 27th Engineers, A. E. F.
- Sutherland, David L.—Captain, Infantry, 112th Regiment Inf., 28th Div. Co. Com. 112th Infantry, Army Gen. Staff College, G-4 1st U. S. Army, G-1 7th U. S. Army Corps, G-1 and G-4 3rd U. S. Army. Mexican Border with 16th Pa. Infantry June 19, 1916-Jan. 13, 1917.
- Suverkrop, Lew A.—1st Lieut., Engineers, 29th U. S. Engineers, A. E. F.

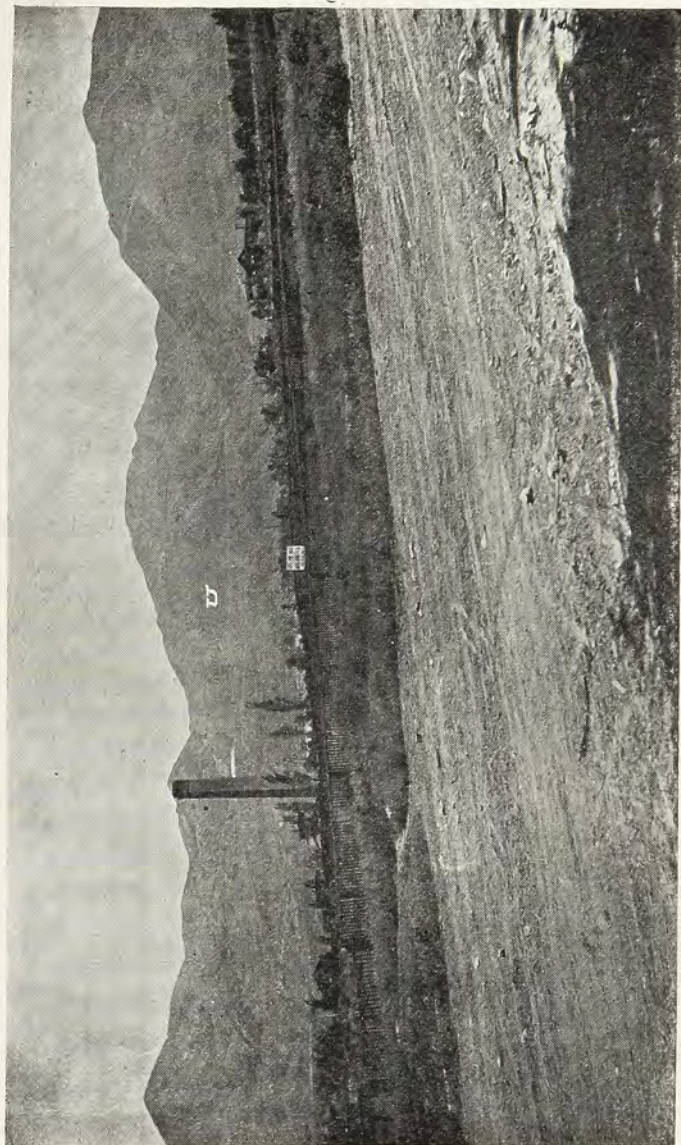
- Swain, Winthrop C.—Major, Coast Artillery Corps, 51st Regiment Arty. C. A. C. Battery Officer 51st Arty., 240 M. M. Howitzers. Instructor Bn. C. O. with 50th Arty. assigned to engineers.
- Swan, Leroy A.—Lieut., Aviation Army, Dayton, Ohio. Killed at Wilbur Wright Aviation Field, Dayton, O., June 19, 1918. Airplane collapsed at an autitude of 10,000 feet.
- Swayze, Ronald O.—Corporal, S. A. T. C., Rolla, Mo.
- Swenson, Guy A.—1st Lieut., Field Artillery, 116th Regiment. A. E. F., Oct. 1918-Jan., 1919.
- Taliaferro, Nicholas L.—Asst. Geologist War Minerals Investigation.
- Teets, Charles W.—Sergeant, Engineers, Co. C., 27th U. S. Engineers, A. E. F.
- Templin, Arthur W.—Sergeant, 23rd Engineers, A. E. F.
- Templin, Richard L.—Asst. Engineer Physicist at the Bureau of Standards, Washington, D. C., testing war materials, appliances, airplane materials and instruments. Designed a Torgue and Thrust meter for the Liberty Motor to be used in free flight tests.
- Terry, Mary L.—2nd Lieut., Field Artillery, 340th Regiment. A. E. F., June 13, 1918-June 11, 1919.
- Thielicke, Charles G.—2nd Lieut., Engineers, 314th Regiment Engineers. A. E. F., July 1, 1919-May 30, 1920.
- Thielman, Thomas C.—Private, 29th Engineers, A. E. F.
- Thomas, Wallace S.—Senior Lieut., U. S. N. R. F., Naval Aviation.
- Thornburg, Dwight H.—Asst. Engineer, Coast Artillery, 75th C. A. C., A. E. F.
- Tichborne, Herbert M.—Lieut., Aviation Corps. Killed in Airplane accident at March Field, Calif., Dec. 23, 1919.
- Tongue, Walter B., Jr.—2nd Lieut., Air Service.
- Tracey, Stephen E.—Private, S. A. T. C., Cleveland, Ohio.
- Tracie, Ross G.—Corporal, Field Artillery, 144th Regiment. A. E. F.
- Travers, John T.—Cadet, R. A. C., Toronto, Canada.
- Trevena, Ralph A.—S. A. T. C., Houghton, Mich.
- Troppman, George L.—Munition Plant Work.
- Troselk, Olaf A.—2nd Lieut., Infantry.

- Tryon, Philip D.—1st Lieut., Field Artillery, 8th Regiment F. A. A. E. F. eleven months, six months with 8th F. A. and five months at Embarkation Camp, Marseilles.
- Tupper, Otis M., Jr.—Co. K, 363rd Infantry.
- Tuthill, James P.—2nd Lieut., Air Service.
- Uren, Lester C.—Captain, Chemical Warfare Service, A. E. F., with 42nd Div. at the Front and Army of Occupation on the Rhine. Engineer with U. S. Fuel Administration, making surveys of conditions in Calif. Oil Fields.
- Urquhart, George K.—Captain, Engineers, 313th Regiment Engineers, A. E. F. eleven months with the 88th Div.
- Uthoff, Frederick W.—Corporal, Eng., Enlisted Reserve.
- Vail, Randolph R.—2nd Lieut., Royal Engineers, Depot Field Survey Corps., G. H. Q., B. E. F., France, 4th and 2nd British Armies in France, Belgium and Rhine Bridgeheads.
- VanDerlip, Clyde L.—2nd Lieut., Field Artillery, 52nd Regiment Artillery, C. A. C. On duty with Regiment in France.
- Van Houten, Edwin A.—Ensign, U. S. N. R. F., U. S. S. Santa Paula, U. S. S. Luella.
- Van Houten, Harold C.—1st Lieut., Field Artillery, A. E. F.
- Vawter, Jamison—Captain, Engineers, 315 Regiment Engrs. A. E. F., St. Mihiel and Meuse-Argonne, Army of Occupation.
- Vickery, Melville, W.—1st Lieut., Infantry, 331st Regiment 4th Army Corps, also J. A. S. O. S. and A. F. and F., in charge of Post Office board of review in office of J. A.
- Vorck, Charles R.—Lieut., 115th Engineers, A. E. F.
- Wagner, Page P.—Private, Engineer Reserve Corps.
- Wahlstedt, John R.—Seaman, U. S. N. R. F.
- Walker, Harlan A.—Wagoner, Engineers, 27th and 29th Regiment Engrs. A. E. F., July, 1918-March, 1919. Gassed at St. Benoit, France, (opp. Metz) Oct. 1, 1918. 2nd Battalion Citations, 2nd Bn., 29th Engineers.
- Walker, William J.—Private, S. A. T. C., Univ. of Utah.
- Wall, Earl R.—Flying Cadet, Aviation Section, S. E. R. C.

- Wallace, Carleton S.—Captain, 6th Regiment of Marines with 79th Co. Wounded April 29, 1918, Chateau Thierry, and July 19, 1918, Soissons. Croix de Guerre.
- Walton, Allyn K.—S. A. T. C., Cleveland, Ohio.
- Walton, George M.—S. A. T. C., Cleveland, O.
- Ward, Howard E.—S. A. T. C., Cleveland, Ohio.
- Ward, Richard B.—Private, Engineers, O. T. S.
- Warner, Robert W.—2nd Lieut., Ordnance, Detachment Ordnance Engineers.
- Warren, Alvah H., Jr.—1st Lieut., Field Artillery, A. E. F.
- Washburn, Ellwood G.—1st Lieut., Field Artillery, 25th Regiment F. A.
- Wasson, Harold J.—1st Lieut., Infantry and Engineers, Staff.
- Watkins, George R.—Private, Bn. Hdqrs., 2nd Army Artillery Park.
- Way, Donald D.—Private, Signal Corps.
- Webb, Albert L.—Sergeant, S. A. T. C., Rolla, Mo.
- Webb, Torrey H.—1st Lieut., Aviation Section Signal Corps.
- Webster, William H.—U. S. Army.
- Weed, Stanley V.—107th Engineers, A. E. F.
- Weimer, Earl J.—2nd Lieut., Engineers, A. E. F.
- Weimer, Raymond S.—2nd Lieut., Engineers, 1st Regiment U. S. Engineers, A. E. F. one year.
- Weisel, George F.—Lieut. Colonel, Engineers, 20th and 7th and 2nd T. R., A. E. F.
- Weiser, Hanley—2nd Lieut., Engineers.
- Welker, Theodore J.—1st Lieut., Coast Artillery Corps, 43rd Regiment of Railway Artillery. Instructor in R. R. Arty. Specialists School at Maillue, France.
- Wells, Ralph E., Jr.—1st Lieut., Field Artillery, 65th F. A., A. E. F.
- Wells, William B.—Candidate, I. O. T. S., Infantry.
- Wensley, Roger L.—Asst. to Chairman of War Materials Committee, N. Y.
- Wentz, Walter W.—Lieut., Aviation Section, Signal Corps.
- Werner, Edward J.—S. A. T. C., Cleveland, Ohio.
- Wesbrook, Donald M.—1st Lieut., Engineers, A. E. F.
- Wesley, Wendell P.—Musician in Army Band, Hdqrs. Co., 137th Infantry. A. E. F.
- West, Herbert S.—U. S. Army.

- Whatley, William J.—C. Q. M., Naval Aviation, U. S. Navy. Naval A. Detachment, Mass. Inst. of Tech., Boston, Mass.
- Whetsel, Raymond V.—Artillery Officers School at Camp Taylor.
- Whitman, Percy G.—Asst. Engineer with Fay Spoffard & Thorndike, Baston, Supervising Engineer of the Baston Army Supply Base.
- Wicks, Herbert A.—S. A. T. C., Cleveland, Ohio.
- Widmer, William E.—Ensign, Naval Aviation., Submarine partol along the Atlantic Coast.
- Wiggins, Ralph R.—1st Lieut., Air Service (A) Hdqrs. Staff. Officer in charge of Construction, Aviation Fields, Long Island, New York. Dec., 1917-July, 1919.
- Wilkinson, Joseph R.—Ordnance Sergeant, 2nd Mobile Ordnance Repair Shop, 2nd Div., A. E. F., five sectors and battles, Army of Occupation.
- Williams, Edward I.—1st Lieut., Heavy Coast Artillery, held as instructor of Orientation, Officer Training Camp, Fort Monroe, Va.
- Williams, James O.—Master Gunner, 38th Coast Artillery Corps.
- Williams, William H.—Lieut., A. E. F.
- Wills, Ronald B.—Corporal, S. A. T. C., Rolla, Mo.
- Winn, Herman P.—Private, Engineers R. C.
- Wilson, Joseph M.—Corporal, S. A. T. C., Rolla, Mo.
- Winchell, John H., Jr.—2nd Lieut., Engineers Corps, Detached Service, Geological Mapping. Geological work on War Materials for the U. S. Shipping Board and the War Industries Board.
- Winters, Arthur W.—Corporal, Engineers, 2nd Regiment, A. E. F.
- Wood, Alton F.—Sergeant, French Ambulance and Heavy Artillery 32nd Regiment. French Army six months; eleven months in the American Army.
- Wood, Luther E.—Captain, Field Artillery, 109th Regiment, A. E. F. one year with 28th Div. in France and Belgium. Belgian War Cross.
- Wood, Roy U.—Ensign, U. S. N. R. F., Assigned to the Bureau of Ordnance.
- Woodlief, Harold E.—Private, S. A. T. C., Houghton, Mich.

- Woodrich, Oscar F.—Captain, Construction Div. of the Army Assigned to duty at Camp Jackson, Camp Gordon and Fort Snelling as construction Quartermaster.
- Wormser, Felix E.—2nd Lieut., Engineers, 146th Engineers.
- Worthington, Harold—1st Lieut., Field Artillery, A. E. F.
- Wright, Kenneth M.—C. Q. M. (A), Naval Aviation.
- Wright, Whitney B.—1st Sergeant, M. T. D. Reserve Mallet. Served with French Army from May 19, 1917, until Oct. 1, 1917, with rank of grade. American Field Service Medal, Letter Felicitations from French Army.
- Wunderlich, Milton S.—Private, Engineers Reserve and S. A. T. C. Taught Auto Mechanics at Army Camp No. 2, Univ. of Minn.
- Yeokum, George H.—2nd Lieut., Coast Artillery, Co. C. Coast Artillery Training School, 6th Training Camp.
- Young, Vertrees—1st Lieut., Ordnance, 77th Div. Division Ordnance Officer, 77th Div. A. E. F., C. H. Q. Citation "Meritorious Service."
- Young, Yssel Y.—1st Lieut., Field Artillery, 18th Regiment F. A. Seven months' service in the U. S., fifteen months' service in A. E. F., 3rd Div., 4 major engagements.
- Zanger, Eugene—Army.
- Zimmerman, Stanley H.—1st Lieut., Engineers, 107th Regiment. A. E. F., with 32nd Div. Wounded by H. E. Shell Oct. 19, 1918, Bois de Cheppy, Argonne.



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GEOGRAPHICAL LIST OF ALUMNI

ALABAMA

Ashland

Barton, J. C. 9

Bessemer

Cameron, C. B. B ✓

Schaber, C. F. B ✓

Birmingham

Whatley, W. J. B ✓

Mobile

Batson, C. D. A

Prattville

Thomas, W. P. H ✓

ARIZONA

Ajo

Brown, W. R.

Canon

Poss, J. R.

Christmas

Ormsbee, R. H.

Clarkdale

Kuzell, C. R.

Dewey

Ferris, A. L.

Douglas

Greenslade, R. M.

Gila Co.

Rigby, W. A.

Globe

Brown, L. N.

Inspiration

Graybeal, E. V.

Thielicke, C. G.

Jerome

DeCamp, W. V.

Mills, C. E.

Wagner, J. E.

Mayer

McKnight, H. S.

Miami

Allen, A. P.

Sweeney, W. G.

Mineral Park

Housholder, E. R.

Morenci

Hostetler, C. B.

Houle, A. J.

Perry, J. B.

Prouty, R. W.

Staples, C. M.

Patagonia

Pierce, C. A.

Phoenix

Koontz, K. K.

Tucson

Ellis, B. B.

Verde

Kruse, H. V.

ARKANSAS

Pike County

Zimmerman, S. H.

CALIFORNIA

Alleghany

Duggleby, A. F.

Anheim

Dickel, A. C.

Atascadero

Bretherton, S. E., Jr.

Bakersfield

Cavins, O. A.

Stevens, J. B.

Stoner, R. C.

Tolf, F. R.

Berkeley

Barden, G. S.

Bond, L. A.

Embury, P. A.

Hardison, H.

Hersam, E. A.

Leiser, B.

Livingston, A., Jr.

Louderback, G. D.

Lund, N. J.

Moody, C. L.

Probert, F. H.

Rogers, J. M.

Salsbury, R. T.

Schroeder, W. H.

Snyder, E. F.

Stanton, W. P.

Pickard, B. O.

Starbird, R.

Taliaferro, N. L.

Uren, L. C.

Wilcox, A. D.

Wright, W. B.

Carville

Coffey, G. W.

Claremont

Woodford, A. O.

CALIFORNIA—Continued**Coalinga**

Kirwan, T. D.

Goffs

Brooke, L.

Groveland

Varney, F. W.

Long Beach

Crocker, B. E.

Los Angeles

Dyer, A. C.

English, W. A.

Franklin, H. W.

Hassard, A. M.

Kissock, A.

McMillan, D. A.

Moody, G. B.

Mudd, S.

Price, W. F.

Thornburg, D. H.

Wagner, C. M.

Melones

Eisenhauer, R. C.

Oakland

Brunel, L. J.

Fremery, D. D.

Gibson, A. T.

Phillips, W. W.

Tupper, O. M., Jr.

Orange County

Wing, H. W.

Orcutt

Goodwin, G. L.

Palmdale

Rocca, B. T.

Plymouth

Arnot, S. L.

Kohle, L. F.

Portersville

Henry, L. W.

Sacramento

Brockway, A. E.

San Diego

West, J. R.

San Francisco

Barkis, H. B., Jr.

Butterworth, E. M.

Coles, H. L.

Countryman, R.

Deane, J. T.

Elfstrum, A. E.

Folger, A.

Gester, G. C.

Hoenigmann, F. J.

Knox, C. R.

Lane, T. P.

Lawson, A. W.

Marshall, E. M.

May, A. R.

Moody, W. L.

McGinnes, W. H.

Ogilvie, S. J.

Orynski, L. W.

Schilling, K. H.

Stock, C.

Vaughan, F. E.

Wall, E. R.

Wilson, F. L.

San Jacinto

Otis, B. A.

San Juan

Van Derleek, L.

San Luis Obispo

Darke, R. E.

Santa Maria

Morse, R. R.

Tickell, F. G.

Sausalito

Waithman, J. L.

Shelby

Sperry, A. M.

Uplands

Ruth, B. A.

Van Nuys

Young, O. W.

Whittier

Gester, S. H.

Willows

Behr, E. E.

Geis, W. H.

COLORADO**Canon City**

Myers, J. F.

Colorado Springs

Howbert, V. D.

Worth, L. K.

Denver

Boot, H. E.

Burris, S. G., Jr.

East, J. H., Jr.

Eaton, A.

Geib, F. H.

Heitzman, M. G.

MacCarthy, C. F.

McGuire, P. J.

McHugh, P. M.

Munn, H. E.

Ramsey, E. R.

COLORADO—Continued**Denver**

Rhoades, R. S.
 Schneider, H. G.
 Schramm, B. D.
 Shanley, J. R.
 Thomas, L. C.
 Walker, S. M.
 Wheeler, R. M.
 Wilfley, E. R.
 Wilfley, G.
 Williams, W. H.
 Winchell, J. H., Jr.
 Ziegler, V.

Fowler

Dallimore, A. N.
 Knowlton, H. H.

Golden

Brinker, F. A.
 Callahan, T. W.
 Cunningham, S. D.
 Dyer, C. E.

Greeley

Watson, G. P.
 Woolf, J. H., Jr.

Hugo

Matheson, K. H.

Ironton

Ehnbom, L.

Nederland

Bisland, J. B.

Pueblo

Lannon, J. A.
 Robertson, F.

Rico

Fields, H. H.
 Schreiber, C. F.
 Wiggins, R. R.

Rocky Ford

Kaiser, K. W.

Rollinsville

Dodge, D. C., Jr.

San Juan County

Bryan, R. R.

Silver Cliff

Walker, H. A.

Sugar Loaf

Benyousky, T. D.

Trinidad

Davis, G. S.

Walsenburg

Andrews, T. H.

White Pine

Dick, J. E.
 Dyrenforth, D.

CONNECTICUT**New Haven**

Buwalda, J. P.

Norwich

Haviland, T. Z.

Torrington

Buxton, P. H.

Waterbury

Camp, O. P.

DELAWARE**Wilmington**

Hurlbutt, F. L.

FLORIDA**Tampa**

Shuey, A. F.

GEORGIA**Atlanta**

Coldwell, J. S.

Savannah

Riegel, L. F.

Toccoa

Strong, M. R.

IDAHO**Boise**

Smith, H. A.

Pocatello

Schneider, D. J.

Quartzburg

Pearce, J. W.

Rexburg

Harris, A. E.

Sand Point

Edgerton, R. E.

ILLINOIS**Aurora**

Sanderson, A. K.

Bloomington

Foster, F. W.

Blue Island

Curtis, B. J.

Carbondale

Gauthier, C. B.

Carlville

Maness, O. N.

ILLINOIS—Continued**Champaign**

Davis, J. W.
Rogers, H. T.

Chicago

Alsip, G. A.
Carr, K. W.
Chapman, H. H.
Clark, C. M.
Cleveland, B. S.
Dorr, W. R.
Ehlers, L. W.
Ernest, C. P.
Fick, O. W.
Flannery, C. A.
Golick, T. F.
Haake, H. G.
Hadsell, I. W.
Haynes, W. E.
Hopkins, H. H., Jr.
Howry, H. H.
Jensen, J. E.
Jerome, F. J.
Kristy, G. A.
Kroeschell, R. S.
Krug, F. S., Jr.
Morton, A. H.
Needler, J. H.
Ott, J. E.
Parker, R. I.
Peacock, C. D.
Pearson, F. H.
Pursell, J.
Ritter, W. T.
Shreve, J. D.
Simpson, J. F.
Stevens, J. G.
Westenhaver, L. J.

Depue

Thoms, J. E.

Elgin

Giertz, A. E.
Heindel, J. H.
Marquhardt, H. W.

Fort Sheridan

Ambler, H.

Galena

Garnett, T. H.

Golconda

Higgins, R.

Jerseyville

Newton, R. K.

Lake Forest

Derby, S. R.

La Salle

McCormack, T. H.

Maroa

Bowersock, W.

Moline

Ek, G. A.
Strauch, D. J.

Momence

Foster, F. W.

Montezuma

McEvers, E.

Newton

Teets, C. W.

Oak Park

Dutton, H. B.
Kraft, R. R.
Peck, R. L.

Oquakwa

Gordon, K. H.

Ottawa

Tuthill, J. P.

Peoria

Cole, E. B.
Grotts, F.
Nelson, W. O.
Reichelderfer, H. G.

Plano

Owen, H. L.

Quincy

Bush, K. B.

Rockford

McIvor, C. C.
Sheppard, C. H.

Rock Island

Hanks, I. B.

Springfield

Smiley, V. N.

Urbana

King, E. E.
Leutwiler, O. A.
Wilson, W. M.

INDIANA**East Chicago**

Johnson, G. E.

Fortville

Whetsel, R. V.

Fort Wayne

Harrod, W. A.

Gary

Bush, J. C., Jr.
Kenvin, T. B.

Howe

Chesboro, I. A.

INDIANA—Continued

Lafayette
Kesner, H. J.

La Porte
Shick, H. B.

Princeton
Riggs, F.

IOWA

Centerville
Widmer, W. E.

Davenport
Gilchrist, A.

Des Moines
Harper, R.

Sioux City
Beall, A. B., Jr.

Waterloo
Bartell, A. R.

KANSAS

Abilene
Madden, F. A.

Belleville
Ward, R. B.

Chanute
Boman, A. L.

Concordia
Wagner, P. P.

Dodge City
Wesley, W. P.

Elderado
Sandifer, R. P.

Emporia
Burton, W. A.
Harris, A.

Glasco
Fletcher, C. C.

Hutchinson
Fairchild, S. G.

Independence
Crawford, H. W.
Mahan, J. R.

Junction City
Young, Y. Y.

Kansas City
Fast, J. C.
James, D. S.

Lawrence
Jones, J. O.
McFarland, P. W.
Rice, H. A.
Shaad, G. C.

Leavenworth

Fox, M. P.
Lansing, J. C.
Luplow, W. D.
Matchett, H. J.
McCune, M.
Tholen, C. W.

Lyndon
Wilson, H. L.

Minneapolis
Templin, A. W.

Neodasha
Seward, C. D.

Newton
Shriver, R. O.

Ottawa
Geiger, C. T.

Powhattan
Andrews, O. L.

Richmond
Staley, H. H.

Robinson
Brown, W. E.

Sylvan Grove
Calene, E. L.

Topeka
Groft, A. J.
Holt, H. C.
Rankin, D. M.
Segar, R. L.
Warner, R. W.

Wichita
Coats, C. M.

Winchester
Shughart, C. L.

KENTUCKY

Lancaster
Hudson, W. E.

Lawrenceburg
Johnson, R. E.

Louisville
Deaver, R. E.

Lynch Mines
Follansbee, F. S.

Paducah
Petter, S. D.

Tarma
Torbert, J. B.

Winchester
Brett, H. A.

LOUISIANA

- Amite**
Bostick, J. W.
- Lafayette**
Denbo, J. M.
- New Orleans**
Aldrich, H. S.
Shelby, E., Jr.
- Sellers**
High, R. B.
- St. Francisville**
Lawrason, L.

MARYLAND

- Baltimore**
Bayless, G. E. S.
Brister, C. M., Jr.
Pyle, O. B., Jr.
Rockwell, H. S.
Walter, A. U.
- Sparrows Point**
Rashleigh, C. J.

MASSACHUSETTS

- Beverley**
Kayser, W. H.
- Boston**
Badger, A. C.
Earling, R. B.
Fiske, C. P.
Hill, L. T.
Leonard, J. T.
Lowell, J. B.
Lunn, J. A.
Miller, E. F.
Newell, F. B.
Reed, M. J.
Smith, H. W.
- Brookline**
Davis, T.
Deane, K.
Goff, J. C.
Little, F. W.
Rollins, W.
- Chelsea**
Denison, H. W.
- Danvers**
Putnam, W. F., Jr.
- Fitchburg**
Litchfield, R. E.
- Hingham**
Randall, L.
- Lynn**
Morrison, A. S.

- Malden**
Medding, W. L.
- Milton**
Leslie, F. H.
- Newton**
Lord, C. R.
Muther, W. P.
- Roslindale**
Banks, W. H., Jr.
- Salem**
Hackett, R. P.
- Southbridge**
Davis, L.
- Wellesley**
Ingraham, F. T.
- Winchester**
Swain, W. C.
- Winter Hill**
Whitman, P. G.
- Winthrop**
Hickey, D. W., Jr.
- Worcester**
Forbes, H. H.

MICHIGAN

- Alma**
Wagner, R. B.
- Alpha**
Perkins, W. J.
- Ann Arbor**
Alt, G. L.
- Argyle**
McNaughton, C. H.
- Bay City**
Harris, W. J.
Riker, E. A.
- Bellevue**
Weed, S. V.
- Boyne City**
Barden, R. F.
- Calumet**
Beck, W. A.
Drier, R. W.
Loveland, R. A.
- Croswell**
Graham, E. R.
- Crystal Falls**
Bjork, C. A.
Bjork, D.
Eidemiller, H. N.

MICHIGAN—Continued**Detroit**

Anderson, G. A.
Armitage, J. B.
Baird, L. S.
Blackmar, D. C.
Bliss, J. L.
Dobson, D. I.
Elliott, H. C.
Hawley, T. M.
Hinckley, P. E.
Kinnear, L. W.
Miner, R. I.
Newkirk, D. L.
Stilwill, E. H.

Flint

Griffin, R. J.
Hopkins, H. H.
Shields, C. P.

Grand Rapids

Idema, R. D.

Hancock

Bemis, E. L.
Kendall, A.

Highland Park

Crabb, J. M.

Houghton

Carson, C. M.
Evans, C. W.
Henderson, E. S.
Holmes, J. F.
Moon, R. M.
Potter, O.
Seaman, A. E.
Sperr, F. W.
Suverkrop, L. A.

Iron River

Shelden, G. G.

Ishpeming

Nicolson, C. W.

Loretto

Mills, H. F.

Marquette

Drake, M. C.

Michigamme

Lund, O. R.

Midland

Stein, E. R.

Muskegon

David, J.
Doten, E. F.

North Kearsarge

Edwards, J. G.

Norway

Hellberg, E. A.

Painsdale

Peterson, C. W.

Pontiac

Smith, A. L.

Sault Ste Marie

McNair, B. M.

Wakefield

Cook, W. R.
Fellman, C. M.
Rowell, J. H.

Winona

Harrington, J. M.

Wyandotte

Lauffer, Z. P.

MINNESOTA**Barnesville**

Atkinson, W. B.

Bovey

Leach, E. W.
Shemmel, J. P.

Chisholm

Calhoun, R.

Duluth

Bartlett, H. L.
Buck, F. W.
Coe, E. H.
DeVey, C. H.
Jaques, R.
Metcalf, J. C.
Ringsred, G. J.
Rose, W. A.
Scott, J. A., Jr.
Sneve, J. S.
Spring, W. W.
Steinbach, H. P.
Strong, J. L.
Wesbrook, D. M.

Elmore

Wentz, W. W.

Eveleth

Nolan, J. T.
Sprague, N. E.

Ely

Duncan, K. J.

Fairmont

Curtis, T. H.
Hartman, L. R.
Kasper, W. F.
Starrett, H. M.

Hibbing

Carlson, A. E.
MacKillican, J. A.
Northey, M. T.

MINNESOTA—Continued**Kinney**

Bannister, A. E.
Mitchell, F. R.

Mankato

Milne, R. H.

Minneapolis

Adams, J. W.
Barnum, M. C.
Brodie, J. S.
Bros, E. T.
Bros, R. J.
Chandler, M. D.
Colvin, J. A.
Comstock, E. H.
Cowin, J. M.
Craig, D. S.
Cutler, F. A., Jr.
DeLaittre, H. H.
Dawson, L. W.
Dutoit, G. A., Jr.
Emmons, W. H.
Farnum, J. P.
Furber, P. P.
Goetzenberger, R. L.
Granfield, T. H.
Haglin, C. F., Jr.
Haynes, S. H.
Helmick, D. S.
Hewett, M. W.
Holman, W. F.
Hult, G. A.
Hurley, J. J.
Jevne, G. W.
Kingsley, N. S.
Ladd, G.
Lagerquist, C. S.
Larkin, A. E.
Laurence, P. A.
Laurence, P. J.
Leonard, T. K.
Mahoney, W. L.
Marshall, D. E.
McGilvra, D. B.
Rockwood, F.
Russell, J. A.
Siekkinen, C. A.
Sutherland, D. L.
Timperly, W. D.
Torrance, E., Jr.
Tryon, P. D.
Wallace, C. S.
Walling, B. B.
Wheeler, W. H.
Woodrich, O. F.
Zelner, O. S.

Plainview

Askew, T. A., Jr.

Rice County

Chapman, W. P.

Sauk Rapids

Robbers, J. C.

St. Paul

Beinhorn, P.
Casper, L. W.
Curtiss, L. B.
Hagerman, O. S.
Hauser, K. D.
Hauser, R. V.
Haynes, J. E.
Hinckley, T. L.
Johnston, R. E.
Kennedy, J. J.
Kopper, E., Jr.
McEnary, D. R.
Olson, W. S.
Palmer, P. B.
Quinlan, H.
Rood, L.
Rufsvold, O. M.
Shepard, G. M.
Stone, C. W.
Urquhart, K. G.
Warren, A. H., Jr.
Wunderlich, M. S.

Stillwater,

Sullivan, D. C.

Virginia

Benson, A. F.
Wortley, R. B.

MISSOURI**Denver**

Osborn, E. L.

Flat River

Weimer, E. J.

Jefferson

Bodman, R. J.

Kansas City

Angevine, L. C.
Boesche, J. P.
Buchanan, J. P.
Butler, J. S.
Cooley, S. J.
Darby, H. E.
Davis, F. A.
Dodd, L. H.
Gedney, K. H.
Heron, C. M.
Hunt, J. L.
Machovec, E. P.
Newcomer, E. T.
Orton, J. W.
Russell, H. A.
Sheidley, H. O.
Thomas, J. A., Jr.
Washburn, E. A.
Wright, H. H.

MISSOURI—Continued**Leadwood**

Weimer, R. S.

Rolla

Buehler, H. A.

St. Louis

Applegate, J. S.

Craun, J. M.

Dowd, J. J.

Foulke, R. E.

Glasgow, C. W.

Kruger, H. A.

Mangelsdorf, A. H.

Moffett, J. O., Jr.

Stifel, C. G.

Triefenbach, G. L.

Turnbull, L. A.

Young, V.

MONTANA**Anaconda**

Ballard, J. I.

Brown, P. F.

Case, R. A.

Frick, F. F.

Klepetko, E.

Remington, C. A.

Scott, W. G.

Wilkinson, J. R.

Woodlief, H. E.

Butte

Bicknell, H. L.

Calvert, C. E.

Cobban, R. J.

Dingman, O. A.

Grimm, G.

Klaustermeyer, P. H.

Mann, W. J.

O'Brien, J. C.

Dillon

Nutting, F. L.

Dixon

Mowrey, C. W.

Helena

Houston, F. K.

Lewiston

Wright, F. S.

Livingston

Cutter, P. F.

Missoula

Weisel, G. F.

NEVADA**Carlin**

Langford, J. Q.

Carson

Smith, G. D., Jr.

Ely

Whittlesey, H. C.

Jarbridge

Billick, D. C.

Manhattan

Haug, E. J.

Omco

Miller, W. B.

Rochester

Donald, R. T.

Ruth

Steinbach, C. F.

Tonopah

Lorain, S. H.

O'Donnell, O.

Oliveros, R. P.

Schrader, E. J.

Waldner, C. E.

NEW HAMPSHIRE**Concord**

Swenson, G. A.

Manchester

Africa, W. M.

NEW JERSEY**Coldwell**

Ross, R. H.

Edgewater

LaMer, J. S.

Englewood

Stickney, R. A.

Harrison

Sommerville, W. B., Jr.

Jersey City

MacMillan, H.

Montclair

Shultz, E. C.

Passaic

Prescott, A. N.

Phillipsburg

Ingleheart, G. P.

Plainfield

Douglas, W. C.

Trenton

Arms, C. S.

Wharton

Van Valkenburg, R. R.

NEW MEXICO

Albuquerque

Davis, E. F.
Kerr, R. C.
Madden, J. E.
Murphy, N. D.

Hanover

Flinn, A.

Lordsburg

Gould, E. H.
Kern, P. D.

Silver City

Edwards, H. R.
Kirchman, R. I.

Socorro

Campredon, P. A.

NEW YORK

Auburn

Reber, J. B.

Brooklyn

Benton, H. G.
Dixon, M. M.
Foster, W. C.

Buffalo

Barry, E. H.
Bever, H. L.
Wood, A. F.
Wood, L. E.

Canandagua

Burke, G. M.

Dunkirk

Hartley, W. T.

Earlville

Clark, J. C.

Forest Hills

Mandell, A. J.

Hoosick Falls

Miller, J. S.

Long Island

Coope, G. P.
Scott, J. C.

Manhattan

Ackers, D. E.

Mt. Vernon

Bird, H. E., Jr.

New York City

Anderson, R. B.
Banks, R. M.
Benson, R.
Birkett, H.
Chaffin, C. E.
Coller, W. A.

Curtis, B. C.
French, G. F.
Frisbie, D. B.
Griggs, E. C.
Haeberle, C. F.
Leeb, H. L.
Lewis, W. M.
Lowengard, R. O.
Lund, J. V.
Requa, L. K.
Richmond, K. C.
Smith, D. C.
Snedaker, E. G.
Snow, L. W.
Sprowl, N. E.
Spurney, E.
Wav, D. D.
Webb, T. H.
Wensley, R. L.
Wormser, F. E.
Worthington, H.

Nyack

Park, J.

Oneonta

Strong, E. A.

Poughkeepsie

Tongue, W. B., Jr.

Rochester

Miller, A. M.
Pryor, W. L.

Schenectady

Dunham, R. O.
Jones, R. A.

Yonkers

Kittredge, G. D.

NORTH DAKOTA

Fargo

Sheffield, F. W.

OHIO

Akron

Adams, B. W.
Fleming, W. H.
Ingle, J. B.
Kaiser, H. W.
Liebler, G. M.
Mittendorf, R. F.

Alliance

Moses, J. E.
Schlotter, L. C.

Ansonia

Hansbarger, E. D.

Ashtabula

Fortune, F. G.
Kennedy, D. E.

OHIO—Continued**Bowling Green**

Heena, C. R.

Brunswick

Cotton, C. W.

Canton

Alden, J. W.

Cincinnati

Geib, G. A.

Herbig, W. R.

Cleveland

Atwood, C. R.

Barrett, G. N., Jr.

Bever, C. A.

Budde, O. C.

Caine, F. E.

Chesney, G. L.

Cobbledick, S. E.

Collier, L. A.

Conley, W. E.

David, C. E.

Diemer, C. P.

Driscoll, G. A.

Freeman, H. L.

Fugman, V. C.

Ganzenmueller, C. H.

Gillett, W. E.

Groselle, J. F.

Haserodt, H. G.

Hasse, A. C.

Holzhauer, W.

Hughes, W. L.

Hunscher, H. L.

Jeffries, Z.

Jenks, K. E.

Kodet, G.

Lavan, T. J.

Liebing, W. E.

Main, W. C.

Malm, R. D.

McDowell, R. A.

McLaughlin, A. R.

Pease, H. C.

Perkins, J. C.

Rawson, G. R.

Rose, H. L.

Schramm, O. F.

Stenberg, W. M.

Strome, P. C.

Taylor, E. A.

Thornton, S. E.

Tracey, S. E.

Vickery, M. W.

Ward, H. E.

Whelan, R. J.

Willson, T. R.

Columbus

Riddle, L. B.

Ivorydale

McPherrin, W. L.

Mansfield

Alderson, G. E.

Marietta

Buckley, H. G.

Paulding

Scott, J. R.

Shelby

MacInnes, G. R.

Springfield

Thomas, W. S.

Wiseman, R. C.

Toledo

Abbey, N. D.

Braun, C. A.

Cramer, C. F.

Youngstown

Morgan, G. H.

Warren

Mix, R. C.

OKLAHOMA**Bartlesville**

Van Houten, H. C.

Garber

Diehl, P. A.

Kingfisher

Lindsey, A. H.

Norman

Essig, B. C.

Oklahoma City

Murphey, G. R.

Yeokum, G. H.

Ponca City

Smee, G.

Wasson, H. J.

Sallisaw

Johnston, F. E.

Tulsa

Curtis, H. K.

Parker, J. L.

Wakenhut, C. J.

OREGON**Bend**

Vinal, E. L.

Eugene

Packard, E. L.

Juntura

Churchill, H. D.

PENNSYLVANIA

- Franklin**
Burns, J. J.
Koebler, C. F.
- Lansford**
Morris, R. V., Jr.
- Latrobe**
Gill, J. P.
- Lester**
Anderson, E. I.
- New Kensington**
Templin, R. L.
- Oil City**
McLauchlan, B. H.
Welker, G. E.
- Philadelphia**
Brown, P. D.
Horner, H. A.
Huff, T. H.
- Pittsburgh**
Foard, M. W.
McClintic, H. H., Jr.
Troppman, G. L.
- Sharron**
Carpenter, P. H.
- Somerset**
Knepper, C. M.
- York**
Smith, L.

RHODE ISLAND

- Central Falls**
Kline, Z. C.
- New Port**
Bryant, F. C.
- Pawtucket**
Severin, C.
- Providence**
Barney, F. W.
Fletcher, R. L.
Freeman, H. T.

SOUTH DAKOTA

- Sioux Falls**
Kapphahn, H. E.

TENNESSEE

- Mascot**
Hood, K. K.
- Mt. Pleasant**
Barr, J. A.
- Nashville**
Polley, E. E.

TEXAS

- Amarillo**
Brown, N. W.
Samson, H. E.
- Beaumont**
Alvey, G. H.
- Cisco**
Hubbard, W. E. ✓
- Dallas**
Allen, C. A.
Brotherton, W. H.
Clark, C. W. ✓
Kerr, J. B.
Pack, R. W.
- El Paso**
D'Evelyn, W. E.
- Fort Worth**
Andrews, W. B.
Burg, R. S.
Douglas, J. M. ✓
- Galveston**
Vawter, J.
- Houston**
Farthing, W. J.
Suman, J. R. ✓
- San Antonio**
Ranney, A. G.
- Waco**
Gay, R. N.
Stribling, S. R.
- Wichita Falls**
Trembrath, J.

- Bingham**
Abbott, T. S.

UTAH

- Clear Creek**
Stroup, R. K.
- Eureka**
May, A. J., Jr.
Spriggs, H. S.
- Garfield**
Wood, R. U.
- Grantville**
Erickson, J. P.
- Hiawatha**
Herres, O., Jr.
- Murray**
Kilbourn, B. N.
Wells, R. E., Jr.
- Ogden**
Allen, F. L.
Robinson, R. W.
Smith, L. B.

Utah—Continued**Park City**

Hegeman, A. K.

Price

Jones, W. W.

Salt Lake City

Anderson, L. A.

Baldwin, H. L.

Besley, S. S.

Billings, T. P.

Bywater, G. G.

Christensen, L. A.

Clark, H. W.

Coffman, F.

Davis, R. W.

Gillis, R. A.

Grosbeck, H. L.

Hall, H. G.

Hayward, W. G.

Hilsdale, P.

Kelsey, W. H.

Ketchum, R. B.

Lewis, H. C.

Lyman, R. R.

Maughan, W. B.

McNabb, W. T.

Nelson, H. L.

Pack, F. J.

Painter, C. E.

Penman, R. F.

Snyder, E. H.

Stevenson, C. C.

Sutherland, J. R.

Varley, T.

Vorck, C. R.

Welker, T. J.

Young, M.

Smithfield

Roche, M. E.

VERMONT**Barre**

McLean, J. B.

Melcher, P. R.

Brattleboro

Holbrook, F. C.

VIRGINIA**Camp Humphries**

Cristal, P. N.

Monarat

Williams, E. I.

WASHINGTON**Bellingham**

Kirkpatrick, M. R.

Blewett

Sawyer, E. L.

Seattle

Benson, A. F.

Burt, C. F.

Loeffler, H. S.

Spokane

Davis, S. B.

King, R. B.

Ritchie, J. R.

Tacoma

Shedwick, W. J., Jr.

Tono

Hicks, F. V.

WEST VIRGINIA**South Charleston**

Giltinan, D. M.

WISCONSIN**Ashland**

Dennis, R. C.

Dopp, J. L.

Beloit

Owen, H. P.

Green Bay

Nolan, P. E.

Janesville

Skavlem, H. G.

Kenosha

Fritch, G. M.

Marinette

Wenk, R. W.

Milwaukee

Hall, D. A.

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Kew, W. S. W.
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Parkhurst, F. S., Jr.
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Parker, R. J.
McMillan, W. D.
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Dougherty, E. Y.
Hasselbring, A.
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Meuche, A. H.
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Bradt, M. L.

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Hendricks, J. A.

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Chili

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Cole, L. E.

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VENEZUELA**Maracaibo**

Lewis, J. W.



CONVENTION DELEGATES—DEC. 1919-JAN. 1920

"Far away! There is no far!
 Nor days nor distance e'er can bar
 My spirit from your spirits—nay,
 Farewell may waft a face away,
 But still with you my heart will stay."

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 Care J. P. Scott, Traverse City, Mich.
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 Laboratory Dept., A. C. M. Co., Anaconda, Mont.
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 Care Tacoma Smelter, Tacoma, Wash.
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 Care Chicago Board of Trade, No. 1 Royal Insurance
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 ton, Mich.
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 Cranbrook, B. C., Canada.
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- STEINBACH, HARRY P. (B.S. E.M. '06)
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- THOMS, JAMES E. (E.M. '08)
Depue, Ill.
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Point Zinc Co., Depue, Ill.
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essee Coal & Land Co., Tarma, Ky.
- TRAVERS, JOHN T. * ('22)
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- TREMBRATH, JAMES (B.S. E.M. '08)
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- TREVENA, RALPH A. ('21)
Calumet, Mich.
- TURNER, HARRY M. (B.S. E.M. '11) Kappa Sigma
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Deceased.
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(All mail returned.)
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Hennesy Annex, Butte, Mont.
- BISLAND, JOHN B. (E.M. '13) Sigma Alpha Epsilon
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- COPELAND, CLARENCE E. (E.M. '13) Beta Theta Pi
Died March 22, 1915. Tau Beta Pi
- COULTER, RONALD S. ('19)
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- DUNN, JAMES L. ('12) Delta Kappa Epsilon
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- FLINN, ALFRED ('13) Kappa Sigma
Empire Zinc Co., Hanover, New Mexico.
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Golden, Colo.
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Pachuca, Hildalgo, Mexico.
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Tul Mi Chung, Whang Hai Pro., Korea.
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Somewhere in Mexico.
- METZGER, OTTO H. ('19)
Somewhere in Cuba.
- MILLER, GUY E. ('19)
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- OLIVEROS, REGINALD P. (E.M. '17) Kappa Sigma
Tonopah Divide Mine, Tonopah, Nev.
- O'MALLEY, JOHN J. ('18)
Killed at Ellington Field Houston, Texas, May, 1918,
Thru a fall in a Tail Spin.
- PARKER, RUSSEL J. ('19)
Somewhere in South Africa.
Does anyone know just where?
- PEARCE, JAMES W. (E.M. '14) Beta Theta Pi
Gold Hill & Iowa Mines Co., Quartzburg, Idaho.
- PITTSER, CHESTER M. ('19)
- POULIN, JOHN A. * ('21) Sigma Alpha Epsilon,
Golden, Colo.
- PRENTISS, LOUIS W. ('21) Sigma Alpha Epsilon
Golden, Colo. Tau Beta Pi
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- RUSSELL, DONALD O. (E.M. '09) Tau Beta Pi
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- SCHADE, ROGER M. * ('21) Sigma Nu
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- SCHAFER, LOUIS (E.M. '09) Kappa Sigma, Tau Beta Pi
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DELTA CHAPTER

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- WAKENHUT, CAROL J. ('17) Phi Gamma Delta
 508 S. 8th St., Salina, Kas.
 Geologist The Carter Oil Co., Tulsa, Okla.
- WARD, RICHARD B. (B.S. '13) Sigma Chi
 Belleville, Kas.
- WARNER, ROBERT W. (A.B. B. S. '18) Tau Beta Pi
 1312 Garfield St., Topeka, Kas.
 Assistant Chief Engineer The Topeka Edison Co., 808
 Kansas Ave., Topeka, Kas.
- WASHBURN, ELLWOOD G. (B.S. '16)
 912 E. 39th St., Kansas City, Mo.
 Goldberg & Son Structural Steel, Kansas City, Mo.
- WELLS, WILLIAM B. * ('21)
 Lewis, Kas.
- WESLEY, WENDELL P. (Ex. '18)
 Dodge City, Kas.
- WHITE, E. L. * ('21)
- WILLIAMS, JAMES O. * ('20)
 Columbus, Kas.
- WILSON, HERBERT L. (B.S. '21) Sigma Xi
 Died Aug., 1913, Lyndon, Kas.
- YEOKUM, GEORGE H. (B.S. '17) Tau Beta Pi
 412 E. Park Place, Oklahoma City, Okla.
 Care County Engineer Oklahoma County, Oklahoma City,
 Okla.
- YOUNG, YSSEL Y. (Ex. '21) Delta Tau Delta
 Junction City, Kas.

ETA CHAPTER

NOTE—All members marked with an Asterisk were active in the Chapters during 1919-1920.

- ABBOTT, NORRIS G. Jr. * ('20) Sigma Alpha Epsilon
107 Providence St., Providence, R. I.
- AFRICA, WALTER M. (S.B. '15) Sigma Alpha Epsilon
764 Chestnut St., Manchester, N. H.
Peoples Gas Light Co., Manchester, N. H.
- AKERS, KENNETH F. * ('20) Lambda Chi Alpha
108 University Road, Brookline, Mass.
- ALEXANDER, EDWARD P. (S.B. '14) Phi Kappa Psi
1211 E. First St., Duluth, Minn.
Killed in action. France.
- BAIRD, LYMAN S. (B.S. '14) Alpha Delta Phi
160 W. Euclid Ave., Detroit, Mich.
Sunnyhome Electric Co., Detroit, Mich.
- BANKS, WILLIAM H., Jr. ('19)
326 Warburton Ave., Yonkers, N. Y.
Roslindale, Mass.
- BANNISTER, ALFRED E. ('15) Kappa Alpha
3300 London Road, Duluth, Minn.
- BARNEY, FREDERICK W. ('19)
55 Irving Ave., Providence, R. I.
- BARRY, EDWARD H. (A.B. S.B. M.B.A. '15) Delta Tau Delta
530 Ward St., Newton Center, Mass.
106 St. James Place, Buffalo, N. Y.
- BEACH, GEORGE A. (B.S. '14) Sigma Alpha Epsilon
Fort Collins, Col.
Killed in airplane accident, Italy, Jan. 20, 1918.
- BENSON, ARTHUR F. ('17) *all mail returned.*
Wenonah, N. J.
Care Vulcan Mfg. Co., Seattle, Wash.
- BENTON, HERBERT G. (C.E. '13)
406 Hancock St., Brooklyn, N. Y.
- BLAINE, EMMONS (S.B. '14) Delta Upsilon
101 E. Erie St., Chicago, Ill.
Died Oct. 9, 1918.
- BROTHERTON, WILLIAM H. (Ex. '14) Phi Gamma Delta
Station A, Route No. 2, Dallas, Tex. Stock Farmer.
- BRYANT, FREDERICK C. (A.B. B.S. '14) Kappa Gammi Chi
9 Powell Ave., Newport, R. I.
- BUTLER, SPENCER W. * ('21)
1448 E. 108th St., Cleveland, O.
- BUXTON, PAUL H. (S.B. '16) Alpha Tau Omega
19 Migeon Ave., Torrington, Conn.
Hendey Machine Co., Torrington, Conn.
- CAMP, ORTON P. (B.S. '15)
98 Woodlawn Terrace, Waterbury, Conn.
- CASEY, BART F. * ('20) Delta Kappa Epsilon
111 Main St., Bridgeport, Mass.

- CLARK, MYRON H. * (B.S. '20) Sigma Alpha Epsilon
Lexington Road, Concord, Mass.
- COLDWELL, JOHN S. (B.S. '19) Beta Theta Pi
72 Virginia Ave., Atlanta, Ga.
Engr. Dept. Hartford Fire Insurance Co., care W. R.
Prescott, G. A., 801 Trust Co. of Georgia Bldg., At-
lanta, Ga.
- CRISTAL, PHILIP N. (A.B. S.B. '17) Phi Kappa Sigma
Bowling Green, Ky.
Care Engineers School, Camp A. A., Humphreys, Va.
- CURTIS, BRIAN C. (A.B. '17) Delta Tau Delta
116 E. 62nd St., New York City, N. Y.
- DAVIDSON, HOBART O. * ('20) Beta Theta Pi
Holland Patent, N. Y.
- DAVIDSON, KENNETH S. M. * ('20) Delta Tau Delta
65 Hodge Ave., Buffalo, N. Y.
- DAVIDSON, TREVOR O. M. * ('21) Delta Tau Delta
65 Hodge Ave., Buffalo, N. Y.
- DAVIS, LAWRENCE (S.B. '17) Delta Tau Delta
6 Summer St., Southbridge, Mass.
American Optical Co., Southbridge, Mass.
- DEAN, KEMERTON, (B.S. '16) Sigma Alpha Epsilon
19 Lanark Road, Brookline, Mass.
- DENISON, HORACE W. ('19)
60 Gartland St., Chelsea, Mass.
- DOTEN, EVERETT F. (S.B. '19) Phi Gamma Delta
219 Webster Ave., Muskegon, Mich.
Muskegon Motor Specialties Co.
- DREW, CHARLES W., Jr. ('17) Delta Kappa Epsilon
29 Inman St., Cambridge, Mass.
- EASTMAN, WILLIAM Jr. (Ex. '18) Phi Kappa Sigma
Injured at U. S. A. ground for aviation at M. I. T.
Died Nov. 8, 1917.
- ETTER, HAROLD P. * (B.S. '20) Kappa Sigma
843 Laurel St., Alameda, Calif.
- FALES, HERBERT G. * ('20) Delta Kappa Epsilon
145 Highland St., W. Newton, Mass.
- FARTHING, WILLIAM J. (S.B. '16) Kappa Sigma
Montrose Apt., Houston, Texas.
- FICK, OTTO W. (S.B. '14)
1119 South Clinton Ave., Oak Park, Ill.
Care The Liquid Carbonic Co., 3100 S. Kedzie Ave.,
Chicago, Ill.
- FISKE, CHARLES P. (S.B. '14) Delta Tau Delta
147 Grove St., Wellesley, Mass.
N. E. Rep. Financial Sales Div., Gen. Motors Acc. Corp.,
75 State St., Boston, Mass.
- FISKE, DAVID L. * ('20) Delta Upsilon
70 Court St., Exeter, N. H.
- FLEMING, WILLIAM H. (S.B. '16) Delta Tau Delta
49 Hurlburt Ave., Akron, Ohio.
The Goodyear Tire & Rubber Co., Akron, Ohio.

- FLETCHER, RALPH L. (B.S. '15) Sigma Alpha Epsilon
156 Armington St., Edgewood, R. I.
Providence Gas Co., Providence, R. I.
- FOSTER, WILLIAM C. (Ex. '18) Lambda Phi
Stoneleigh Park, Westfield, N. J.
360 Flatbush Ave., Brooklyn, N. Y.
- FREEMAN, HOVEY T. (B.S. '16) Delta Kappa Epsilon
235 Arlington Ave., Providence, R. I.
815 Grosvenor Bldg., Providence, R. I.
- FREMERY, DONALD de (S.B. '15) Psi Upsilon
77 Fairmount Ave., Oakland, Calif.
- FRENCH, GEORGE F. ('19) Phi Gamma Delta
116 East 58th St., New York City, N. Y.
42 East 78th St., New York City, N. Y.
- GAGE, FRANK D. * ('22) Sigma Alpha Epsilon
Minneapolis, Ks.
- GATEWOOD, ARTHUR R. * ('21)
- GAY, ROBERT N. ('17) Delta Kappa Epsilon
2713 Washington St., Waco, Tex.
- GIBSON, ALGERNON T. (B.S. '13) Alpha Delta Phi
1965 Pacific Ave., San Francisco, Cal.
325 13th St., Oakland, Cal.
- GIBSON, JAMES W. * ('20)
326 Highland St., West Newton, Mass.
- GOFF, JAMES C. ('19) Delta Gamma
1069 Beacon St., Brookline, Mass.
- HACKETT, ROBERT P. (B.S. '19) Alpha Tau Omega
108 Corey St., West Roxbury, Mass.
Helburn Thompson Co., Salem, Mass.
- HAGLIN, CHARLES F. Jr. (S.B. '13) Psi Upsilon
226 Lumber Exchange, Minneapolis, Minn.
- HARLIN, EUGENE L. * ('20)
- HARPER, ROBERT ('15) Sigma Alpha Epsilon
1204 21st St., Des Moines, Ia.
- HARVEY, ALEXANDER D. * ('21) Sigma Alpha Epsilon
Merrick, Long Island, N. Y.
- HAVILAND, THEODORE Z. (S.B. '17) Sigma Alpha Epsilon
27 Green Ave., Norwich, Conn.
- HEPINSTALL, JOHN (S.B. '16) Delta Kappa Epsilon
108 Duffy St., Charleston, W. Va.
406 Talbot St., St. Thomas, Ontario, Canada.
- HILL, CHARLES R. (E.M. M.S. '12) Delta Psi
University Club, Denver, Colo. Tau Beta Pi
Lamson & Hubbard Canadian Co., Ltd., 10107-103 St.,
Edmonton, Alberta, Canada.
- HILL, LUCIUS T. (B.S. '17) Lambda Phi
75 Monmouth St., Brookline, Mass.
Care Merrill Oldham & Co., 35 Congress St., Boston, Mass.
- HOLBROOK, FREDERICK C. (S.B. '16) Delta Kappa Epsilon
Civil Engineer, Brattleboro, Vt.
- HOWARD, EDWARD M. * ('21)
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- HUFF, THOMAS H. (S.B. '15) Sigma Alpha Epsilon
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Naval Aircraft Factory, Philadelphia Navy Yard, Pa.
- HURLBUTT, FREDERICK L. (B.S. '15) Kappa Alpha. (Northern)
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Ingersoll-Rand Co., Phillipsburg, N. J.
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University Club, Akron, Ohio.
- INGRAHAM, FRANKLIN T. (A.B. B.S. '14)
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Room 401 La Salle Station, Chicago, Ill.
- JUNOD, HENRI P. * ('21) Theta Delta Chi
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Experimental Dept., United Shoe Machinery Co., Beverly,
Mass.
- KITTREDGE, FRANCIS B. * ('21) Chi Phi
56 Academy Rd., North Andover, Mass.
- KITTREDGE, GEORGE D. (S.B. '17) Delta Tau Delta
412 N. Broadway, Yonkers, N. Y.
- KNOX, MERRILL B. * ('20) Delta Tau Delta
227 N. Central Ave., Chicago, Ill.
- KRUG, FRANK S. Jr. (B.S. '17) Delta Tau Delta
3352 Jefferson Ave., Cincinnati, Ohio.
Care Wisconsin Granite Co., 1503 Lumber Exchange,
Chicago, Ill.
- LAWRASON, LEVERING (B.S. '16) Sigma Alpha Epsilon
Sugar Chemist, St. Francisville, La.
- LEEB, HENRY L. (B.S. '15) Lambda Phi
166 Ralston Ave., South Orange, New Jersey.
Production Engr., care Western Elec. Co., 463 W. St.,
New York City, N. Y.
- LEONARD, JULIAN T. ('18) Sigma Alpha Epsilon
Middleboro, Mass.
390 Commonwealth Ave., Boston, Mass.
- LESLIE, FREELAND H. (A.B. S.B. '14)
44 Randolph Ave., Milton, Mass.
- LITTLE, THOMAS W. (B.S. S.B. '16) Alpha Delta Phi
61 Sewall Ave., Brookline, Mass. Phi Beta Kappa
Calcutta, India, care The Argus Co., Ltd., Branch of
The Bemis Bros. Bag Co., Boston, Mass. Room 1003,
40 Central St.
- LORD, CHARLES R. (S.B. '16) Delta Kappa Epsilon
Claremont, St., Newton, Mass.

- LOWENGARD, RICHARD O. (S.B. '17)
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- LUNN, JOHN A. (S.B. '17) Sigma Alpha Epsilon
Fort Collins, Colo.
484 Beacon St., Boston, Mass.
- MacDONALD, EDMUND J. * ('21) Delta Kappa Epsilon
28 Ash St., Auburndale, Mass.
- MARINE, J. SIDNEY * ('21) Alpha Tau Omega
605 5th St., Brooklyn, N. Y.
- McBROOM, EARLE H. * ('21)
703 8th St., Laramie, Wyo.
- McCLINTIC, HOWARD H. Jr. ('19) Chi Phi
219 S. airmount Ave., Pittsburgh, Pa.
1130 Beechwood Bldg., Pittsburgh, Pa.
- McENARY, DALE R. (S.B. '14) Alpha Delta Phi
2324 Pleasant Ave., S. Minneapolis, Minn.
Architect, 321 Capitol Bank Bldg., St. Paul, Minn.
- McGRATH, LEIGH J. * ('22)
815 South Beacon St., Casper, Wyo.
- McIVOR, CARLISLE C. (B.S. '18) Psi Upsilon
15 Funston St., Brookline, Mass.
105 Douglas St., Rockford, Ill.
- McKEEN, WILLIAM R. Jr. * ('21) Alpha Tau Omega
428 South 6th St., Terre Haute, Ind.
- McKENNEY, WALTER R. * (B.S. '20)
157 Cottage St., Bridgeport, Conn.
- McPERRIN, WILLIAM L. (B.S. S.B. '14) Beta Theta Pi
717 Gholson Ave., Cincinnati, Ohio.
Proctor & Gamble, Ivorydale, Ohio.
- MEDDING, WALTER L. (S.B. '17) Phi Sigma Kappa
206 Ferry St., Malden, Mass.
Capt., 7th Engineers, Camp Gordon, Ga.
- MILLER, ARTHUR M. (B.S. '17) Alpha Delta Phi
180 Gregory St., Rochester, N. Y.
304 Cutler Bldg., Rochester, N. Y.
- MILLER, EDWARD F. (S.B. '86 Hon.) Phi Sigma Kappa
538 Ward St., Newton Center, Mass.
Prof. in Charge of M. E. Dept., M. I. T., Boston, Mass.
- MORRISON, ARCHIBALD S. (S.B. '15) Alpha Delta Phi
131 Moraine St., Brockton, Mass.
3 Grosvenor Park, Lynn, Mass.
- MUTHER, WALTER P. (B.S. '13)
91 Arlington St., Newton, Mass.
- NASH, JOHN C. * ('20) Delta Upsilon
Cherryfield, Maine.
- NIELSON, OTTO E. ('17)
Svearhus, Helsingor, Denmark.
- NIXON, STUART * ('21) Lambda Chi Alpha
34 Chandler Ave., Detroit, Mich.
- O'DONNELL, OTTOMAR (B.S. '13)
1527 Race St., Denver, Colo.
P. O. Box 981, Tonopah, Nev.

- OSBORN, ERNEST L. (S.B. Ph.B. '12)
Phi Gamma Delta, Sigma Xi
Phi Gamma Delta Club, 34 W. 44th St., ~~Denver, Mo.~~ *N.Y.C.*
- OWEN, GEORGE F. B. * ('21)
1616 Franklin St., Wilmington, Del.
- PATTERSON, ROBERT D. * ('20) Sigma Alpha Epsilon
205 Center St., So. Manchester, Conn.
- POLLEY, ERNEST E. (Ex. '15) Delta Tau Delta
331 Pearl St., Ft Wayne, Ind.
Nashville Ry. & Light Co., Nashville, Tenn.
- PRESCOTT, AMOS N. ('19) Phi Sigma Kappa
181 Lafayette Ave., Passaic, N. Y.
- PRYOR, WILLARD L. (B.S. '17) Alpha Delta Phi
156 Gossline St., Rochester, N. Y.
308 Chili Ave., Rochester, N. Y.
- PYLE, ODEN B. Jr. (B.S. '17) Alpha Delta Phi
111 W. 29th St., Baltimore, Md.
1028 Cathedral St., Baltimore, Md.
- RANNEY, ALFRED G. (S.B. '13) Chi Psi, Delta Sigma Nu
115 Hermitage Court, San Antonio, Texas.
Bartlett & Ranney Inc., Consulting Engineers, 524
Moore Bldg., San Antonio, Texas.
- REBER, JAMES B. ('14) Phi Gamma Delta
Sinking Springs, Pa.
11 Jefferson St., Auburn, N. Y.
- RICHMOND, KENNETH C. (B.S. '17) Alpha Delta Phi
114 Tremont St., Rochester, N. Y.
Miller, Franklin, Basset & Co., 347 Madison Ave., New
York City, N. Y.
- ROLLINS, WINGATE (A.B. '18) Delta Kappa Epsilon
Brush Hill Lane, Milton, Mass.
11 Vernon St., Brookline, Mass.
- ROSS, RALPH H. ('17) Lambda Phi
10 Church St., St. Johnsbury, Vt.
16 Elmwood Terrace, Caldwell, N. J.
- RYER, EDWIN D. * ('20) Delta Kappa Epsilon
81 Greenough St., Brookline, Mass.
- SEWALL, EDWARD D. (S.B. '17)
222 Bacon St., Waltham, Mass.
Brompton Pulp & Paper Co., Box 411, E. Angus, Province
of Quebec, Canada.
- SHIRLEY, HUGH M. * ('21)
- SHUEY, ARTHUR F. (A.B. B.S. S.B. '16)
Camden, Ohio. Delta Kappa Epsilon
218½ Hyde Park Ave., Tampa, Fla.
- SHULTZ, EDWIN C. (Ex. '18)
176 Park St., Montclair, N. J.
- SMITH, HARRISON W. (A.B. S.B. '95 Hon.)
Care John W. Worthington Co., 30 State St., Boston,
Mass
- SNOW, LESLIE W. (A.B. B.S. '14) Theta Delta Chi
143 East 37th St., New York City.
Bond & Goodwin, 65 Broadway, New York City, N. Y.

- STRIBLING, SIMPSON R. (B.S. '18) Sigma Alpha Epsilon
2326 N. 18th St., Waco, Texas.
- STUART, LYALL L. * ('22)
- SUTHERLAND, DAVID L. (B.S. '14) Chi Psi
1819 Dupont Ave., S. Minneapolis, Minn.
Washburn Crosby Milling Co., Minneapolis, Minn.
- SWAIN, WINTHROP C. (A.B. B.S. '13)
7 Rangley, Winchester, Mass.
230 W. 108th St., New York City.
Care H. A. Willis & Co., 32 Broadway, New York City.
- SWAN, LEROY A. (B.S. '17) Sigma Alpha Epsilon
71 Maple St., Norwich, Conn.
Killed in Airplane Accident, June 19, 1918, Dayton, Ohio.
- SWENSON, GUY A. (S.B. '13)
The John Swenson Granite Co., Concord, N. H.
- THOMAS W. PRATT ('19)
Prattville, Alabama.
- THOMAS, WALLACE S. (S.B. '15) Delta Kappa Epsilon
721 E. High St., Springfield, Ohio.
Thomas Mfg. Co., Springfield, Ohio.
- WALTER, ALBERT U. (S.B. '15)
2801 N. Charles St., Baltimore, Md.
- WAY, DONALD D. ('19)
21 Claremont, Ave., New York City, N. Y.
- WELLS, RALPH E. Jr. (B.S. '14) Delta Kappa Epsilon
156 Wetsmoreland, Place, Los Angeles, Calif.
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- WHEELER, ALDEN D., Jr. (A.B. B.S. '15) Alpha Delta Phi
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Exp. Engineer, Goodyear Tire & Rubber Co., New
Toronto, Ontario, Canada.
- WHITMAN, PERCY G. (S.B. '14) Phi Gamma Delta
Wickenburg, Ariz.
12 Dartmouth St., Winter Hill 45, Mass.
- WISEMAN, ROBERT C. ('14) Alpha Delta Phi
817 S. Limestone St., Springfield, Ohio.
501 N. Fountain St., Springfield, Ohio.
- WORTHINGTON, HAROLD (A.B. S.B. '12)
Beta Theta Pi, Phi Beta Kappa
101 E. 75th St., New York City, N. Y.
- YOUNG, VERTREES (B.S. S.B. '16)
Alpha Delta Phi, Phi Beta Kappa
Northside Y. M. C. A., St. Louis, Mo.
J. C. Bullis Mfg. Co., 1112-1134 S. 12th St., St. Louis, Mo.

THETA CHAPTER

NOTE—All members marked with an Asterisk were active in the Chapters during 1919-1920.

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Care Cia de Minerales y Metales, Apartado 70, Chihuahua, Mexico
Compania Real Del Monte y Pachuca, Pachuca, Hilago, Mexico.
- ALDEN, JOHN W. (Met.E. '16) Delta Tau Delta
125 13th St., N. E. Canton, Ohio.
- ARMSTRONG, CLIFFORD ('18)
(All mail returned)
- BANKS, REGINALD M. ('15 '16) Delta Phi
61 Broadway, New York City, N. Y.
- BARRETT, THEODORE H. (E.M. '14) Delta Upsilon
100 Puritan Ave., Forest Hills, New York.
1208 Crittenden St., Washington, D. C.
- ✓ BENSON, REYNOLDS ('16) Delta Kappa Epsilon
255 W. 101st St., New York City, N. Y.
- BIRD, HENRY E. Jr. (E.M. '14) Phi Kappa Psi
Mt. Vernon, N. Y. Tau Beta Pi
- ✓ BIRKETT, HOWARD ('16) Delta Kappa Epsilon
Kappa Beta Phi
540 W. 122nd St., New York City, N. Y.
- BRISTER, CHARLES M. Jr. (B.S. E.M. '14) Sigma Phi Epsilon
3204 Vickers Road, Baltimore, Md.
Asst. Metallurgist Baltimore Copper Smelting & Rolling Co.
- CAMPBELL, DONALD G. ('14) Sigma Xi, Tau Beta Pi
Atlanta, Idaho.
Lost River, via Nome, Alaska.
- CLENDENIN, THOMAS P. * ('21) Alpha Delta Phi
Tau Beta Pi, Phi Beta Kappa
120 Vista Place, Mt. Vernon, New York.
- COLQUHOUN, WILLIAM W. (M.E. '14) Alpha Delta Phi, Tau Beta Pi
31 Ferndale, Tunbridge Wells, England.
Killed in Action, Battle of Loos, Sept. 25, 1915.
- COOPE, G. P. ('15)
Douglaston, L. I.
- CURWEN, GEORGE B. ('15)
(All mail returned)
- DAVIS, THORNTON ('17) Delta Tau Delta
31 Allerton St., Brookline, Mass.
- ✓ DIXON, MAX M. (E.M. '17) Tau Beta Pi, Sigma Xi
168 St. Johns Place, Brooklyn, N. Y.
- FOSTER, WALTER L. * ('21) Alpha Delta Phi
Tau Beta Pi, Phi Beta Kappa
2052 7th Ave., New York City, N. Y.

- GIBSON, A. WALLACE (E.M. '17)
Delta Kappa Epsilon, Kappa Beta Phi
Care Standard Oil Co., China.
- HADSELL, IRVING W. (E.M. '14)
842 Monadnock Bldg., Chicago, Ill.
- HASSAN, A. A. Jr. * (B.S. '17 '21) Delta Tau Delta
365 East 21st St., Brooklyn, N. Y.
- HOWRY, HAMILTON H. (Met.E. '15)
Delta Tau Delta, Tau Beta Pi, Sigma Xi
234 S. Grove Ave., Oak Park, Ill.
American Can Co., Chicago, Ill.
- KEMP, JAMES T. (B.S. Met.E. '16) Alpha Delta Phi
141 St. Marks Place, Staten Island, N. Y. Sigma Xi
International Nickel Co., Ltd., of Canada, Port Colborne,
Ontario, Canada.
- KENVIN, THOMAS B. (E.M. '17) Beta Theta Pi
621 Van Buren St., Gary, Ind.
- KLEIN, KARL F. (E.M. '16)
543 West 123rd St., New York City, N. Y.
Care Andes Copper Mining Co., Casilla 230, Antofagasta,
Chili, S. A.
- KLUGESCHIED, WALTER P. (E.M. '16) Delta Tau Delta
Hollinger Cons. Gold Mining Co., Ltd., Timmins, Ontario,
Canada.
- KREUTZER, LOUIS G. * (B.S. '17)
1838 Gleason Ave., New York City, N. Y.
- LEE, LELAND V. ('14) Delta Tau Delta
Absolo 47, Monterey, Mexico.
- MacCARTHY, CHARLES F. (E.M. '18) Beta Theta Pi
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- MacMILLEN, HERBERT (E.M. '17) Delta Upsilon
313 Webster Ave., Jersey City, N. J.
- MANDELL, AMBROSE J. (B.S. Met.E. '14)
60 Jewel St., Forest Hills, N. Y.
- McKAY, RICHARD * ('21) Beta Theta Pi, Tau Beta Pi
429 West 117th St., New York City.
- MEAGHER, EDWARD C. * (B.S. '17) Phi Kappa Psi
179 Claremont Ave., Montclair, N. J. Tau Beta Pi
- MILLER, JAMES S. (E.M. '14) Phi Delta Theta
29 Mechanics St., Hoosick Falls, N. Y.
- MUDD, SEELEY ('18) Delta Tau Delta
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- NORRIS, ROBERT V. Jr. (E.M. Ph.B. '15)
Care Lehigh Coal & Nav. Co., Lansford, Pa.
- ORMSBEE, R. H. (Ex. '15) Delta Tau Delta
Mine Supt., Gila Copper Sulphide Co., Christmas, Ariz.
- PAGE, GEORGE R. (B.S. E.M. '13) Kappa Sigma
7212 Thomas Blvd., Pittsburgh, Pa. Tau Beta Pi
Killed in Auto Accident, Aug. 1916.
- PARK, JOHN (E.M. '17) Delta Upsilon
S. Broadway, Nyack, N. Y.

- PATTERSON, GEORGE S. (E.M. '14) Delta Tau Delta
101 Rugby Road, Flatbush, L. I. Tau Beta Pi
Min. Engr., The Northern Ore Co., Edwards, New York.
Died April 14, 1920.
- PULLEYN, JOHN W. (A.B. E.M. '14) Delta Kappa Epsilon
(All mail returned)
- SADTLER, CHESTER B.
25 Bushington St., Providence, R. I.
- SLOVER, EDWIN A. * (B.S. '21) Tau Beta Pi
33 Eaton Place, East Orange, N. J.
- SMITH, BERT R. (E.M. '17) Delta Kappa Epsilon
Died at Madison Barracks June 18, 1918.
- SOMMERVILLE, W. B., Jr. (Met. E. '17) Delta Upsilon
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N. J.
- ✓ SPURNEY, EMIL (E.M. '19)
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Turner Construction Co., 244 Madison Ave., N. Y.
- THOMAS, JAMES A., Jr. ('15)
230 Brush Creek Blvd., Kansas City, Mo.
Oil and Gas, 1307 Commerce Bldg., Kansas City, Mo.
- TICHBORNE, HERBERT M. (E.M. '17) Phi Delta Theta
96 Market St., Poughkeepsie, N. Y. Kappa Beta Pi
Killed in airplane accident at March Field, Cal., Dec.
23, 1919.
- WALKER, A. W. ('17) Alpha Delta Phi
- WALKER, HARLAN A. (A.B. '16) Beta Theta Pi
Sigma Upsilon
Care Querida Gold Mine Co., Silver Cliff, Col.
- WEBB, TORREY H. (E.M. '17) Delta Tau Delta
450 Riverside Drive, New York City, N. Y.
- ✓ WENSLEY, ROGER L. (E.M. '16) Delta Upsilon
275 Jefferson Ave., Brooklyn, N. Y.
Care W. Y. Westervelt, 17 Madison Ave., New York City.
- WIDMER, WILLIAM E. (B.S. E.M. '15) Beta Theta Pi
Prairie Block Coal Co., Centerville, Ia. Tau Beta Pi
- WILLIAMS, EDWARD I. (E.M. '14)
Delta Tau Delta, Tau Beta Pi
Superintendent of Mines, Care General Chemical Co.,
Monarat, Va.
- WOOD, ROY U. (Met. E. '14) Beta Theta Pi
Garfield Smelting Co., Garfield, Utah.
- WOODWORTH SELIM E. (Met. E. '13) Beta Theta Pi
(All mail returned)
- WORMSER, FELIX E. (E.M. '16) Delta Upsilon
1821 Lamont St., Washington, D. C.
Engineering and Mining Journal, New York City, N. Y.
- ✓ WRIGHT, FREDERICK S. (E.M. '15) Tau Beta Pi
626 Fifth Ave., N., Great Falls, Mont. Sigma Xi
Care St. & Wright, Bank Electric Bldg., Lewiston,
Mont.

IOTA CHAPTER

NOTE—All members marked with an Asterisk were active in the Chapters during 1919-1920.

ADAMS, BERNARD W. (B.S. '16) 410 Carroll St., Akron, O. N. O. T. & L. Co., Akron, O.	Tau Beta Pi
AID, HARRY (Ex. '19) Gallatin, Mo. Apartado 106, care Mexican Gulf Co., Tampico, Tampo. Mexico. Geologist for The Mexican Gulf Co.	Kappa Sigma
AID, KENNETH * ('20) Gallatin, Mo.	Kappa Sigma
AMBLER, HARRY (B.S. '17) 4050 Russell Ave., St. Louis, Mo. Ft. Sheridan, Ill., Ward 26 A. Recovering from foot injury, A. E. F.	Sigma Nu, Tau Beta Pi
ASHLOCK, EVAN E. * (B.S. '20) 4235 Blaine Ave., St. Louis, Mo.	Tau Beta Pi
BARTON, JOSEPH C. (B.S. '17) General Manager Acme Graphite Co. and Griesemer Graphite Co., Ashland, Ala.	
BAILEY, H. L. * ('21) Virginia Ill.	Pi Kappa Alpha
BEYER, DANIEL C. * (B.S. '20) 277 5th Ave., Long Island City, N. Y. Box 1052 Bartlesville, Okla.	Kappa Sigma
BOWLES, MARTIN F. (B.S. '17) 3802 Linden Place, East St. Louis, Ill. Killed in action, Sept. 3, 1918, near Madres, France.	Kappa Sigma
BRAZILL, MATTHEW P., Jr. * (B.S. '20) Superintendent Calvary Cemetery, St. Louis, Mo.	Kappa Alpha
BUEHLER, HENRY A. (B.S. '01 Hon.) State Geologist, Rolla, Mo.	Tau Beta Pi Sigma Xi
BURG, ROBERT S. (B.S. '16) Morenci, Ariz. Box 1161, Fort Worth, Tex.	Pi Kappa Alpha Tau Beta Pi
CHARLES, B. E. * ('21) Salina, Kas.	Tau Beta Pi
CUNNINGHAM, LORAIN H. * (B.S. '20) 415 S. Delaware Ave., Columbus, Kas.	Tau Beta Pi
DAVIDSON, LEWIS E. * ('21) Freeman, Mo.	Tau Beta Pi
DOWD, JAMES J. (B.S. '16) 3730 Palm St., St. Louis, Mo.	Tau Beta Pi
EHLERS, LOUIS W. ('17) 1505 People's Gas Bldg., Chicago, Ill.	Pi Kappa Alpha
GEIB, FRANCIS H. ('18) 1055 Mariposa St., Denver, Col.	Sigma Xi Epsilon

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1373 Potomac Ave., S. E., Washington, D. C.
First Lieutenant, Infantry, U. S. A., care The Adjutant
General of the Army.
- GETTLER, R. * ('22) Sigma Nu
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- GILL, JAMES P. ('19) Pi Kappa Alpha
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The Vanadium Steel Alloys Co., Latrobe, Pa.
- GOLICK, TONY F. (B.S. '18) Sigma Nu
9529 Calumet Ave., Chicago, Ill.
Wisconsin Steel Co., 106 & Torrence Ave., Chicago, Ill.
- GROTTS, FRED ('16)
Raymond, Ill.
Metallurgsit, The Holt Mfg. Co., Peoria, Ill.
- HARLOWE, LESLIE S. (Ex. '20)
Covington, Ind.
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Mine Shift Boss Braden Copper Co., Rancagua, Chili, S. A.
- HERIVAL, HAROLD T. (Ex. '17) Kappa Sigma
Apartado 8, El Oro, Est'd de Mexico, Mexico.
Care Esperanza Mining Co., Las Penas, Jalisco, Mexico.
- HOPPACK, HARLAND H. * ('20)
628 May St., Joplin, Mo.
- HORNER, HOWARD A. (B.S. '17) Lambda Chi Alpha
6226 Larchwood Ave., Philadelphia, Pa.
233 S. 60th St., Philadelphia, Pa.
- HOUSHOLDER, E. ROSS (Ex. '18)
Bowling Green, O., 226 N. Enterprise.
Eagle Silver Mines Co., Mineral Park, Ariz.
- HUMMEL, CARL B. * (B.S. '20) Pi Kappa Alpha
3930 Euclid Ave., Kansas City, Mo. Tau Beta Pi
- HURST, H. W. * ('21)
Rolla, Mo.
- JEWELL, J. E. * ('22)
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- JOHNSON, GUNNARD E. (B.S. '16) Kappa Sigma
24 Webb St., Hammond, Ind., or Box 334 Tau Beta Pi
International Lead Refining Co., East Chicago, Ind.
- KERN, PAUL D. ('18) Lambda Chi Alpha
Operating Lead-Silver Mine, Lordsburg, N. M.
- MANESS, ORIE N. ('18)
Carlinville, Ill.
- MANN, WALTER J.
Butte, Mont.
- MARSTON, ROBERT L. * ('20) Pi Kappa Alpha
(All mail returned)
- MCCARTNEY, WILLIAM H. Jr. (B.S. E.M. '16) Kappa Alpha
Engineer and Assistant Superintendent Cubo M. & M.
Co., Guanajuato, Mexico.

- MUTZ, HERMAN * ('21)
Elizabethtown, N. M.
- NOLTE, WILLIAM J. * ('20)
Rolla, Mo.
Highway Engineer, Phelps County, Mo.
- NORVILLE, HOWARD O. * ('21) Pi Kappa Alpha
Beardstown, Ill.
- PIERCE, COLWELL A. (B.S. E.M. '16) Tau Beta Pi
Patagonia Engineering and Assay Co., Patagonia, Ariz.
- POTTS, ALLEN D. * ('20) Phi Kappa Psi
961 Greenfield Ave., Pittsburgh, Pa. Tau Beta Pi
- REILLY, JOHN H. G. (B.S. '17) Kappa Alpha
Peregrina Mining & Milling Co., Guanajato, Mexico.
- SCHUMAN, EDWIN K. * ('20)
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- SHRIVER, RAY O. (B.S. '17) Tau Beta Pi
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- STEVENS, THOMAS A. * ('21) Sigma Nu
Bartlesville, Okla.
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Secretary-Treasurer Otto F. Stifel Co., Gravois & Michigan Ave., St. Louis, Mo.
- STONER, OSCAR E. * (B.S. '19) Lambda Chi Alpha
Middle States Petroleum Co., Yale, Okla.
- STROUP, R. J. * ('21)
Rolla, Mo.
- STROUP, ROBERT K. (Ex. '20)
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- STUBBINS, JOHN R. * ('21) Kappa Sigma
Paris, Mo.
- STUBBS, ROBERT N., Jr. * ('20) Sigma Nu
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- SWAYZE, RONALD O. * ('20) Phi Kappa Phi
Baldwin City, Kas. Tau Beta Pi
- TERRY, MARK L. * (B.S. '20) Pi Kappa Alpha, Tau Beta Phi
P. O. Box 698, Yale, Okla. Phi Kappa Phi
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Box 14, Lake Valley, N. M.

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Girard, Kas.
Federal Lead Co., Flat River, Mo.
- WEIMER, RAYMOND S. (B.S. '18)
Chief Engineer Leadwood Div., St. Joseph Lead Co.,
Leadwood, Mo.
- WEISER, HANLEY * ('20) Tau Beta Pi
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- WILLIAMS, A. C. * ('21) Pi Kappa Alpha
Sullivan, Mo.
- WILLS, RONALD B. * ('20)
808 W. Indiana St., Evansville, Ind.
- WILSON, JOSEPH M. * ('21) Sigma Nu
Rolla, Mo.
- WORLEY, JAMES A., Jr. ('17) Delta Sigma Phi
Died Oct. 18, 1916.
- WRIGHT, KENNETH M. * (B.S. '20) Kappa Sigma
2620 Garfield Ave., Kansas City, Mo. Tau Beta Pi

KAPPA CHAPTER

NOTE—All members marked with an Asterisk were active in the Chapters during 1919-1920.

- X ALLMAN, J. C. * ('21)
Crown Point, Ind.
- BOWERSOCK, WILLIAM
Maroa, Ill.
- BUCHHEIT, G. C.
- BURKE, J. A. * ('20) Phi Delta Theta
202 E. Green St., Champaign, Ill. Pi Tau Sigma
- BURLEY, P. B. * ('20) Tau Kappa Epsilon
200 S. Ashland Ave., LaGrange, Ill. Eta Kappa Nu
- BUSH, KENNETH B. (B.S. '16) Theta Chi
1225 Park Place, Quincy, Ill.
- CAMPBELL, CHARLES W. ('17)
- X CARLSON, P. L. * ('21)
144 S. Oakwood St., Lake Forest, Ill.
- CARR, K. W.
538 N. Cuyler Ave., Chicago, Ill.
- CHAPMAN, HARRY H. (B.S. '19) Kappa Sigma
1428 Jonquil Terr., Chicago, Ill.
- Westinghouse Electric & Mfg. Co., Conway Bldg., Chicago, Ill.
- CHRIST, R. J. * ('20) Alpha Chi Rho
5408 E. View Park, Chicago, Ill.
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820 N. Main St., Wheaton, Ill.
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- COLE, ELWOOD B. (Ex. '19) Alpha Chi Rho
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Avery Co., Peoria, Ill.

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1318 Dwindaro Blvd., Kansas City, Mo.
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7147 Princeton St., Chicago, Ill.
- DAVIS, JOHN W. (M.E. '10 Hon.) Phi Kappa Sigma
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907 S. 6th St., Champaign, Ill.
- DERBY, SYLVESTER R. (Ex. '15)
Director of Athletics Lake Forest College, Lake Forest, Ill.
- DUTTON, HERBERT B. ('17)
325 Scoville Ave., Oak Park, Ill.
- ENGLISH, FRANK J. * ('20) Delta Phi
6th and Princeton St., Springfield, Ill.
- ERNST, CARL P. (B.S. '16) Phi Sigma Kappa
5159 Montrose Ave., Chicago, Ill.
- FLANNERY, CHARLES A. (B.S. '17) Sigma Chi
3528 Pine Grove Ave., Chicago, Ill.
- X FLEMING, O. J. * ('20)
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- FOSTER, FRANK W. (B.S. '18) Eta Kappa Nu
Momence, Ill.
- FOULKE, RONALD E. (B.S. '18) Theta Delta Chi
5895 Maple Ave., St. Louis, Mo. Tau Beta Pi
Manager, St. Louis Department, Barber Green Co., Third
National Bank Bldg., St. Louis, Mo.
- FREY, HOLLIS O. (M.E. '18) Sigma Phi Sigma
209 S. Vale, Bloomington, Ill.
Washington and Madison St., Bloomington, Ill.
- GIERTZ, ARTHUR E. ('17) Beta Phi
430 N. Crystal St., Elgin, Ill.
Giertz Construction Co., Elgin, Ill.
- GORDON, KENNETH H. ('18) Acacia
Oquakwa, Ill.
- GOULD, C. B. * ('20) Kappa Sigma
441 Prairie St., Aurora, Ill.
- HAAKE, HARRY G. (B.S. '20) Theta Delta Chi
4432 N. Paulina St., Chicago, Ill. Tau Beta Pi
1642 Monadnock Bldg., Chicago, Ill.
- HARVEY, A. D. * ('20)
817 E. 30th St., Kansas City, Mo.
- HAWTHORNE, WENDELL Z. (Pledge)
Died Dec. 14, 1919, at Champaign, Ill.
- HAYNE, WALTER E. (B.S. '18) Psi Upsilon
7340 Lowe Ave., Chicago, Ill.
Assistant to Sales Manager DuPont Powder Co., 1807
McCormick Bldg., Chicago, Ill.
- HEINDEL, JOHN H. (B.S. '16) Phi Sigma Kappa
648 N. Spring St., Elgin, Ill. Tau Beta Pi
- HICKEY, DAN W., Jr. (Ex. '18)
322 W. Pleasant St., Aurora, Mo.
Captain Coast Artillery, Fort Banks, Winthrop, Mass.
- HOLBROOK, E. A. (Hon.)

- HOLLINGSWORTH, D. M. * ('21) Kappa Sigma
3924 Juanita St., St. Louis, Mo.
- INGWERTSON, B. A. * ('20) Phi Kappa Psi
1121 11th St., Fulton, Ill.
- JENSEN, JORGEN E. (Ex. '18) Delta Upsilon
5037 W. Erie St., Chicago, Ill.
- X JOHNSTON, R. B. * ('20) Pi Tau Sigma
122 Norton Ave., Joliet, Ill.
- JOHNSON, ROBERT E. (B.S. '17)
Lawrenceburg, Ky.
- KING, EVERETT E. (B.S. A.B. M.S. C.E. M.C.E. '01 Hon.)
Phi Kappa Phi, Tau Beta Pi
503 Indiana Ave., Urbana, Ill.
Professor Railway Civil Engineering, University of Illinois.
- KRAFT, REYNOLD R. ('18) Beta Theta Pi
324 N. Elwood Ave., Oak Park, Ill.
- KROESCHELL, ROY S. (Ex. '18) Alpha Tau Omega
2231 Dayton St., Chicago, Ill.
460 W. Erie St., Chicago, Ill.
- X LANGDON, P. E. * ('20) Tau Beta Pi
1644 Farwell Ave., Chicago, Ill.
- LEEMING, J. W. * ('21) Sigma Chi
1537 E. 60th St., Chicago, Ill.
- LEUTWILER, OSCAR A. (B.S. M.E. '99 Hon.)
Sigma Alpha Epsilon, Tau Beta Pi, Sigma Xi
511 W. Green St., Urbana, Ill.
University of Illinois, Urbana, Ill.
- LILLEY, R. W. * ('20) Alpha Chi Rho, Pi Tau Sigma
180 Wilder St., Aurora, Ill.
- LUND, JACK V. (B.S. '17)
4404 Champlain Ave., Chicago, Ill.
Barclay Parsons & Klapp, Engineers, New York City.
- MACHOVEC, EDWARD P. ('18) Phi Kappa Sigma
2604 Lockridge Place, Kansas City, Mo.
- MARQUHARDT, HENRY W. ('17) Phi Delta Theta
Elgin, Ill.
- McCLELLAND, R. L. * ('21) Alpha Chi Rho
2012 Conway Bldg., Chicago, Ill.
- McCORMACK, THOMAS H. (B.A. '20) Delta Upsilon
1307 8th St., La Salle, Ill.
- McEVERS, ERNEST (B.S. '18) Phi Sigma Kappa
Montezuma, Ill.
- MEZEK, F. W. * ('21) Beta Delta Sigma
7527 Stewart Ave., Chicago, Ill.
- MILLER, C. W. * ('20) Delta Kappa Epsilon
2904 Elm St., Cairo, Ill.
- MILLER, HARRY W. (B.S. C.E. M.E. '07 Hon.)
Phi Gamma Delta, Pi Tau Sigma
1409 15th St., N. W., Washington, D. C.
Lieut. Col., Ordnance, Artil. Div., Ord. Dept., Wash-
ington, D. C.

- MOHR, J. S. * ('20) Delta Kappa Epsilon
7307 S. Shore, Chicago, Ill. Pi Tau Sigma
- MORTON, ALFRED H.
6801 Union Ave., Chicago, Ill.
- NAGEL, CHARLES ('19)
5844 Cote Brillante Ave., St. Louis, Mo.
Instructor in Mechanics, Idaho Institute of Technology.
- NEEDLER, JULIEN H. ('17) Alpha Delta Phi
1227 Altgeld St., Chicago, Ill. Phi Tau Sigma
- NELSON, WILLIAM O. (B.S. '17) Beta Theta Pi
126 Moss Ave., Peoria, Ill. Scabbard & Blade
- NEWTON, ROBERT K. (B.S. '18) Eta Kappa Nu
Jerseyville, Ill.
- NOLAN, JOHN T. (B.S. '18) Tau Beta Pi
Gilbert, Minn.
Care Oliver Iron Mining Co., Eveleth, Minn.
- OTT, JOHN E. (B.S. '17)
3757 N. Kostner Ave., Chicago, Ill.
Norfolk, Va.
- OWEN, HARRY L. (B.S. '16) Alpha Sigma Phi
Plano, Ill.
- OWEN, HAROLD P. (B.S. '18) Alpha Chi Rho
Y. M. C. A., Beloit, Wis.
Fairbanks, Morse Co., Beloit, Wis.
- PEARSON, FRANCIS H. (B.S. '18) Pi Tau Sigma
66 N. Clay St., Hinsdale, Ill.
2401 Washington Blvd., Chicago, Ill.
- PECK, ROY L. ('17) Phi Kappa Sigma
324 N. Cuyler Ave., Oak Park, Ill.
- PERRY, ROBERT A. ('18) Sigma Phi
108 N. Romine St., Urbana, Ill.
Killed Jan. 2, 1920, at Ascot Speedway, Los Angeles, Cal.
- PETTER, STANLEY D. (Ex. '18) Beta Theta Pi
321 S. 5th St., Paducah, Ky.
117-9 S. 1st St., Paducah, Ky.
- POOLE, F. M. * ('21) Beta Theta Pi
226 4th St., Edwardsville, Ill.
- PURSELL, JAMES ('18) Delta Kappa Epsilon
452 E. 42nd St., Chicago, Ill.
- QUIGLEY, O. F. * ('20) Phi Kappa Tau, Pi Tau Sigma
110 E. Green St., Champaign, Ill.
- REECE, R. H. * ('20) Alpha Delta Phi, Pi Tau Sigma
1118 Sheridan Road, Evanston, Ill.
- REED, MAURICE J. (B.S. '17) Alpha Chi Rho
2 Highland Terr., Newtonville, Mass. Tau Beta Pi
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- REICHELDERFER, HARRY G. ('18)
- RISLEY, R. E. * ('20) Theta Delta Chi, Tau Bet Pi, Pi Tau Sigma
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155 N. Taylor St., Decatur, Ill.

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- SHELBY, EDWIN Jr. (B.S. '16) Zeta Psi
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- X SHEPPARD, CHARLES H. (B.S. '17)
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- X SPRAGUE, NORMAN E. (B.S. '18)
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Care Oliver Iron Mining Co., Eveleth, Minn.
- STERNAMAN, E. C. * ('20) Alpha Sigma Phi
Pi Tau Sigma
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- STEVENS, JOHN G. (Ex. '19)
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Matthew Addy Co., McCormick Bldg., Chicago, Ill.
- STRAUCH, DONALD J. (B.S. '17)
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- THORSELL, A. A. * ('20) Pi Tau Sigma
1504 Jackson St., Rockford, Ill.
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- TUTHILL, JAMES P. (B.S. '17) Beta Delta Sigma
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- X VOGT, F. W. * ('20)
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- WALTERS, G. G. * ('21) Phi Delta Theta
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(All mail returned)
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4510 Kimball Ave., Chicago, Ill.
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Silver Springs, Md.
- WILSON, WILBUR M. (C.E. B.M.E. M.M.E. '00 Hon.)
1107 S. Busby Ave., Urbana, Ill. Tau Beta Pi, Sigma Xi
Asst. Prof. Univ. of Ill., Urbana, Ill.

- WILTON, O. N. * ('21) Pi Tau Sigma
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- WRIGHT, C. S. * ('21) Chi Psi
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LAMBDA CHAPTER

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- ANDERSON, CHARLES M. * (B.S. '20)
1859 Lake St., Salt Lake City, Utah.
- ANDERSON, LAWRENCE A. (B.S. M.S. '10)
1941 S. 10 East, Salt Lake City, Utah.
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- BADDLEY, HENRY A. * ('21)
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352 E. 10 East St., Salt Lake City, Utah.
- BALDWIN, HOWARD L. (C.E. '07 Hon.)
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- BARNES, CHARLES D. * (B.S. '20) Pi Kappa Alpha
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- BENSON, WILLIAM T. * Phi Delta Theta
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- BESLEY, STEPHEN S. (B.S. '12) Phi Delta Theta
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- BILLINGS, THOMAS P. (B.S. E.M. '06)
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404 Dooley Block, Salt Lake City, Utah.
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- BONNER, JAMES T. * (B.S. '20)
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1054 3rd Ave., Salt Lake City, Utah.
- BROWNING, GEORGE L. * ('21)
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- BYWATER, GEOGE G. (B.S. '09) Phi Delta Theta
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County Surveyor, Salt Lake City, Utah.
- CANNON, ABRAHAM H. * ('21) Pi Kappa Alpha
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- CHRISTENSEN, LAURENCE A. (Ex. '11)
1307 S. 11th St., East, Salt Lake City, Utah.
- CLARK, HIRAM W. (B.S. '17)
445 11 East, Salt Lake City, Utah.
Care U. S. Bureau of Mines, Salt Lake City, Utah.

- COFFMAN, FRED (Ex. '15)
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Asst. Const. Engr., care Utah-Idaho Sugar Co., Salt Lake City, Utah.
- DAVIS, REES W. (B.S. '19) Phi Alpha Epsilon
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Utah Power & Light Co., Kearns Bldg., Salt Lake City, Utah.
- ERICKSON, JOHN P. (B.S. '17)
Grantville, Utah.
- GILLIS, RAYMOND A. (Ex. '19)
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214 Kearns Bldg., Salt Lake City, Utah.
- GRAY, RALPH S. * ('21) Pi Kappa Alpha
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- GROESBECK, HAROLD L. (B.S. '17) Theta Sigma
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- HALES, MILES * (B.S. '20)
Eureka, Utah.
625 Grand Court, Salt Lake City, Utah.
- HALL, HUBERT G. (B.S. '18)
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Road Const. Engr., Salt Lake County, care County Engineers Office, City & County Bldg., Salt Lake City, Utah.
- HARRIS, ALVIN E. (B.S. '17)
Rexburg, Idaho.
- HAYNES, HOWARD H. *
R. F. D. No. 6, Salt Lake City, Utah.
- HAYWARD, JOHN E. * (B.S. '20) Phi Delta Theta
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- HAYWARD, WILLIAM G. (B.S. '18)
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- HOLDAWAY, VAUGHN L. * ('20)
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