

THE BRIDGE *of* Eta Kappa Nu



Volume XXI

Number 4

For May, 1925

Is The Central Station Industry Growing?

Employment with Large Central
Station Companies

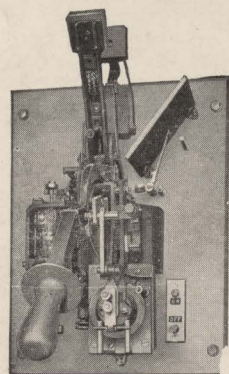
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Volume XXI

Number 4

THE BRIDGE
OF
Eta Kappa Nu



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MAY, 1925

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∴ Please Send in Your Questionnaire ∴

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Is the Central Station Industry Growing?

By Harry R. Woodrow

Assistant Electrical Engineer, Brooklyn Edison Co.

THE greatest opportunity a man can have offered him is that of service. The nearer a man's efforts are reflected in service to the public, the greater are his returns in satisfaction and happiness.

In the short time of only a little over a score of years the electrical industry has a record of accomplishment to its credit of which all contributors are proud. The concentration of power generation in large blocks and electrical transmission to all parts of the country has progressed far beyond the most optimistic hopes of the pioneers.

Although this achievement alone gives considerable satisfaction to those connected with this industry, far greater happiness is realized in knowing of the benefits this service has given to the people.

It has been a well demonstrated fact that the return to the large class of working people is in direct proportion to their productive ability and since their productive ability is a direct function of the amount of power placed at their elbow, their return is dependent upon the electrical energy at their service. Statistics are of interest in showing that the amount of energy used per workman in the United States is two to three times that in Europe and likewise the average wage is approximately in the same ratio.

It may truly be said that happiness or satisfaction is not measured in wages, but it cannot be doubted that, until we reach the point well beyond the mere necessities of life, the living condition in the home is improved by greater comforts and educational opportunities which a greater income affords.

In the new large power developments which are made possible by the ability to transmit great quantities of energy long distances with high efficiencies, we are able to make one pound of coal produce the same amount of work as five and six pounds produced in the small, isolated plant. In addition the large amount of water-power which the Almighty has provided is being made available to his people through the medium of the electrical industry.

Although big strides have been made in the conversion of nature's energy to the uses of mankind, there are still big opportunities for their further developments. The efficiency in converting the chemical energy in coal to electrical energy, although improved in the ratio of one to five in the last score years, is still

only one-fourth of the ultimate possibilities. The industry is in serious need of, and the opportunities are large for, young men with analytical ability and vision into the fundamental possibilities at hand.

The revolution of industrial processes that has been brought about by electrical application, large as it is, is not the greatest service electricity has given to mankind. The home has been placed on an entirely new plane with many of the drudgery items turned over to electricity. Although the electrical appliances which are now in common use in the home are many and have produced remarkable results, the possibilities in this direction have just been touched and we will soon see the electrical utilization in the home five to ten times the present amount.

Whereas, the growth in population in the United States is increasing at the rate of less than 2% per

year, the increase in requirements for electrical energy is at the rate of 15%, and with the many developments in view it is probable that the future growth will be as great, or greater, for many years to come. This growth requires doubling the capacity of the electrical utilities in every five to six year periods. The present generating capacity of the electrical utilities in the United States is 20,600,000 kilowatts and therefore new developments will be required at the rate of 3,000,000 kilowatts per year. The cost of this new generating development will amount to \$300,000,000 to \$400,000,000 per year and approximately twice this figure will be required in transmission, substations and distribution. That is, approximately \$1,000,000,000 per year will be expended in the new developments of the electrical utility industry.

The present investment of public electric utilities is over \$6,000,000,000 and the money invested in these plants for transmission is considered a safe and stable investment by the public and the bankers. New securities are purchased by the public with open minds and on the basis of a fair return, and the consuming public is beginning to appreciate the real service utilities are providing for them.

The financial structure for future developments is well established and with the public's confidence in the wise expenditure of their private capital in electric public utilities, the future in this field looks very bright.

(Continued on page 132)

With these two articles on the Central Station Industry we complete the discussion of the three major divisions of the electrical industry. Successively, these were:— Manufacturing, Communication and Generation. Next year we hope to cover in a similar manner, the smaller, although no less interesting, divisions.

Employment with Large Central Station Companies

By D. A. Pierce, A '10

Engineer of Electrical Distribution, Public Service Co. of Northern Illinois

THE Central Station Industry today offers a challenge to the young engineer who is selecting the line of work that he is to follow. The development of this field has been so rapid and the possibilities for the future so unlimited that the opportunity is limited only by the ability of the individual.

During the last fifteen years the electrical industry has developed from small, inefficient, local stations using from twelve to fifteen pounds of coal per kilowatt hour produced, to the present Central Station organization which are approaching a record of one pound per kilowatt hour.

The growth of the net work of transmission and distribution lines has made it possible for many remote places to receive service. The distances and loads carried has caused the voltage to be increased so that lines of 220,000 volts are used for transmission purposes.

These new conditions have forced the practical man of yesterday to give way to the technically trained engineer of today. The field has so widened and the problems have become so complex that there is need for every type of engineering in the handling of the work.

Many of the Central Station companies have organized training courses where the theoretical knowledge learned in school can be given practical application. The student is given an assignment in each of the main divisions of the work, such as production, distribution, utilization. Here it is possible for him to get first hand information as to the actual methods of the work and at the same time pick out the particular work which he is best fitted for. A course of this kind makes it possible for him to gain in practical experience what might take him years under the old method. Not being forced to move from one company to another, in order to secure the different kinds of experience, he is able to gain a more unified idea of the organization of a Central Station industry and at the same time increase his value to the company that he is working for, due to the large amount of company history that he accumulates as well as the knowledge of the personnel and policies of the company.

The engineers working for the Central Station companies are given every opportunity to develop themselves while working. The membership in technical societies is encouraged and the exchange of ideas between companies is fostered. Inspection trips that en-

able the engineer to keep posted on the progress of other companies are a common practise.

The year nineteen hundred and twenty-four gives us a good indication of the progress being made and what can be expected of the future. During that year more than \$1,200,000,000. was raised by the electric light and power companies of this country, of which one billion went into the building of new generating plants and transmission and distribution systems. The total amount now invested in this industry is \$6,600,000,000.

Based on the development of the past and the estimated growth of the future, this investment will be thirteen billion dollars by nineteen hundred and thirty. The growth of the communities served and the unlimited possibilities for the use of electrical power make this growth certain. The electrification of the railroads and the development of rural communities are but a few of the developments that are coming in the near future.

Here then is an opportunity for the young engineer to connect himself with an industry with a guaranteed future. There is no possibility of getting into a rut for the whole industry will be moving too fast to allow anyone to remain static long enough, unless he allows the industry to grow away from him. The work is diversified, offering an opportunity not only for engineering work of every kind, but also the chance of working on the outside in contact with the company's customers.

In selecting his future work the graduating engineer is offered almost an unlimited number of opportunities to select from. The Central Station industry is only one of his many opportunities. At that time he must select from these the line which he is going to follow. In making this decision it would be of value if he were to compare both the future development of the industry which he is considering, and his chances for advancement, with that offered by the Central Station Industries.

(Continued from page 131)

The young men now entering this field today have a golden opportunity to grow with this industry and become our big men of tomorrow.

Upsilon Chapter

The University of Southern California

THE University of Southern California was founded in the year 1880, and in the same year the first building was erected on the present site of the university in what was then a wheat field on the outskirts of Los Angeles. Since then, both the city and the university have expanded until now the University of Southern California, from its position in the midst of a city of over a million population, has sprung into a place of leadership in civic and educational circles, and has been recognized throughout the country as one of the foremost institutions of the land.

Its progress has for many years been hampered by lack of funds, which made it impossible to provide the physical equipment necessary to meet the growing and expanding needs of the student body. Despite its inadequate resources, it is doubtful if any institution of learning has accomplished so much on so little capital.

After many years of untiring endeavor devoted to the guidance of the University of Southern California, George Finley Bovard resigned from the presidency of the University in 1921. He was succeeded in office in 1922 by Rufus B. von KleinSmid, an educator of national and international renown. Realizing the urgent need for more working capital, in 1923 President von KleinSmid initiated a campaign for \$10,000,000, half of which was to go for endowment and half for building. This campaign is still in progress, and it is expected that the whole sum will soon be subscribed. Already it has resulted in increasing the endowment of the University from \$300,000 ten years ago to over \$1,300,000 at present.

In this same period of ten years, the assets of the University have increased from \$500,000 to over \$3,000,000. In this case, as in all other places where figures are mentioned, the figures given are very conservative. Thus the stated increase in assets does not include the increase in the value of the University's property due to the increased scale of prices, but is based on original costs. As a matter of fact, competent realty men state that the land on which the University stands is alone worth over \$7,000,000.

The University of Southern California is at present engaged in an extensive building program. The first unit to be built was the Administration Building, which was completed in 1921 at a cost of \$600,000. This was followed by the Science Building, completed in 1924 at a cost of \$250,000. Ground was recently broken for the new Women's Building, and work is soon to start on the Law Building, each of which is to cost \$150,000. Plans are now under way for the building in the near future of a new Dental Building

and another Science Building, the latter building to house the Electrical Engineering Department.

The rapid growth of the University of Southern California is perhaps most easily shown by glancing at the increase in enrollment during the past few years. Twenty years ago the total enrollment was 300, increasing to 1700 ten years ago. By 1921 this had further increased to 5,635. From 1921 to last year, the enrollment practically doubled, the 1923-24 enrollment being 11,025. Official records for the present school year have not been compiled as yet, but they are expected to show an increase that will be correspondingly great. The above figures are the official University figures, which include summer school and extension division students. Deducting these students from the total, the number of students pursuing college courses on the campus during 1923-24 was 7,164. The faculty has increased in like proportion, until it now numbers 575.

Several years ago the worth and standing of the University of Southern California was recognized by the Association of American Universities as being of the best quality, and this University was accordingly taken into membership. This marks it as an educational institution of the highest grade, and makes the University of Southern California fully accredited with the largest and best universities of the country.

The course in Electrical Engineering was established at the University of Southern California about eighteen years ago, under the supervision of the Physics Department. It continued to be a part of the Physics Department, under the direction of Professor Arthur W. Nye, until 1918. In 1918 Electrical Engineering was established as a separate department under Professor Fay Wilson, who was formerly Assistant Professor of Electrical Engineering at the University of Michigan, and well known as the author of several important books on Electrical Engineering. After several years of failing health, Professor Wilson passed away in the spring of 1922.

From the spring of 1922 until the fall of 1923, the work of the Electrical Engineering Department was somewhat disorganized while a search was carried on for a man of large capabilities fitted to advance and expand the Department.

Such a man was found in Philip S. Biegler, who took charge of the Department in the fall of 1923. Professor Biegler is widely known and held in high esteem among the men of the electrical profession. For some time he was a member of the teaching staff of the University of Illinois, and while there he was elected a member of Eta Kappa Nu. From 1918 to 1921 he was Asso-

ciate Editor of the Electrical World, a position which put him in touch with all phases of electrical engineering and its operation in practice, enabling him to teach his students practical, as well as theoretical, electrical engineering. Following his editorial work, he taught at the State College of Washington until he took charge of the Electrical Engineering Department at the University of Southern California.

Professor Biegler is ably assisted by Professor Clarence E. Guse. Professor Guse is a graduate of the State College of Washington, and came to the University of Southern California with two years experience at the General Electric Company, one year with Fairbanks Morse & Company, and one year's teaching at Washington State.

The coming of Professors Biegler and Guse increased the teaching staff from one regular and one part time professor to two full time professors. The Staff was further increased this year by the addition of a student assistant.

These increases were necessitated by the steady and rapid growth of the Electrical Engineering Department. In 1920 there were three graduates from this course, increasing to eight in 1923, followed by twelve last year. This year there are seventeen Seniors to be graduated. This means that for the past five years the Electrical Engineering Department has increased over forty per cent. each year.

The present enrollment in Electrical Engineering is 17 Seniors, 26 Juniors, 20 Sophomores, and 30 Freshmen. The percentage of underclassmen continuing throughout the four years is unusually high, and such is the growing fame and success of the Department that it attracts students from other schools and causes them to transfer here. Thus the classes present the rare condition of growing from their Sophomore to their Senior years, instead of decreasing, which is the customary occurrence. For example, not only did all of last year's 14 Juniors and 18 Sophomores return this year, but they brought with them three additional Seniors and eight additional Juniors, increases of 21 per cent. and 45 per cent. respectively.

The increases in the teaching staff and the number of students have been accompanied by a correspondingly great increase in the laboratory apparatus. At the present time the laboratory is equipped to perform all of the standard laboratory experiments and presents to its students laboratory courses closely paralleling those given by the largest engineering schools.

Because of its advantageous location in a metropolis where electricity plays an even greater part than in most cities, the classroom and laboratory work receives a very valuable supplement in the form of frequent inspection trips which are held to acquaint the students with the most modern engineering practice.

A wonderful spirit of cooperation and interest in Electrical Engineering at the University of Southern California is shown by the men of the electrical industry in Los Angeles. This interest is expressed by their many offers of the use of machines of all kinds and the opportunities given the Department to test machines in actual plant operation.

It is because of this practical knowledge of engineering based on a thorough technical training that the graduates of this Department are held in unusually high esteem by such concerns as the General Electric Company. The respect of the General Electric Company for the worth of graduates of the University of Southern California is yearly expressed by the exceptionally high percentage of U. S. C. graduates selected by them to take their famous test course, an opportunity greatly prized by engineering students in western universities particularly. Of the twelve graduates last year, five were chosen to take this course, and two were chosen for the corresponding course at Westinghouse. Not only is this high percentage of graduates selected for the test course, but of this number an exceptionally large number of U. S. C. men from the test course are picked for the Advanced Engineering course. To be given a place in this class is a signal honor. Recently in speaking of U. S. C. graduates, R. E. Doherty, Consulting Engineer of the General Electric, made the comment that the U. S. C. graduates were first class men, and that it was their training at the University of Southern California that made it possible for them to carry this advanced course.

With the backing of the greatly increased resources of the University, supported by the interest and good will of the people of Southern California, and guided by the capable hand of Professor Biegler, the Electrical Engineering Department of the University faces an era of certain prosperity and success.

At this writing the necessary number of favorable ballots have been received from the active chapters, thereby accepting the petition of the ten men in the University of Southern California to be granted a charter. This chapter to be known as Upsilon, will be installed before the end of the present school year.

Brother Zollinger, assistant secretary, requires the following issues of THE BRIDGE to complete his files. Will some public-spirited brother come forward and help Brother Zollinger out?

1909 |
1910 | Yearly issues.
1912 |

Oct. 1919, Vol. XVI, No. 1.

If you can let him have any or all of these issues please write him at 429 South Avenue, Wilksburg, Pa.

Who's Who in Eta Kappa Nu

F. R. WINDERS, A '05

Interview by Dallas R. Lamont, T '20

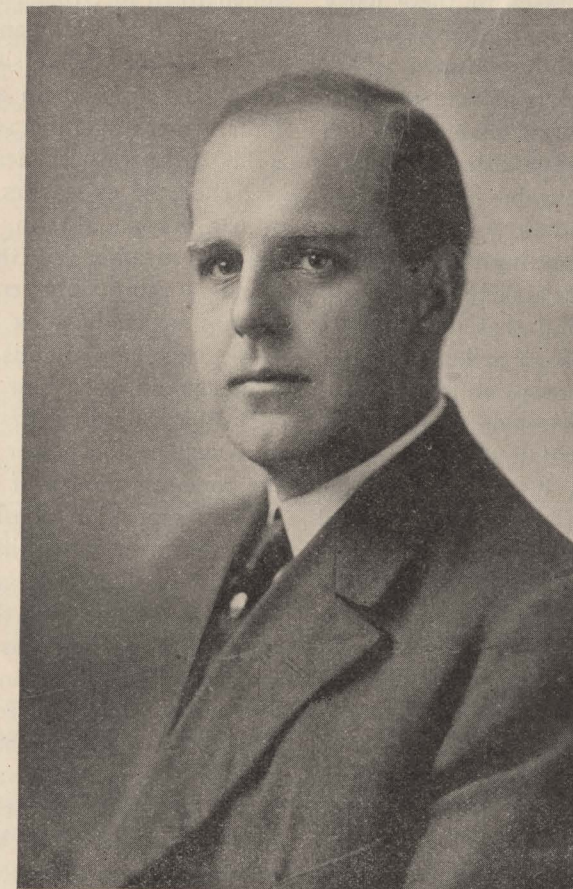
AFTER all an engineer is a human being. At least he should be. This profession of ours is pretty much a coldly intellectual proposition, particularly if we consider it in its narrower aspects, and perhaps we are often inclined to stick too closely to strictly technical considerations, to attribute undue importance to purely inanimate phenomena, to fit in too easily merely as a cog in the wheels of some big organization, to keep our noses too close to the grindstone of our daily work so that we fail to get the proper perspective of things,—in short to forget that we are living and that we owe ourselves the duty of getting the fullest possible measure out of life and of radiating the benefit of that fullness of life to others. How many scientists have starved to perfect a creature of their invention or to establish the proof of a law of nature. "In science there is no result worth while apart from painful research, from ceaseless, merciless, consuming toil." And it is the engineer's province to join in that never-ending toil to the end that the world's store of knowledge and the world's understanding of things may be the greater and that life for all may be more worth living. But in concentrating on this let us not overlook the fact that we are men; not slaves to a job; that we are thinking, feeling beings, not just machines for grinding out some certain kind of work. It is fundamental that nothing is won except by constant striving. There is no short cut to acquiring a true capacity to live, to becoming a constant joy to oneself and to others. And so this living phase of our existence may perhaps need some attention.

Every now and then we come across some brother engineer who possesses to an unusual extent a radiating personality and the ability to dispense good cheer to all with whom he contacts. Such a man is Brother

Winders. He is thoroughly human, and his engineering training and the practice of his profession have not veneered him with any impervious shell that makes him the less of a social asset. Quite the contrary is the case. He is possessed of a rare sense of humor and follows the happy doctrine that a smile will go a long way toward easing the ills of the world.

Brother Winders is somewhat reticent in divulging specific data as to the early part of his existence. He has evidently been subjected to some distressing experiences on the witness stand for he refuses to positively state that he was born on June 30, 1831 at Sycamore, Illinois, but admits that he has been told that he was born of poor but honest parents on the aforesaid date at the aforesaid place, but denies any recollection of the event. We do homage to Brother Winders' shy and retiring disposition in thus cautiously releasing this valuable information, but must of necessity assure him that one's one testimony as to the date and place of his birth is everywhere accepted as competent evidence in proof of those facts even though it be hearsay evidence.

Out-of-door life in and about the woods and fields of Sycamore held its usual attraction for our brother. In fact, part of the definition of a red-blooded citizen of our country and member of our organization is that as a youth he was attracted by the lure of the life beyond the store windows and the concrete pavements. Brother Winders was ambitious with respect to athletics, but not overly proficient in certain branches of these manly arts. Upon one occasion, probably for reasons having to do directly with avoirdupois, he was chosen for the position of center on his High school football team and proceeded to the fray, no doubt, with visions of all-American honors and other incidental trophies of minor note. The game



F. R. WINDERS, A '05
Research Engineer, Cleveland Electric Illuminating Co.

was on and finally was over, and the erstwhile all-American center emerged from the fray having lost one front tooth, several square feet of epithelial tissue and one football game. Much to the sorrow of our hero, the captain of the football team and the other notables involved shortly arrived at the unanimous decision that for the glory of the school it were best that Brother Winders' connection with the team be severed, which decision was sustained and strengthened by the concurrence of the family at home.

The first evidences of an aptitude for engineering were detected in Brother Winders while he was yet a small youth. These evidences took the usual form of an insatiable desire for building things. Although again relying on extraneous witnesses to these early events, we are reliably informed that Brother Winders' early engineering tendencies ran rather toward taking things apart than toward the synthesis of raw materials into useful articles. In defense of this tendency, which when casually considered may appear to be indicative of a destructive nature, it may be stated that in taking devices apart Brother Winders was always imbued with the noble aspiration of putting them together again in such fashion as to improve their mechanism. It must be carefully borne in mind that the ultimate idea was to render the rejuvenated article a better piece of apparatus than it had been prior to its disassembly. To fully present the other side of the question, however, it must be admitted that some of the articles which Brother Winders investigated in the fashion just described, particularly one large mantel clock, were never quite the same again.

To the very small boy school usually assumes the character of a pest. To this general rule Brother Winders was no exception. In the lower grades his ideas with respect to institutions of learning was that they were to be avoided insofar as such was possible without dire consequences to the avoider. As with most boys who later find their way into the ranks of H.K.N., Brother Winders' interest in school grew on him as he became older. In High school and in his college years he became particularly interested in physics, biology and chemistry and rather than skipping out of school early he could usually be found of an evening leaving the building with the janitor. His interest in languages and similar subjects was less pronounced and consisted chiefly in imbibing enough of the subject to obtain a satisfactory grade at a reasonable minimum of effort.

All of us have recollections of one sort or another arising out of our early efforts to become a productive economic unit. Brother Winders' early wealth getting activities were one in number. That one job arose out of the fact that his father was the owner of a fruit and grocery store in the old home town and it consisted

of either a position behind the counter weighing up lima beans or slicing Swiss cheese, or a precarious poise on the high board seat of an old-fashioned spring wagon behind "Old Bill" delivering the Saturday groceries in the various precincts of the village. In reflective moments between the deliveries of flour sacks and watermelons, Brother Winders' fancy turned to thoughts of his future and probably the one outstanding ambition of these youthful days was to have a job like an uncle of his who worked only nine hours a day and received one hundred dollars a month and who also had an annual pass on a railroad.

After finishing High school in Sycamore, Illinois, Brother Winders tearfully left the old homestead and sallied forth to Urbana to assume the crushing responsibilities of a freshman in the electrical engineering course at the University of Illinois. He spent the years 1901 to 1905 in and about the University incidentally accumulating sufficient information to secure a B.S. degree in electrical engineering. The success of his scholastic endeavors is typified by his membership in Eta Kappa Nu, in which organization he was a charter member of the founding chapter. Brother Winders thoroughly enjoyed practically all of the courses which he took at the University. Perhaps a single exception to this was mechanical drawing, for he never did learn how to make India ink behave.

Brother Winders' first job after leaving college was in a well heated power plant in southern Missouri, in the romantic month of July. On the first job his engineering position consisted in officiating at one end of an extra heavy six-inch pipe roller which was being used in moving a large Corliss engine. Two things kept him from leaving this job. The first and probably the most important was the lack of carfare home, and the second was the munificent sum of a dollar seventy-five a day which he received for his ten hours' work. Times soon changed, however, and after a few weeks he was promoted to straw boss—two dollars a day and fewer blisters—and then was happier. Except for the first few weeks of back aches and sore muscles and a continuous diet of bacon, soda biscuits and lemon pie, with none of which dainties he is on speaking terms even after all these years, Brother Winders has never been greatly disappointed in the opportunities offered in the engineering field. He still believes that an engineering course is the proper thing to take and that it furnishes the basis of a sound and well balanced education.

One thing which may be worth noting in connection with Brothers Winders' experience is that he passed through a considerable succession of jobs of rather widely varying character as steps to his present position. His first two jobs after leaving college lasted five years each and were not primarily in electrical work, both of

them involving chiefly heavy construction work in industrial plants and power plants. There were in each of them, however, sufficient features involving knowledge of things electrical and scientific to render his college training very useful. These jobs also served as a means for acquiring a great deal of information and experience with regard to the so-called practical phases of engineering. The next five years were spent in the construction and management of public utilities. At this point Brother Winders took what at the time seemed to him to be a step backward, but which proved to be a valuable source of experience which he has never since had cause to regret. This was the acceptance of a position with the Railroad Commission of Wisconsin, in which position he served for two years as Service Engineer. After that he went to New York City and joined the engineering staff of the National Electric Light Association with which organization he remained for two years, going to Cleveland in his present capacity about two years ago.

Brother Winders' present position is that of Research Engineer for the Cleveland Electric Illuminating Company. In this company he is in charge of a research organization which is principally occupied with statistical work, work on rates, work on special projects which are contemplated and work having to do with negotiations with other utilities. The principal projects in which the company is doing some pioneer work which may be of special interest to members of H.K.N. is the installation of a 66,000-volt underground

cable system and work which is being done in connection with powdered fuel installations for power production and for central station heating.

As for choosing a permanent line of work, Brother Winders believes that circumstances probably have the major influence in deciding what the choice of occupation will be. One thing in Brother Winders' own experience which is worthy of comment is that his present line of work, from which he has derived the most profit and enjoyment of any which he has followed, is one for which he would have initially considered himself to be particularly unfitted. It is one which he probably never would have adopted had he not been in a sense forced into it by circumstances resulting partly at least from having made several changes in occupation since his graduation from college. Brother Winders does not feel, however, that shifting of positions is essential for the engineering graduate in order that he may ultimately find himself in a work which he likes and in a work which offers satisfactory opportunity. It is oftentimes possible for the young engineer to locate permanently in an organization and work out a very satisfactory career without ever leaving that organization. Brother Winders states that from his experience he knows of many men who are still holding positions in the same organization with which they originally affiliated themselves and who are holding in those organizations positions of responsibility and importance.

THE TRAIN WHICH NEVER CAME.

By VLADIMIR KARAPETOFF

On a stormy cold night
At the station they stood
And waited in vain for the train.
A mother to meet her dear boy,
A young lover
Whose bride-to-be was on that train,
A burglar who hoped to be lost in the West
With a precious loot.

CHORUS

And a knight of the grip,
Moishee Ike Feigendrip,
On his regular trip.

But a rail or a wheel up and broke
(As they sometimes do on a bridge,
On a stormy cold night)
And the train plunged deep
To its watery grave,
And the dead
Were envied then by the maimed—

CHORUS

Who struggled for breath,
Or were frozen to death.
The Mother is ending her lonely days
In an old ladies' home;
The lover is looking in vain
For the loved one's face
In a soulless and perfumed doll
Whom he married for gain;
The burglar was caught
And is serving his time,

CHORUS

Moishee Ike raised Cain
With much language profane,
And then took the next train.

So their plans were all changed,
For they trusted a thing
Made by frail human hands,—
The train which, alas, never came.

CHORUS

Though the courts have allowed the claim
That God's will was to blame
That the train never came.

Har!

Eta Kappa Nu Association

An electrical engineering fraternity founded at the University of Illinois, Urbana, Illinois, October 28, 1904, for closer co-operation among, and mutual benefit to, students and others in

the profession, who by their attainments in college or in practice manifest exceptional interest and marked ability in Electrical Engineering.

Officers

For the Year 1924-1925

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The BRIDGE OF Eta Kappa Nu

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This is getting to be a habit. For the fourth successive year we have had to write an editorial for the May issue in which we thank all who have contributed in any way to the success of THE BRIDGE during the preceding year.

It is a real pleasure to acknowledge at this time our debt to those who have assisted, our Associates on the Staff, the National Executive Council, Associate Editors of Active and Alumni Chapters, and a few others. We thank you all most heartily.

But, Brother Average Reader you disappoint us sorely. Have you ever contributed one little bit? There are so many ways in which it can be done. Soliciting of subscriptions and advertisements, sending in personals, addresses for Lost Souls, articles and letters of advice and criticism are only a few of these ways.

The Creed of the Boy Scouts is to do one good turn each day. We would be lifted from the depths of discouragement very quickly if each Brother Average Reader would resolve to do just ONE GOOD TURN for THE BRIDGE during the coming year.

We are all working for the same cause and to the same end: A Better BRIDGE and a Greater Eta Kappa Nu. Please give us a lift.

The petition received from ten students at the University of Southern California for a chapter was ap-

proved by the National Executive Council and then submitted to the Active Chapters. By April 29th, approval of the necessary number of chapters had been received, thus assuring the charter for our Nineteenth Chapter in the very near future.

The installation of Upsilon Chapter will be made by a representative of the National President before the end of the present school year. The fraternity will then have three chapters evenly distributed on the Pacific Coast.

Upsilon Chapter, we welcome you. Be faithful at all times in the discharge of your obligations to the fraternity.

The Twenty-first Annual Convention will have passed into history before the November issue appears. For that reason we wish to remind you now that it will be held at Lafayette, Indiana, Beta Chapter as host, on October 30 and 31st, 1925.

Alumni in the vicinity of Lafayette and all others who can possibly arrange to attend are urged to do so. The convention is open to all brothers, whether delegates or not. The past few conventions have had the pleasure of welcoming visiting alumni. We hope there will be a large number present at Lafayette.

Fraternity Journalism is going through a transition period. No one denies that. We believe THE BRIDGE has weathered the major part of its transition, but there is still one pressing question which has to be decided.

Until this year our Active Chapter letters have consisted entirely of a running record of the chapters' activities. In the past three issues a different type of letter has been tried. The Editor has assigned a subject for discussion by all Associate Editors in each issue. In addition they have in some cases included notes of the chapter's activities.

Brother McLaren of Xi Chapter offers the following suggestion: "Why not let the Associate Editors choose a topic from the preceding issues for chapter discussion and a report? Perhaps the same thing does not appeal to all and it would be interesting to see just what topics hold the greatest interest."

We are not sure what constitutes the best chapter letter. Two different sets of readers must be interested and satisfied: the undergraduates and the alumni. Hence we broadcast this S. O. S. Please send in your vote as to which type of letter appeals most to you and why. A good time to do it is when you send in your subscription for next year.

ACTIVE CHAPTERS

Alpha Chapter

University of Illinois

During the past month Alpha Chapter has been engaged in the initiation of seven Juniors, W. L. Branch, P. W. Emley, W. Hickman, E. F. Hettel, W. T. King, F. E. Leib and W. C. Webb. During this time we have had no business meetings and hence have had no opportunity for discussion of the four articles in the January issue of THE BRIDGE on "Employment with Large Electrical Manufacturing Companies." The opinions expressed in this letter will necessarily be those of the writer and cannot be vouched for as being those of the Chapter as a whole.

Of the four articles the one by Professor Harding, of Purdue University, made the most favorable impression. Professor Harding points out in a clear and concise manner the reasons why he believes the graduate training courses available with large manufacturing and public utility corporations are beneficial. His arguments as to the advantages of such courses are convincing and are well brought out.

The article by Mr. Coler, of The Westinghouse Electric & Manufacturing Co. deals less with the benefits to be derived from a training course than with what the training course is. He points out the variety of work that may be taken up and the program of study during the training course. Most H.K.N. men know what the training course is like. What they wanted to know was what benefits were to be derived from it.

Brother Jennings' article on "Opportunities of the Young Engineer with the General Electric Company" is similar to that of Mr. Coler's. He deals more with the curriculum of the test and the social, religious and recreational facilities of Schenectady than he does with the advantages to be obtained from such a training course, which according to my belief should be the major topic of such an article.

Brother Seybold's article was very good indeed. It brought out clearly the advantages of entering the employ of a large manufacturing concern rather than a small one. He points out the value of the test course, the wide experience obtainable, the permanency of the employment, the prestige enjoyed by those employed by a large firm and refutes the often brought

up argument that a young engineer loses his identity in a large concern. It seems to the writer that the articles by Seybold and Harding are of the type which are desired by those who have been considering entering the employ of large companies. It is thought that similar articles on other phases of the industry would be well received.

Alpha Chapter takes this opportunity to wish those brothers who are graduating this June, "Good luck and God speed."

M. S. LUTHRINGER,
Associate Editor.

Beta Chapter

Purdue University

Beta Chapter, while itself yet in the pleasant clutches of this destructive plague of spring fever, extends its sympathy to all those brothers who are fellow sufferers. We're snapping out of it now though, having gotten down to work and pledged ten of our best men in the junior class of the Electrical school. They are M. C. Donnecher, E. R. Elliott, J. M. Davis, L. Z. Gossman, N. L. Hadley, C. H. Heiney, G. B. Jarvis, C. C. Palmer, G. R. Ruprecht, and J. L. Winks. We are proud of them and glad to have them with us. They are now enjoying the usual pre-initiation workout.

Thru the winter we have been having meetings every two weeks on Wednesday evening. Our attendance has been exceptional and the boys have had a fine time at every meeting. We look forward to them. At the last meeting in March, the old officers went into the file of "has-been" and the new ones took up their reign. The incoming officers are W. O. Osborn, President; F. W. Rich, Vice-President; F. C. Yarrling, Recording Secretary; H. I. Schmidt, Corresponding Secretary; C. C. Rigsby, Treasurer; P. J. Scheerer, Bridge Editor.

If these men serve Beta Chapter as faithfully and well as their predecessors, they'll have to step some. We certainly regret seeing our Seniors leave us.

The campus continues to undergo a constant metamorphosis. An army tractor has been busy pulling out dead and superfluous trees and at present an Indianapolis landscape gardener and a gang of men are slowly shaping the

campus in accordance with the plans for the Greater Purdue. If any of the alumri are not acquainted with these plans, they ought to write the Purdue Memorial Union for information sans delay. Improvements are becoming marked already.

The Junior Inspection trip was dispensed with this year as the State is so hard up that we can't even throw chalk out the windows any more. Brother Topping, however, plans on piloting the Junior Electricals around on short visits to noteworthy projects and plants within a radius of a few hours' travel.

Beta Chapter wishes to remind every one of the convention to be held at Purdue next fall. We're planning on a real convention and we guarantee an enjoyable time. You are cordially invited.

Beta Chapter wishes all its graduating brothers from Alpha to Tau a most successful future.

P. J. SCHEERER,
Associate Editor.

Gamma Chapter

Ohio State University

At this time of the school year, the student who is graduating, in electrical engineering in particular, is confronted with the problem of what type of work he desires and the size and kind of company he wishes to become affiliated with.

The companies interested in the services of the graduate send their representatives to interview the class and in a good many cases are apt to paint a very rosy picture of the opportunities obtainable through employment with their concern. By the time the man has heard the advantages of several of these companies, he is pretty much bewildered and very apt to do something which he is liable to regret at a later date.

Therefore, if articles such as those in the January issue are read and the contents digested, they seem to have a steadying influence and tend to bring the situation out in the sunlight and nullify the effect of the rose colored spectacles as furnished by the representatives.

The articles in question gave a very clear and understandable account of

the industry as a whole and particularly, just what is to be expected upon going to work.

An article showing the situation from the viewpoint of the smaller manufacturer might be of some value to the undergraduate in as much as it would allow him to look at the situation from both sides.

J. N. HEED,
Associate Editor.

Delta Chapter

Armour Institute of Technology

The consensus of opinion was that the articles provided an accurate and detailed picture of the industry, but only from the viewpoint of the large manufacturing company.

The ways in which this type of article could be improved so as to make it more valuable will follow naturally. In a similar set of articles, have a man from each of the two sides write up his side of the question. The man with the larger company would be naturally biased against the smaller manufacturer and vice versa. However, if each wrote up the side he believed was best the reader could gather his own points from both articles, and form his own conclusions. They might also give more definite information as to actual promotion that has taken place in the industry, so as to form a basis to predict promotion in the future. In this way, the undergraduate could form an estimate of his probable value to an organization in the future, and not form his decision purely from initial compensation.

The night of March 11 marked the beginning of a new era in the lives of five Juniors. It was the occasion of their acceptance of the pledge pins of H.K.N., at a banquet held in their honor at the University Club. The banquet committee lived up to its past reputation and provided us a meal worthy of the occasion. After the chef had satisfied our inner cravings the after dinner speeches began. President Stenwedel acted as toastmaster, and most of the brothers are still wondering where he got his inexhaustible supply of jokes. And such speeches! Prof. Scherger in his class in public speaking never heard any the equal of these. But the big surprise of the evening came when the "Discord Quartet" consisting of Larson, Tweedle, Taylor and Bishop, tuned up the "uke" and gave us an interesting, if not entirely

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musical review of our failings in a "How Do You Do" song—not a one was missed, even Profs. Freeman and Snow, though unable to be present on account of illness, were not forgotten. If Harry Schroeder doesn't turn out to be a politician there will be a lot of disappointed prophets. And even Johnny Frederick had to do some tall explaining about that side trip in Milwaukee! Prof. Richardson then welcomed the new men on behalf of the faculty. And to make the evening one never to be forgotten, the party departed en masse to the Chicago Theatre and spent the rest of the evening watching the adventures of Milton Sills in "As Man Desires."

Our guests were A. S. Hanson, F. H. Le Cren, E. L. McHenry, G. S. Schaeffer, W. A. Dean. They are all of the Class of '26.

Then the pledges started on their long trip up the stormy slopes to the H.K.N. cabin at the top. How well they knew there the leads in the Dynamo Laboratory belonged—never forgot the prefix Mr.—and woe to him who failed to sign the "Good Book" every day! Fearing that their education had been sadly neglected in Carpentry and Foundry, they took a refresher course on paddles and bookends. Oh, for the life of a Delta pledge! Through the kindness of Brother Patterson, the Inquisition was held in the Theta Xi House on Thursday evening, April the 16th. Brothers Kendrick and Pugh and their associates of the Chicago Alumni Chapter conducted the questioning in the approved manner. Truly some of the information we received was never gleaned from Perder or Langsdorf! Then the Saturday afternoon following, they had the usual thrills of a Delta Informal. In conjunction with the Alumni Chapter the Formal Initiation was held at the Breevoort on the evening of the 21st. Using the new ritual the ceremony was indeed an impressive one. It is needless to mention the meeting was a huge success.

We are looking forward to seeing the Alumni Chapter again at its annual dance some time in May. The men of '25 will never forget the one held last year at Columbus Park Refectory, and we know this year's will be equally good.

The Inter-Fraternity dance of the Honorary Fraternities at Armour was held at the Hotel Ambassador on the 24th of April. It owed its huge success largely to the efforts of Brother Larson, who as Chairman of the Com-

mittee gave his time unstintedly to put the dance over in fine shape.

Feeling the need of more "Red Letter Days" at Armour, several of the brothers decided to initiate a "Short Circuit" Day on which the worthy Seniors of the Electrical Department should blossom out in red ties. The day scheduled was the day after the inspection trip to Milwaukee. All the Seniors were duly informed and all promised faithfully to come in the desired regalia. But alas! for men like Columbus who sail uncharted seas, there were only a few valiant ones who dared to come in the prescribed cravats!

We had hoped to announce the winner of our essay contest in this issue, but as we go to press the decision has not been reached. The contest which is open to all members of the Sophomore Class in E. E., provides that the winner will be presented with a Standard Handbook. A large number of replies were received, which made the choice a difficult one.

When the last commencement exercise is over, and the diplomas framed, four H.K.N. men will fling in the last dunnage bag, strap that other valise on the running board, crank the trusty "flivver" and set out for parts unknown. The "Four Horsemen" are Sothen, Larson, Schroeder and Stenwedel, and the destination the wild and woolly west. May their trip be blessed with the roar of a bursting tire or the wheeze of a missing cylinder!

A few of the less fortunate (?) brothers have plans for the summer. Earl Tweedle starts with the Electrograph Advertising Service on June 1st. George Taylor is planning going to summer school at M. I. T., while Ed. Meyer will follow him in the Fall. The rest of the fellows have been busy considering the various student courses offered by the different companies.

May we who are Seniors go out into the industry and keep bright the lamp of Eta Kappa Nu!

W. J. PATTERSON,
Associate Editor.

Epsilon Chapter

Pennsylvania State College

The brothers of the Epsilon Chapter are all having the time of their young lives acting as inspectors of the world. At last they have broken from the confines of "Old Penn State" and have

hit the bright lights of Broadway. In other words the Penn State electricals are on the annual inspection trip and it seems that the more we see the less we seem to think that we know.

The men who were elected to membership at the spring elections from the class of 1926 are W. L. Kochter, Robert Roush, J. E. Hogan, F. H. Waltz, Don Malpass, J. W. McLaughlin and Lester Beck.

FORD C. PETHICK,
Associate Editor.

Zeta Chapter

Case School of Applied Science

The four articles on "Employment with Large Electrical Manufacturing companies" in the January issue of THE BRIDGE were very timely. In a recent conference on these articles it was brought out by some of the graduating seniors that their hunt for employment has been greatly helped by the ideas set forth in them. Many, of course, have no idea as to what they would like to do upon leaving school. The graduate is, at best, a wise fool among men who have been in the various lines of engineering practice for years. He needs something to educate him along the "rougher" lines of the field. The average technical graduate does not always realize this and a good "eye-opener" in the form of the articles presented is very helpful.

The Seniors are not the only ones to be benefited. Take the Junior who has a year to think things over yet. He needs all this time to weigh the different means of getting his practical training after he leaves school. These write-ups with the illustrations give him an insight into the "kinks and quirks" of a large company, and also as to what the company can do for them.

It is not always possible for a representative of every company that is looking for technical graduates to interview every man. Here again the gap is closed.

Zeta is strong for this information and wants to thank whoever conceived the idea of putting it in.

G. E. BURWELL,
Associate Editor.

Theta Chapter

University of Wisconsin

Theta Chapter takes pleasure in announcing the election and successful initiation of Ralph R. Brooks '26, Clarence E. Hockings '26, Carl E. Johnson '26, Paul J. Kwasigroch '25, Vernon E. Lemmer '26, Norman G. Robisch '26 and Stanley W. Roland '26, into active membership.

After these men had successfully passed the mental equilibrium test on a race horse with wheels, and had their dielectric strength, corona and hysteresis losses tested, they were led to the fork and knife contest at the Capitol Cafe, where our worthy toastmaster, Prof. Price, after each one had won his particular contest, gave us a line which would compare well with any issue of College Comics, or Judge. But when finally all that was light had been discussed, the assemblage went into solemn deliberation over the weighty technical papers presented by the initiates. It is surprising how much experiment and investigation, research and invention can be undertaken in so short a time. The operating characteristics of the two and one-half phase, interpole, chain grate stoker, proved interesting and noteworthy, as did the discussion of hysteresis and corona losses of high tension fusers. In fact all the topics were far above anything heard before in any meeting of technical importance. Erv. Summers shivered his timbers to such an extent, that the yield point was easily passed, in fact point of rupture was close at hand; he was quite distressed. All in all the banquet was a complete success.

The initiates are the pick of the class; we congratulate them on their fine work thus far, may they keep up the good spirit.

We're going to have a dance, and Ole Steve Andrae has seen to it that it's going to be some affair; in fact when he hands one a ticket, he shows the back side first. The doings will take place in the Crystal Ball Room of the Hotel Lorraine. All other engineering honorary fraternities have been invited to take active part.

Finally, as regards the discussion of the articles in the January issue of THE BRIDGE, it is the opinion that the subject of the articles is certainly well developed, giving the absolute advantages of the large electrical manufacturing concerns over the small ones.

It might be well to show in some article the comparison of types of work of manufacturing concerns and that of other types of electrical engineering. The undergraduate is often undecided whether to go into manufacturing, central station work and the like.

This is the last of the letters that I write to you as active member in Theta Chapter. I have enjoyed my participation as associate editor; always will I be eager to read the "next" issue.

Theta Chapter sends greetings to all members and especially wishes success to those who are leaving the ranks of the active members and are going into professional life.

EUGENE A. BERGHOLZ,
Associate Editor.

Iota Chapter

University of Missouri

The four articles on "Employment with Large Electrical Companies" proved of interest to the members of Iota Chapter. These articles have shown the advantages and opportunities of the large companies and have undoubtedly helped some to decide between the smaller and larger companies. There seems to be a strong trend among the electrical graduates for the larger companies. I think this is probably due to two reasons, first; that the average student does not know definitely what branch of electrical engineering he wants to enter, and chooses the large company because of the student course offered by them, where he has a chance to find out just what he likes best, and second; that he is afraid that if he goes with the smaller company he will lose the educational opportunity and the sense of competition with his fellow engineers, that he would have with the larger company. The articles have helped to confirm the beliefs of those that have already chosen the larger company and have portrayed what may be expected in the large company to those that have not yet decided.

The only suggestion for improvement in this type of article, that I can offer, is that there might be a greater comparison of the large and small electrical company.

UEL SMITH,
Associate Editor.

Kappa Chapter

Cornell University

In a former letter I expressed the opinions of several of the members of Kappa concerning the type of article which is of the most interest and help to the members. It was stated that those which aid the seniors in particular are the ones which help him discover what kind of work he is best fitted by temperament, desire and ability to do, and to show him how he can best get into that line of work. Some of the types suggested were:

1. Those which show the characteristics necessary for success in definite lines of work.

2. Those which indicate the kinds of work offered by the various industries, professions, etc.

3. Those which point out the engineer's opportunity and responsibility for service in civic and political as well as industrial life.

The four articles on "Employment," appearing in the January issue, came almost as a direct response to these suggestions, so it seemed, for in them was embodied practical advice of prime importance which comes at a time when the average senior is scratching himself behind the ear and literally saying, as Prof. Harding puts it, "What Next!"

Graduation from college happens but once to the majority of us, and it is a pretty dumb student who does not realize of just what import his next step will be. These articles have been personally helpful to me, and I think to the majority of the brothers who happen to fall, with me, under Mr. Jennings' second class. Collectively they cover the several phases of the senior's problem quite thoroughly, and many helpful thoughts are suggested, many of which the average student has overlooked.

Mr. Jennings' article in particular was worthy of mention, in my opinion, for it is a straight from the shoulder talk from a man who evidently has been thru the mill, and has learned to weigh values and to credit them with their true worth. He has sized the student problem exactly, and is to be commended for his excellent advice to the 'class two' man who doesn't yet know his own mind. The other articles too were very helpful and I know that all of the brothers in Kappa would greatly appreciate more information of this sort in future issues.

GLENN R. TAFT,
Associate Editor.

Lambda Chapter

University of Pennsylvania

Lambda Chapter has selected four Juniors to carry on the work next year. They are Herbert Estrada, W. Willis Gilmore, John B. Lindsay, and Thomas J. Talley, 3rd. Because of the senior trip the initiations were deferred until after the Easter holidays. The informal initiation was held on April 29, and on the following night the formal initiation and banquet was held at the Hotel Normandie. We are looking forward to having a number of alumni present on these two nights.

The January issue of THE BRIDGE was received at an opportune time, coming as it did shortly before the eight members of Lambda Chapter went on their senior trip. Consequently the four articles on "Employment With Large Electrical Manufacturing Companies" were particularly helpful. The articles were read carefully and kept in mind during the trip so that the contents of the articles were linked up with what was actually seen in the two large manufacturing companies visited. In this way a fairly clear picture of the industry was obtained although the articles alone could not present the complexity of the industry. It may be of interest to note that four members of Lambda Chapter have received offers from large electrical manufacturing companies.

F. L. STEINBRIGHT,
Associate Editor.

Mu Chapter

University of California

Mu Chapter is on the jump! Seniors are struggling with that thesis and getting the laboratory reports in shape. However we're not so busy that we couldn't find time to have our H. K. N. dance on March 27th. Everything was fine and we were able to welcome a number of alumni back for the evening.

Talking of graduation! It is getting mighty close to that time for us now and we're all tightening up for that last home sprint. Along with the graduation comes the question of work after college. Professor Harding puts it right when he says "What next?" It is, with most of us, just that question and the four articles published in the January issue are good to help us

settle that or at least start us to thinking.

We hear of the G. E. course, and the G. E. man comes to us and tells us about it. Similarly we hear of the Westinghouse Course and the Westinghouse man tells us of his course. But somehow these talks are not enough to clarify a graduate on his exact wishes on the subject. With such articles as you published in the January issue there comes a feeling that these courses are something that directly concerns the graduate and, if they are published early enough, there is opportunity to think over the situation before the representatives arrive.

There is one point which some of the men feel that you overlook. True, it is a side of the situation that is hard to present for no one wishes to be classed with the "kickers." In fact the "kicker" is not the type of man that we want to have writing for THE BRIDGE. That side of the situation is the disadvantageous side, the things which the men don't like. There never was and probably never will be a position without its disagreeable side. What we would like to know is what this side of the question is. Then a man will be in a position to feel sure whether the handicaps which he knows he will encounter are small or large from his point of view.

Another interesting side of this question might be brought out by brief letters from the new alumni who are in these positions. These men are not the ones who have as yet made the big successes, as is the case with all of the writers of articles, and their point of view would be very interesting and instructive. I do not mean to link this paragraph with the question of bringing out the disagreeable side of a position for such a method would not work.

D. W. CONKLING,
Associate Editor.

Nu Chapter

Iowa State College

The four articles on "Employment with Large Electrical Manufacturing Companies," appearing in the January issue of THE BRIDGE, were interesting, to the point, and designed to give a senior electrical engineer something to think about. Between them, they succeeded in giving a clear and fairly detailed presentation of the nature of

the student training courses offered by the larger companies, the ground covered by these courses, and the benefits to be derived therefrom.

Of special value, from the viewpoint of Nu Chapter, was the article by Professor C. F. Harding of Purdue University. Written with a keen insight into the problems of the engineering graduate, it carried some information on the test courses, and at the same time offered some good and pertinent advice. His words regarding the much discussed and feared "blind alley job" are worth noting:

"It is believed that a graduate engineer, who, as the result of good fortune or sheer determination and grit, has been able to be counted within the small percentage of the male population of this country of college age who have secured an engineering degree, must certainly hold at his command the will power to back out of an impending real or imaginary blind alley if necessary and 'hit the line again,' for further responsibilities and their accompanying success."

In general, Nu Chapter's comments on this series of articles must be confined to a request for more like them. Serving, in some measure, as charts of the unfamiliar country lying ahead, these glimpses of the personal experiences and reactions of men who have "made the grade" are what the undergraduate values above the vast amount of half-baked advice hurled at him by one and another of the self-elected prophets of our day.

Nu Chapter sends greetings to the brothers in Eta Kappa Nu. To those who cross the finish line in this first heat of the race, next June, good luck and Godspeed; may success attend your endeavors.

H. W. NEWLAND,
Associate Editor.

Xi Chapter

Alabama Polytechnic Institute

The articles on "Employment With Large Electrical Manufacturing Companies," which appeared in the January issue were very helpful in presenting a picture of the industry, and it is the desire of practically every senior in engineering to become affiliated with one of the large companies. In nine cases out of ten the graduate has not decided upon what phase of the industry to specialize in. If he

is with a large manufacturing company he has a chance to work in the various departments and ought to be enabled to find something of especial interest to himself within a short period of time.

The articles contained practically everything that a student is desirous of enquiring about as well as some sound advice, yet we think that more should have been said about the cost of living conditions. The greatest handicap to a Southerner in going with a company in the north is the problem of becoming acclimated.

W. D. McLAREN,
Associate Editor.

Omicron Chapter

University of Minnesota

The field of electrical engineering offers unusual opportunities to the technical school graduate who is just entering the field. The larger companies realize the value of taking a young man into their employ and beginning his specific training early.

For the men who graduate and are ready for a job this fact is a distinct advantage. It allows a rather careful selection of the type of training one cares to follow. A student can begin on the ground floor by applying the fundamental principles and thus bring about a coordinated understanding of the physical and mathematical conception of electrical phenomena.

THE BRIDGE articles helped to change some opinions about the ease of getting "lost" in large companies. It bears testimony to the fact that the good men rise to the top no matter where they start from. The opportunity to gain a varied experience of manufacturing processes and operating methods should attract many graduates to the employ of the large company.

At Minnesota, the seniors have just begun the last term of their college career. We find however that these last days will be busy ones.

The special attraction this spring is the advent of the Electrical show. This show comes once in two years and this is our year to put it on. We are working hard to make it the best one ever held at this institution. We have a wonderful new building in which to display the exhibits. The show will be held on April 24 and 25. Another special feature is that the an-

ruel Engineers' Day celebration will be held on April 24, in conjunction with the Electrical show. We feel honored that the Engineers' Day committee has decided to hold the Tea Dansant in the general laboratory of the Electrical Engineering building.

Much of our attention has been centered upon a job for next year. Representatives of a number of large companies have interviewed the seniors and I am happy to say that nearly all of the Eta Kappa Nu men have already accepted positions.

This is the final word from the members of Omicron Chapter of 1925. We have enjoyed helpful hints from THE BRIDGE and from the chapter letters.

The "best of luck and success" is what we wish for all brothers in H.K.N.

H. A. WURZBACH,
Associate Editor.

Pi Chapter

Oregon Agricultural College

In response to the questions on the four articles on "Employment With Large Electrical Manufacturing Companies" in the January issue, the members of the chapter had a hard time thinking of any way the value of the articles to the undergraduate could be improved. We were particularly impressed with the suggestions and advice given the undergraduate in the first article, for the reason that it was written by a man who is in an excellent position to observe the progress of many students, and in addition, has gone through the test course of one of the large electrical manufacturing companies. The other articles, in our estimation, form an excellent picture of the industry and give the undergraduate as accurate an idea of what to expect in the test courses as could be obtained anywhere.

The articles could possibly be improved in value to the undergraduate by laying more stress upon how he should prepare himself if he intends taking a test course. It has been our experience that the average senior chooses his electives in a rather haphazard manner, even after he has been selected to take a test course.

Of course, it is true he may not know what particular thing he wants to specialize in until after graduation and through a test course, but surely there

are some electives which might help him to decide or better prepare him to enter a test course. Possibly some of the alumni who are now taking a test course could inform us with very little hesitation concerning the electives one should take.

Pi Chapter sends its greetings to its alumni and extends to the other chapters its best wishes for the coming year.

K. B. AUSTIN,
Associate Editor.

Rho Chapter

University of Colorado

Undoubtedly, one of the biggest questions in the about-to-be engineer's mind is that of employment after he finishes his college course. In painting a picture of his future work he is wont to create a vision of an executive position almost immediately upon graduation. A few good articles by prominent engineers are not out of place at this time. They do, no doubt, help the coming engineer to realize that his work will not be a bed of roses because he holds a degree from a technical school.

The four articles in the January BRIDGE well stress the fact that a man must start at the bottom and work hard if he ever hopes to get anywhere in the engineering game. The advice against becoming discouraged by low wages and routine work is not appreciated now, perhaps, as much as it will be later on. Most of the men who are graduating realize the necessity for further study, and the opportunities mentioned for graduate study both at Pittsburg and at Schenectady were of especial interest.

It is the general opinion of the men in Rho Chapter that the article by Mr. C. S. Coler was the best of the four. This is probably due to the fact that the article was so well illustrated by photographs and curves. The information given by this article was more definite and more nearly answered the questions the men have been asking themselves. The relative advantages of employment with large and with small companies was well brought out by Brother Seybold. Most of us had never thought of this question before, but had taken it as a matter of course that the large company possessed all the advantages. All of these articles were thoroughly enjoyed and no type

of article could have been more opportune.

DAN SUTHERLAND,
Associate Editor.

Sigma Chapter

Carnegie Institute of Technology

The first initiation of the present school term was held recently and six new members were brought into our midst. Five of the new Brothers are underclassmen and to them we dedicate the huge task of continuing the good work of an active chapter. We are desirous of having a second initiation and banquet some time in the near future, previous to the closing of school. The appearance of the Alumni surely would be appreciated too, so drop around.

Campus week approaches rapidly and it behooves us to get out and show our ability as embryo engineers. The general plan of decorations will be that of exposition style, and our problem will be to present artistic touches of illumination—to compete with Mr. Moor, the stars, and what not!

The articles on "Employment With Large Electrical Manufacturing Companies" have brought numerous points to mind. They present mental pictures of the individual about to be graduated, but possibly they do not offer an immediate solution to the problems at hand. Some students desire continued study, but do not know fully, whether or not they are capable from the physical, mental, or financial standpoint of view, whereas others are only too willing to begin their life work, if it may be termed as such. Mention is made of the fact that representatives of the various companies seek the services of the graduating seniors, but the big question is, "Does each student receive an offer and an equally good opportunity?" The answer is undoubtedly in the negative. Appearances would indicate that company's representative might be slightly too critical and hence a certain few are left out in the cold, whereas the least they might expect would be a sporting chance.

The General Electric Company maintains a cooperative course at Massachusetts Institute of Technology and the results seem pleasing from any viewpoint. Why, therefore, would it not be a progressive step to have such a course at our own institution in conjunction with the Westinghouse Elec-

tric and Manufacturing Company?

OTTO W. WILL, JR.,
Associate Editor.

Tau Chapter

University of Cincinnati

In the last meeting of Tau Chapter, a lively discussion took place when I suggested that the four articles on "Employment With Large Electrical Manufacturing Companies" be discussed. The outcome was as follows.

As a word of introduction, it might be stated that the Engineering School of the University of Cincinnati is on the cooperative basis with one month spent at work and one month in school. After five years work on various jobs during our work period, we come to a very complete understanding of what type of work for which we are the best fitted and what type of work we like the best. If any of us should choose the manufacturing game, then the courses offered by the large manufacturing companies would be an additional assistance in our training. Therefore, the articles in the January issue of THE BRIDGE did not appeal to us as it would to the undergraduate of a regular four year engineering course. As for the articles giving the true picture of the industry, we think that they are too one-sided. They are written by men successful in this industry and so they could not give an unbiased opinion. Brother Zerby in his letter published under the "Bulletin Board" of the January issue expressed our opinion on this subject. The "pro and con" idea is necessary if the articles are to be of real value to the undergraduate.

Other little points in regard to the January issue of THE BRIDGE,—We certainly missed the "Red Hot Rivet." Let us have some more of that type of material and a little less of "free advertising."

We are now saving up our pennies for our last get together meeting this year. April 25th is the date and Bro. Sanford promises us a roaring good time with music a la radio and otherwise. Other future bright spots for us before we separate and depart for various parts of the globe are the Tau Beta Pi initiation banquet and the A. I. E. E. banquet.

Tau Chapter takes this opportunity in sending our best wishes to all graduating Eta Kappa Nus and to the alumni.

RALPH W. FOWLER,
Associate Editor.

ALUMNI CHAPTERS

Chicago Alumni Chapter

Things have been alive in the Chicago Alumni organization during the past three months as will be evidenced from a study of our activities. On December 16, 1924, twenty-nine men turned out at the Chicago Engineers' Club to hear Brother G. H. Simmons of the Automatic Electric Company give a demonstration of his company's type of automatic telephone. By means of a portable demonstrating set he explained the ins and outs of the automatic equipment showing how the dialing operation finds the stations desired and explained the advantages of the "step by step" system. He explained that, contrary to what might be expected, the maintenance of automatic telephone equipment is not any more difficult than the maintenance of manual equipment. His talk was followed by a discussion which brought out many points of interest.

On January 13, 1925, thirty seats in the center section of the mezzanine floor of the Cort Theatre were reserved for our theatre party. While the show "White Cargo," is not strictly appropriate for Sunday school children, the majority agreed that it is not nearly as bad as some have claimed. "Yes, we had some very good candy."

Radio is certainly a strong attraction for bringing out a good crowd, as was evidenced by the turn-out on February 10, 1925, at the Chicago Engineers' Club to hear Brother R. H. G. Mathews talk on present day radio developments. Brother Mathews is chief engineer of the Chicago Radio Laboratories and an old-time amateur radio man. He described the various receiving sets now on the market and illustrated the advantages of each. Some of the difficulties encountered in building a broadcasting station and the problems that arise in operating such a station were humorously explained by the speaker. The discussion which followed brought out the wide variety of radio interests that Brother Mathews is at present engaged in. He took an important part in the daylight absorption tests that were conducted at Escanaba, Mich., at the time of the recent solar eclipse.

Our program for the remainder of the year is as follows: March 10,

social; April 14, formal initiation; May 12, dance.

We feel that THE BRIDGE is worthy of the support of all HKN men, and wish it all the success we can, in order to make it valuable to the fraternity.

* * *

Chicago has been able to hold two very interesting meetings since the last number of THE BRIDGE made its appearance. The opportunity afforded at these affairs of meeting the older members broadens one's viewpoint and stimulates interest in fraternal activities. Our attendance at these meetings has been excellent, due largely to the congenial quarters at the Chicago Engineers' Club and also to the prominence of the speakers at our meetings.

On March 10 Brother J. M. Spangler, E '10, district manager, National Carbon Company, Chicago, furnished the entertainment jointly with Brother C. E. Stryker, D '17, electrical engineer, Fansteel Products Company, Chicago. Brother Spangler stressed the importance of sales rather than engineering in the familiar title sales engineer. He related some of his own sales experiences gathered during his long association in the railway field; handed out a little advice; recited several new jokes; and told some rather amusing stories illustrating the importance of some points in the sale of any commodity. Brother Stryker explained the origin and development of the Fansteel Company, stating that they were first interested purely in the manufacture of turgsten contact points, later developing tantalum before any real application of this metal had been discovered. He explained that while making some experiments in electrolysis, using two electrodes of this material, it was discovered that no current could be passed through such a solution, resulting in the idea of using this material in a rectifier. Undoubtedly Brother Stryker's experience on the faculty of the Armour Institute of Technology enabled him to present this story in a very clear, concise fashion.

"The Engineer in Business Research," by Brother S. P. Farwell, A '07, vice-president, The Business Research Corporation, Chicago, formed the chief attraction at our April 21 meeting, held in the Brevoort Hotel. Brother Farwell was very well qualified to speak on this subject as he has had an extensive experience in this line of work. At the present time he

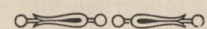
is engaged in a consulting capacity by the managements of the Insull properties located in the vicinity of Chicago. According to Brother Farwell, the engineer, and particularly the electrical engineer, when dealing with electric light and power utilities, is best fitted to carry on work of this nature. In his judgment the engineer is even better fitted than an accountant who has not had technical training.

This was also a joint meeting with Delta Chapter, under whose direction a formal initiation was very well carried out. This served to impress upon the older members of the fraternity the remarkable appropriateness of the new initiation ritual. The comments made both during and after the affair were unmistakable evidence that the speaker, and also the initiation, were enjoyed by the members.

Accepting an invitation tendered by the Milwaukee Alumni Chapter several Chicago brothers made a trip up to the Cream City on Saturday, May 9, to attend their regular meeting held at the City Club, on the third floor of the Merrill Building, 211 Grand Avenue, Milwaukee, Wis. The Milwaukee boys were able to put over something that was particularly interesting and attractive in the form of entertainment, and those who were fortunate enough to avail themselves of this opportunity were not a bit backward in telling us about the good time they had in Milwaukee. We sincerely hope that we will be able to reciprocate next Spring by inviting our Milwaukee brothers to a special meeting.

At this writing our plans also include a dance to be held some time in May, but as this is only tentative nothing definite can be announced at present. The results of the annual election of officers for the ensuing year will be announced in the November issue of THE BRIDGE.

R. S. KENRICK,
Secretary-Treasurer.



Los Angeles Alumni Chapter

The 24th meeting of the Los Angeles Alumni Chapter was held at the University of Southern California, Dec. 10, 1924, in conjunction with the members of Honorary Electrical Engineering Society of that institution, who pre-

sented for approval of our members a preliminary outline of the petition they were preparing, asking for an active local chapter of HKN. All facts appearing in the petition, and the assembly and presentation of their material seemed of the highest caliber, and after due consideration a motion was passed endorsing their proposed action. Copy of this motion is incorporated in the formal petition, signed by the development committee and officers of the Alumni chapter.

It is my understanding that this petition has now been forwarded to the N. E. C., and we heartily recommend favorable action by the N. E. C., and by active chapters, as the U. S. C. has not only made rapid strides, but gives promise of further advancement under the leadership of Brother P. S. Biegler.

The 25th meeting was in the form of a mountain trip with the Women's Auxiliary, consisting of the wives, present, future and possible, of local alumni. Ten men and nine auxiliaries turned out, took a 40-mile drive to the San Antonio Canyon camp of the So. Cal. Edison Co., Saturday noon, January 17, returning Sunday evening. Eatments were provided in toto by the committee, and cooking was done by volunteers. This, as usual, was a rather restricted list, but the dishwashers were even more exclusive. The crowd of engineers utterly failed to make the radio work, and their efforts were finally given up in favor of poker, mah jong, bridge and less strenuous forms of entertainment. It is rumored there was some question of sleep in the girls cottage, but all was serene among the men. Sunday was given over to hikes, trips to Ice House canyon where real snow was found—darn near 1/4 of an inch, in spots, and, for the rustics, a few games of hoss shoes.

Confirming the experience of our noble Editor, we received 9 replies to 33 invitations sent out for our party—the balance did not even return the stamped, addressed cards giving their latest address. For the supplies usually required, we guessed at some of the Old Faithfuls, used our imagination, and didn't waste a thing—but Lor' help us if an extra couple had appeared!

We think we have two new names to add to the local list:

Fred C. Lindvall, A '24, Los Angeles Railway, Los Angeles, 666 S. Bonnie Brea, Los Angeles.

H. S. Harris, D '16, Advance Paper Box Co., 138 N. Clarence street, Los

THE BRIDGE OF ETA KAPPA NU

Angeles, 415 S. Westlake, Los Angeles.

If my steno turned out a letter like this, I would send it back, but I hope you have had a good dinner, feel at peace with the world, have compassion with the H. & H. system and remember the Golden Rule.

* * *

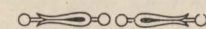
Compassion, sir, and forgiveness! Since our last meeting the cares of business have weighed so heavily I have been unable to report.

The March meeting of the Los Angeles Alumni Chapter was a mixed bowling party, March 2d, attended by 17 members, wives, and friends. Many of the brothers were sadly out of practice, but all enjoyed a pleasant evening. No record of scores were retained, but it is doubtful if they would menace the records of the A.B.C.

April 1st we held a joint meeting at the University Club, with the Honorary Electrical Engineering Society of the University of Southern California, who have petitioned our N. E. C. for an active chapter of Eta Kappa Nu. We were especially pleased at this meeting to have with us Brother S. G. McMeen, Hon., who gave us a short outline of some of his interesting experiences in the field of telephony. We also welcomed Brothers Fred C. Lindvall, A '24, and H. S. Harris, D '16, who attended their first meetings with us. In all, 14 brothers and nine guests attended dinner, while at the same time 8 of the "Ladies' Auxiliary" had dinner at the Lankershim Hotel, followed by attending "Quo Vadis," a modern motion picture production of the famous work.

Plans were projected for a canyon picnic as soon as our rains cease. These here, now, famous rains have precipitated a total of slightly more than 6 inches since July 1st, 1924. This is slightly in excess of our total rainfall for 1923-24. Fortunately, the High Sierras and Big Creek country have had a little in excess of "normal" rainfall, which assures Sunny Southern California of adequate water and power supply for the coming year.

B. G. HATCH,
Secretary.



Milwaukee Alumni Chapter

On January 15th we held our regular January meeting at the City Club. This was a week later than it should have been, but it could not be helped as the

speaker we planned to have address us, was suddenly taken ill. We finally had a rather informal meeting at which three of the members gave short talks.

Brother Huntley of the telephone company, told us about some of the difficulties encountered when more delicate and technical improvements are made in present equipment. The personnel must be better trained and consequently better paid.

Brother Rust of the American Appraisal Company, outlined the procedure in appraising public utilities thereby giving us some information that most of us had never had an opportunity to get.

Brother Seeger of the Cutler Hammer Mfg. Company, concluded the program of the evening by his interesting talk on "Mechanical and electrical methods of stopping motors and the machinery propelled by them."

Our last meeting was February 5, 1925 and as usual was held at the City Club. The speaker of the evening was Rev. Donaghey of the Marquette University. His subject was "Wilhelm Conrad Roentgen," whose life and work he discussed very well. We had two Brothers out at this meeting, who have not been around before—Brother Plank who is Superintendent at the Torren Restoration Hospital and Brother Osha, who is with the electric company of this city.

The Milwaukee Alumni Chapter got together for their annual card party at the Stratford Arms on March 5th. There were ten couples present, and those not attending, certainly missed a good time.

We started off the evening with a dinner at 6:30, after which we had a short program before we settled down to the serious business of the evening. Brother Andrae and his wife, furnished part of the program by arranging the prizes, etc., for the intricate game of "Cootie." Those not initiated need have no fear of the game, as the cooties are all on paper. George hastily rushed out to the desk to obtain prizes, and returned with two packages of cigarettes—one for the ladies and one for the gents. Apologies accepted, George.

Brother C. T. Evans and his wife, kept the ball a rolling by supplying the next feature of the program. This took the form of an automobile guessing contest, in which twenty names were hidden as is shown by the following example. "Boiled gently—the letter E—a maker of bread,"—all of

New York Alumni Chapter

which means Studebaker. Another one, which we all thought was the hardest one of the bunch, was "To cross a stream." We leave it up to you. No prizes offered if you guess the answer.

We then made up five tables of bridge, and proceeded to let that occupy our time for a couple of hours. Brother Krueger's sister-in-law won the ladies' prize of a vanity case, and Brother Evans copped the men's prize of a bridge set of two decks of cards in a leather case. We can't vouch for the "leather." We adjourned at about eleven P. X., bemoaning the fact that Christmas came but once a year.

At our last meeting, which was held at the City Club on April 2, we listened to an excellent talk by Mr. Fred S. Hunt. Mr. Hunt, chairman of the Public Utilities Acquisition Committee, spoke on the then proposed "Service at Cost Contract" between the City and Electric Company. Mr. Hunt and his Committee spent a number of years in formulating and negotiating this contract, and it was voted on less than a week after we heard Mr. Hunt talk, or on April 7th. The contract was defeated at the polls, which probably meant that Mr. Hunt hadn't talked to everyone in the city, for he was quite a convincing speaker.

After Mr. Hunt left to fill another engagement, Brother Seybold of the Electric Company had a few words to say, and after that nearly everyone had something to get off their chest, with the result that we continued to hold session for about an hour and a half after Mr. Hunt left. A good time was had by all.

We hope to have a goodly number of our Chicago Brothers at our next meeting, which will be on May 9th. Invitations have been exchanged for the last few years, and it is our turn to reciprocate for the very enjoyable evening those of us who visited Chicago last spring, experienced.

We wish our Brothers in Eta Kappa Nu pleasant times during the coming summer months, and trust it will give them pep for the coming year with its Convention and other numerous activities.

JOHN M. NEWMAN,
Secretary.

We feel highly elated with the results to date of our program committee consisting of Brothers Cota, Vigneron and Hantzsch. Their efforts brought forth Brother H. H. Norris at our meeting on January 8 and as might be expected we had a very interesting evening. Brother Norris was formerly head of the Department of Electrical Engineering at Cornell, then Editor-in-chief of the Electrical Railway Journal and is at present Educational Director for the Boston Elevated Railways. His talk on this evening had to do with educational activities in a few of the larger public utilities of the country, emphasizing in particular the methods used and tried by the Boston Elevated Railways to aid their employees to improve and broaden themselves. In conclusion he invited volunteers from those present to outline any methods of educating or training that had been tried or was in use. A number responded to this invitation and from the number of questions asked there was no doubt that interest was maintained.

As a sequence to this Brother Cota arranged to have Brother V. Karapetoff appear before the chapter on February 10. The subject of this talk was never divulged and out of the many conjectures of which a musical demonstration seemed most imminent there came a discourse on one phase of human nature which I will not try to name. However, Brother Norris was right when he wrote on his reservation card, "Whatever Kary says will make everybody think." Brother Karapetoff introduced his subject by saying that from his own observations he has noted that a lecture, whatever its subject, was really a characterization of the lecturer's personality. He then pointed out his idea of "tolerance," illustrating and explaining what is meant by an individual's "complex."

The talk was brought to a close with a poem which "Kary" said was inspired by strong desires which have never been fulfilled. The lines were read by Kary and certain of them repeated by the assemblage in chorus.

Professors Morgan Brooks, A, (honorary) of the University of Illinois, J. M. Bryant, A, (honorary) of the University of Texas, and Edward Bennett, O, of the University of Wisconsin and Brother E. S. Lee, A '13, were the out-of-town visitors, who were called upon

for short talks. Brother H. H. Race, K '22, who is teaching to Cornell, was also present.

Upon adjournment of the meeting, those who were interested were given an opportunity to visit the broadcasting studio of WEAF.

The last three meetings which have been of a non-technical nature, have been very encouraging and it is proposed to continue through the season with this in mind. We have good reason to believe that our committee can keep up their good work and we shall be glad to have visiting brothers arrange to attend our meetings at the Telephone Club, 353 West 17th street, New York City, April 9 and May 14.

Another record broken! Our honorable president, Bro. Merle C. Hale, has managed with the grace of the gods to keep himself scarce for almost the entire period of his office, missing out by one meeting only, that of April. This was an evening of evenings, however, and the 34 who were present were well repaid for any efforts they made to get to the Telephone Club.

Bro. D. A. Lamont, who was scheduled to give the talk of the evening was, on account of business interference, at a late moment, prevented from doing so. Bro. Jackson was therefore called on and in spite of the short notice, he managed to formulate a talk which was, judging from the number of questions asked afterward, taken with considerable interest. He outlined in a general way what a patent is, what privilege and right a holder of a patent has, what is not a patent, etc.

Bro. Hale was called on to give a acquaintanceship speech, and to furnish cigars for the meeting. He responded without urging. He gave very good reason for his long absence, and brought to the attention of the Chapter several ideas for warming the meetings. One of these ideas was immediately adopted by the Chapter, when it was found that the Chapter was indebted to Bro. Hale for expense contracted for the last meeting of last year. Bro. Brooks moved for fines and assessments to the aggregate of \$19.75 on Bro. Hale for his long absence, for certain of his remarks and jokes, for having to be asked to furnish cigars for the meeting, and for the nerve to introduce such an innovation. The motion was seconded and carried unanimously. We must say, however, that Bro. Hale carried out his part of his suggestion with a broad smile,

which was broader yet when he had the opportunity to call a fine of one quarter on yours truly for apparent inattention.

Hereafter Brothers be careful of your words, and moods. If you say something you may be fined, and if you say nothing you may also be fined. No rest any longer for the wicked or the brave, but come out and see the fun anyway.

There was some minor business attended to during the early part of this eventful meeting, namely election of officers. The nominees who had been selected by the nominations committee were elected unanimously, with the following result, when the smoke of battle had cleared away: R. A. Strothman, O '20, President; R. Guenther, A '23, Vice-President; P. S. Darnell, L '22, Secretary; L. S. Neeb, Treasurer.

Watch us next year.

R. GUENTHER,
Secretary

Philadelphia Alumni Chapter

The second meeting since the re-organization of the Philadelphia Alumni Chapter was held Friday, March 13, at The Rendezvous, 325 Camac street, Philadelphia.

Altho this meeting was not so well attended as our first one, the turnout was not at all discouraging. Every one seemed to thoroughly enjoy the dinner, but not nearly so much as the little entertainment that was held afterwards. We presented "The Mock Convention" that was sent to us by our New York brothers and the wit and humor of it was greatly appreciated.

It was decided that our third and last meeting before the summer recess be held Thursday, April 16, at The Guard Craftman's Club, 2027 Chestnut street, Philadelphia. Dinner will be served at 5:45 p. m., after which the party will adjourn to the clubrooms where we have access to bowling alleys, pool, billiard and card tables.

In the meantime Brother Mason has appointed a committee with Brother J. L. Garrett as chairman, to solicit subscriptions for THE BRIDGE. We sincerely hope that our efforts will not be in vain and that THE BRIDGE staff will receive better support from Philadelphia than it has in the past.

PAUL T. CLINE,
Secretary.

Pittsburgh Alumni Chapter

On Thursday evening, January 22, the chapter gathered together at the Seventh Avenue Hotel in Pittsburgh, for a dinner and social meeting. About thirty brothers turned out, and it didn't take much urging to get the first event of the evening taken care of, namely, that of disposing of the dinner which was set before us.

There being practically no business to be taken care of at that time, our president, Brother Baughman, introduced the speaker of the evening who was Dr. L. O. Grondahl of the Union Switch and Signal Company. Dr. Grondahl reviewed the general subject of the atomic theory which he had discussed at a previous meeting of the Pittsburgh Chapter, and continued further into the intricacies of the subject.

We were assured by the advance notices of the meeting that Dr. Grondahl would enlighten us as to the method of making gold out of mercury by changing the atomic structure as was recently published in the newspapers. He told us how this had been accomplished by certain German scientists, but from the economic standpoint, he showed that the process would not be of much value commercially. He stated that using one gram of radium valued at \$50,000, it would be possible to obtain three grams of gold worth about \$3 if the process were continued for 1000 years. During this time one-fourth of the radium is used up. The interest on the investment compounded at 6% mounts up to about ten to the thirtieth power (\$1030), and so we readily agreed with him that it would hardly pay to go to all the trouble just to get three dollars worth of gold.

The social committee presented the following schedule of meetings for the first half of the year of 1925: February 18, smoker; March 17, theatre party (mixed); April 10, bowling party; May 12, informal party (mixed); June, dinner.

Since the last chapter letter, we have had two A-1 meetings, the first a smoker and card party, and the second a theatre party. On Wednesday, February 18th, the gang held forth at the Westinghouse Club with a regular old fashioned smoker, the main element of the ammunition consisting of Pittsburgh stogies. The Social Committee planned

some real entertainment in the form of a banjo trio, consisting of Brother Lanpher and two non-members. After some good numbers by the orchestra, the foremost event of the evening took place. One's aesthetic sense was either satisfied or badly jarred, depending upon the viewpoint, by a dance put on by Brother Eddy, a la Gilda Gray. The din and excitement subsiding, the remainder of the evening was spent in playing bridge and "500". About 25 fellows turned out for the smoker.

A theatre party was held at the Davis Theatre on Tuesday evening, March 31st. The regular Keith vaudeville bill attracted a good crowd, there being a block of about fifty seats reserved for H. K. N. After the show, to complete the evening, the bunch congregated at Gammon's Waffle Shop for refreshments.

Vice-president Maxwell, Iota '24, is now acting president of the Pittsburgh Alumni Chapter due to the fact that Brother Baughman was unexpectedly called away from the Pittsburgh district on business for a period of several months or a year.

The next regular meeting is scheduled for April 17th. After a short business meeting at the Westinghouse Club, everyone will adjourn to the Casino Bowling Alleys where it is expected that all records for continued and consecutive low scores will be broken.

L. W. CLARK,
Secretary.

Schenectady Alumni Chapter

After a more or less protracted period of, shall we say inactivity, the Schenectady Chapter of Eta Kappa Nu revived itself in honor of J. W. Weigt, Editor of THE BRIDGE.

A. S. Martin and D. O. Whelan, after considerable agitation in the form of posters and telephone calls, succeeded in bringing out a not too large, but nevertheless representative, group of alumni, who hid themselves to Sirker's restaurant on Monday evening, March 23rd. When all had partaken of the repast and settled back comfortably, we held a short business meeting and election of officers, results as follows: President, D. O. Whelan, A'23; vice president, G. A. Drewett, P'22; secretary-treasurer, L. A. Connelly, P'24; corresponding secretary, E. S. Lee,

A'13; associate editor of *BRIDGE*, P. G. Bowman, O'22.

Following the election our new president, Whelan, formally began his career by introducing Brother Weigt, who gave us an enlightening talk on the ways and means of editing *THE BRIDGE*. He stressed the necessity of loyal support by the H. K. N. Alumni and their duty in assuming a part of the financial burden of Society activities, meaning that every alumnus ought to be a *BRIDGE* subscriber. Furthermore, an active alumni chapter forms a bond, supplementing *THE BRIDGE*, between the various undergraduate chapters scattered throughout the country.

Our old timer, E. S. Lee, was on deck and gave us a word of advice relative to our newly acquired enthusiasm and plans for the coming year. Of course he admitted that he knew "We" wouldn't slump, but he wanted to sound a note of warning by referring to his past observations. On the strength of the above we all agreed that Secretary Connelly should record May 7 as the next day on which we shall all gather round for a good time and evolve more plans for maintaining an active alumni organization.

We further agreed that our chapter extend to all H. K. N. undergrads contemplating employment with the General Electric Co. an invitation to get

in touch with us beforehand. We shall be glad to answer any requests for advance information and will endeavor to handle each one thru an alumnus from the same chapter if possible. The same applies to newcomers who wish some assistance in getting their bearings after arrival. All that we ask in this case is that you inform us just a little before train time so that we may decide what to do with you when you arrive.

All letters should be addressed to Everett S. Lee, General Engineering Laboratory, Room 504, Bldg. 28, General Electric Co., Schenectady, N. Y.

P. G. BOWMAN,
Associate Editor.

Cross Word Puzzle Winners

We print below the correct solution of the cross word puzzle by Brother Kiesling, which appeared in the last issue.

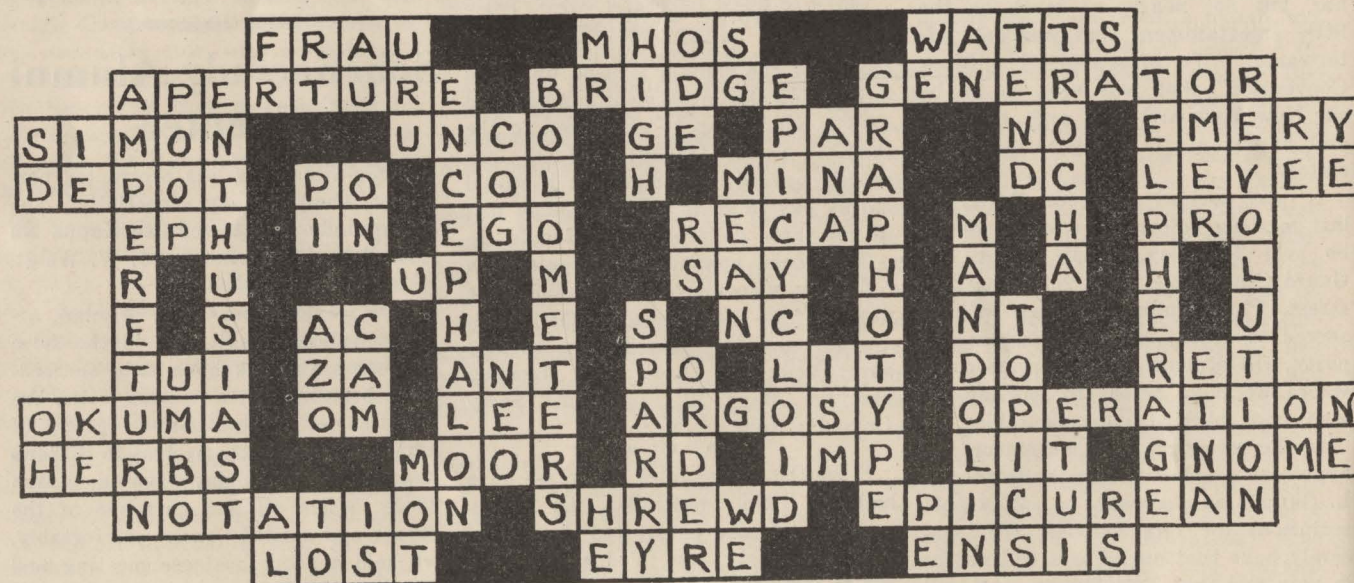
Four correct solutions were received. The lucky brothers who will receive a year's subscription to *THE BRIDGE* were:

W. R. Beach, Z '21, 958 Hana Bldg., Cleveland, O.
M. S. Mason, A '11, 195 Broadway, New York City.

H. M. Piety, D '23, 2025 N. Le Claire Avenue, Chicago, Ill.

W. C. Pomeroy, M '18, University of California, Berkeley, Calif.

The competition was not as keen as we had expected and hoped for, but a very high degree of excellence was shown. All of the incorrect answers received had only one or two errors.



ETA KAPPA NUS

And the time has come again
The Brother's news to write;
From a mere subscription blank or two
We have a worthy task tonite.

I'd like to say to every man
Something he couldn't miss;
Something that would make him remember
Something which goes like this:

"T'would be great to have each Brother
Share each other's thought,
Your children, sweethearts or just your jobs
Or that house you may have bought.

"How about that raise in pay
Or this summer's vacation, too?
You've something of real interest
In everything you do.

"So Brother, make your presence known,
We've space just saved for you;
We'd like to find out where you've gone
The same as you would, too."

ROGER WILKINSON.

Brother Ernest White, M '23, has changed his mailing address from 123 Laurel St., Glendale, Cal., to 3212 LaCleda Ave., Los Angeles.

Brother C. E. Plumb, N '21, has been transferred back from Mexico to 625 First National Bank Building, El Paso, Texas, at which place he looks after Mexican sales for the General Electric Company.

Brother R. F. Tickle, I '14, who became famous as a member of the Lost Soul column, must be given recognition as Secretary-Treasurer of the Engineering Sales Co., at 126 South 9th St., Minneapolis, Minn.

When the New York Telephone Co. was looking for good H. K. N. material they picked up E. E. Brubaker, E '24, and already he is studying their trunking problems. He lives at 248 Garfield Place, Brooklyn, N. Y.

Recent dispatches are to the effect that Brother C. O. Bickelhaupt, T '11, is Vice-President in charge of operations of the Southern Bell Telephone Company, with headquarters at Atlanta, Ga.

The American Gas Co., 712 Locust Street, Philadelphia, has been capitalizing the services of Paul O. Reyneau, K '13, although he is too modest to admit what his position might be.

The address of Brother William S. Andrews, S '23, has been changed from the Walter Reed General Hospital, Washington, D. C., to Ward D, Veterans Bureau Hospital, Chillicothe, Ohio.

On November 5, 1924, the grand old stork left a precious 7½ pound package at the home of Morales and Verna Vendig at Roslyn, Pa. It was all settled beforehand and the package was named Irene—which didn't make her grandmother angry one bit.

Brother Fred E. Harrell, B '24, is aspiring to the rank of Sales Engineer in the organization of the Reliance Electric and Manufacturing Co., 431 S. Dearborn St., Chicago, Illinois. He says, "It sure is great to get the old 'joinal' and see what the fellows are doing—also enjoyed the articles on employment."



The McVickers Theatre in Chicago has gained a reputation for the best pictures in town which we naturally connect with the fact that Brother R. P. Burns is the projectionist there for the Famous Players Lasky. He desires *THE BRIDGE* sent to 3044 Leland Ave., Chicago.

Brother Albert J. Loeb, B '07, is president of the Insulation Materials Company, 565 Erie Building, Cleveland, Ohio. He lives at 10720 Orville Ave., Cleveland.

Xi Chapter has been searching the remote corners of the world and this month cut their remaining number of Lost Souls in two. It is with pleasure that we print the following address of Brother Sherman L. Muths, Alabama Power Co., Anniston, Ala. Good work, Xi; just one more Brother to find.

Brother L. T. Folsom, M '24, is with the General Electric Company at Schenectady, N. Y.

Brother F. R. Finehout, B '22, is doing his duty to the oncoming generations as instructor in the Arsenal Technical Schools, Indianapolis, Indiana. After school hours Finehout wends his weary way back to 1221 E. York St., Indianapolis.



Brother H. C. Draper, I '21, writes that he is "at present division manager in the state of Montana

for the National Telephone Directory Company, an advertising firm publishing telephone directories. "Have been with this firm since January 1st, 1923 and have been in the present position since the first of the year 1924." He added that on July 9, 1924, he was united in wedlock to Miss Hazel Lingo of St. Louis, Mo., and that their home address was 502 Mueller Apts., Butte, Mont.

John M. Downie, O '22, turns in his time sheet marked under the heading of Designing Engineer to the A. C. Engineering Department of the General Electric Co., Schenectady.

For a long time—some twenty years, in fact—we have been fascinated by the unique designs displayed so enticingly upon the cover of one of our favorite dissipations and marvelled at the ingenuity of the creator. And the anticipation connected with which was the probable right end to open! At last we have located the man to whom we can express our heartfelt appreciation—and do so: None other than Brother George R. Kuhns, Th '13, draftsman for the Cracker Jack Co., Harrison and Peoria Streets, Chicago. Long live *THE PRIZE PACKAGE*!

Brother Vincent Pagliarulo, D '12, holds the position of development engineer with the Western Electric Co. at Hawthorne, Ill. His residence address he gives as 5533 Maryland Ave., Chicago.

A graduate electrical engineer is very versatile says Brother E. S. Scott, A '14, who is promoting the business of the Mountain States Mixed Feed Co., Denver, Colorado, as the mill superintendent. We wonder how much he pulls in from the two-thirds retail that the farmer doesn't get. Tell us!

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H. W. Wahlquist, O '21, is assistant engineer in the distributors' department of the Northern States Power Co., Lincoln Bk. Building, Minneapolis, Minn.



Brother L. A. Ashley, M '22, writes that the Pacific Tel. & Tel. Co., 335 Fell St., San Francisco, has engaged him as facility engineer (whatever that is) and the Brothers passing through or stopping in Berkeley, Cal., are requested to look Ashley up at 2001 Allston Way. Shh! FLASH: He's just announced his betrothal to Miss Helen B. Starratt.

Brother L. P. Richmond, T '23, is a student engineer in the radio department of the General Electric Co., Schenectady, N. Y. He helps raise the roof every night at 21 Governor's Lane, Schenectady, N. Y.

Epsilon Chapter extends its best regards to both Brother and Mrs. Nelson S. Hibshman at South Bethlehem, Pa. Hibshman, E '24, is now an instructor at Lehigh University.

Brother George S. Lunge, M '22, is in the switchboard requisition engineering department of the General Electric Co., Schenectady, N. Y. He lives at 14 N. Ferry St., Schenectady.



Once again let the wedding bells ring out. Brother E. R. Hendrickson, B '24, acquired a new business manager in Miss Lucy Mauck of Rensselaer on October 18, 1924. They are enjoying married life at 620 Julian St., Waukegan, Ill., Hendrickson being connected with the Public Service Company of Northern Illinois.

John W. Heim, E '24, is now doing research work at Pennsylvania State College, State College, Pa.

Brother Paul T. Cline, E '24, is in the employ of the Bell Telephone Company of Pa. and lives at 100 Linden Avenue, Collingswood, New Jersey. Besides making the wires talk in the day time, Cline keeps his pencil hot as secretary of the Philadelphia Alumni Chapter "when the toil of a long day is o'er."

The Westinghouse Electric and Manu-

facturing Co. has capitalized the X-Ray eyes of Brother W. O. Lippman, E '18, and appointed him as Chief Inspector for that company in Springfield, Mass.

E. J. Mangney, O '21, has assumed as his vocation—incidentally he makes a living at it—the job of convincing the people of the Gopher state that no juice is so good as that generated by the Northern States Power Co., 15 So. 5th St., Minneapolis, Minn.

R. W. Miller and T. H. McMurray, both Mu '21, who are with the Pacific Telephone and Telegraph Co., have been permanently transferred from San Francisco to Los Angeles where they state that the weather is as usual—unusual.



There seems to be a mania for moving around a lot, instilled in the Theta men. Here are some new addresses: Brother W. J. Ladwig, T '20, 837 1/2 34th St., Milwaukee, Wis; Brother C. F. Kottler, T '18, 1226 Oakland Ave., Milwaukee, and Brother D. J. Blattner, T '18, 1080 Murray Ave., Milwaukee. This name Milwaukee seems to recall some fond memories. That may have something to do with moving.

J. LaRue Garret, E '24, is with the Bell Telephone Company and gives his address as the Acacia Fraternity House, Philadelphia, Pa.

Brother F. E. Harrell, B '24, is making his fortune with the Reliance Electric Company, Cleveland, Ohio, at which place his address is 15245 St. Clair St., N. E.

Modern Research took a couple lunges forward when John L. Howie, Jr., A '22, 6735 Fullerton Street, Chicago, was induced to do some special investigation for the Kellogg Switchboard and Supply Co. of that city.

We wish to chronicle the change of address of Brother J. T. Jackson to c/o Wagner Electrical Corporation, 1720 Calhoun Street, Philadelphia.

Brother S. H. Dent, X '20, informs the Brethren that he escaped injury to person or property during the recent razing of part of Florida's show sections. His address at 1207 W. Flagler Street is well worth pasting on the calendar opposite the days of your

vacation to be spent in Miami as Dent can no doubt take off a few minutes from his job as resident agent of the General Electric Co. to get any Brother started properly on the road to social success in the most elite circles.

Brother W. A. Kates, Th '21, is an engineer with the firm of Day and Zimmermann, 1600 Walnut Street, Philadelphia.

The superintendent of transmission of the Pennsylvania Power and Light Co., at 117 E. Broad St., Hazleton, Pa., has selected as his assistant Brother George C. Harness, B '22.

Both R. O. Eaton and L. F. Rodewig, Z '22, have decided that their fortunes lay with the General Electric Co., at Schenectady. Eaton helps earn dividends as a design engineer at Room 304, Bldg. 18A, while Rodewig figures up how much they should be in the capacity of commercial engineer.

Brother E. M. Rickard, K '21, holds the position of engineer for the Western Union Telegraph Company, 195 Broadway, New York.

S. L. Muths, X '22, is assistant superintendent of the eastern division of the Alabama Power Co., in charge of high voltage transmission lines.

Brother H. G. Bartee, X '21, is district engineer for the Southern Bell Telephone and Telegraph Co., with headquarters in Atlanta, Georgia.

Word comes that Brother J. B. Straw, Assoc., is now in the department of Research and Investigations of the Philadelphia Electric Co., 2301 Market St., Philadelphia, Pa.



Professor J. C. Clark, Hon., writes that he is associated with the Department of Electrical Engineering at Iowa State College, in charge of Research and graduate students. He may be reached by addressing letters to E. E. Dept., Iowa State College, Ames, Iowa.

The F. X. Ganter Co., Sharp and Ostend Streets, Baltimore, Md., is receiving the benefits from the employment of Brother F. V. Ulrich, K '22, who lives at 4114 Fernhill Ave., Baltimore.

Fred T. Bear, E '22, is in the electric plant department as an engineer for the Philadelphia Sub. Gas and Electric Co., at Wyncote, Pa.

Over in Salt Lake City the General Electric Company needed a hustling sales engineer, so they called on Brother L. J. Battey, A '21, to swell their yearly income. At times other than when expounding the superiority of the G. E. products Battey may usually be located at 69 N. State Street, Salt Lake City.

Brother G. A. Muths, X '22, is Line Plant engineer for the Cumberland Telephone and Telegraph Company, New Orleans, La.

Sunset on Sunday afternoon, January 4th witnessed the wedding of O. R. Marston, Mu '16, to Miss Margaret Garthwaite at St. Paul's Episcopal Church in Oakland, California—where rail and water meet.

Carl Philippi is doing some research work with Dr. C. G. Fink, Columbia University, New York City. He desires his copies of THE BRIDGE sent to Leonardo, N. J.



Brother O. L. Wood, K '23, was married on October 9 to Miss Madeline Gazley in White Plains, New York.

The couple is now living at 60 Helderberg Avenue, Schenectady, N. Y., while Wood performs some experimental work on the Emmett mercury vapor process for the General Electric Co.

The Westinghouse Electric and Manufacturing Co. claims Brother J. O. Sherrard, G '22, where he is located in the motor engineering dept. with heavy traction motor design as his specialty. Sherrard lives at 539 Jeanette St., Wilkinsburg, Pa.

Brother J. Stannard Baker, Th '22, has severed connections with the General Electric Company at Schenectady, and assumed new responsibilities doing advertising work for Fairbanks Morse and Co., with headquarters at Chicago. At present he is located at the Indianapolis works at 2026 Northwestern Ave., with residence at 2356 No. Pennsylvania Street.

Rudolf Heins, Th '22, formerly with the General Electric Co., is now in the

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employ of the Menominee and Marionette Light and Traction Company at Menominee, Michigan.



Brother G. H. Kelley, D '22, returned to his native haunts in the vicinity of 5049 Huron St., Chicago, on February 7, after a five months' residence in the East. From Philadelphia we have heard reports that the Curtis Lighting Inc., has lost one of its brightest illumination sales engineers. He is with Crouse-Hinds Co.

L. A. Ashley, Mu '21, whose name was so profusely scattered throughout a recent issue of THE BRIDGE, has returned to the Pacific Telephone and Telegraph Co. offices of the district plant engineer.

Our resident correspondent in Buda, Illinois, informs us that Brother John F. Carper, A '09, and his family are living in the city of Ft. Madison, Iowa, where Carper is engaged in work on the automatic train control which the electric department of the Santa Fe Railroad is installing.

Leon T. Folsom, M '24, writes that he is a testman for the General Electric Company at Schenectady, and lives at 537 Liberty St.

The Commonwealth Edison Company at Chicago knows well the quality of men that Purdue graduates and naturally picked out Brother R. J. Patterson, B '23, for one of their engineers. He keeps his slide rule and scratch paper in Room 500, Edison Building, 72 W. Adams Street, Chicago.

Brother M. B. Bogarte, B '08, elected to pass on some of his learning to the new generations and does so in the office of head master of the Terrill School, 4217 Swiss Ave., Dallas, Texas.



The undergrads at Armour Institute are now slaving under the instructorship of Brother D. E. Richardson, D '24, who hands out the daily E. E. problems. He takes the supposed answers home to puzzle over at 6319 Harper Ave., Chicago, Ill.

Brother A. M. Dowling, X '20, is in the employ of the A. T. & T. Co. in New York City. He lives at 260 82nd St., Brooklyn.

When it comes to selling things the Brothers will do well to look up the record of H. J. Roblee, Z '19, who can make you want to buy anything from the Boardwalk to Long Beach. His immediate beneficiary in this respect is the York California Construction Company, 5051 Santa Fe Ave., Los Angeles.

Brother E. M. Kerr, I '20, writes in red pencil (red denoting anger), "I think the letter of Mr. Irwin's is a 'mean' letter and I wouldn't recommend it to circulation managers of magazines that live by virtue of public favor." However we still think that Kerr is a darned good guy 'cause he accompanied his cruel words with a check (which we were able to cash). Brothers wishing to sympathize with him will probably be forced to wait in the hall at 61 Fifth St. North, Portland, Oregon, while he completes a million dollar sale for the Pacific States Electric Company.

Brother Wm. B. Dehr, A '22, is an engineer in the outside Plant division of the Illinois Bell Telephone Company, and the best information at hand states that he is working on a new compound vanity case, expressly designed for the use of linemen, and guaranteed to withstand wind, moisture and sidecutters. The patent is pending as yet.



Ernest V. Strack, K '22, was married to Miss Elinor M. Watson in Lewiston, N. Y., on July 28, 1924, and after

a delightful honeymoon trip included in which was a canoe trip crossing New York state via the Erie and Barge canals and the Mohawk river and then down the Hudson, the couple have made their home at Spring Valley, N. Y. Brother Strack continues to wrestle occasionally, having annexed the United States Army middleweight championship and was runner-up in the heavy-weight class at Baltimore last spring. He barely escaped participation in the Olympic games by losing to Walter D. Wright.

The present address of Brother R. D. McWha, R '24, is 4 Willett Street, Schenectady, N. Y.

Just as further proof of the fact that an engineering education is broadening if not taken too seriously, Brother **Scott R. Ruby, M '22**, decided that his talents were a divergent series as far as technical research was concerned, and became steward at the M. C. Threlkeld Commissary, 710 Equitable Bank Bldg., Los Angeles.



Brother **G. S. Bibbins** migrated from Kappa chapter and was immediately snapped up by the A. T. & T. Co. last fall, and now after having studied the telephone game for some months with the Brooklyn "Y" as a bit of influencing environment, he confesses that, although the 'phone operators fussed him quite a bit at first, now he can hold his own with any hardboiled chicken that ever set leg and ankle on Broadway.

Brothers **N. C. Bloye, C. H. Osha, D. J. Withers** and **J. L. Raynor, all B '24**, are now employed by the Milwaukee Electric Railway and Light Company, better known as the T. H. E. R. & L. The alumni chapter of Milwaukee has expressed the hope that these Brothers will find time to attend their meetings.

George E. Schweitzer, Epsilon '20, holds the position of engineering assistant in the plant department of the Bell Telephone Company of Pennsylvania, located at 261 N. Broad St., Philadelphia.

Brother **Captain Wm. R. Stewart, E '15**, is now in service at Fort Ruger, Hawaii.

Brother **Roy N. Phelan, M '22**, has recently resigned his position as Secretary-Treasurer of the Electrical Contractors' and Dealers' Association of Sacramento, to become an associate editor of the Journal of Electricity which is published by the McGraw-Hill Company of California at 883 Mission Street, San Francisco. To go with the change of business, Phelan announces his new domicile as being at 2512 Lincoln Ave., Alameda, California.

Forsaking a berth on the faculty of Armour Institute of Technology as assistant professor of electrical engineering to engage in research and development work for the Fanstell Products Company, North Chicago, Illinois, is just exactly what one of our illustrious Brothers has done. Brother **C. E. Stryker, D '17**, electrical engineer for

the above firm was the perpetrator of this horrible crime and has burst into print by writing an article "Charging Railway Signal Batteries," which appeared in the February issue of Railway Signalling. The seriousness of said charge has not as yet been established.

Good Work Xi! What's it all about? Another Lost Soul has been stricken from the rapidly dwindling list of the strayed Brethren. The one who has thusly brought fame to his chapter is **J. Alex Harrison, '22**, and we are pleased to record his address as 1722 North 14th Ave., Birmingham, Alabama.

Brother **Briggs O. Brown** sends us his address as 528 Euclid St., Santa Monica, California.



This line should carry a picture of a swell motor car driving up Main Street (or is it Oriental Boulevard) in Richmond, Indiana, bearing the occupant Brother **L. H. Hazard, A '07**, to work at 10:30 A. M. Not having either a cut of a swell car or one of a man riding in anything at that time of day, we can merely mention that Brother Hazard is Factory Manager for the G. W. Davis Motor Car Co., 12th and N. E. Sts., Richmond, Indiana.

Another Brother has recently returned to his former residence in the good old U. S. A. While Cuba may be a bright spot on the horizon for some thirsty unfortunates, Brother **L. L. Ruggles, B '18**, decided that Chicago and vicinity was moist enough for him. He is still with the Automatic Electric Company, 1009 West VanBuren St., and maintains a daily schedule between there and his home in Wheaton, Ill.

At the midwinter convention of the A. I. E. E., Eta Kappa Nu was ably represented in the varied program held at the Engineering Societies Building, 33 West 39th Street, New York, February 9 to 12. On Tuesday morning, February 10, the session was turned over to the committee on power transmission and distribution, and they in turn selected such representatives of their field as best could cover the items of major importance at this time. Testing Impregnated-Paper-Insulated Lead-Covered Cables was the title se-

lected by Brother **Everett S. Lee, A '13**, now of the General Electric Company, and concerned itself with "a study of the value of the present methods of cable testing and suggestions as to the methods which should be continued to obtain the most trustworthy evidence which it is possible to get at the present time." On the following Thursday afternoon, Brother **D. E. Branson, B '17**, of the A. T. & T. Co. was a member of a group of three who presented the subject: Metallic Polar-Duplex Telegraph System for Long Small-Gauge Cables, being a description of a new telegraph system which may be superposed on toll telephone circuits, and having its operating current of the same order as that of the telephone circuit on which the telegraph is superposed.

Patent Law must be a bewitching subject, for its charms have led Brother **A. A. Hofgren, D '18**, first vice-president N. E. C., to switch from sales engineer in the Industrial Department of the General Electric Company's office in Chicago to patent attorney. His success is assured because he has devoted a great deal of attention to the subject during recent years.



Brothers, here's some real news! **Shirley Spangler**—Born January 5, 1924.

Time—5:09 p. m. (central standard time).
Weight—7½ (pounds, not ounces).
Color—Black (the eyes of course! Maybe her hair is black).

Proud Daddy—**L. A. Spangler, N '24**, 1619 Columbia Ave., Chicago, Ill.

Brother **Phillip J. Kent, K '14**, has been made accessory engineer with the Maxwell Motor Corporation in Detroit, Mich.

The Ohio Bell Telephone Co. came in for another good man and picked out Brother **S. E. Shilling, G '18**, and has advanced him to the present level of District Traffic Superintendent, Canton, Ohio.

Brother **W. C. Bloser, E '19**, is with the N. Y. Edison Co., 44 E 23 St., New York City. He samples nearly all kinds of New York transportation facilities when plying between work and play, the latter at 27 Watsessing, Bloomfield, N. J.

F. L. ReQua, T '17, reports that he is now a sales engineer for the H. B. Squires Company, 583 Howard St., San Francisco.

In the Railway Locomotive Engineering Department of the G. E. Co., at Schenectady, Brother **F. H. Brehob, B '23**, is satisfying his tastes for the aesthetic and beautiful. He comes down to earth again as he arrives at his "den" at 833 Locust Ave., Schenectady.



Another Brother destined to be poor! **Lester E. Reukema, M '22**, has assumed an instructorship in electrical engineering at the University of California. He desires THE BRIDGE sent to 2234 Haste St., Berkeley, Calif.

Brother **H. A. P. Langstaff, D '12**, has charge of all relay protection and switchgear on the entire West Penn system, including over 3,000 relays and 300 oil circuit breakers of the West Penn Power Co., 14 Wood St., Pittsburgh, Pa.

Brother **E. P. Carpenter, M '23**, is in business with the Pacific Tel. & Tel. Co. in San Francisco, and rides his new ten-ton airplane to work each morn from 1912 Berkeley Way, Berkeley. (That's probable isn't it? I read somewhere that they have lots of high flyers out in California.)

When the General Manager of the Cities Service Oil Co., Hamm Bldg., St. Paul, Minnesota, goes out for his round of golf, he does so with the knowledge that the business is in the competent hands of Brother **A. R. Taylor, T '14**.

Brother **J. W. Creasy, I '14**, was transferred to Kansas City, Mo., on January 25th and will take up his duties in the office of District Plant Superintendent, for the Long Lines Dept., of the A. T. & T. Co.

C. E. Broders, Th '14, is a design and sales engineer for the U. S. Automatic Shift Co., Madison, Wis. (This is but distantly related to football technique). Broders makes his home at 1706 Regent St., Madison.



Brother **A. W. Breyfogel, A '22**, came East primarily to work for the Western Union Telegraph Co., but the last time we saw him he was spurning the caresses of several near Gloria Swansons in a Brooklyn theatrical performance which has since made him famous.

Brother **Samuel A. Berg, O '21**, is an engineering assistant of the Brooklyn Edison Company and yums up with "the gang" at Central YMCA, 55 Hanson Place, Brooklyn, N. Y.

W. T. Burnett, A '05, is in the engineering department of the Sangamo Electric Co., Converse Ave. and No. 11th, Springfield, Ill. He lives at 1836 Lowell, Springfield.



Once again the broad field of electrical engineering is broadened further—the assistant industrial director of the Saint Paul Association of Public and Business Affairs is none other than Brother **R. A. Lockwood**, 1567 Osceola Ave., Saint Paul, Minn.

Brother **William F. Cassedy, Jr., K '21**, is a superintendent and foreman for Foote Pierson and Co., Inc., 160 Duane St., New York City. He lives at 2600 Boulevard, Jersey City, N. J.

The firm Warren D. Spangler, Inc., felt the need of a good engineer so they engaged the services of Brother **D. F. Pancoast, Z '20**, who has his office at 1053 Union Trust Building, Cleveland, Ohio.

Brother **L. J. Rust, A '16**, is employed by the American Appraisal Co. at 165 Michigan St., Milwaukee, Wis. He makes his home at 501 Cass St., Apt. No. 7, Milwaukee.



Brother **W. F. Gillmore, Z '20**, has the words VICE PRESIDENT engraved on his office door at the Ohio Spring Co., 1846 E. 40th St., Cleveland, Ohio. When he has finished outlining the company's policies for the coming ten years, Brother Gillmore retires to 3352 Ormond Road, Cleveland Heights, Ohio.

E. J. Guengerich, I '12, is with the S. W. Bell Telephone Co., and is located in the Boatmen's Bank Bldg., St. Louis, Mo.

Brother **Chas. S. Fiske, K '21**, is an electrical engineer for the Consolidated Gas, Electric Light and Power Co., Constitution and Monument Streets, Baltimore, Md.

Brother **Homer Churchill, B '23**, is an engineering assistant in the Public Service Production Company, 80 Park Place, Newark, N. J.

The Pennsylvania Power and Light Co., 802 Hamilton St., Allentown, has annexed the services of Brother **Wilmer P. Holben, Ep '16**, and to date he has arrived at a position as assistant to the district engineer. After developing plans for making more money for the company and himself, Holben retires to 610 No. 11th Street, Allentown.

Brother **M. H. Cook, A '21**, is already taking the world by the tail and doing a little twisting as chief engineer of the Wolff Mfg. Corp., at 255 No. Hoynes Ave., Chicago. He makes his residence at 203 So. Kenilworth Ave., Oak Park, Ill.

Another Brother trying to get the jump on us by brushing up on the fundamentals. **Harlan Palmer, R '22**, is an instructor in engineering mathematics at the University of Colorado.

Brother **C. T. Evans, G '08**, at the last meeting of the Milwaukee Alumni Chapter, expressed a desire

to see THE BRIDGE publish cross-word puzzles, and also to continue the "Red Hot Rivet." Those present at the meeting, according to dispatches, decided that perhaps the former might not be so appropriate, but unanimously approved the latter suggestion.

Another Wisconsinite has gotten the fever too, so we give Brother **L. R. Vautrot's, K '12**, address as 388 5th Avenue, Wauwatosa, Wis.

Brother **John A. Lee, R '22**, holds the position of Electrical Engineer with the U. S. Reclamation Service, and is located at Pavillion, Wyoming.

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Spend your summer at one of the most beautiful lakes in the playground of the World! (Ad in the Elkhart Lake Horoscope). Brother Chas. J. Goldammer, Th '17, announces that special rates will be made to any H. K. N. men who can be induced to stop at the plant of the Schwartz Hotel Co., Elkhart Lake, Wis., of which institution Goldammer is secretary and treasurer. 'Twould no doubt be a good point to investigate whether "special" is up or down.

Brother Casey V. Loomis, T '22, is a student engineer with the Allis Chalmers Co., Milwaukee, Wis., and lives at 1530 Grand Ave., Milwaukee.

Word comes that Brother H. L. Hardaway, I '22, is engaged as a fuel buyer for the United States Gypsum Company, 205 West Monroe St., Chicago. His address is given as 5337 Woodlawn Ave., Chicago, but from the name of the company, he probably sees fit to move every few days or so.

Brother H. C. Draper, I '19, is manager in the states of Utah, Idaho and Montana for the National Telephone Directory Co., at 212 Kearns Building, Salt Lake City, Utah.



As a further inducement to spend vacations in the rolling wooded sections of Wisconsin, we present Brother A. E. Rice, T '20, the secretary and treasurer of the State Amusement Co., at 2614 State Street, Milwaukee.

The Illinois Bell Telephone Co. is profitably employing Brother J. E. King, O '22, as an equipment engineer. He works at 212 West Washington St., Chicago, and carries carfare sufficient to take him back to Wheaton, Ill., of an evening.

Brother H. Nakamoto, K '24, who is a laboratory assistant of the Public Service Company, Irvington, N. J., reports a new address at 802 So. 15th St., Newark, N. J.

Robert C. Rome, O '22, is located with the Northwestern Bell Telephone Co., 1101 Tel. Bldg., Omaha, Neb. He lies awake nights at 4185 Chicago St., thinking about the morrow's problems in traffic equipment engineering.

Brother O. E. Sinclair, A '17, holds the position of valuation engineer with the Public Service Company of Northern Illinois, with offices located at 72 West Adams St., Chicago. He says that commuting is good from his residence at 828 Washington St., Evanston.



Lately a good deal of scandal has been wafted about by the ocean scented breezes of old New York, and after a great deal of investigation and perusing of court records, the special detective correspondent of THE BRIDGE has been able to bring some light upon the matter. This sad news is being published for the first time, and much as we are alarmed at the turn of affairs, it is only fitting that the entire Brotherhood should be informed of the tragedy, that they may all join in the sobbing chorus: "Why did he ask that gal." Our admiration is always excited when the companionship of one so fearless has been enjoyed, and the more so upon receipt of the information that silverware is being purchased at Tiffany's, clothes at Lord and Taylor's and house furnishings at Wanamaker's by a mere telephone man. As yet the special agent has not been able to reveal the mysterious formula but will certainly pass it on if any of the clues now being run down come to any fruitful termination. Brothers, let us present R. Guenther, A '23, of the A. T. & T. Co., and newly elected vice-president of the New York Alumni Chapter who will combine his fortunes with those of Miss Ethel Reynolds of Long Branch, New Jersey, in the very near future. The festive event is scheduled to be run off at the lady's home on April 22, 1925, and marks the culmination (we almost said turning point) of a several years' romance of the highest order. We congratulate. To date Brother Guenther has not appeared with any cigars at the H. K. N. meetings but it is understood that first the initial payments on the above home accoutrements must be satisfied. We thank him in advance.



Earle Monroe Brown, future H. K. N., of the class of 1947, weight 8½ lbs., presented himself on January 29th to Brother E. M. Brown, M '21. Our latest advices assure us that both E. M. Junior and Senior are doing very nicely.

Brother R. H. Tunell, O '22, has worn out many a lead pencil scratching his head since he took up researching in the circuit laboratory testing department of the Bell Telephone Laboratories at 463 West Street, New York City. After such an exasperating day of original thought Tunell staggers up through Greenwich Village for a round or two before riding the underground limited to 318 West 57th St.

Brother B. T. Anderson, A '07, superintendent of signals of the Chesapeake and Ohio Railway, and past chairman of the Signal section of the American Railway Association, is at present busy writing the signal section for the "Railway Engineering and Maintenance Cyclopedic," the railroadman's bible.

When you go to Jamestown, N. Y., don't fail to look for the illuminated handaxe sign, blaring forth the wares of the Clark Hardware Company. It fails to mention the all important fact that Brother W. J. Bemus, K '20, is serving the prosperous community through the above worthy retail business. Bemus lives at 117 Broadhead Ave., (at the other end of town from the handaxe).



One of the bright stars in the present radio firmament is Brother R. H. G. Mathews, D '17, chief engineer, Chicago Radio Laboratories, designer of the Edgewater Beach Hotel broadcasting station (WEBH), Central division traffic manager for the A. R. R. L., and old time radio man (9ZN). One of his latest activities was in connection with the recent daylight absorption tests made at Escanaba, Michigan, at the time of the solar eclipse.

Brother Norman Powne, P '21, is now with the Pacific Telephone and Telegraph Company in Santa Rosa.

A. G. Smith, M '16, is also with the P. T. & T. Co. in the personnel department at San Francisco.

Brother Lawrence E. Weber, Epsilon '21, is an engineer in the Central Station Department of the General Electric Company at Schenectady.



Brother J. W. Cade, B '23, has gotten himself in deep. In the Engineering Department of the Western Electric Co., Chicago, he is delving into the intricacies of the development of machine switching telephone equipment. He goes home to 5002 West Madison St., Chicago, Ill., to ponder upon the morrow's complication of line finders, selectors and sender circuits, only to find that two relays will have to go in to do what one did before.

Brother ReQua, T '17, formerly of Milwaukee, is now located with the H. B. Squires Co., 583 Howard Street, San Francisco.

Roswell C. Van Sickle, K '23, is in the employ of the Westinghouse Electric and Manufacturing Co., at Pittsburgh, Pa. He lives with J. S. Ensor, K '24, at 1318 Singer Place, Wilkinsburg, Pa.

Brother C. E. Winegartner, G '18, holds the position of electrical engineer with the C. E. I. Co., Illuminating Bldg., Cleveland, Ohio. Home ties carry him back to 2051 Warren Road, Lakewood, Ohio.

Brother B. H. Wigbels, I '19, is in charge of field construction costs for the Central Georgia Transmission Co., Macon, Georgia. At present he is working on a 110,000-volt, 65-mile transmission line in central Georgia, and says, "Give my regards to the boys. I have been away from New York for three years."

Glen B. Ransom, O '21, is a technical employee of the A. T. & T. Co., at 311 West Washington St., Chicago.



R. J. Heffner, M '16, is with the Pacific Tel. & Tel. Co., San Francisco, Cal., in the capacity of secretary for the committee on employment and training. His will be a good address to have down in our hats when the boss gets on the war path.

The General Electric Co. must have a stand in with Rho chapter at the University of Colorado since they coaxed George Lenning, Ralph Paden, R. D. McWha and D. Porter, all of the 1924 vintage to enter their ranks.

THE BRIDGE OF ETA KAPPA NU

Brother Leslie J. Harter, G '15, is in the employ of the American Telephone and Telegraph Company, 195 Broadway, New York.

Brother E. D. Lilja, T '24, has gone from Rockford, Ill., to 210 N. Jackson St., Green Bay, Wis.

Deo Dewson, P '24, has changed his address from Seattle, Wash., to 845 Holland St., Wilkinsburg, Pa.

Brother O. L. Dodge, Z '24, is a student engineer with the W. E. Co., Chicago, Ill., and makes his residence at 231 No. Kilbourne St., Chicago.

J. H. Euston, A '18, is another man about to prove that electrical engineering is the course to study in college. He is located with the Bureau of Commercial Economics, Inc., 72 W. Adams St., Chicago.

Brother L. Battey, A '20, maintains an office in the Continental Nat'l Bank Building, Salt Lake City, Utah. Battey is sales engineer for the General Electric Co. in that city.



The Westinghouse Electric and Manufacturing Co. at East Pittsburgh, Pa., has always, since we can remember, made a strong bid for the Eta Kappa Nu men along towards the springtime when a young man's fancy dimly turns to thoughts of a job. And last year was no exception. Here is a list of the budding geniuses who fell for the "Young man, you belong with us" stuff:

A. F. Augustine, Beta.
A. H. Barth, Rho.
C. J. Beller, Zeta.
R. P. Barnes, Mu.
D. R. W. Coleman, Kappa.
L. P. Cramer, Beta.
P. C. Cromwell, Sigma.
Deo Dewson, Pi.
R. C. Dickinson, Xi.
J. S. Ensor, Jr., Kappa.
R. W. Eddy, Rho.
M. B. Inman, Rho.
F. D. Johnson, Theta.
R. F. Kuhlman, Rho.
Leon Lentz, Jr., Epsilon.
M. V. Maxwell, Iota.
W. E. Mueller, Alpha.
W. M. McLaughlin, Epsilon.
W. F. Munhall, Epsilon.
R. A. Reed, Nu.
N. Ratcliff, Theta.
C. H. Smith, Nu.
I. A. Yost, Epsilon.

Clarence H. Smith, N '24, a graduate student with the Westinghouse Company, East Pittsburgh, is living in Wilkinsburg, Pa., at 764 Franklyn Ave.

The Public Service Electric and Gas Co., at Irvington, N. J., have availed themselves of the services of Brother H. T. Nakamoto, K '24.

Brother C. C. Holtgren, P '24, gives us his address as Gordon, Nebraska.

Zeta Chapter has been doing some sleuthing on its own account and discovered that H. H. Rendall, '23, (ex-Lost Soul) is a cable tester for the Ohio Bell Tel. Co., Youngstown, O. He lives at 851 Marshall Street.

R. D. Miller, M '21, has taken a temporary position in the chief engineer's office of the Pacific Tel. and Tel. Co., in Los Angeles, Cal.

Brother H. H. Brown, N '23, has returned from Schenectady, and is now in the employ of the Iowa Railway and Light Co., Cedar Rapids, Iowa.

Brother F. A. Polkinghorn, M '22, is engineer and assistant manager of the A-P Radio Laboratories, 646 Mission St., San Francisco, Cal.

D. H. Mason, A '22, gives us the information that he is connected with the Curtis Lighting, Inc., 628 Witherspoon Building, Philadelphia, Pa.

Brother A. A. Oswald, D '16, has been out seeing the world first, and from last reports was in London, England, at the offices of the International Western Electric Co. He expected to return to New York about the middle of last October.

Brother O. P. Settles, Z '19, living at Quion, Indiana, works for the Western Electric Company, Hawthorne, Ill., as equipment engineer.

Brother F. A. Asendorf, I '22, gives his position as heater for the Diamond Alkali Co. coke plant at Painesville, Ohio. Just another application of electrical engineering. Asendorf lives at 602 Mentor Ave., Painesville.



If one should have occasion to inquire as to the intricacies of neotrodynes, supers, or whatyouwilldyne, he could do no better than to correspond with Brother I. A. Canfield, Z '19, who is a radio sales engineer with the A. O'Connor Co., 9702 Euclid Ave., Cleveland. We've heard lots of common radio bugs blow off but never has it been our pleasure to encounter the above rare specimen of the species. It must be a harrowing experience.

Brother Wm. A. Olson, T '16, has been transferred to the Northwestern Bell Telephone Co. at Minneapolis, Minn.

Out in California the P. G. & E. Co. has availed itself of the services of Brother W. E. Knudsen, M '22, and at present he is working in the valuation department.

Brother J. G. Stewart, G '08, could give most any of us a few tips on the selling game, since at present he is in the capacity of sales engineer for Chas. C. Moore and Co., Engrs., 1916 L. C. Smith Bldg., Seattle, Washington.

Brother Fred B. Anderson, D '21, is a sales engineer for the Curtis Lighting, Inc., 1119 W. Jackson Blvd., Chicago.

W. J. BLUM, A '14

With profound sorrow we report the death of Brother Walter Joseph Blum, A '14, who passed away January 14th, 1925, at Denver, Colo. Brother Blum suffered a wound in service at Cantigny, developed pulmonary troubles and never recovered. He had spent six years in various hospitals and sanitariums and put up a very brave fight for his life, only to lose his battle on January 14th.

Draftsmen for the Illinois Central R. R. are scarce, but we have one anyway. Brother I. T. Landhy, A '22, holds this distinction and we quote his address as 1421 Norwood St., Chicago.

The Philadelphia Electric Co., 2301 Market Street, recognized a practical engineer in Brother H. A. Dambly, E '21, and so enlisted him in their office of the designing engineer. Dambly lives at 903 East Stratford St., Germantown, Philadelphia, Pa.

The Pacific Tel. and Tel. claims another of the Brethren in C. H. Bolin, M '22, who is an automotive engineer, located at 517 Sheldon Bldg., San Francisco. His residence address is 967 14th St., Oakland, California.

Brother Tower W. King, T '19, holds the enviable position of Chief Inspector of the Atlantic Aircraft Corp., Hasbrouck Heights, N. J.

Brother K L. Erwin, G '20, must have a way all his own, after divulging the information that he is a supervisor with the Ohio Bell Telephone Company located at 76 South High St., Akron. He gives his residence address as 328 Fenwood Drive, Akron.

Vidiya Bhushan, A '23, has returned to his home in Kashmir, India after spending about one year with the Allis-Chalmers Company at Milwaukee. He has arranged to have his mail forwarded to him by the Bank of New York, 48 Wall St., New York City.

Brother R. R. Smith, B '20, writes that he has landed the job of traffic engineer with the Ohio Bell Telephone Company at Akron, Ohio. When not figuring how to put more calls over fewer wires, Smith can be found at 196 N. 3rd. St., Cuyahoga Falls, Ohio.

Brother L. L. Edlund, D '16, is chief draftsman for the firm of Gardner and Lindberg, 1135 Marquette Building, Chicago, Ill. His home address is 7556 Eberhart Ave., Chicago.



Even in this day and age news often travels slowly. We are pleased to announce to all of the Brothers that C. S.

King, M '20, was married to Miss Elsie VanMoren, September 13, 1924. Brother and Mrs. King are living at 1024 K St., Sacramento, Cal., Mr. King being division engineer for the Great Western Power company of California.

D. R. PALMQUIST, A '11

The death of Brother D. R. Palmquist, A '11, is reported to us without details.

C. E. TERRY, T '11

The death of Brother C. E. Terry, T '11, is also reported to us without details. At the time of his death Brother Terry was employed as a lamp specialist by the B-R Electric Co., Kansas City, Mo.

Bridge Non-Subscribers

Continued from March Issue

THOMAS, R. R.—A '16
Fairbanks, Morse & Co., Beloit, Wis.

THOMPSON, H. J.—K '14
2937 Gladstone Ave., Detroit, Mich.

THORNE, C. B.—Z '12
Wooster, O.

THORP, V. P.—B '19
A. T. & T. Co., 195 B'way., New York City.

THURSTONE, L. L.—K '11
c/o Univ. of Chicago, Chicago, Ill.

TICKLE, R. F.—I '14
126 No. 9th St., Minneapolis, Minn.

TIFFT, THOS. D.—T '15
69 West North Ave., Wauwatosa, Wis.

TOBEY, C. R.—K '18
The Brownell Co., 1724 Dime Bank Bldg., Detroit, Mich.

TOBIAS, A. L.—E '12
274 Hepburn St., Milton, Pa.

TODD, S. R.—D '12
4332 Ellis Ave., Chicago, Ill.

TOWER, A. M.—A '17
2535 S. Webster St., Ft. Wayne, Ind.

TOWLE, T. S.—K '14
615 Gettysburg St., E. E., Pittsburgh, Pa.

TOWLES, E. E.—I '13
612 E. Main St., Jefferson City, Mo.

TOWNER, L. W.—M '21
City Engr's Office, Long Beach, Calif.

TRAEGER, PAUL—K '13
Summons-Boardman Pub. Co., 30 Church St., New York, N. Y.

TRICKLE, L. E.—A '18
Rantoul, Ill.

TUCKER, B. F.—A '07
131 So. Promenade St., Havana, Ill.

TURNER, J. W.—D '14
935 N. County St., Waukegan, Ill.

TURNER, R. E.—N '21
Odebolt, Ia.

UHER, R. L.—Z '19
2135 Adelbert Rd., Cleveland, O.

VAN ALST, J. W. JR.—L '13
1904 Market St., Harrisburg, Pa.

VANATTA, R. S.—G '11
621 Neal Ave., Dayton, O.

VANDERWERF, H. W.—Z '16
c/o Brandon, Gordon & Maddell, 89 Liberty St., New York, N. Y.

VAN DEUSEN, A. B.—A '12
1613 Wesley Ave., Evanston, Ill.

VANIMAN, R. L.—A '12
2356 Penobscot Bldg., Detroit, Mich.

VAN KEUREN, H. L.—E '11
12 Copeland St., Watertown, Mass.

VEREMIS, M. C.—D '19
401 E. 69th St., Chicago, Ill.

VERMILY, S.—K '21
2006 Douglas Rd., Louisville, Ky.

VIRTUE, W. D.—I '19
1130 Pearl St., Denver, Colo.

VOYER, L. E.—T '11
807 Santo Roy Ave., Oakland, Calif.

WADE, J. D.—X '21
G. E. Co., Detroit, Mich.

WAGNER, J. O.—G '10
1542 Larchmont, Lakewood, O.

WALDO, PROF. E. H.—Assoc.
802 W. Illinois St., Urbana, Ill.

WALKER, G. B.—B '07
Utah Pr. & Lt. Co., 132 So. Main St., Salt Lake City, Utah.

WALLACE, H.—D '13
509 S. Harrison St., Van Werf, O.

WALLHEISER, F. J.—B '14
Shelbyville, Tenn.

WALSH, R. L.—D '13
4445 Ellis Ave., Chicago, Ill.

WALZ, J. A.—B '15
17 John St., Evansville, Ind.

WALZ, J. O.—I '18
1207 Mill St., Wilkesburg, Pa.

WARD, J. W.—K '13
Caledonia, N. Y.

WARNER, A. S.—E '21
Mohnton, Pa.

WARREN, E. R.—B '21
Rochester Gas & Elec. Co., 34 Clinton Ave., N., Rochester, N. Y.

WATT, W. T.—D '17
5706 Newark Ave., Chicago, Ill.

WEAVER, H. J.—A '06
Standard Elec. & Battery Co., Kokomo, Ind.

WEBB, R. H.—B '08
1643 Lauderdale Ave., Lakewood, O.

WEBBER, E. M.—E '11
c/o Wagner Elec. Co., St. Louis, Mo.

WEBER, L. E.—E '21
G. E. Co., Schenectady, N. Y.

WECKERLY, M. A.—B '16
Whitehouse, O.

WEEDON, E. B.—X '22
Eufrasia, Ala.

WEILER, E. G.—A '16
1033 East 140th St., Cleveland, O.

WEIMER, GEO. O.—G '10
1420 Wright St., Los Angeles, Calif.

WEINBACH, PROF. M. P.—Assoc.
303 Waugh St., Columbia, Mo.

WEIR, H.—E '21
Branchdale, Schuykill Co., Pa.

WELLER, G. W.—E '16
1315 Franklin Ave., Wilkesburg, Pa.

WELCH, N. H.—I '22
5818 Wabash Ave., Kansas City, Mo.

WELLS, W. B.—B '17
314 Trenton St., Wilkesburg, Pa.

WENDEL, D. D.—X '22
Murfreesboro, Tenn.

WETZEL, C. L.—D '14
3814 Wabash Ave., Kansas City, Mo.

WETZEL, M. T.—E '21
1539 Chicago Rd., Chicago Hts., Ill.

WEYL, C.—L '17
6506 Lincoln Drive, Phila., Pa.

WHARTON, R. F.—A '22
2121-15th St., Moline, Ill.

WHEELER, C. M.—E '11
855 Rebecca Ave., Wilkesburg, Pa.

WHIPPLE, C. A.—I '12
Texas Power & Lt. Co., Dallas, Tex.

WHITACRE, D. D.—Z '21
Waynesburg, O.

WHITE, T. K.—A '15
Electric Bond & Share Co., 71 B'way., New York City.

WHITMORE, R. W.—D '14
684 Wentworth Ave., Milwaukee, Wis.

WICHMAN, M. F.—O '22
2073 Marshall Ave., St. Paul, Minn.

WIEMER, OTTO—A '05
1420 Wright St., Los Angeles, Calif.

WIEN, J. H.—A '18
3708 W. Lexington St., Chicago, Ill.

WILEY, F. H.—K '15
c/o Colo. Pr. Co., Boulder, Colo.

WILLIAMS, E. C.—A '14
72 W. Adams St., Chicago, Ill.

WILLIAMS, G. A.—A '07
503 Taft Blvd., San Antonio, Tex.

WILLIAMS, H. E.—I '17
800 Clinton St., Carthage, Mo.

WILLIAMS, J. S.—Z '21
G. E. Co., Schenectady, N. Y.

WILLIAMS, L. L.—D '11
5949 Oconto St., Chicago, Ill.

WILLIAMS, T. W.—L '22
5425 Master St., Philadelphia, Pa.

WILLIFORD, E. A.—A '15
1647 Lincoln Ave., Lakewood, O.

WILLSON, F. G.—A '05
78 Madeson Ave., Newtonville, Mass.

WILSON, A. W.—O '22
Devil's Lake, N. D.

WILSON, C. E.—E '15
208 W. Main St., Lock Haven, Pa.

WILSON, L. R.—A '19
Box 1121, Tucson, Ariz.

WILSON, P. R.—O '20
Northwestern Bell Tel. Co., Telephone Bldg., Omaha, Neb.

WINEGARTNER, C. E.—G '18
c/o Cleveland Elec. Illg. Co., Cleveland, O.

WING, H. R.—D '22
811 E. 55th St., Chicago, Ill.

WINSLOW, D. E.—E '15
113 Du Bois Ave., Du Bois, Pa.

WINTER, L. A.—N '16
W. E. Buell & Co., 205 Davidson Bldg., Sioux City, Ia.

WINTER, W. L.—M '16
2112 Leavenworth St., San Francisco, Calif.

WIPPERMAN, F. B.—K '13
6400 Plymouth Ave., St. Louis, Mo.

WISE, A. G.—G '22
65-13th Ave., Columbus, O.

WISE, E. M.—T '19
184 E. Division St., Fond du Lac, Wis.

WOHRLEY, J. R.—G '14
c/o H. L. Doherty Co., 60 Wall St., New York City.

WOOD, A. K.—X '20
2809 Highland Ave., Birmingham, Ala.

WOOD, D. C.—A '13
418 E. Oak St., Springfield, Ill.

WOOD, H. M.—L '14
219 Swissvale Ave., Swissvale, Pa.

WOODCOCK, W. I.—E '13
W. E. & M. Co., E. Pittsburgh, Pa.

WOODE, N. E.—Z '13
1535 Montier St., Wilkesburg, Pa.

WOODRUFF, E. C.—M '16
Box 68, Tracy, Calif.

WOODS, DR. B. M.—Assoc.
3038 Hillegrass Ave., Berkeley, Calif.

WOODVILLE, A. W.—B '07
225-37th Ave., Seattle, Wash.

WOOLCOCK, R. S.—E '19
133 N. River St., Wilkes Barre, Pa.

WOOLHISER, H. L.—T '12
330 Walnut St., Winnetka, Ill.

WOOLRICH, W. R.—T '11
Univ. of Tenn., Knoxville, Tenn.

WOOTEN, BENJ. A.—Assoc.
Washington & Lee Univ., Lexington, Va.

WRIGHT, B. S.—B '15
"Windsor," Mt. Vernon Ave., Alexandria, Va.

WRIGHT, CHAS. A.—Assoc.
Ohio State Univ., Elec. Eng. Dept., Columbus, O.

WRIGHT, S. B.—K '19
A. T. & T. Co., 195 B'way., New York City.

WUICHET, R. P.—G '15
811 Salem Ave., Dayton, O.

WULF, H. A.—M '20
Y. M. C. A., Stockton, Calif.

WURTS, T. C.—K '13
1164 Shady Ave., Pittsburgh, Pa.

WYATT, R. M.—T '17
Central Y. M. C. A., 55 Hanson Pl., Brooklyn, N. Y.

WYMOND, P. C.—B '13
2036 Confederate Pl., Louisville, Ky.

YAEGER, L. C.—A '21
1814 Central Ave., Cheyenne, Wyo.

YEAGER, L. R.—G '14
226 E. Oakland Ave., Columbus, O.

YERGER, C. W.—G '08
c/o Cutler-Hammer Mfg. Co., 50 Church St., New York, N. Y.

YOSHIKAWA, Y.—A '20
389 N. King St., Honolulu, Hawaii.

YOST, V. W.—B '16
226 N. Kolin Ave., Chicago, Ill.

YOUNG, A. L.—N '17
Rm. 3006, Navy Dept., Washington, D. C.

YOUNG, M. Z.—E '19
454 S. Broad St., Jersey Shore, Pa.

YOUNG, W. M.—A '21
306 E. Chalmers St., Champaign, Ill.

YOUNGSTROM, N. C.—M '21
P. T. & T. Co., 835 Howard St., San Francisco, Calif.

YUNGMAN, A. T.—L '14
University Club, Akron, O.

ZIMMERMAN, H. J.—Z '15
Glenruah Ave., Willoughby, O.

ZIPPLER, W. N.—L '20
Gibbs Bros., 1 B'way., New York, N. Y.

LOST SOULS

Please send us addresses for as many of these men as you can. You will confer a favor on both the lost brother and ourselves. Perhaps if we could reach him he might like to read **THE BRIDGE**

ALPHA

AGNEW, J. M., '23—603 Blackman St., Clinton, Ind.
FELLMAN, H. C., '07—146 W. 65 St., New York, N. Y.
NELSON, W. S., '14—Bartlesville, Okla.

BETA

BLOYE, N. C., '24—115 E. Columbia St., W. Lafayette, Ind.
MIDDLETON, I. B., '16—c/o West. Elec. & Mfg. Co., Indianapolis, Ind.
REYNOLDS, R. L., '23—R. R. No. 5, Elwood, Ind.
RUSH, W. A., '06—2118 Hampton St., Swissvale, Pa.
RUSSELL, F. W., '24—Evansville, Ind.
STACEY, W. K., '06—1325 S. Nettleson St., Spokane, Wash.

GAMMA

DICCIO, A. A., '11—Victoria 4166, Buenos Aires, Argentine Republic, S. A.
McGINNIS, O., '23—Arlington Hotel, Washington C. H., Ohio.
PHILPOT, A. C., '12—411 S. Walnut St., Bucyrus, O.
SCHLEGEL, L. G., '17—228 So. Curgess ave., Columbus, O.
WILSON, J. E., '15—Easton, Pa.
ZINK, J. A., '08—381 Watson St., Akron, O.

DELTA

EMMONS, G. C., '11—Laidlaw-Gordon-Dunn Co., Cincinnati, O.
KUMBERA, G. C., '21—Fond-du-Lac, Wis.
MEADE, G. R., '12—4103 Wilcox St., Chicago, Ill.
PEARCE, W. W., '21—538 Steele Court, Waukegan, Ill.
RICHARDS, O. L., '10—7455 Greenview Ave., St. Louis, Mo.

ROSE, HERBERT, '09—4631 No. Racine Ave., Chicago, Ill.

SMELY, JAMES, '20—2658 S. St. Louis Ave., Chicago, Ill.

SMITH, E. H., '17—72 W. Adams St., Ill.

STEVERS, H. D., '20—6804 Hurlburt Ave., Chicago, Ill.

SWANSON, F. A., '14—4019 W. Van Buren St., Chicago, Ill.

WRIGHT, C. F., '16—914 Transportation Blvd., Atlanta, Ga.

ZETA

BURDICK, T. A., '14—c/o Proctor & Gamble, Mfg. Co., Cincinnati, O.

DOXEY, W. S., '16—Penton Pub. Co., Cleveland, O.

GRIGGS, K. C., '22—W. E. Co., 4300 Euclid Ave., Cleveland, O.

HORNBERGER, R. G., '22—162 Walnut St., Barberton, O.

OETZEL, C. J., '15—70 Helen Ave., Mansfield, O.

PARSHALL, D. A., '15—18152 Lake Shore Blvd., Cleveland, O.

WARNER, C. G., '13—320 Spink St., Wooster, O.

THETA

GRAMBS, R. C., '18—337 W. Madison St., Chicago, Ill.

JONES, V. H., '17—533 Byron St., Mankato, Minn.

NORRIS, L. A., '12—G. E. Co., 230 So. Czarck St., Chicago, Ill.

REPLINGER, R. L., '14—6415 University Ave., Chicago, Ill.

IOTA

BAILEY, R. S., '12—Colorado Springs, Colorado.

TAYLOR, O. F., '13—58 Warren St., New York City, N. Y.

LAMBDA

DOHENY, E. P., '18—1115 Fanny St., Elizabeth, N. J.

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WEBB, W. R., '17—1224 18th St., Sioux City, Iowa.

XI

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