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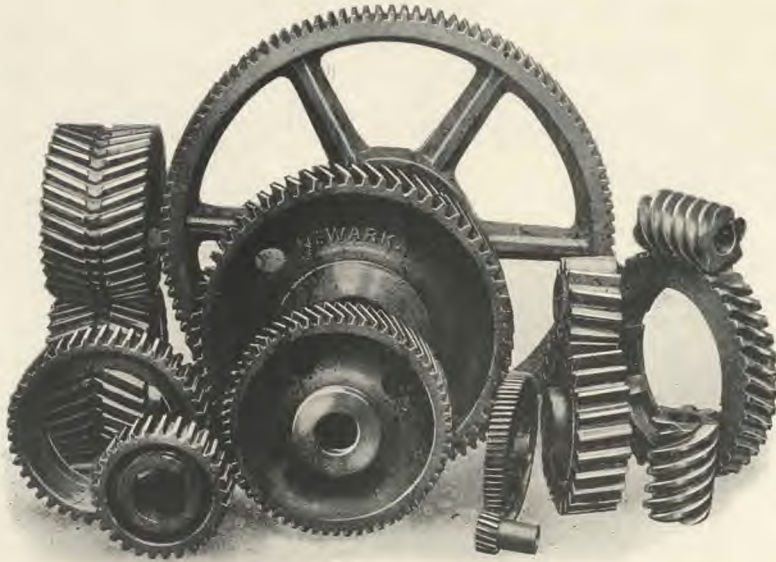
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Henry E. Eberhardt, President

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NEWARK, N. J.



DEAN ALLAN R. CULLIMORE



## The Class of 1925



Graduation is sometimes considered to be a time when we are through with school; when we leave forever classrooms, recitations and studies.

"Newark Tech" cannot afford to do without a single one of you of 1925.

Those of us who remain and who have at heart the development of a greater institution, must count upon you.

If in the next decade our institution is to expand and fill the place which is rightfully ours it will only be done, and it can only be done through the united effort of all our Alumni from '85 to '25.

The Newark of 1885 has passed, new problems and new methods have arisen. Industry in this locality has increased enormously in diversity as well as in amount. The "Newark Tech" of to-day must keep pace with these changes and with this expansion, if it is to properly be a factor in the development of this community.

In the next ten years money will be needed, buildings will be needed and all those material things required for modern technical education. These will come: provided, you of '25 join heartily with those who have gone before to do all within your power for your own "Newark Tech."

An institution is no stronger than its Alumni. The Alumni are the only permanent part of "Newark Tech." Classes come and go, faculties come and go but the Alumni cannot change. Ultimately they will make the school what it is to be.

So after graduation, you of the Class of '25, keep in touch with "Newark Tech." Wherever you go and whatever you do let us know. Perhaps we MIGHT help you a bit and we KNOW you can help us much.

We cannot afford to lose touch with one of the Class of '25.

We know what you are and we want you, we will need you in the years to come.



# The Fratech

PUBLISHED IN THE INTEREST OF AND BY THE STUDENTS OF THE  
NEWARK TECHNICAL SCHOOL AND COLLEGE OF ENGINEERING

For Advertising Rates, Address Advertising Manager

*Contributions are cordially solicited from the students and graduates of this school  
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OFFICE: NEWARK TECHNICAL SCHOOL, 367 HIGH STREET, NEWARK, N. J.

Volume 14

Number 4

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# THE FRATECH

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## CONTENTS

14

|   | Page |
|---|------|
| EDITORIALS .....  | 8    |
| GRADUATES .....   | 12   |
| AUTOGRAPHS .....  | 23   |
| TECHNOLOGY .....  | 24   |
| Space of Four Dimensions and Spiritualism,<br>By B. S. Koshkarian, M.A.             |      |
| Additional Concepts Required for a Knowledge of Electricity,<br>By A. A. Nims, E.E. |      |
| CLASS OF 1925 NEWS .....  | 29   |
| CLASS OF 1926 NEWS .....  | 31   |
| A. A. E. ....   | 34   |
| FRATERNITY .....  | 36   |
| CONTEMPORARIES .....  | 38   |





### AU REVOIR

It is with a heavy heart that I sit down in the Editor's chair, to pen a farewell to the FRATECH. The desk is littered with papers, copy, and the other paraphernalia characteristic of the Editor's desk, and, with all its trials and tribulations, it makes me feel sorry to be leaving it all behind, for it has been a pleasurable task, and although the road has not been paved with roses, the appreciation shown by the school as a whole for the efforts, have indeed made it well worth while.

And so another chapter is brought to a close, and the reins will be taken up by you, the new staff, whom I feel sure, will uphold the traditions of the school paper. You have had an insight into the task you have before you. You have seen the amount of pleasure that is given. The sombre aspect of hard study has been toned down by clean humor, the advice, well given, sometimes, and the various happenings of the school you represent.

"Tech" has grown more in the past few years than it had since its inception. It is rapidly growing apace, and the day will come when Tech will be known throughout the land, for its thoroughness, its students, and last but not least, its indomitable spirit. The Dean is one of us, and has the gift of imbuing everyone with whom he comes in contact with that wonderful morale that he himself possesses. We pledge our faith to him.

And now as I pick up the scattered papers, and step from the exalted position of Editor-in-Chief, I would wish to thank the Dean, the faculty, the students, and our contributors for their loyal support, that has made this magazine possible. Indeed have they rendered "Yeoman Service." And to you, the staff of 1926, "Greetings" and the wishes of the retiring staff for a happy and prosperous year of literature, and may your efforts meet with the same whole-hearted gratitude that ours did. "Au Revoir," and "Bon Voyage."

### GRADUATION

Graduation, the most important event of the scholastic year is again with us with all its thrills and expectancies. At last, dreams that had for a long time appeared dim and far off have been realized, and hearts are joyful with a satisfaction that comes only from work well done. There is a pleasant reaction to those who are about to graduate, for it means the completion of four, and in the majority of cases, six years of studying, this accomplished, in the evenings, after their daily toil had been completed.

As the graduates go out to take up their places in the business world and begin to apply their knowledge, may they ever keep on learning, for something new can be learned every day, and each new thing learned will serve as a stepping-stone to something bigger, something better and more worth while. It has often been said that, "Nothing great ever began great," and therefore, do not expect too much. It is natural that we learn to creep before we walk.

That the undergraduates wish the graduates the best of success in all of their endeavors goes almost without saying and they hope that each graduate may attain his highest ambition even though the road may not be an easy one.

### CLASS OF 1925

At this time, the period of graduation, come sad but loving memories of dear Newark Tech. We graduates, who have attended Tech for at least four long years, will forever bear in our minds fondest thoughts of school, and many acquaintances.

Brothers, it is our call to face the future and give the best that is in us, that we may expect ultimate returns, for each of you has been trained in your respective field, and are armed with knowledge, the mightiest of all weapons, that advances you to the fore in this little game called "life." Let us always remember, brothers and fellow graduates, regardless of where we are, whom we are or what position we hold, that we owe our success to dear old "Newark Tech."



## "The Fratech" and The 1926 Staff

To precede the staff that will carry on the work of the FRATECH for the coming year we will take the liberty to explain a few important features which pertain to the FRATECH and yourself.

The FRATECH is the school periodical which is published by the Newark Technical School and College of Engineering of the Newark Technical School. It is published for the students and by the students of the school. It is self-supporting and receives its finances from the advertisements and sales which occur through the circulation of the paper. An unpublished statement regarding its finances is made and audited after each issue, the profit being used to improve on the next issue or to overcome the loss on any preceding number. At the end of the year the funds, etc., are turned over to the following staff for their use in publishing the FRATECH. The executives of the staff are usually chosen from the graduating class and they do not receive any compensation or privileges for their work.

The purpose of the FRATECH is to acquaint the

student with the various organizations of the school and thereby create a more co-operative attitude with his fellow students.

The FRATECH aims to promote a social relationship within and without the school. It is a go-between for the students to express their intellect along engineering lines; a conveyor of information from our professors; a reviewer of all social and business events which occur; a connecting link from the outside world to our educational institution; and last, but not least, an optimistic view of life—our columns of jokes.

Readers, this is your paper. It cannot exist without you. Upon you depend the sales, upon us depends the publication. Is there any reason why our combined co-operation cannot make this a better and more circulative periodical? See that your name appears on the mailing list for a yearly subscription this coming year.

We take great pleasure at this time in announcing the personnel of the 1926 FRATECH Staff.

### *Editor-in-Chief*

A. G. VOETTER

### *Associate Editors*

HOWARD D. WENDLER, '26      GARRETT DEN BRAVEN, '26  
H. JURNECKA, '26      FRED HAVEN, '26

LOUIS PISCHKITTEL, '27

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M. FRITTS, '28

W. VLIET, '28

AL. REESE, '28

C. H. MAYER, '26

F. STORK, '26





MR. F. W. LAVENBURG

## Graduation

Graduation means a great deal in the life of the student. It is a goal—a milestone—which marks the boundary line between the land of preparation and the commencement in the real school of life. There is a feeling of definite development and accomplishment along the line of the chosen profession.

Those of you who leave this institution, bearing with you honors in recognition of your attainments, are entreated to remember that your work has been but preparatory to the vast field of usefulness which lies be-

fore you. You have taken advantage of the opportunity which the School has offered giving you a distinct advantage in life. The scientific background which you have obtained is a measure of the heights you may be able to reach.

There are two factors, which combined determine your responsibility; the world's need on the one hand, and your ability to meet it on the other. One of the chief objectives of your education has been to give you a keen sense of the opportunity for service and, at the same time, prepare you to meet the specifications of an exacting world.

Whether your life is a success or failure will depend entirely upon the obligations and responsibilities which you are ambitious enough to assume and exert your best efforts to discharge. The man who does not acknowledge his duties in life is in the broader sense a failure.

Remember, that if you do only as well as a thousand others, you have as many competitors for your job, but if you do your work better than the others you remove competition and it will not be necessary to look for a position.

The best wish that can be made for your future is—that you may be permitted to work to the end of your life and live to the end of your work.





MR. L. SPRY, M.Pd.,  
CLASS ADVISOR

## “1925”

My fairest child, I have no song  
to give you;  
No lark could pipe to skies so  
dull and gray;  
Yet, ere we part, one lesson I can  
leave you  
For every day.

Be good, sweet maid, and let who  
will be clever;  
Do noble things, not dream  
them, all day long;  
And so make life, death, and that  
vast Forever  
One grand, sweet song.

The graduation of the Class of 1925 makes final suggestions to you, its winning members, a duty that is strangely mingled with pleasure and sadness.

I wish it were in line with realities to assure you that men so well-equipped will find the way into the future a smooth beautifully paved highway. No one has found such a way continuously. You will need to make your way, each by himself, largely. That means that the same unremitting pluck and perseverance you have shown through the past four busy years will need to be continued.

In this age, the watchword of all peoples is “Progress,” which is bought with self-sacrifice. You of the departing class well know the price for the splendid advancement you have already made. But the law of life as linked with progress in this busy, practical, workaday world requires that you, having been privileged in securing such training, have a debt to pay. The world expects great things of each of you. That is the levy that Opportunity has always made, as Charles Kingsley laments in the first stanza above.

Your achievement in gaining so desirable a goal as is yours to-day will open large fields for you as pioneers; your vistas from the heights you have gained will be greater and grander; your pluck and energy and vision are bound to carry you to the acme of all genuine, purposeful effort—Success. Your whole-hearted earnestness, your high standards in scholarship, your maturity in opinion and integrity, your splendid loyalty and devotion to the beloved Alma Mater, are the shining combination of worth-while qualities that have made your present success a very real one, and means so much for the future.

This graduation marks a distinct epoch in your lives. As you go forth your interests in your chosen fields will cause you to become widely separated from the school which means and must continue to mean, so much to you all.

Your interest in and loyalty to your Alma Mater will never flag, we feel sure. The brotherhood of man is based primarily on loyalty, a striking characteristic of the Class of 1925.

The future calls, and you are ready, yes, eager to go to answer. Keep in your glad hearts the inspiration of the second stanza from Kingsley.



## Engineering Graduates



LEWIS H. BATES, A. E. "Lew" Chemical Engineer  
219 Smith Street  
Newark, N. J.

*"Destined to be a great chemist."*  
N. T. S. Fraternity; Bowling Team.

ARTHUR BOOTH, A. E. Chemical Engineer  
135 Clinton Avenue  
Clifton, N. J.

*"So quiet—but still waters run deep."*



W. ALLEN DARBY, A. E. "Al" Chem. Engineer  
231 Halsted Street  
East Orange, N. J.

*"A good athlete with a craving for loud bow-ties."*  
Class President 1924; Class Secretary 1925; N. T. S. Fraternity; Captain Basketball Team; Exchange Editor FRATECH staff.

HARRY T. YOUNGHANS, A. E. "Harry" Chem. Engineer  
22 Twentieth Avenue  
Irvington, N. J.

*"Soon to leave the bachelor's club."*  
Class Historian 1925; Bowling Team; N. T. S. Fraternity; FRATECH Circulation Manager.







LAWRENCE A. BOWER, A. E. "Bower" Electrical Engineer  
57 Fairmount Avenue  
Newark, N. J.

*"Some day I will build me a power station."*

N. T. S. Fraternity; Society of Married Men.

ARTHUR N. BRAUDÉ, A. E. "Art" Electrical Engineer  
74 Clinton Avenue  
Newark, N. J.

*"A student of evolution, and a lover of dogs."*

Class President 1925; Class Secretary 1923-1924; Member A. A. E.; Editor-in-Chief FRATECH; N. T. S. Fraternity.



LESTER DUNN, A. E. "Les" Electrical Engineer  
59 Astor Street  
Newark, N. J.

*"Across the desert with my covered wagon."*

N. T. S. Fraternity Sergeant-at-Arms; Bowling Team; Member A. A. E.

ADAM S. EWASZEWSKI, A. E. "Wassi" Electrical Engineer  
7 Grant Avenue  
Harrison, N. J.

*"A fair haired boy from Harrison."*

N. T. S. Fraternity.





JOHN MAC MILLAN, A. E. "Mac" Electrical Engineer  
631 Passaic Avenue  
East Newark, N. J.

*"Silence is a virtue."*

WILLIAM OSTERHELD, A. E. "Bill" Elec. Engineer  
136 Acme Street  
Elizabeth, N. J.

*"Go west young man, go west."*

Class President 1923; Class Vice-President 1924; N. T. S. Fraternity Board of Managers; Bowling Team.



ALBERT H. SIMONS, A. E. "Sim" Electrical Engineer  
72 Fairmount Avenue  
Newark, N. J.

*"Will talk on all topics but one."*

N. T. S. Fraternity

JOSEPH ANDERSON, A. E. "Red" Mechanical Engineer  
78 Ellis Avenue  
Irvington, N. J.

*"In an argument, let my voice be heard"*

N. T. S. Fraternity; FRATECH Staff.







BARNEY A. DIEBOLD, A. E. "Micky" Mech. Engineer  
88 Johnston Avenue  
Kearny, N. J.

*"A flaming youth with a flaming clarinet"*

Class Treasurer 1925; Associate Editor FRATECH;  
Fraternity Custodian 1925; Member A. A. E.; Bowling  
Team.

WILLIAM DROSBACH, A. E. "Dross" Mech. Engineer  
424 Morris Avenue  
Newark, N. J.

*"With me go my pad and pencil, for I must take my  
notes."*

N. T. S. Fraternity.



JOSEPH F. GRABOSKI, A. E. "Grab" Mech. Engineer  
160 Ridge Road  
Lyndhurst, N. J.

*"As a swimmer he excels."*

MARTIN GROSSBERG, A. E. "Marty" Mechanical Engineer  
542 Marshall Street  
Elizabeth, N. J.

*"Victor record's future vocal recording artist."*

Class Vice-President 1925; Member A. A. E.; Fra-  
ternity Financial Secretary 1925; Master of Ceremonies  
1924; Circulation Manager FRATECH 1924-1925; Bowling  
Team.





ARTHUR F. HEIN, A. E. "Hein" Mechanical Engineer  
733 South 14th Street  
Newark, N. J.

*"Dance on fair youth—a Valentino yet."*

Member A. A. E.; N. T. S. Fraternity; Bowling Team.

JOSEPH H. HOSEK, A. E. "Joe" Mechanical Engineer  
829 Madison Avenue  
Elizabeth, N. J.

*"Very reticent, but knows when he wants what he wants."*

N. T. S. Fraternity; Bowling Team.



FRANK KUNC, A. E. "Frank" Mechanical Engineer  
209 Sheridan Avenue  
Roselle Park, N. J.

*"Outwardly a student—but if you knew him—"*

N. T. S. Fraternity; Bowling Team.



RALPH A. LENZ, A. E. "Ralph" Mechanical Engineer  
292 Woodside Avenue  
Newark, N. J.

*"The pipe is my staff of life."*

N. T. S. Fraternity; Member A. A. E.







SAMUEL PESTUNOWITZ, A. E. "Sam" Mech. Engineer  
58 Hillside Place  
Newark, N. J.

*"A craving for bow-ties—and Heat Power."*  
N. T. S. Fraternity.

ALBERT PIZZI, A. E. "Al" Mechanical Engineer  
300 Hunterdon Street  
Newark, N. J.

*"Ask me something about Worthington Pumps."*  
N. T. S. Fraternity; Bowling Team.



EDMUND S. REDMERSKI, A. E. "Red" Mech. Engineer  
238 Thirteenth Street  
Jersey City, N. J.

*"A good worker."*  
Vice-President N. T. S. Fraternity 1925; Financial  
Secretary N. T. S. Fraternity 1924; Secretary A. A. E.  
1925.

WILLIAM C. SCHULER, A. E. "Bill" Mech. Engineer.  
43 East Milton Street  
Rahway, N. J.

*"Every man's work should be made manifest."*  
N. T. S. Fraternity; Bowling Team; Member A. A. E.;  
FRATECH Staff 1924.





CONRAD BOLL "Con"      Related Machine Design  
51 North 14th Street  
Newark, N. J.

*"A bold man."*

GEORGE T. BORTON "George"      Engineering Drawing  
26 Hilton Avenue  
Hilton, N. J.

*"I am ready to try my fortune."*



VICTOR L. DEICHERT "Vic"      Sanitary House Drainage  
296 Bigelow Street  
Newark, N. J.

*"Fortune helps the brave."*

CHARLES J. DOHN "Charles"      Related Mach. Design  
149 Wilson Avenue  
Kearny, N. J.

*"Must we always be gay?"*







FREDERICK ENGLE "Fred" Engineering Drawing  
12 William Street  
Nutley, N. J.

*"Strive and grow mighty."*

JOHN W. GRAF "John" Engineering Drawing  
61 Houston Street  
Newark, N. J.

*"The bow-tie specialist."*



ROBERT W. HARLOW "Bob" Sanitary House Drainage  
11 Prospect Street  
Nutley, N. J.

*"A pompadour for mine."*

ALBERT HOLLER "Al" Engineering Drawing  
132 Morton Street  
Newark, N. J.

*"Quite a draftsman."*





FREDERICK LLOYD "Lloyd"      Engineering Drawing  
 454 South 12th Street  
 Newark, N. J.

*"For a man is master of his fate."*

CHARLES MAYR "Charley"      Sanitary House Drainage  
 46 Pennington Street  
 Newark, N. J.

*"My wave is permanent."*



JOSEPH O'NEILL "Peggy"      Sanitary House Drainage  
 455 Fulton Street  
 Elizabeth, N. J.

*"Mirth and joy are forever yours."*

JAMES McGRANE "Jim"      Sanitary House Drainage  
 43 Liberty Street  
 Newark, N. J.

*"Hail fellow, well met."*







FREDERICK MILLER "Freddy" Sanitary House Drainage  
710 Linden Avenue  
Elizabeth, N. J.

*"I think Elizabeth is a wonderful place."*



MICHAEL PARCARO "Mike" Engineering Drawing  
220 Parker Street  
Newark, N. J.

*"The prize we sought is won."*



ANTHONY PROVENZANO "Tony" Sanitary House  
Drainage  
296 South 9th Street  
Newark, N. J.

*"By his own labors raised."*



WILLIAM ROBSON "Bill" Sanitary House Drainage  
269 Belleville Avenue  
Newark, N. J.

*"I will fold my arms, and look  
the world in the face."*

WILLIAM S. ARMSTRONG "Bill" Related Mach. Design  
205 William Street  
East Orange, N. J.

HERBERT V. BELL "Herb" Engineering Drawing  
48 Hillcrest Road  
South Orange, N. J.

JAMES HART "Jim" Engineering Drawing  
43 Hudson Street  
Newark, N. J.

PAUL E. HORN "Paul" Engineering Drawing  
61 Tillinghast Street  
Newark, N. J.

ALFRED OSTROWSKI "Alf" Engineering Drawing  
493 Hall Avenue  
Perth Amboy, N. J.

FRANK C. PARILLE "Frank" Related Mach. Design  
99 Harrison Street  
Belleville, N. J.

HECTOR SAVIOLI "Hec" Engineering Drawing  
67 Pacific Avenue  
Garfield, N. J.

MILOS VALTER "Valt" Related Machine Design  
555 Meadow Street  
Elizabeth, N. J.

ROBERT S. WILSON "Bobby" Engineering Drawing  
122 Chestnut Street  
West Orange, N. J.



Autographs





RAY STEELE

### SPACE OF FOUR DIMENSIONS AND SPIRITUALISM

By B. S. KOSHKARIAN, M.A.

*"The non-mathematician is seized by a mysterious shuddering when he hears of 'four-dimensional things,' by a feeling not unlike that awakened by thoughts of the occult. And yet there is no more commonplace statement than that the world in which we live is a four-dimensional space-time continuum."—Einstein.*

No concept of pure mathematics has aroused such a widespread curiosity in the layman's mind as that of the Fourth Dimension. The concepts defined by such terms as "Anharmonic," "Point of Osculation," "Asymptotic Contact," "Determinant," "Covariant," "Automorphic," and a vast multitude of other mathematical terms either do not excite any interest at all, or else they supply food for jest on account of their awkward sound. At the mere mention of a Fourth Dimension all sense of humor seems to vanish and a profound awe seizes the mind. "What is the Fourth Dimension?" "Where is it?" are the very first questions asked with a nervous expectancy of hearing something formidable about the most mysterious of all mysteries!

What is the origin of the awe and shudder caused by the mathematical term Fourth Dimension in the non-mathematician's mind? The concept of hyperspaces (four-dimensional, five-dimensional,  $n$ -dimensional spaces) was conceived by the mathematician as a sort of geometric imagery, as an aid in his abstruse analysis with no thought whatever as to the objective existence of the multi-dimension; he might as well be satisfied in using an altogether different terminology such as a function of one variable, a function of two variables, a function of  $n$  variables, and then the layman would hear and think no more about the matter. However, right then and there the spiritualist, the arch-mystifier, peeped into the mathematician's interesting mode of representa-

tion of his "variables" and discovered that an hypothesis of the objective existence of the Fourth Dimension could nicely account for all the juggleries of his pet ghosts. Before the advent of the concept of hypespaces all the resourcefulness of the spiritualist's imagination was powerless to find an abode for the spirits in the space in which we mortals live. From the clear sky of the mathematician's sphere of activity came the dazzling flash of a four-dimensional space with extraordinary properties, and the spiritualist saw illumined the spirit-land of his speculations. Then he vested the Fourth Dimension with a sort of transcendental materiality peopled with beings endowed with a great many more degrees of freedom than we three-dimensional beings possess in our domain of activity. It is this association with the so-called occult phenomena that has made the Fourth Dimension almost an object of superstitious fear.

Let us forget, however, the spiritualist for a moment and let us see what the mathematician means by four-dimensional space.

Suppose we wish to locate a point  $P$  on a line  $L$ . We take another point on  $L$  as a fixed point of reference and call it the origin. Then we agree to call a length or distance positive, if it is measured toward the right of the origin, and negative if it is measured toward the left. After measuring the distance between the origin and the point  $P$  in question we say that  $P$  is 10 units to the right or the left of the origin. This *single number*, which is called the co-ordinate of  $P$ , is sufficient to give us all the desired information. We express this fact in saying that a straight line is a *one-dimensional space of points*. Now suppose we wish to locate a point  $P$  in a plane, for example a bead on the floor of your room. In this case we measure the distances of the bead



from any two intersecting walls of the room, and these *two numbers* (co-ordinates) are again sufficient to give us all the desired information about the position of the bead. We express this fact in saying that a plane (the surface of the floor) is a two-dimensional space of points. In the same way to determine the position of a body suspended from the ceiling of your room we need *three numbers*, for example, 3 feet above the floor, 8 feet from the eastern wall, and 5 feet from the northern wall. We express this fact in saying that your room is a *three-dimensional space of points*. Or making use of mathematical symbols and using the synonymous word co-ordinate instead of dimension, we say that in a line a point is represented by one co-ordinate  $x$ , in a plane by a pair  $(x, y)$  of co-ordinates, and in our ordinary space by a triad  $(x, y, z)$  of co-ordinates, where  $x, y, z$  are now variables to represent the co-ordinates of any point whatever. Generalizing still further we can say that the tetrad  $(x, y, z, w)$  of co-ordinates represents a point-space of four dimensions.

In other words in order to mark out a particular point in one-dimensional space we measure along one line, in two dimensional space along two mutually perpendicular lines, in three-dimensional space along three mutually perpendicular lines, and in four-dimensional space along four mutually perpendicular lines, and in five-dimensional space along five mutually perpendicular lines meeting at a point, etc.

Can we imagine four mutually perpendicular lines meeting at a point? A space of four dimensions? No! We are three-dimensional. Does the four-dimensional space exist? If by existence we mean *logical consistency*, the four-dimensional space *does* exist, for an assumption of its existence does not lead to any contradiction; in fact the mathematicians have already written the geometry of four-dimensional space. If by existence we mean *material objectivity*, we are not certain whether the fourth dimension does exist. However, once we assume the existence of a four-dimensional space we can easily determine its geometric properties. The following are a few of the properties of the four-dimensional space: You can pass from the inside to the outside of an ordinary sphere without going through its surface. Thus you could remove the kernel of a walnut without breaking it, and you could escape from a dungeon without opening a door, a window, or any exit anywhere. If you look in any direction whatever the fourth dimension will be perpendicular to that direction.

To explain these feats of freedom we take an analogy: Imagine a flat-man (a man with no thickness) lying in his plane (two-dimensional space) and surrounded by a circle. This circle would be an enclosure to him and he would not

be able to escape from his confinement by any means known to him. If, however, he had the ability to move in the third-dimensional space, he could rise, pass over the enclosing barrier, without disturbing it, and descend on the other side of his formidable enclosure. The moment he left his plane he would completely disappear from his two-dimensional space and fellow flat-men. Similarly a disappearance from any three-dimensional enclosure, for instance a prison with locked doors and windows, could be effected by means of moving into the four-dimensional space. Thus a thief could pack up all the money in a bank in plain daylight and disappear into the four-dimensional space, but the adventure would hardly be worth while inasmuch as he spirits might be using four-dimensional coins!

So far we have considered the Fourth Dimension in its classic sense, that is to say, it has been assumed to possess the same extensional characteristics as the third dimension. In the modern Relativity Theory, however, *time* is taken for the Fourth Dimension and the world of phenomena in which we live has been conceived as a "four-dimensional space-time continuum." We owe this new conception of our actual world to the German mathematician, Minkowski.

"No event," said Minkowski, "can be separated from time and space. An event takes place *some where*, and *some time*. To represent that event, that *weltpunkt*, we need not only three space co-ordinates but also a fourth variable in reference to time. The three space co-ordinates will tell us *where* the event occurs, and the time co-ordinate will tell us *when* it occurs. The world constituted by such events (world-points) is a four-dimensional world. The points of this world all exist at once, they coexist; the fluxion time is abolished; motion, as a change of place during a flow of time, is gone; in the new world, *where* has a *new* meaning—it has absorbed both the old *where* and the old *when*. There is no history in this new world, in the ordinary sense, no past, no future; child, youth, man *coexist* as phases of one individual; the same is true of morning, noon, night, and so on; all is *static* as a "painted ship on a painted ocean." This is the interpretation of Minkowski's world in which time is the haunting Fourth Dimension.

One might object that the time dimension, being of a *durational* character, can not be used analytically with the three space co-ordinates which are purely *extensional*. Very true.

Minkowski, however, seems to have overcome this obvious difficulty by a very clever trick. He multiplied the time variable  $t$  by the square root of minus one and used the product  $i t$  (where  $i$  denotes the square root of *minus one*) as the fourth co-ordinate. Thus a point in time-space is represented by the four co-ordinates  $x, y, z, i t$ .



Under these circumstances the time co-ordinate plays exactly the same rôle as the three space co-ordinates. Thus the necessary implication of this dimension seeking game in general is that Time and Space are both *curved*. By saying that space is curved it is meant that in *looking forward you may be looking toward the back of your own head*. By saying that time is curved it is meant that in *traveling toward to-morrow you may be facing yesterday*.

On the hypothesis of curved space and curved time the spiritualists have attempted to explain "Clairvoyance," "Automatic writing," "Apparitions," "Possession," sleep and dreams, and what not!

In the year 1877, Johann Friedrich Zöllner of the University of Leipsic, propounded the theory that psychic phenomena could be explained on the assumption of a four-dimensional space. The assumed ability of a ghost to appear and disappear at will was interpreted as a mere passage from the fourth dimension into our three-dimensional space and *vice versa*. This game we could play on our flat-man, of course.

*Automatic writing* was assumed to be the outcome of the entrance of spirits from the fourth dimension into our bodies and of these taking control of the movements of our hand in writing intelligent sentences independently of our will and consciousness.

*Clairvoyance in Space* (vision at a distance and the exercise of a superior power of sight) was assumed to be the perception of things of our world from the region of the fourth dimension.

*Clairvoyance in Time* (the perception of a past event as in process of occurring, or prevision of a future event) was assumed to be the transcending, by consciousness, of our three-dimensional space and utilizing the *positive* and negative directions of the Fourth Dimension (the time co-ordinate of Minkowski):

After reading this brief account of the Fourth-Dimension Concept and its function in the investigation of the so-called occult phenomena, we may think we are going mad! However, can we be certain that mathematicians and spiritualists are raving? Are we certain that with our limited number of senses we have exhausted the domain of all possible experience? Are we certain that we are familiar with all modes of *being* and *becoming*? Is it not possible that what we call Evolution is only a process of Dimensional Summation with correspondingly increasing degrees of freedom?

#### THAT'S DIFFERENT

Head of the house in angry tone—Who told you to put that paper on the wall?

Decorator—Your wife, sir.

"Pretty, isn't it?" said the husband.

#### TO TOUR UNITED STATES

Marty Grossberg and Billy Osterheld, two of the graduating Class of '25 will make an extended trip to celebrate their graduation and to have a general good time before settling down to their life's work (?)

Both boys believe in the slogan "See U. S. First," and therefore are going west to California, traversing the Northern States of the Union en-route and returning via the Southern States, stopping anywhere along the route and staying as long as there is something interesting to be seen. The trip will cover a period of five months, provided their appropriation lasts.

Marty and Bill have planned this for more than a year and the writer just received some "Inside dope," that a flivver has been purchased in which the trip will be made. The fact that they are going by "flivver" will give both wanderers a chance to see a good deal of the country (if they like walking).

As the boys are leaving shortly after graduation, don't forget to wish them the best of luck and give them your address that you may be informed as to their whereabouts. However, I'm sure that everyone who knows them wishes them plenty of luck, especially so since they are going by "flivver."

#### WHAT DO YOU SAY?

Someone has advanced the opinion that the letter "E" is the most unfortunate character in the English alphabet. Because: It is always out of cash, forever in debt, and never out of debt. But we call attention to the fact that it is never in war, and always in peace. It is the beginning of existence, the commencement of ease, and the end of trouble. Without it there would be no eats, no life, no heaven. It is the center of honesty, makes love perfect, and without it there would be no devils, editors or news. Although it is the beginning of enforcement, you will never find it in prohibition. It is never near the "drys" because it is in the middle of "wet." And though it is in water, you will find it in whiskey and wine. And don't overlook the fact it doubles up in the good old beer. If it were not for "E" man would have no helpmate for it was the beginning and end of Eve. It starts the young lovers' engagement and completes their marriage. But sometime it goes further and gives them divorce. It is most unfortunate for it always comes in late, but is always in time. It will make butter better, and put finish to the taste. And after all it has done, and is doing, it is the beginning of the end.

—Selected.



ADDITIONAL CONCEPTS REQUIRED FOR A  
KNOWLEDGE OF ELECTRICITY

PROF. A. A. NIMS, E.E.

Such a subject calls for an adequate definition of knowledge, or better, of education. Superficially it may seem to be the acquisition of a fund of information, of a collection of facts. Really it is a grasping of underlying facts or concepts, and their relationships, together with the power to analyze a situation so that the relationships affecting it may be selected and applied.

In general, the fewer the facts about a given subject that have to be purely memorized, and the more adequately their relationships explain the whole range of phenomena of that subject, the more complete is man's knowledge of it. An illustration of this—those who learned their physics some years ago may recall when the atom was regarded as the ultimate unit of matter, each of the eighty or ninety elements having its own distinctive variety, differing arbitrarily from all the other kinds. Later study has brought to light the fact that the atoms are divisible and that all kinds are composed of still smaller units of a common constituent, electricity. The differences among the several varieties of atoms are to-day accounted for by the number and arrangement of the component units.

Similarly, it may be said that the fewer arbitrarily memorized statements a man needs to explain satisfactorily, the phenomena he sees about him, the further his education has progressed. This is realized by the man who recalls the labor by which he tried to master the distinguishing characteristics of direct current generator, series, shunt and compound; direct current motors, series, shunt and compound; alternating current generators, synchronous motors, induction motors, single and polyphase, transformers, single and polyphase, synchronous rectifiers, commutator motors, and meters of various kinds, in bewildering succession. If his subsequent experience has brought home to him realization of the fact that all of these are essentially the same, each consisting fundamentally of a magnetic circuit linked by two electric circuits, the differences being due to the uses to which these three elements are put and the form in which the electric energy is handled, he will appreciate the growth of his education in the field of electrical knowledge.

If, then, these two statements regarding knowledge and education are true, they will help to explain the amount of time that is devoted to fundamental electric and magnetic theory; time that sometimes seems unnecessarily long to the "practical" student who is anxious to get at the more tangible machines, and who fails to appreciate the fact that they are merely the abstract theories put into material form.

The truth of these two statements is also cor-

roborated by a tendency to be noticed in the flood of textbooks on electrical matters which have become available within the last five or ten years. When the writer was learning the rudiments of the subject he was carefully taught the concept of unit charge of electricity and the electro-static system of units based upon it; also the unit magnetic pole and the electro-magnetic units based upon it which, in practical multiples, constitute the system in common use. Yet for some years texts have been carefully arranged to avoid mention of the unit magnetic pole, since it is not essential to the system of electrical units used to-day, nor to the satisfactory explanation of electrical phenomena.

A similar tendency toward simplification through emphasis on common fundamentals is seen in at least two recent textbooks on electricity, where the essential matters are treated under one title, and separate volumes, to distinguish direct current theory and practice from alternating current subjects, have been avoided. It is quite probable that this feature will be carried even further in the future and the arrangement of the text and the presentation of its concepts and relationships carefully designed to bring out the elements common to what we now distinguish as alternating and direct currents rather than emphasize their differences.

Let no one assume that this means any royal road to proficiency in electrical matters. The nature of electrical concepts and their relationships is such that even in their simplest form, they are mastered only by earnest and persistent effort. And this constitutes one of the strongest reasons for co-ordinating them in the most careful and rational manner.

The scope of this article permits only the briefest mention of those fundamental concepts essential to a working knowledge of electricity, and with the different points of view and mental processes of different individuals it is quite probable that others might express them differently or weigh their relative importance differently. But before naming them it would be well to consider what is presupposed by the word "additional."

Before a man can successfully undertake to master even the simpler electrical principles, he should already have a good working knowledge of simple algebraic methods; he should also have clear and precise concepts for the properties of matter (mass, inertia, elasticity), and energy, and its different components, force, distance, time, velocity, acceleration, moment or torque, power, together with an accurate knowledge of the relationships among them. The extent and depth to which he advances into the subject of electrical



theory, and practice, will depend upon his mastery of advanced algebra, geometry, trigonometry, and calculus.

Of the additional concepts in the electrical field, that of quantity of electricity is easily first and it may be defined by a consideration of the electronic structure of the atom, or probably more readily, from a consideration of electro-plating, by which the unit of quantity is, in effect, internationally established. A second concept is that of the forces acting between separate quantities or charges of electricity and generally included in the term electric field. A third concept is that of the relation between the electric force and the resultant uniform motion of charges or steady current of electricity in a completed circuit, a relation commonly called resistance.

Associated with this movement of charges or electric current there are always magnetic forces, which constitute the magnetic field, and the linkage of this field with the path of the current or electric circuit may be termed the fourth concept. Related to this there is, in the fifth place, the fact that any change in the magnetic field or its linkages with the electric circuit will produce in the latter an electromotive force affecting the electric current, a result spoken of as due to induction.

A sixth concept is called capacitance, and is difficult to define briefly. It relates to two electricity bearing bodies between which a field of electric force is maintained by means of an electric supply circuit. As long as this field is unchanged, no current due to the field will exist in the supply circuit. Any change in the electric field will be accompanied by a current lasting only while the change in field is taking place, and due to the capacitance of the assembly.

The relation between electrical motion, or current, magnetic field and resultant mechanical force, or its converse, the relation between mechanical motion, magnetic field and consequent electromotive force constitutes a seventh concept. As an eighth concept may be introduced the general law relating to currents at a point in a circuit network and electro-motive forces around a closed circuit.

The expression of power in electrical units and terms is the ninth concept. The last three to be mentioned relate to the expression of energy in terms of the electric circuit, of the electric field and of the magnetic field respectively.

The exact statement and precise definition of each concept involves in practically every case, a simple mathematical relation, which must be mastered in acquiring the concept. From these simple relations are developed the mass of derived relationships which is called the theory of electricity. In the cases of the commonly used relationships the derivation is, at least in method, fairly simple and it is often easier to remember the method of derivation than the resulting relationship. But

whether the ultimate relationship is memorized as a formula, or the method of derivation mastered as a process of reasoning, it is the duty of the instructor to point out, and of the student to fix in his mind, the fundamental concepts upon which each relationship depends.

### MANUFACTURE OF RUBBER TIRES

By SAMUEL PESTUNOWITZ.

Rubber is the result of treating the sap collected from the rubber trees. The sap is poured on a turning stick which is held over a fire built of various herbs. The heat and smoke congeals the sap into a more solid mass.

It comes to the manufacturer in three general forms:

First—Para, the state which the rubber comes from the tree of the plantation. It is in the form of balls weighing about thirty pounds each.

Second—Smoked sheet—plantation rubber formed into sheets and smoked.

Third—Latex—purely the sap not smoked or treated but rolled into thin sheets.

The manufactured product does not consist purely of rubber, but contains a major portion of various ingredients and chemicals. Some which act in the capacity of a filler or to make the rubber more tough and dense, and others to assist in the phases of manufacture.

In the first operation the rubber is refined by running through two heavy rolls of a calender while a steady stream of water is forced on it. It comes out in sheets about thirty-six inches wide and twelve or fifteen feet long, with a thickness of about one-eighth inch.

These are spread on suitable racks and placed for about twenty-four hours in a heated room with necessary equipment to extract all the moisture.

It is now run through other calenders which break up the structure of the natural and reduce it to a more plastic state.

Various ingredients are added during the operations and these are completely assimilated by the rubber. The stock is now very much altered both in character and color from the original.

Coming from the last calender it is cut into a continuous strip which is wound on the back of the tire rim to the general form of the tire.

The rim is set in suitable moulds which are pressed and bolted together.

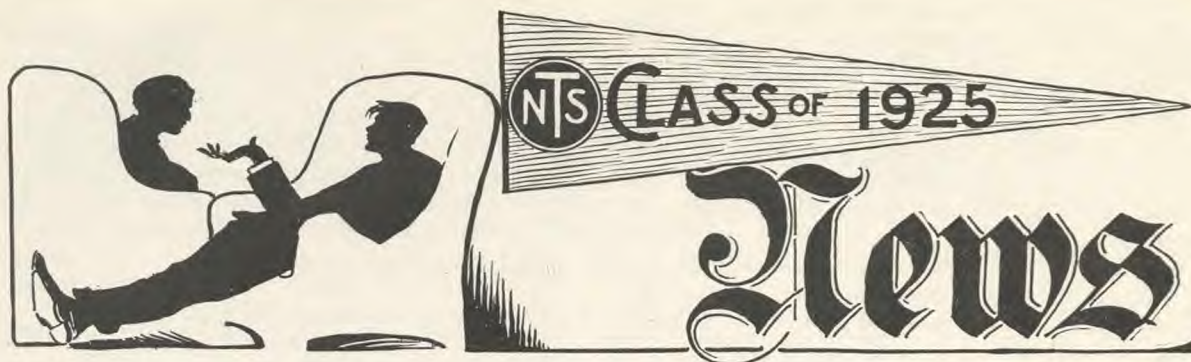
The moulds are placed in a heated chamber held at a constant pressure and temperature. This operation is called vulcanizing. While in this chamber the rubber takes a permanent set.

After a definite length of time the moulds are removed and the finished tire is taken out.

### IMPRESSIONS ON A VISITOR

On entering the plant the visitor is immediately  
(Continued on page 40)





|                      |                  |
|----------------------|------------------|
| President .....      | Arthur N. Braudé |
| Vice-President ..... | Martin Grossberg |
| Secretary .....      | Allen Darby      |
| Treasurer .....      | Barney Diebold   |
| Historian .....      | Harry Younghans  |

**CLASS OF '25 SONG**

Newark Tech has been our mother,  
 Thru' the four long years at school;  
 And among her many teachings  
 We have learned the Golden Rule.

We have learned to love and honor,  
 If to reach our goal we must;  
 And with grit and perseverance,  
 On life's ladder find we're first.

Throu' the long, long years to follow,  
 When our hearts are low and sad,  
 We can think of ALMA MATER  
 Newark Tech can make us glad.

Arthur N. Braudé.

**CLASS OF '25**

Class Colors—Orange and Blue

Ever since its conception in November, 1922, the Class of '25 has been very active in school affairs. Posterity will probably refer to it as the "Class of Epochs," a class by which all past and future classes will be compared. The Class of '25 has achieved an enviable record. Besides its share of theatre parties, dances, excursions, straw rides, and other trips, which dot the record of the class in the years it has been organized, there have been several innovations which had their origin in the Class of '25.

The Junior Prom, which was given in honor of the Class of '24, in May, 1924, was the first digression from the beaten paths made by the other classes. Then, a bowling tournament, both inter-class and interdivisional was inaugurated, with excellent success.

These are a few of the achievements of the Class of '25, a class that has always been active in school affairs, and wherever duty called, so that each and every member may be proud to be a member of the Class of '25.

H. YOUNGHANS (Historian).

**THE FACULTY, OUR FRIENDS**

We herewith take the opportunity to thank our Dean, our Class Advisor and our numerous Instructors for their aid, which they have so generously given to us. Their patience has been remarkable; their courtesies will never be surpassed. God bless them—they shall never be forgotten by the Class of '25.

**CLASS NOTES**

We were all greatly pleased to learn of Mrs. Leslie C. Spry's recovery from her recent siege of illness.

It may be here mentioned that Dean Cullimore has a very attractive proposition for any graduate desirous of matriculation in the College of Engineering.

Well, folks, the worm has finally turned. For three or four years Les Dunn's cars have been the target for much ridicule by class members. Such remarks as Les Dunn's "Covered Wagon," "Ash Wagon," "Can," "Rattler," "Junk" or "Hearse" have been not uncommon. Now it seems that Al Darby's new (?) bus is entitled to a little notoriety.

"Jerry" Duff, a former classmate is now with the Divine Manufacturing Company, of Utica, New York.

Grossberg, Osterheld & Co., have recently purchased a Ford sedan, boys, and it's all that CAN be expected.

Speaking of automobiles, about two-thirds of the class are proud possessors of cars of some sort.



Class President Braudé has promised the boys a little party in the near future. Will C. P. B. kindly not fail to have said party?

At a recent class meeting we were honored with the presence of Dean Cullimore and Mr. Spry. Mr. Cullimore gave a very interesting talk. He greatly stressed the necessity of keeping in constant touch with the school after graduation. The Dean expressed his desire always to aid the alumni, whether it be employment or anything else. Mr. Spry's straight-from-the-heart talk will long be remembered by the graduates.

**SUMMER ACTIVITIES**

During the coming summer season the class will have a banquet, a straw-ride, a theatre party, a trip to Coney Island and let's hope another camping trip. Class meetings will go on as usual and all members will be kept well informed as to dates, etc., by the Class Secretary. Co-operation to the *nth* degree will be an absolute necessity.

**IDLE GOSSIP**

Schuler—Harry ate something that poisoned him.

Pizzi—Croquette?

Schuler—Not yet, but he's very ill.

**CLASS '25 BOWLING**

Final Team Standing.

| Team                | Won | Lost | Per Cent. |
|---------------------|-----|------|-----------|
| Electrical .....    | 11  | 7    | .611      |
| Mechanical I .....  | 9   | 9    | .500      |
| Mechanical II ..... | 9   | 9    | .500      |
| Chemical .....      | 7   | 11   | .388      |

NOTE:—Mechanical I, by virtue of victory over Mechanical II in tie play-off, clinched second place.

Individual Averages.

| Name      | Team     | No. Games | Ave.   | H. S. |
|-----------|----------|-----------|--------|-------|
| Hein      | Mech. I  | 15        | 152.33 | 210   |
| Youngmans | Chem.    | 15        | 148.35 | 220   |
| Pizzi     | Mech. II | 15        | 147.86 | 199   |
| Beiling   | Elec.    | 18        | 139.66 | 186   |
| Darby     | Chem.    | 18        | 137.1  | 179   |
| Osterheld | Elec.    | 18        | 136.34 | 183   |
| Bates     | Chem.    | 18        | 132.38 | 176   |
| Schuler   | Mech. II | 18        | 132.33 | 180   |
| Grossberg | Mech. I  | 18        | 128.16 | 167   |
| Diebold   | Mech. II | 15        | 126.79 | 179   |
| Dunn      | Elec.    | 15        | 126.66 | 163   |
| Hosek     | Mech. I  | 15        | 119.33 | 163   |

The more than usual lack of intelligence that morning had got under the professor's skin.

"Class is dismissed," he said. "Please do not flap your ears as you go out."—*Lehigh Burr.*

**BASKETBALL**

On Friday, April 3rd, a very exciting basketball game was witnessed between Harrison H. S. Alumni and Newark Tech. Some very fine play took place, and, with the fine sense of sportsmanship which was prevalent throughout the game, it was enjoyed by an enthusiastic bunch of "rooters". Harrison was at a slight disadvantage due to the fact that their star player was unable to play.

The score: Harrison 19, Tech. 53. The teams:

Harrison H. S. Alumni: Dalton, f.; Denbraven, f.; Farese, c; Wozyak, g; Wyznski, g.

Newark Tech.: Landers, f; Darby, f; Dorchek, c; Brady, g; Clements, g.

**THE MAN WHO GETS PROMOTED**

By EDGAR A. GUEST.

The ordinary fellow does an ordinary task,  
 He's mighty fond of "good enough" and lets  
 it go at that;  
 But the chap who gets promoted, or the raise he  
 doesn't ask,  
 Has just a little something more than hair  
 beneath his hat.

The ordinary fellow lives an ordinary day,  
 With the ordinary fellow he is anxious to be  
 quit;  
 But the chap who draws attention and the larger  
 weekly pay  
 Has a vision for the future, and is working  
 hard for it.

The ordinary fellow does precisely as he's told,  
 But someone has to tell him what to do, and  
 how and when;  
 But the chap who gets promoted fills the job he  
 has to hold  
 With just a little something more than ordinary  
 men.

**CLASS '25 vs. CLASS '28**

The high scorers of the '25 competition gloriously represented the class in a bowling match with the '28 pin crushers. The Seniors made a clean sweep of the contest, taking all three games. The scores:

|                 | '25 |     |     |
|-----------------|-----|-----|-----|
| Grossberg ..... | 164 | 130 | 108 |
| Pizzi .....     | 187 | 142 | 197 |
| Youngmans ..... | 110 | 186 | 192 |
| Hein .....      | 157 | 150 | 132 |
|                 | 618 | 708 | 629 |
|                 | '28 |     |     |
| Soller .....    | 121 | 127 | 129 |
| Wright .....    | 138 | 176 | 132 |
| Anthony .....   | 121 | 122 | 131 |
| Romeo .....     | 107 | 114 | 117 |
|                 | 487 | 539 | 490 |





|                         |                  |
|-------------------------|------------------|
| John Gibb .....         | President        |
| Charles H. Mayer .....  | Vice-President   |
| Joseph Tunner .....     | Treasurer        |
| Fred P. Highfield ..... | Secretary        |
| Lawrence Carlson .....  | Sergeant-at-Arms |

**MEETING OF THE CLASS OF 1926**

At the meeting of the class, held on the 10th of March, a large number of members attended and we accomplished a great deal of business.

The design for our pennant was selected from three sketches submitted by Mr. Wendler, and members from each of the courses were appointed to find out how many of the members wanted pennants, the cost of each running to about \$1.50.

The coming theatre party was discussed, and a committee appointed with Mr. Kiernan as Chairman to find out all the particulars as to plays, costs, etc., and the members are looking forward to a good time on Saturday the 11th of April, when our party takes place.

Various suggestions were put forward for a "get-together" of the members during the summer months, among which a trip up the Hudson loomed as the most appropriate. A committee was appointed to look into the matter, and their report will be submitted later. (This committee is composed of Messrs. Mayer, Tunner, Dommaratus and President Gibb).

A challenge was received through one of the members to a bowling match from the Class of '28, but this was not accepted at this time, as we have not finished out our own games. We hope to accept this challenge in the near future.

The subject was then brought up regarding class dues, and after discussing the same it was decided that we reduce the same to \$1.00 per year. The motion was made, seconded and duly passed.

The final item of the evening was a very inspiring talk from our class advisor, Mr. Netchert. The talk was quite a heart-to-heart one, and would be one that would have appealed to all members of the school. Unfortunately, it was not taken down verbatim, so the class cannot have the pleasure of seeing it in the FRATECH. Briefly, Mr. Netchert stated that he was very glad to have

been elected to such a position, but he would not feel he was filling the position as it should be filled, if fellows did not come to him for advice or help in any matter however small it was. He stated he wanted to be of some use, not in a fatherly sort of way, but in such a way that we would look upon him as one of ourselves, and go to him for any advice he was able to give us. He also made the suggestion that we should get together a quartette, and if we thought the suggestion worth consideration, we should act upon it, let him know, and he would arrange a time when those fellows who could and who thought they could sing would be welcome to a tryout at his home in Caldwell. Every member in the class enjoyed this talk, and we were all sorry when Mr. Netchert finished. Our tension was relieved however by the alertness of Mr. Wendler who shouted "What's the matter with Mr. Netchert?" and the class replying, "He's alright."

Acting on the suggestion of Mr. Netchert, President Gibb, requested all members who desired to sing in the quartette, to give their names to Mr. Netchert at the earliest possible moment, and from all appearances it would seem that we have some hidden talent. The quartette, we hope, will be heard from in the very near future.

**'26 ELECTRICAL**

- PATTERSON
- KOLB
- WENDLER
- RUCH
- METULES
- MAYER
- BIRD
- COZZA
- BOWMAN
- HOLDER



Frank Kunc and Howie Wendler were out riding in the former's Buick not so long ago and were each accompanied by a young lady. It happened that the young lady with Frank dropped her vanity case, whereupon Frank immediately stopped the car. After looking on the floor and on the seat for the missing article Frank made the following remark:

"Let's pick up the seat. That's where they usually go." And to think that we always thought Frank was such a bashful boy.

#### NO TRESPASSING

The wife and daughter of Colonel Berry, camp commander, came to the gate after taps and demanded admission. The sentry objected.

"But, my dear man, you don't understand," expostulated the older woman. "We are the Berry's."

"I don't care of you're the cat's whiskers," retorted the sentry. "You can't get in at this hour."

#### A COLOR-LINE

An Irishman, a Jew, and a Negro all appeared before the pearly gates together. St. Peter admitted them and told them that it was customary to grant one request to each new arrival.

The Irishman wished for a case of liquor and got it.

The Negro asked for a million dollars and it was immediately given to him.

Then St. Peter asked the Jew what he wanted. "St. Peter," replied the Jew, "just get me a lot of cheap jewelry and give me about ten minutes with that coon."

Gatun, C. Z., April 1, 1925.

A duel was lately fought in Colon by Alexander Shott and John S. Nott. Nott was shot and Shott was not. In this case it is better to be Shott than Nott. There was a rumor that Nott was not shot, and also that Shott avers that he had not shot Nott, which proves either that the shot Shott shot at Nott was not shot, or that Nott was shot notwithstanding. Circumstantial evidence is not always good. It may be made to appear on trial that the shot Shott shot shot Nott, or as accidents with firearms are frequent, it may be possible that the shot Shott shot shot Shott himself, when the whole affair would resolve itself into the original elements, and Shott would be shot and Nott would not. We think, however, that the shot Shott shot shot not Shott, but Nott; anyway it is hard to tell who was shot.

Dietz—You know that girl I had down to the Frat Hop kissed me good night.

Fachet—Did you kiss her back?

Dietz—No, she had a coat on.

## CLASS OF '27

|                        |                  |
|------------------------|------------------|
| Joseph E. Fachet ..... | President        |
| F. X. Lamb .....       | Vice-President   |
| E. W. Dietz .....      | Secretary        |
| Joseph Kisch .....     | Treasurer        |
| W. A. Dunbar .....     | Sergeant-at-Arms |
| A. Pomeroy .....       | Historian        |

At the regular meeting held in January, 1925, Doctor F. D. Crane was elected to the position of Class Advisor, which was accepted by him.

In a short talk given by Doctor Crane, he stated the fact that class organization was one of the most important elements in the school, and that he will give the class his hearty co-operation in any of the work undertaken by it.

With Dean Cullimore's approval, Doctor Crane immediately took up his duties as Class Advisor and made several suggestions which met with the approval of the class.

From the arguments which have come up in class meetings lately, it looks as if Doc. Crane will have his hands full, but "Boys will be boys," so perhaps their little faults may be overlooked. On the whole though, the fellows have promised to be good and carry on in true Tech style.

A class pennant was also decided on at the last meeting, but owing to the objections voiced against it, by members in the class, the matter will be thrashed out at a later date.

#### "NOTICE"

Nominations and Election of officers will be held at the next Regular Meeting, which will be held on April 21, 1925.

Dunbar is following President Coolidge's plan on economy, by standing under Bam's clock and waiting for one of his friends to give him a lift in his car.

All men in the Class of '27 will kindly get in touch with the class officers, as we intend to hold several affairs this summer, and the more members that will attend, will make our social endeavors the more successful in the long run.

Class '28 received a challenge to a bowling match from Class '27, and it was played Thursday, evening, April 2, 1925. Class '27 received a good *trouncing*, as the following scores show.

Class '28 hereby challenges all classes to a bowling match any time they wish. See Mr. Pampalone, '28 Mech.

#### THE EFFECT OF COLLEGE

Freshman—Will you please repeat the question?

Sophomore—Didn't hear the question.

Junior—What?

Senior—Huh?—*Chanticleer*.



**CLASS OF '28**

President .....Robert Mather  
 Vice-President .....M. Fritts  
 Secretary .....Arthur Reis  
 Treasurer .....Eugene Boyle

President Mather has been seen frequently in Forest Hill in the vicinity of Ridge Street and Montclair avenue. We wonder what the attraction is.

Secretary Reis has invested in a new car, but is still holding on to the faithful old flivver.

Three A. M. is a late hour for Wydro to be seen standing on Broad street in the vicinity of Market.

Solla recently removed his moustache. Quite an improvement indeed.

Charles Conrad is again with us after having been absent for some time due to an attack of appendicitis.

Have you seen H. Wright with his new spectacles? They make him look quite spectacular.

Thos. Weinmann is the proud father of a baby boy, Thos. Jr., born Sunday, April 5.

**CLASS '27**

|               | 1st | 2nd | 3rd   |
|---------------|-----|-----|-------|
| Kerr .....    | 104 | 120 | 92    |
| Kaiser .....  | 89  | 129 | ..... |
| Scherer ..... | 99  | 72  | 80    |
| Gardner ..... | 107 | 125 | 177   |
| Kunz .....    | 112 | 77  | 108   |

511 524 457

**CLASS '28**

|                     | 1st | 2nd | 3rd |
|---------------------|-----|-----|-----|
| Romeo .....         | 96  | 143 | 146 |
| Pampalone .....     | 101 | 120 | 128 |
| Solla .....         | 173 | 141 | 130 |
| Urban .....         | 152 | 148 | 113 |
| Cantleope '27 ..... | 125 | 95  | 125 |

647 647 642

They do me wrong who say I come no more  
 When once I knock and fail to find you in;  
 For every day I stand outside your door  
 And bid you wake and rise, to fight and win.

“Weep not o’er precious chances past,  
 Wail not o’er golden ages on the wane,  
 Each night I burn the records of the day,  
 At sunrise every soul is born again.”

The boys are waiting to see Reis’s new car.

The boys would like to know who was the fair anchor that Bob Mather had hanging on his arm, after school one evening.

A rising young draftsman called Al,  
 Found life was beginning to pall.  
 So he got him a hobby  
 Who is really quite nobby,  
 And now she’s his permanent gal!

Voice in Corridor—And then I told him I didn’t want to see him any more.

Second Voice—What did he do?

First Voice—He turned out the light.

Yankee—You have such a cold, my lad.

Briton—Yes, they played “God Save the King” while I was taking a bawth.

**W. F. KAPPLER DIES, ASSISTANT IN WATER BUREAU, WAR VETERAN**

William F. Kappler, principal assistant engineer of the Newark Water Department, died recently at his home in Caldwell, after a lingering illness. He was thirty-three years old. He was severely gassed while serving with the Rainbow Division in France during the World War.

Mr. Kappler was in one of the first contingents that went to France and for a time served on the staff of General Pershing. He was a member of Battery C, New Jersey Field Artillery, and served on the Mexican border in 1916. He was called into service in the World War on May 16, 1917, and was assigned to the officers’ training school at Fort Myer, Va. He was commissioned a lieutenant on August 15, 1917. After his return from France he was confined to O’Reilly General Hospital at Oteen, N. C., until his discharge September 28, 1920.

Appointed as a draftsman in the Water Department on August 24, 1914, he worked his way up to senior engineer and was made principal assistant engineer on June 1, 1923. He lived in Newark until about a year ago when his health began to fail.

Mr. Kappler was a member of Prospect Council No. 257, Jr. O. U. A. M.; Roseville Lodge No. 143, F. and A. M.; the American Association of Engineers, Disabled Emergency Officers of the World War and Azalea Post, American Legion of North Carolina. He is survived by his wife, two children, his mother and a brother and sister. Funeral services were held at Honeywell’s Funeral Parlors, and burial was made in Fairmount Cemetery.

Mr. Kappler was a graduate of the Class of 1915, and was a member of the Fraternity.





**NEWARK TECHNICAL SCHOOL  
STUDENT CHAPTER  
AMERICAN ASSOCIATION OF ENGINEERS  
CHARTERED 1922**

*H. JURNECKA.*

President .....Harry Jurnecka  
Vice-President .....Howard Wendler  
Secretary .....William Dunbar  
Treasurer .....J. C. Conrad

**TO THE GRADUATES!**

Once again, a set of young men will leave the portals of the Newark Technical School as graduates after laboring hard and earnestly. The N. T. S. Club of A. A. E., heartily congratulates them all, and more so, because the first group of A. A. E. members to graduate are in this class. Here's wishing success, health and happiness to the graduates of 1925.

It was with considerable interest that we read in the *Professional Engineer* of the creation of a new office of the American Association of Engineers, that of a Managing Director. This office is held by Mr. Harold Almert, who resigned as President to carry on this notable work, which has for its aim, "Greater Service to Members." In this service plan is included, educational courses, insurance service, a better and bigger technical journal and many other items of interest to members.

We extend to Managing Director Howard Almert and President-elect Morris Bien, our heartiest wishes for success in their undertaking.

It is imperative that the members thoroughly acquaint themselves with the proposed amendments to the constitution and by-laws of the Association as outlined in the March, 1925 issue of *Professional Engineer*. There are several parts which include changes governing student branches which should prove interesting to all of us.

Let's thoroughly acquaint ourselves with all these proposed amendments, so that we can assure our mother organization our hearty cooperation in one of their greatest undertakings.

"Does your mother ever pay you any compliments, Alec?" enquired Roy.

"Only in the winter time," said Alec, "when the fire goes down she says, 'Alexander, the Great.'"

**ELECTION OF A. A. E. OFFICERS FOR  
1925-1926**

On Tuesday evening, March 31, 1925, a very spirited meeting was held whereby new officers for 1925 and 1926 were elected to their respective positions in the Newark Technical School Chapter of the American Association of Engineers.

The nominations were first opened for the Presidency with about five candidates. With declinations following, the choice was narrowed down to two men, Mr. Harry Jurnecka and Mr. Barbieri opposing each other. Mr. Jurnecka was elected President by a majority on the first ballot. It seemed as though the whole affair soon took on an aspect of a national convention.

There could have been no wiser choice in the selection of Mr. Jurnecka for our new President as it can be attested he has worked very hard for and in the interest of the organization since its inception.

Nominations were then opened for the Vice-Presidency. Mr. H. Wendler was elected to this office.

It has been decided to hold election of officers at the end of the school year instead of the beginning as was the former practice, the reason being that it will give the new officers an opportunity to make their arrangements and select their committeemen for the coming year during the summer.

The following are the new officers of the N. T. S. Chapter of the American Association of Engineers for 1925-1926:

Mr. Harry Jurnecka, President.  
Mr. Howard Wendler, Vice-President.  
Mr. William Dunbar, Secretary.  
Mr. Charles Conrad, Treasurer.

A. DOMARATIUS,  
April 1, 1925.



**MEMBERS, ATTENTION!**

Our Local Chapter is a comparatively new one, but that is no reason why it should be stunted in growth. Rather, should it be the reverse. Our growth of the A. A. E. should be rapid as that of a young boy or a healthy young plant because when we are older we are not expected to spread out as when we are young.

Other Clubs and Chapters are rapidly spreading and the members of the A. A. E. of N. T. S. should, for the sake of pride, desire to enlarge their organization.

This is every member's duty and every member should take pride in making this chapter a flourishing success.

We should be able to enlist a great many of the students of the N. T. S. in our ranks and should be very proud that our chapter of the A. A. E. was one of the first Evening School student chapters.

Come on, members, bring new members, and non-members, ask for applications to a real live enterprise that will give you a good help in business and school and that affords good, clean social life as well.

Advance and co-operate!

The Second Annual Dance of the Chapter was held on Saturday evening, March 7, 1925, in the Academic Building.

The first thing that impressed one upon entering the hall was the tasteful way it was decorated with the Chapter's colors of Blue and White.

The soothing softness of Edwin Schutte's Fraternity Orchestra playing popular melodies, enable everyone to display their love of the terpsichorean art. The hymn of hate, "Home, Sweet Home," came all too soon, bringing to a close a most eventful and enjoyable evening.

Among the guests who enjoyed this dance were Mr. and Mrs. Heilman.

The Committee extend their hearty thanks to those who helped to make this affair a success.

The Committee.

Charles J. Kiernan, Chairman.  
Oscar A. Newton  
Charles Barbieri  
John Gibb  
Joseph Sheerer.

The tramp tapped at the front door, and out came Mr. John Landers.

"What do you want?" demanded the latter; "breakfast or work, eh?"

"Both, sir," was the reply.

"Just wait," said Johnny, as he disappeared for a moment, to reappear with a huge chunk of home-made bread. "Eat that, old boy," he exclaimed savagely, "and you will have both."

At a regular meeting of the Newark Technical School Chapter of the American Association of Engineers on Tuesday evening, March 3rd, 1925, the following resolutions with preamble were unanimously adopted:

WHEREAS, it has pleased Almighty God, in His infinite wisdom, to call unto Himself, our beloved member, Wallace Gomperts, be it

*Resolved*, that we, the members of the Newark Technical School Chapter of the American Association of Engineers, do hereby extend our deep and heartfelt sympathy to his parents and to all the members of the bereaved family, in this, their hour of trial, and be it further

*Resolved*, that a copy of these resolutions be forwarded to the bereaved family, that these resolutions be spread in the minutes of this meeting and that a second copy be filed in the archives of this school, through its appearance in the FRATECH.

NEWARK TECHNICAL SCHOOL CHAPTER  
AMERICAN ASSOCIATION OF ENGINEERS,  
367 High Street, Newark, N. J.

J. SCHERER,  
Secretary.

**THAT MARY'S LAMB AGAIN**

Mary had a little light,  
She had it trained no doubt,  
'Cause every time that William called,  
The little light went out.

Now Mary had a swarm of bees,  
She loved their buzzing lives,  
They also loved their Mary, 'cause  
Their Mary had the hives.

Mary stood on the railroad track,  
The train was coming fast  
Then Mary stepped off the railroad track  
And let the train go past.

"The Dean told Ted that wine, women and song were ruinous to youth."

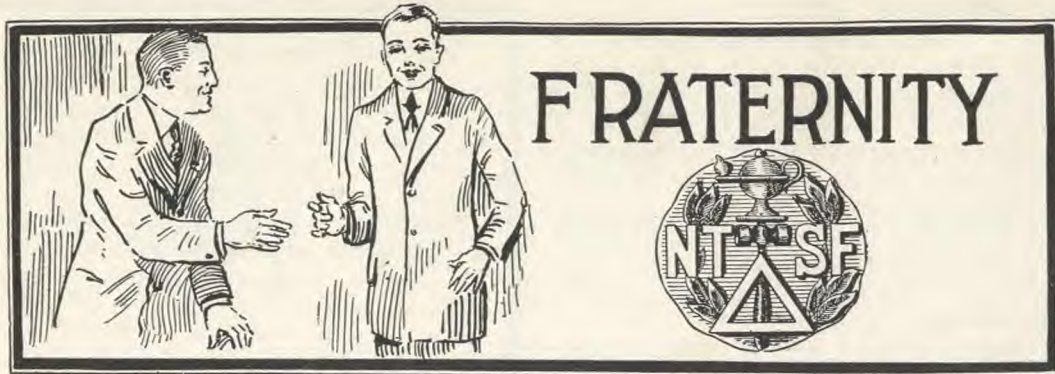
"Yeh!"

"So Ted just resigned from the Musical Club."  
—Princeton Tiger.

She—Talk is cheap.

He—Not when the one talking is a little dear.—  
Princeton Tiger.





— RAY STEELE

**THEATRE PARTY**

On Saturday, April 11th, some seventy members of the Fraternity journeyed over to New York to see the "Follies," at the New Amsterdam Theatre. It was an eventful trip, to all those concerned, and, from the show itself, the supper at "Rigg's" to the boisterous trip home in the tubes, it will go down in Frat history as one of the most enjoyed festivities ever held. The New York police, too, will probably have occasion to remember the trip to New York, as will also the late commuters returning to New Jersey at somewhere around 3 A. M. The success of the party was due to the resourcefulness of Mr. Fachtet. We thank him!

**FACULTY NIGHT**

The Fraternity turned over its regular meeting night on Friday, March 27, 1925, to what was known as "Faculty Night." At this time Mr. Lavenburg, supervisor of the Evening School and Mr. Milne, professor in Mechanical Engineering, were initiated into the Fraternity. Among the faculty who witnessed the initiation were, Dean Cullimore, Mr. Heilman, Mr. Peet, Mr. Netchert, Mr. Spry, Mr. Weir.

After the necessary amount of business had been transacted, President Landers turned the program over to the Entertainment Committee, who with the aid of several of the faculty created many laughs. Following this the committee lead the way to the hall just outside the Frat Room, where a long table had been erected which was a surprise to everyone. The table extending the whole length of the hall was attractively decorated in red and white, both the school and the Fraternity colors. About the table were chairs in which the members sat while the committee served refreshments. After refreshments had been served there was a general good time had by all in singing popular and school songs.

That the whole affair was enjoyed throughout can be testified by the ninety-three members present and much credit is due the committee in charge who were: William Dunbar, Chairman; Larry Schollenderger, Joseph Fachtet, Edwin Shutte and John Romano.

**COMING EVENTS**

As the school year is gradually coming to an end and vacation time nearing, the Fraternity has arranged the following program of social events for the summer months:

Graduation Dance, May 9.

Annual Banquet, May 14.

Fathers and Sons Night, May 26.

First trip up the Hudson (Day Line), June 14.

Field Day, July 12.

Third Annual Yacht Ride, August 9.

Annual Trip to Dr. Colton's, September 13.

It is hoped that the Fraternity brothers will do their utmost to support the events of this well-balanced schedule.

The next social event of the Fraternity will be the "Spring Dance," which will be held this year on May 9, 1925. As this is after school is over, it is hoped that the attendance will be large, as there will be no school work to divert our attention. The committee working on this affair are: Joseph Fachtet, Chairman; Howard Wendler, George Landers, Charles Pratt, and Barney Diebold.

The Annual Banquet held every year at Achtel-Stetter's will be held this year on May 14, 1925.

This affair promises to be the best held so far and after dinner talks of interest have been arranged by the committee. May it be further said that the dinner itself will be all and more than it ever has been.

The committee working on this affair are: Charles Fausel, Chairman; Walter Chorlton, Charles Kiernan, Henry Reed, and Mr. Netchert.

**SEVENTY-THIRD BIRTHDAY**

News has just reached the Fraternity that Director Emeritus Charles A. Colton has just past his seventy-third birthday. The Fraternity has mailed Mr. Colton a letter of congratulation and have had the same signed by almost one hundred of the Fraternity brothers. It has long been a hobby of Mr. Colton to make a collection of autographs and these few names will help to increase his long list of signatures.



**SOCIAL NIGHT**

March 21, 1925.

The first night of Spring was the occasion of the Fraternity's "Social Night" or as we know it better, "Ladies' Night."

This event which is held only for the Fraternity members and their lady friends was a huge social success. During the course of the evening many games were enjoyed as well as dancing. Prizes were awarded to the winners of the games and to the holders of the lucky number in the "Lucky Number Dance." A "Broom Dance" and a "Blind Man's Bluff Dance" were also among the dances enjoyed by all. Of course, refreshments were served, during which Marty Grossberg rendered a few vocal selections much to the delight of the crowd. The one and only drawback to this affair was the length of it, for after midnight it was Sunday and of course, then, we had to go home. The committee in charge of the affair were: Howard Wendler, Chairman; Walter Chorlton, Charles Pratt, Vito Forst, Garret Den Braven and George Herpech.

**GLEE CLUB**

The Fraternity has organized a Glee Club under the leadership of Edwin Shutte and Arthur Braudé, and would like to hear from any members who are interested in singing. That there are many who can sing and haven't signed up could be told by the number who sang on Faculty Night. Come around and let's hear from you.

**SUMMER SCHEDULE**

A committee consisting of Clifton Keating, Charles Fausel, Henry Reed, Arthur Braudé, Harry Lindeman, and Howard Wendler, have been selected to work up a summer program. Some of the events that are to be dated are, Yacht Ride, Trip up the Hudson, Colton Trip, and Field Day.

**TECH ALUMNI BUILDING AND LOAN ASSOCIATION**

Something new, something to broadcast and something to boost, namely the possibility of building your own independence. Perhaps you have never given it much thought but some day you will think a great deal about it with great regret.

There are millions of men, clever men, who are mentally unfit and morally out of position, due to improvidence.

Money is the measure of food, of clothing, of the necessities of life; and the man who fails to look out for to-morrow is dishonest with himself.

Give the average young man plenty of money to start with and you handicap him. Give a young man with ambition an opportunity by teaching him to save in a Building and Loan and he will have a firm foundation for a permanent success and at the same time create a combination of character,

capital and commercial worth, that is of tremendous importance.

Prudence points the way to prosperity. Money saved gives a man self-confidence and the man who saves a little money each month in a Building and Loan also saves his energy; and here right in our Newark Technical School we have organized a savings institution to be known as the Tech Alumni Building and Loan Association of Newark, New Jersey, with the purpose in mind of helping the student body of our school to make themselves more financially independent by saving a little once a month.

No doubt this being a new project a few questions will arise namely:

1. Is it safe?
2. What return or rate of dividend does it offer for the use of my money?
3. If it is necessary for me to withdraw my money at any time may I get it readily?

The answers are as follows:

1. The only security (other than a member account) upon which a Building and Loan Association loans money to borrowing members, is improved real estate, first mortgages on homes worth one-fourth to three-fourths more than the amount of money they have loaned on them, and every Building and Loan is under the closest supervision of the New Jersey Banking Department and is examined frequently.

2. Shareholders receive in form of dividends every cent earned by the Association less the running expenses and the amount which is required by law to be transferred to the Guaranty Fund.

3. Under the banking laws all savings institutions may require sixty days' notice of intention to withdraw savings funds. By reason of the fact that Building and Loans retains but a small amount of cash on hand, the idea being to keep all their funds working all the time—it is necessary to have this provision in the Banking law as a measure of safety, but it is only availed of in emergencies. It is the general practice to pay withdrawals on demand, with interest to date.

The space allotted to us in this school paper is limited and we sincerely request every reader of this article, whether he be interested or not in his future to get in touch with some member of the Building and Loan Committee who will explain the system to him. A list of the members of this committee can be found posted on the bulletin boards around the school.

Steve—I understand you told someone I was a dog.

Howie—It wasn't I. You are barking up the wrong tree.—*Pitt Panther*.

Percy—What's the smell in the library?

Val—It's the dead silence they keep there.—*Yale Record*.



# OUR CONTEMPORARIES



## EXCHANGE

The Exchange Editor of the FRATECH wishes to acknowledge the following issues:

*The Pitt Panther*—Pittsburgh University, Pa.

*The Yale Record*—Yale University, New Haven, Conn.

*Harvard Lampoon*—Harvard University, Cambridge, Mass.

*The Princeton Tiger*—Princeton University, Princeton, N. J.

“Radio frequency is when you meter every night.”—*Judge*.

Angry Dean at New England College:

“Who had the nerve to ride through here at midnight yelling like a mad man, awakening the town? Hurry, now, who did it?”

Answer—Paul Revere.—*Pitt Panther*.

“I see you’ve given in to your girl and have sworn off smoking Camels.”

“Sure. A miss is as good as a mile any day.”—*Pitt Panther*.

“There’s something about you simply adorable.”

“And what is that, pray?”

“Me.”—*Pitt Panther*.

Bobby—Father, is it correct to say a storm is brewing?

Colonel—No, my son; it never rains anything but water.—*Pitt Panther*.

“Is her beauty striking?”

“Well, er-her eye-lashes.”—*Yale Record*.

Favorite song of the ducks: “Waddle I Do.”—*Yale Record*.

Instructor—What is the quickest way to produce sawdust?

Student—Why-er—

Instructor—Come, come! Use your head, use your head.—*Yale Record*.

“Give me a match, Bill.”

“Here it is.”

“Well can you beat that? I’ve forgotten my cigarettes.”

”’s too bad; give me back my match.—*Puppet*.

Little Miss Muffet

Sat on a tuffet

Tuned in on KDKA,

Along came a spider

And sat down beside her

But the static scared him away.

—*Yale Record*.

Waiter—Hey, what shall I serve this apple sauce in?

Cook—In the apple saucer, of course!—*Ranger*.

He (in the bleachers)—Hey, you, down in front, is your old man a glazer?

She (politely)—No, but he could put a pain in your neck.—*Purple Cow*.

“Have you ever been married?” asked the Judge.

“Ye-es,” stammered the prisoner.

“To whom?”

“A woman.”

“Of course, it was a woman,” snapped the Judge, “did you ever hear of anyone marrying a man?”

“Yes, sir,” said the prisoner brightly, “my sister did.”

Whereupon he got life.—*Evergreen*.



"What are your initials, madam?"

"P. S."

"But I thought your name was More?"

"It is. Adeline More."—*Yale Record*.

"Why do you smoke Camels?"

"I had to quit tobacco."—*Dado*.

#### TECH-NIQUE

Goin' our way? Yeh? Jump in.

Like our way? Yeh? Move closer.

Out our way? No? Jump out!—*Pitt. Panther*.

"John dear, I am to be in an amateur theatrical. What would folks say if I were to wear tights?"

"They probably would say that I married you for your money."—*Jack o' Lantern*.

"If I had known that tunnel was so long, I would have kissed you."

Good heavens, wasn't that you?"—*Brown Jug*.

Hann—What color is best for a bride?

Nobel—I prefer a white one.—*Ramma-Jamma*.

She—How did you get the water in your ear?

He—My sister stutters.

She—Well?

He—And she tried to tell me a secret.—*Cornell Widow*.

Wife—A little birdie told me you were going to buy me a diamond brooch for my birthday.

Hubby—It must have been a little cuckoo.—*Pitt. Panther*.

Never

—strike a man when he's down. You can't tell how big he'll be when he gets up.

—make love in a buggy. Even horses carry tales.

—bite your nails. Remember what happened to Venus.

—serenade your girl. You can't tell what her father may not need around the house.—*Bison*.

She was as pure as snow; but she drifted.—*Life*.

There was a young lady named Ella,  
Who had a bow-legged fella.

One day he said, "Please

Come sit on my knees,"

She did, and fell through to the cella.—*Lehigh Bun*.

Burning the candle at both ends is not the quickest way to make both ends meet.—*Princeton Tiger*.

"Gotta match?"

"I'll give you one for a cigarette."

"All right—that's what I wanted it for."—*Yellow Jacket*.

"What you doin', nigger?"

"I'se workin' fer Uncle Sam."

"Can't you get a job from nobody 'ceptin' yo' kin folks?"—*Princeton Tiger*.

Somebody said that exercise will kill germs.

But the trouble is to get the stubborn things to exercise.—*Princeton Tiger*.

Moonshine has an awful kick,

Women aren't so bad,

Moonshine can only make you sick,

They can drive you mad.

—*Princeton Tiger*.

Ford—At one time the place where you crossed a stream, now every place you try to cross the street.—*Princeton Tiger*.

All work and no play makes jack.—*Stone Mill*.

"Are you the trained nurse?"

"Yes."

"Well, let's see some of your tricks."—*Chaparral*.

Teacher—What word is the opposite of misery?

Class—Happiness.

What is the opposite of woe?

Class—Giddap.—*Friivol*.

Lady—How gauche?

Drunk—Fine, thanks. How goesch it with you?—*Cornell Widow*.

"And how is your husband?"

"Bad! Three years now he's been in bed. I wish't he'd get well,—er something."—*Harvard Lamphoon*.

Lady—Is Bill a 'varsity wrestler?

Godiva—No, why?

"Well, he knows all the holds."—*Brown Jug*.

"You will run for class president?"

"I wouldn't run for the football captain."—*Yale Record*.

Landlady—Here's fifty cents for tending the furnace this winter for me.

Rough-hewn—Thank you, ma'am, may ye live long and me light your fires for ye hereafter.—*Brown Jug*.



(Continued from page 28)

ately impressed by the continuous grind of heavy machinery, and the clank of heavy moulds. He is enveloped in a cloud of dust, floating carbon black, and various other undelectable ingredients.

He is possessed with a sinking sensation in the pit of his stomach and an intense desire for more open spaces. But he manfully conquers it and keeps up with a half-hearted grin.

From the comparatively clean surroundings of the rubber washing and drying rooms he is led into the main building where the calendering and vulcanizing is done.

By this time a thick coat of the floating dust and chemicals has formed in his throat, and he is evicting a continuous strain of highly charged juices, yet to be bottled as a highly efficient vermin killer.

He now feels he is a man, and bravely follows into the mixing room. He don't tarry there long. Nobody does except a few very toughened individuals. The odor there would make a skunk gasp, turn green with envy and make a hurried exit to parts where competition was not so keen. It was probably due to an inferiority complex.

The visitor is now starting to feel fidgety. He wants to see whether his car is where he placed it, or he gets a studious desire to see the yard, or he suddenly remembers a forgotten appointment. He assures his host that he had a very pleasant time and he will long remember it.

He does. He is afflicted with strange muttering in his sleep for a week, and like a highly charged volcano discharges sour dark chemicals for a month.

Wheeler—What kind of leather makes the best shoes?

Domaratus—I don't know, but banana skins make the best slippers.

"Have you seen Ben Turpin's latest picture?"

"No, what is it?"

"'East is West.'"—*Yale Record*.

#### GRADUATION

The time of the year has come when men step into a new life. After years of study a goal has been reached which is the foundation for a new structure in life. This structure will mean new ideas are about to be launched into the world by men who have been taught to help the world to better itself.

After years of hard work, and time sacrificed for a good cause, the new found men step forth enlightened in new fields of endeavor. Then efforts to tell the people will not be discouraged. Encouragement will greet them on all sides. Men who have gone the way in preceding years will

endeavor to lighten their burdens until they are totally capable of taking up their tasks alone.

Graduation is the stepping-off place for men who have striven to attain new heights. May their efforts be a huge success.

#### THE TRIUMPH OF THE MAN WHO ACTS

Health attends the man who acts.

Wisdom guides the man who acts.

Hope frees the man who acts.

Joy helps the man who acts.

Power moves the man who acts.

Progress marks the man who acts.

Fame follows the man who acts.

Wealth rewards the man who acts.

Love chooses the man who acts.

Fate obeys the man who acts.

God blesses the man who acts.

Immortality crowns the man who acts.

Fred was explaining to Mayer how a number of his friends are ailing from one sickness or another.

Interruptingly Mayer asked him of what special interest that was.

Fred went on to explain: "Well, you see Mayer, every time they get together they have an ORGAN RECITAL.

"We'll be friends to the end."

"Lend me ten dollars."

"That's the end."—*Bison*.

Waiter—Has your order been taken?

Waiter—Yes, and so has Bunker Hill.

—*Showme*.

Tell me not in profane speechings

That this life is not worth while,

Nor bend not low in deep beseechings,

Moaning, but Buck up and smile;

Scan these score and dozen pages,

If rapt in melancholy fell,

And the strife that in you rages,

They will speedily dispel,

And forsooth thou'lt cease thy sorrow,

Brighten, chuckle, grin, and laugh

Away the cares of the morrow,

Eftsoons, my lad—just try and do it.

Temperance Lecturer—If I lead a donkey up to a pail of water and a pail of beer, which will he choose to drink.

Soak—The water.

Temperance Lecturer—And why?

Soak—Because he is an ass.

Ethel—Why do sailors have such a heavy line.

Bert—Reckon it's because they know the ropes.



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to the  
Graduates

Class of '28



**FOUR YEARS BEHIND US**



**AHEAD**

**To Be or Not to Be**

**WHAT?**

**1925 MEN**

**WHICH MEANS**

**REAL N. T. S. MEN**



# GRADUATION DANCE

of the

## NEWARK TECHNICAL SCHOOL FRATERNITY

on

SATURDAY EVENING, MAY 9, 1925

in the

ACADEMIC BUILDING

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### CONGRATULATIONS

TO

CLASS OF 1925

WE WELCOME YOU



THE ALUMNI





This school year drawing swiftly to a close has been of marked brilliancy for the Newark Technical School Fraternity. From the Introductory Dance, held on October 17, down through the Thanksgiving Dance, Old Timers' Night, the Annual Reception and Dance, Social Night and to the Annual Theater Party of April 4, the events have been unusually successful.

Now we are preparing for the last big social affair of the current year

## THE 27th ANNUAL BANQUET

to be held jointly with the Newark Technical School Alumni on Thursday evening, May 14th. You will enjoy the excellency of the cuisine, the eloquence of the speakers, the music of our own Orchestra, and the pleasure of meeting your fellow Frators.

Mark this date on your calendar now. The banquet will be held at Ahtel-Stetter's.

THE COMMITTEE,  
Newark Technical School Fraternity.

Don't forget the two remaining events that are to be held at school:

FATHERS AND SONS NIGHT

**APRIL 17th** *May 26*

GRADUATION DANCE

**MAY 9th**



Success  
to the  
Graduates



Class of '26

*The class of 1927 wishes the class of 1925 the best of luck on their entry into the life which lies before them opened up by the advantages gained at "Tech."*



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CONGRATULATIONS

to

CLASS OF 1925

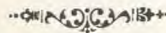
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**SUCCESS TO THE GRADUATES**

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