



ISSUE 27 BIDS TO SECOND ANNUAL INVITATION INDOOR TRACK MEET AT U. C. GYM

Anticipate Intense Competition Among Men in Effort to Shatter Records

TWELVE EVENTS ON SATURDAY'S PROGRAM

The Second Annual Invitation Indoor Track Meet, the outstanding sports event at Armour will be held at Bartlett Gymnasium next Saturday, March 29, at 2:30 P. M.

Invitations have been sent to Crane, Beloit, Lombard, Milliken, Illinois Wesleyan, Culver, Loyola, De Paul, "Y" College, Chicago Normal, Joliet, Cornell (Ia.), Illinois State Normal, Wheaton, Butler, Carroll (Wis.), North Central (Naperville), Concordia, North Park (Chicago), Thornton (Harvey), Knox (Galesburg), Monmouth, Morgan Park M. A., Mooseheart, Morton, and Elmhurst. Replies have not been received from all of these schools yet, but present indications are that at least fifteen schools will be on hand at the time of the meet.

Those in charge of the meet hold high hopes of many records being broken and predict, at the very least, some intense competition between the individual men of the teams rather than between the teams. This will be an added incentive for each man to put forth his best and set a few new records.

The eligibility of the contestants will be governed by the rules of the institutions from which they come. The National Collegiate rules will be adhered to in the judging of the events. Points will be awarded to individual members and not to teams. There is no entrance fee nor fees of any other kind connected with the meet.

The program of events will be as follows:

50-yard dash, 50-yard low hurdles, 50-yard high hurdles, 220-yard dash, 440-yard run, 880-yard run, one-mile run, two-mile run, high jump, pole vault, and shot put.

Dr. Ivy Addresses Chemical Society

At a meeting of the Chicago section of the American Chemical Society, held Friday, March 1, at the City Club of Chicago, a talk was given by Dr. A. C. Ivy, Professor of Psychology at Northwestern University Medical School, on the subject "The Gastro-Intestinal Hormones."

F. P. E. S. Smoker Tomorrow Evening

The Annual Fire Protection Engineering Society smoker will be held at 8 o'clock on Wednesday evening, March 26, at the Delta Tau Delta House, 3155 South Michigan Boulevard.

The winner of the prize, which is offered by Salamander to the F. P. E. Freshman making the best scholastic grades for the whole first year, will be announced. The prize, consisting of a handbook, will be awarded.

The Chicago alumni of Salamander are being invited, also the F. P. E. Department and some of the men on the Scholarship Committee. Dutch Masters, cigarettes, and refreshments are being provided in a big way so that there will be plenty for all.

NOTICE

Starting with next week's issue of the Armour Tech News, the architects will be given a special column on the third page for their news. Anybody having any personals or other news should turn them in to H. P. Richter, '32 or E. C. Kubicek, '32, before Thursday of each week.

Cycle Receives Honorary Rating

The certificate of award won at the Ninth National Yearbook Contest of the National Scholastic Press held at the University of Minnesota by the Cycle Yearbook of Armour Institute has been placed in the main lobby. This contest was under the department of journalism of the University and the judges were the most competent available, according to Norman Buehling. The all-American award won by the Cycle, represents superior quality in all fields, and is the highest award given. A certificate has been sent to Armour and is now in the lobby of the main building.

Senior Jewelry Now on Campus

Senior class rings which were ordered on February 28, will be delivered to the school today and immediately distributed among the members of the jewelry committee. Men who ordered rings will be able to get them from the men who took their orders. The keys will be delivered in about a week, the delay being caused by the difficulty in getting the stones for them.

Before receiving either a ring or a key, the man who ordered it must pay the balance due. On rings this balance is six dollars and fifty cents and on the keys, four dollars.

Any men who wish to order jewelry now should see Vernon Sturm personally.

Scarab Awards Medals for Recent Project

Avron L. Simon and Donald G. Braun were presented the Scarab medals won by them on their designs for the problem, "A Commemorative Hall," at the last meeting of the fraternity on Thursday, March 20, 1930. The members of the Scarabs meet twice monthly to have lunch at the Men's Grill in the Marshall Field Building. These meetings are strictly informal and there are generally many of the alumni present.

The problem was to design a hall, dedicated to those who fell in the World War. The competition included the entire Sophomore class and the two best of all the designs submitted were chosen for the medals. The first prize was a silver medal and the second prize a bronze.

Insurance Manager Outlines Office Work

Mr. Harry G. Casper was the speaker at the bi-weekly meeting of the Fire Protection Engineering Society, Wednesday, March 19, in Science Hall. Mr. Casper explained the position and duties of the manager of an insurance company. He is well qualified to speak on this topic as he is manager of three companies. Their system of receiving and filing policies was explained in detail. The various types of policies are all numbered and to file a record of the policy, these numbers are punched on small cards. These cards are automatically separated by a most intricate machine, which has long fingers. The Fire Protects were invited to see the machine at any time.

E. J. Ransel, president, then announced the date of the annual F. P. E. S. Smoker, and urged all Fire Protects to pay their dues so that they might attend.

Marvin R. Dobberman received a 2nd medal on his recent class A project, A Horticultural Society Building.

Announcements of Graduation Ready

The Senior announcement committee, headed by John W. Hurley, chairman, has awarded the contract for the graduation announcements to Charles H. Elliott Company. Samples of the completed announcement cards are in the hands of the committee, who are now taking orders for them.

The cards are of two types; the first is with black or white cardboard covers, on which is a gold motif with raised letters. This will be sold at twenty-eight cents a piece. A similar design, but upon a black leather cover, is offered at fifty-five cents. The men forming the committee, and who are taking the orders are:

- John W. Hurley
Emil Blomme
Russell A. West
Morris O. Nelson
Walter D. Wilson

PETITION PALMER TO INCREASE BIDS FOR JUNIOR PROM

Berlyn G. McLaughlin, social chairman of the junior class, today is circulating a petition asking Dean Palmer that the class be allowed to charge \$8.50 for the bids of the Junior Formal, which is to be held on May 16. McLaughlin says that unless 150 names are obtained, the dance must be run at a charge of \$7.50 per couple, which would mean that the affair would necessarily be less elaborate than the formals given in former years.

The reason for the increased tax is the low state of the finances of the junior class. There is no money left in the class treasury to make up for the loss which the formal usually incurs. The affair must be absolutely self-supporting. Members of all classes can sign the petition.

Negotiations are now under way for the use of the Balloon room of the Congress Hotel, according to McLaughlin. Ted Florito will probably furnish the music.

Professor Huntley Seeks Village Office

Professor Huntley of the Mechanical Engineering Dept. is not only a scholar but a politician as well. He is running for Trustee of the Village of Riverside. There are three to be elected and as yet only three have been nominated. The election is to take place on April 8, 1930.

The Trustees are analogous to the Councilmen in the city government. That is, they have charge of the government, and direct the policy of the village, its expenditures and taxes.

SENIOR POSITIONS

Mr. W. S. Jones of the Shell Petroleum Corporation of St. Louis, Missouri, will speak to the Senior Mechanicals and Chemicals on Friday, March 28, concerning positions with his company after graduation.

CALENDAR

- Tuesday, March 25
Phi Lambda Upsilon smoker at the P. L. U. rooms
Wednesday, March 26
F. P. E. S. smoker at the Delta Tau Delta house.
Pi Tau Sigma smoker at Triangle house.
A. I. Ch. E. smoker at the Phi Pi house
Saturday, March 29
3:00 p. m. 2nd Annual Armour Tech Indoor Invitational Track Meet at Bartlett Gymnasium.

DR. LEE DE FOREST EXPLAINS EARLY RADIO EXPERIMENTS IN ARMOUR LABORATORIES

First Successful Wireless Apparatus in America Developed by Noted Inventor

DISCOVERED THREE ELECTRODE VACUUM TUBE

DISTINGUISHED VISITOR



Dr. Lee De Forest & Pres. Raymond

Dr. Lee De Forest, the Father of Radio, was the speaker at an assembly Thursday morning, March 21, all classes attending.

After a few numbers by the orchestra, Dr. Raymond presented the speaker of the morning with a few reminiscent words of introduction.

Dr. De Forest told of his coming to Chicago in the fall of 1899 to take a position with the Western Electric Company, after having been graduated from Yale University the preceding June. He related his first connections with the institute as an assistant instructor in the Electrical Department and how he was given a free rein in the laboratories in return for his services in teaching classes.

It was very interesting to hear Dr. De Forest's version of the first trials of his wireless telegraphy, from the Institute to the Auditorium and the Lakota Hotel and from a yacht on the lake to a receiver on the four-mile crib.

Aided by Professor

Dr. De Forest realized that the need in wireless was a detector so signals could be heard in phones. So with the aid of Professor Clarence Freeman and knowledge gleaned from books in the Greer Library he perfected an electrolytic detector which supplanted the troublesome coherer.

In New York, Dr. De Forest experimented with hot gases and their conductivity of electric impulses. Using first the Bunsen flame and then an electric arc, he finally developed the three electrode type of tube in 1906, employing platinum wires and a perforated sheet of metal at first and then the developed grid type with woven wires for the third electrode.

During the war, the government purchased his heterodyne detectors, (Continued on page 3)

Sphinx Pledges Twelve New Men

Sphinx, honorary literary fraternity, held a pledging smoker at the Phi Kappa Sigma house. The following men were pledged in recognition of their work on one of the school's publications.

Cycle

- A. H. Jens
O. R. Murphy
R. A. Timmermans
R. N. Wilson

Engineer

- A. J. Lenke
C. T. Link
I. G. Katz
J. H. Stranberg

News

- K. A. Knittel
A. F. Wilde
A. B. Auerbach
F. B. Attwood

Schommer Referees Catholic Tournament

Professor Schommer was the chief referee at the Loyola Basketball tournament last week during which the championship team of the United States in the Catholic league was determined. Teams from thirty-two different sections of the country took part as contestants. Losers of the first 16 games entered into consolidation rounds.

Fire Protects Journey to Civic Opera House

The F. P. E. department made an inspection trip last Tuesday to the Civic Opera House. The day was switched from Friday to Tuesday for the convenience of the Opera House staff.

Professor Holmes said that the trip was made to demonstrate the last word in building construction, especially from a fireproof standpoint. Other features noted were the excellent lighting system, the enormous height of the stage to prevent shadows, and the unusual mechanical devices such as the hydraulic pumps to raise the stage.

A. I. Ch. E. Hold Smoker Wednesday Evening

The A. I. Ch. E. will hold a smoker tomorrow night at the Phi Pi Phi house for the purpose of acquainting the freshman chemicals with the A. I. Ch. E. and the members of the organization with the Chemical Engineers' organization. Professors Schommer and McCormack will represent the faculty of the chemical department.

The social part of the evening will be given over to an entertainment. There will be an abundance of smokes with a veritable mountain of eats for the chemicals to consume. According to advance reservations a one hundred per cent turnout of the freshmen is expected. An enjoyable evening for the "boil, filter, and washers" is a certainty.

Snow Avalanche Hits Ford; Demolishes Roof

Last Tuesday, March 18, a small avalanche of snow, falling from the roof of the main building, ripped the top of a Ford touring car, belonging to Stephen Davison, a freshman, which was parked in the street near the main entrance to the building. It was an unexpected accident, but it could have been prevented if the automobile had been left in the proper parking space.

Armour Tech News

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J. P. O'Hara, '33

Exchanges... A. J. Aukstaitis, '31

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INSPECTION TRIPS

Spring, that peculiar season of alternate hot and cold, wind and rain, brings with it the hope of the continuance of the series of inspection trips...

Inspection trips, to our viewpoint, are a most potent factor in connecting the academic work at Armour with the actual constructive engineering work of the world.

These trips, while at a first glance may seem but a pleasant way to spend an afternoon and evade classroom or laboratory work, are really much more important fundamentally.

The average engineer, upon graduation, is usually treated with a little contempt by the old "hands" who are well versed in the tricks of their trade.

Engineering literature, if carefully digested, might take the place of some trips, but it is an indisputable fact that reading would not make half the impression nor tend to as long a period of retention as the actual sight of the operation or process in question.

As we have already mentioned, our location in Chicago is a great asset to the school. It is hard to conceive of a phase of engineering work such as taught at Armour that cannot be made the basis of an inspection trip.

THE SLIPSTICK
Cleave to "The Slipstick"; let the Slapstick fly where it may.

Hard Up for Poetry? Not Us
A peanut sat upon the track
It's heart was all aflutter
A train came roaring down the track
Toot! Toot! And the little peanut jumped off.

Winter has come again, foiling the photographers, and disappointing the lads who thought they would get out of a physics lecture.

"Is she the leading lady?"
"Yeah! She's leading the orchestra by about four measures."

Ain't It the Truth
One advantage in being an instructor is that when you can't work a problem, you can assign it to the class for homework.

THE COED IS BACK AGAIN
Teacher—"Who can tell me where Texas is?"
Lil' Boy—"I know, teacher. She's at the Green Mill (not adv)."

Warning
They sure are getting strict in the library. If you have a squeaky fountain pen, or asthma, or clips on your heels, you had better stay out.

Fair Enough
Small Lad—"Ha! Ha! I just saw you kiss sis."
Suitor—"Here. Keep still. Put this quarter in your pocket."
S. L.—"Here's ten cents change. One price to all, that's the way I do business. Joe"

A middle aged man is one who has quit growing on either end, but continues to grow round the middle.

AVERAGES
Patient: "Doctor, what are my chances for recovery?"
Doctor: "Excellent; statistics show that one out of every ten gets well and the nine cases I attended before you have all died." Walt.

Why is a mouse when it spins?
If tripe is 10 cents per yard, how much will it take to make a duck lay a 10 inch plank? Kidder
We said no more conundrums, but we are printing these with the hope that the "Kidder" will let us have the answer, if any.

This week's mail (box by the elevator, etc.) brought a new contributor. The KIDDER, who says "Yours till The Armour News has 10,000,000 circulation." Well, all we can say to that is we surely are glad to have a steady contributor at least for the next six or seven months.

Pictures for the Cycle—you would be surprised how many fellows belong to the different societies and clubs at this time of the year.

TOUGH LIFE
Things sure aren't what they used to be, you have to ask at least five or six fellows for the problem today, while a few years ago the most you had to ask were three.

Frosh—Soph—, Story
Frosh: "That dog of yours bit my finger."
Soph: "He would have bitten your leg, but he is on a diet. Joe"

As the revenue officers said, "Now is the time to go to the raid of the party."

OH! OH!
He—"You look sweet enough to eat."
She—"I do. Where shall we go?" Dick

Seriously Speaking
We are of the opinion that the school should provide a smoking or recreation room, so that the students might not have to loiter in the halls, and have to go outside when it rains. What say?

Some dumb dodo thought a dogma was a puppy's mother.
This is open season for spring poetry. K. K.

the city; and electrical processes are found everywhere.

We hope, therefore, that the men on the trips will try to realize that they are more than a lark; while we do not expect to see the men plodding about with notebooks in hand, a few serious observations are easily achieved.

Professor Edwin Stephen Libby

(A Biographical Sketch)

By P. Emil Seidelman
Edwin Stephen Libby, Associate Professor of Experimental Engineering, was born at Portland, Maine, on February 18, 1879.

During his summer vacations, while attending school, he worked in the engineering department of Swift & Co., and after graduation he became Assistant Chief Engineer, in their packing-house plant, at East St. Louis, Ill.

In the fall of 1905, Professor Libby joined the staff of the Institute as an Instructor in experimental engineering. Since that time he has taught steam and refrigeration laboratory and delivered lectures on refrigeration.

Professor Libby has, in conjunction with his regular duties as a teacher, acted as a consulting and testing engineer for various firms, a few of which are Sears, Roebuck

& Co.; Western Electric Co., Lasken Iron Works, etc.

In 1923 he married Miss Cora M. Gains, of Cincinnati, Ohio.

Professor Libby has been a member of the Educational Committee of the National Society of Practical Refrigerating Engineers for five years and chairman for the past two years.

He has written several bulletins for the N. S. P. R. E. on various subjects, as follows: Measurement, Properties of Matter, Heat and Elementary Mechanics, and he is also conducting a question box in "Ice and Refrigeration."

His entire interest outside his vocation is centered in baseball and fishing. This latter desire is satisfied to some extent each summer when he joins the Fishing Squad, a group of professors, who leave immediately after commencement on a fishing expedition.

L. C. Cooley Gives Talk to Chemicals

The monthly meeting of the A. I. Ch. E. held last Friday was addressed by L. C. Cooley of the Whiting Corporation, Harvey, Illinois. He spoke on the various types of evaporators, emphasizing particularly the multiple effect evaporators.

Alumni News

T. A. Hicks, ex '06, visited school last Friday, spending some time in the mechanical engineering department. Since leaving school in 1904, Hicks has been connected with Westinghouse Electric Company at Philadelphia.

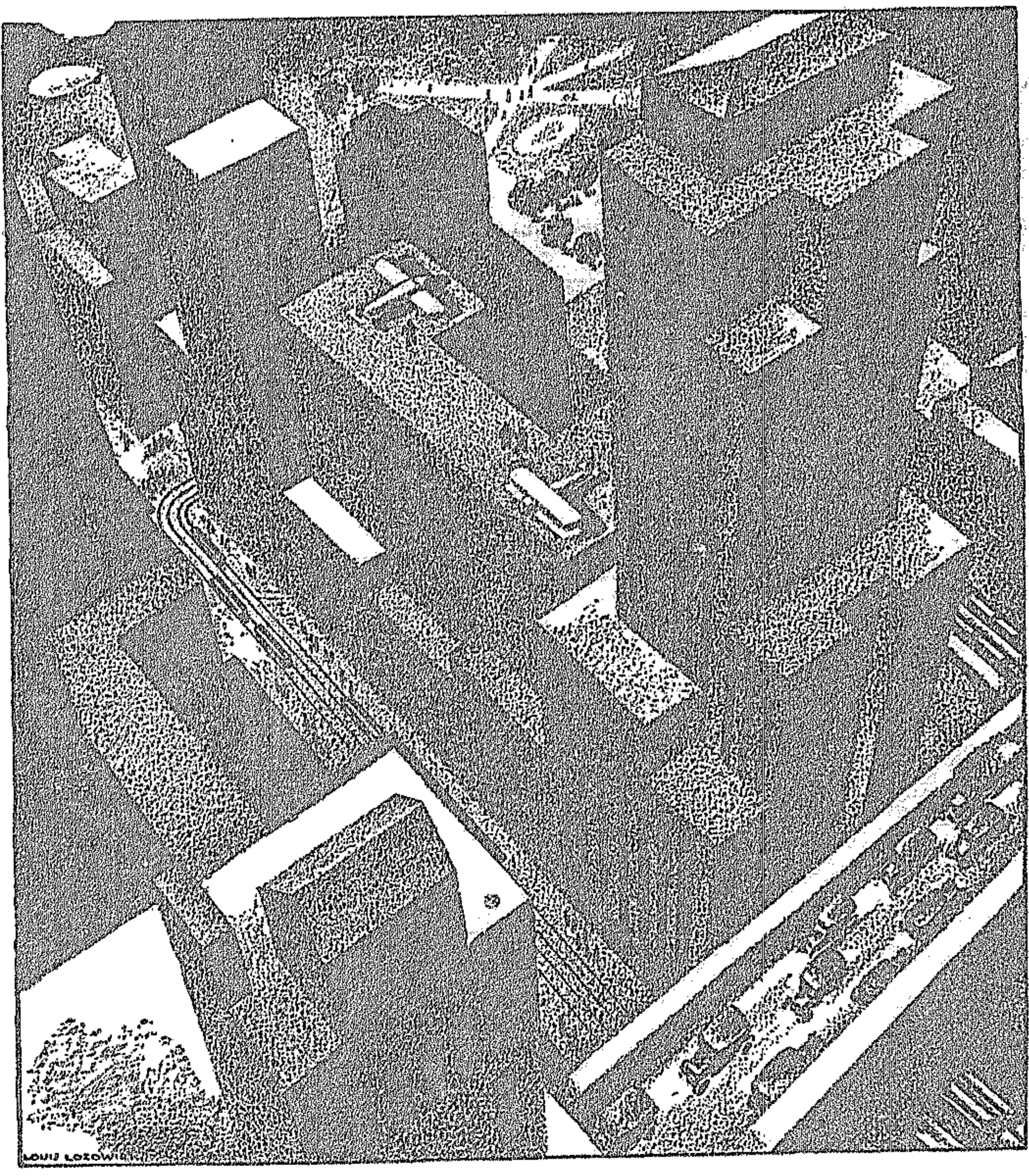
Henry Eickelberg, M. E., '23 visited his former instructors last week and inspected the laboratories. His home is in Oak Park, Ill., and he is the owner of two garages on the West Side of Chicago.

M. B. Krebs, '23, is now with the Commonwealth Edison Company, R. S. Illg, '20, is working with the Illinois Bell Telephone Company. Both of these men are attending Professor Freeman's evening school class of Economics at the Western Society of Engineering rooms.

Phil Diwert, '23, visited Chicago last week. Phil is with the Indiana Inspection Bureau and is located in Indianapolis.

Tire Representative Interviews Seniors

Mr. A. G. Ridgley, a representative of the Firestone Tire and Rubber Co., of Akron, Ohio, was at the Institute last Monday, March 17. He interviewed about 34 seniors of several departments with a view toward obtaining men for sales and promotion work.



The telephone looks ahead

Even as you are putting through your daily telephone calls, groups of Bell Telephone experts are calculating your telephone needs for five years, ten years, twenty years from now.

Thus central offices are planned years before they are actually built. Underground and overhead lines are laid out to fit future as well as present needs.

Bell System planners virtually live in the cities of the future. They play a vital part in providing the best possible telephone service for the least possible cost.

BELL SYSTEM

A nation-wide system of inter-connecting telephones



"OUR PIONEERING WORK HAS JUST BEGUN"

REVIEWS

THE RIVALS

Richard Brinsley Sheridan

Presented at the Goodman Theatre

Revolutions of the older plays are becoming fewer as the trend of the modern theater is leaning toward the production of the more modern drama. It was with a good deal of interest that the production of "The Rivals" at the Goodman was viewed.

The play itself is familiar ground to practically every man in college, but the presentation of it will offer a real treat to everyone. The characters in the play at once become real and vivid, and the skill of the eighteenth century school becomes apparent upon hearing the dialogue.

While the wording and the costumes may at first seem ludicrous to the twentieth century mind, the play swiftly envelops one in its enjoyable atmosphere, and the action is followed with the utmost interest. This comedy is light in theme, rapid in action, and filled with humor, proving that the antiquity of the play is no drawback to its presentation.

Mrs. Malaprop, who is remembered as the lady with the twisted vocabulary, affords much of the humorous element, for the words that she so inadvertently uses are so obviously wrong that the appeal of her lines is irresistible. However, the success of her part is closely connected with the other roles; their task is to use words of similar weight correctly and without hesitation. It is a marked feature of the skill of the cast that they are able to speak their difficult lines, both as to context and to accent, without stumbling nor delay.

The characters are all well portrayed, as is to be expected of most of the Goodman presentations. Mervis as the dashing soldier-lover, Captain Absolute, creates exactly the impression that Sheridan must have desired; it is this perfection in the cast that makes the play give every possible iota of enjoyment that has been written into it. Whether contrition or arrogance is the order of the moment, Mervis plays the part excellently well, save for an occasional snicker when the man fails to control himself. However, realizing that one cannot acquire the accent and actions of the period in so short a time, these slight slips can easily be overlooked in the general high standard of the acting.

It is likewise most amusing for the onlooker to compare and contrast the love-making of this period with that of today. Faulkland, played by Neal Caldwell, is the lover who is distraught with doubts as to his lady fair, and is filled with a myriad of dissertations on lover's habits as he sees them. However, most any one of us would hardly be so upset as he, and thus are afforded another source of comic action.

"The Rivals" offers an excellent evening's entertainment, being light, witty, and fast; furthermore being a familiar play to most everyone, must serve to gratify that desire to see in action what one has read in print.

A. B. A.

L. L. Perry Speaks to Economics Class

Mr. L. L. Perry, engineer with Sargent and Lundy, consulting engineers, spoke at Professor Freeman's evening school class of Economics last week. His topic was about the generation and transmission of power over short distances. If it is generated at a coal mine it has to be a high capacity load in order to be economical. Professor V. B. Teach will speak at the final lecture this week.

We regret to announce the passing of the mother of Professor August C. Wilmanns, Mrs. Henrietta Wilmanns, and wish to extend our sympathy in his recent bereavement.

Armour Chapter of Tau Beta Pi held a meeting in their Chapter Hall rooms yesterday at 4:30 p. m.

Dr. Lee De Forest
(A Brief Biography)

Dr. Lee De Forest, the Father of Radio, has had a very interesting and inspiring life. During his early years he was an obscure scientist, looked down upon by his employers as a dreamer, often in danger of losing his position, and more often practically penniless. Now, as his honorary title implies, he is the leader of one of the greatest industries in the world, lauded as the man who made radio communication possible, and respected as one of the keenest thinkers the world has ever known.

He graduated from Yale university and went to work for the Western Electric Company, soon gaining a position in the telephone laboratories. Here he soon became known as a dreamer, being more interested in working with an induction coil than with the work assigned to him. After some time with the Western Electric Company he realized that he wanted more time for his own work and accepted a position at Armour Institute as an instructor in the department of physics and electrical engineering. He received no pay for his work at Armour, instead having the privilege of using the laboratories for his own work. He also held a position at Lewis Institute at this time, teaching two nights a week and receiving a salary of five dollars a week for it.

While Dr. De Forest was working at Armour he and President Raymond became acquainted through a common patronizing of the Comet Restaurant. Here the two men would often dine together. Dr. De Forest was in the habit of having a ten cent dinner on weeks days and a twenty cent one on Sundays—when he could afford that luxury.

While at Armour Dr. De Forest worked with Professor Charles Freeman on the idea of wireless transmission and managed to successfully send messages for short distances, gradually increasing from a few feet to several miles.

When he and Professor Freeman had been at work for about two years, they were given the opportunity of reporting the Lipton yacht races at New York by means of their wireless transmission. Not knowing the deleterious effect of salt water on wireless work, they failed in their attempt and the race was reported by flag signals as it always had been.

The press was kind to them, however, and so covered up the affair that no one knew that they had failed. That failure only made Dr. De Forest work harder and made his ultimate success more certain.

Due to Dr. De Forest's work, the Trans-Continental Telephone was opened in January, 1915.

A few years later he opened a broadcasting station in New York but soon his license was revoked because the broadcasting interfered with shipping signals.

In 1920 he opened a station in San Francisco which broadcast orchestra programs almost exclusively.

His greatest work was the invention of the three electrode vacuum tube, which made modern radio possible.

Dr. De Forest also did a great deal of work in the development of the talking pictures and is confident that we shall soon have the system perfected.

His life, starting in poverty and ending in fame, always full of optimism no matter how dark the outlook, is an inspiration to all who know him.

W. H. R.

X-Rays Used to Test Business Products

The uses of the X-ray in industry are increasing steadily. Satisfactory photographs are now made through four inches of steel, six inches of aluminum and through other materials in proportion to their density. . . . Automobile tires are photographed to determine the condition of union between cord and rubber. Golf balls are X-rayed to inspect centering of the cores. The amount of tetra-ethyl lead in gasoline can quickly be determined by radiography. A few shoe stores have installed fluoroscopic units to show customers how shoes really fit.

FRATERNITY NOTES

BETA PSI

The Smoker held at the House Friday March 21st, was well attended both by the actives and a number of alumni.

Friday was also the beginning of a week of probation for the following: L. R. Anderson, O. L. Staib, and D. B. Snapp.

PHI PI PHI

On Saturday March 22nd, Gamma Chapter of Phi Pi Phi held a formal initiation for pledges: S. A. Carlson, '32, C. Mitchell, '32, J. Clayson, '33, C. Cruver, '33, and G. Hill, '32. A luncheon was served after the initiation.

Saturday night the annual formal Dinner Dance was held at the Knickerbocker Hotel, music being supplied by Grundy's Chicagoans.

KAPPA DELTA TAU

P. Percy Portnoy, athletic manager, has been busy preparing plans in order to produce some good baseball and tennis teams.

Two weeks have been allowed the pledges before formal initiation in order that they might have time to recuperate from the initiation held for them in the Indiana Sand Dunes, Saturday, March 22nd.

TRIANGLE

The initiates dance, which proved to be a huge success, was held Saturday, the 15th. Brother Bodenson has returned again after a brief confinement at home, making the chapter full strength again.

The engagement of George A. Peters, '29, to Miss Florence Du Hasek was recently announced by Miss Du Hasek's parents. She is a student at the University of Chicago and a member of Phi Beta Delta sorority.

SIGMA KAPPA DELTA

On last Saturday evening, March 22, the actives and many alumni enjoyed the radio dance given at the house.

For the present, April 12, is the date planned for the annual Hard Times Party.

DELTA TAU DELTA

Gamma Beta Chapter of Delta Tau Delta announces the initiation of the following: M. R. Beal, R. H. Frye, F. M. Gihian, E. J. Griffin, W. H. Larson, T. D. Luckett, D. W. Pearson, H. A. Pearson, R. A. Peterson, and S. B. Cone. The informal initiation was Saturday night, ending probation week, with the formal initiation three o'clock Sunday afternoon, March 23. A banquet followed at the House.

New Checking System for Probation Students

This year the Deans' Office is sending cards around to the professors for students on probation in order to get the student's grades at the end of the first six weeks. This system has been put in effect this semester instead of having the students taking slips around to the professors. These cards will also be given out at the end of the twelve weeks, in order to get information that will assist the Deans in aiding each student.

Mr. M. L. Helbrun is offering a prize of \$100 on the class A and B archeology VI project in memory of his father, William Helbrun. The esquisse for this problem will be, Saturday, March 22. The subject will probably be on Venetian Renaissance period.

Phi Lambda Upsilon, national honorary chemical engineering fraternity, will hold a meeting tonight in their rooms on the third floor of Chapin Hall.

There are still four tickets left for Doctor Protheroe's Welsh Male Chorus Concert at Orchestra Hall on Thursday evening, April 3. Anybody wishing to get them should see W. Manske, '30, president of the Glee club.

Despite a decrease of 5 per cent in total crop production, 1929 crops were worth \$85,000,000 more than last year's, says the United States department of agriculture.

DeForest Speaks On Experiments

(Continued from page 1)

but, in the period following the war, radio found days of hard going as there was nothing of particular interest to the people. The government no longer needed detectors and there was still a ban on amateurs.

In 1920, however, Dr. De Forest aroused much interest in radio broadcast, and opened a station in New York. Due to interfering with the Army and Navy signals, however, his license was revoked. He then repaired to San Francisco and organized a similar broadcasting unit which was widely acclaimed and received with much enthusiasm.

This was really the beginning of the system of broadcasting that we have today.

Predicts Great Development

Dr. De Forest predicts great success for radio in the very near future. Each year will see astounding discoveries and improvements. He states that the day will come when we will be able to obtain equally good and probably better reproduction from the cheaper sets than from the more elaborate cabinet types of today.

The radio tube companies in the last three years have employed 6,000 radio engineers in research, and the entire radio industry enjoyed a \$600,000,000 turn-over in business annually. The vacuum tube has found use in many branches of industry, including television, sound pictures, theater light controls, metallurgy, crime detection, etc.

In closing, Dr. De Forest told how he had been forced to the decision of whether he should ally himself with some industrial organization or should strike out for himself along independent lines. He expressed the hope that his life, with its early privations and later success might be an encouragement to present day students in their own struggles both during and after their school days.

Rivetless Ship Now Under Test

A young man's idea of a rivetless ship of steel is partially realized and ready for tests that will prove success or failure.

The Carolinian, first rivetless, self-propelled steamship in American maritime history, awaits only favorable weather for speed trials and tests on the Atlantic Ocean before being placed in service.

Richard F. Smith is the builder. Reared in the environment of the shipyards at Newport News, Virginia, Smith for years had dreamed of an all-welded ship. Two years ago his plans were completed and he brought his idea to Charles V. Boykin, vice-president of the Charleston Dry Dock & Machine Company, who decided to try the idea.

The keel was laid on June 1, 1929, and amid secrecy the work began. Nothing of the nature of the ship was divulged until patents protecting it in this and foreign countries had been obtained.

While the legal phases necessary to obtain patents were going forward, the hull of the ship rose, not with the rat-tat-tat of the pneumatic hammer, but with the hiss of the electric welding apparatus singing the song of industry.

The Carolinian slid from the ways on February 14, in the presence of navy and civilian experts, who predict that she will come through the trials with flying colors. After the tests the Carolinian will be placed in the coastwise trade from Elizabeth, North Carolina.

A saving of 20 per cent in weight and 25 per cent in construction costs was accomplished by the Smith method, drydock officials said. Mr. Boykin said he had found that a welded ship had greater cargo capacity, due to the absence of rivets and bolts. Only 8,000 pounds of electric welding was necessary, as compared with 28,000 pounds of rivets used in a vessel of similar size.

New Thermometer for Steel Industry

Discovery of a substitute for the thermometer, a photo-electric eye that literally "sees" temperature, was announced recently.

It is not a universal substitute, but another industrial specialist, a robot said to do one important thing in steel manufacture never before possible.

It looks on white-hot steel and reads instantly to a fraction of a degree the searing heat of thousands of degrees, but is no good for the back porch on a hot day, for it does not work below 1,000 degrees.

The eye was explained to the American Electric Railway Association at the Westinghouse Lighting Institute by J. V. Breisky, research engineer of the Westinghouse Electric & Manufacturing Company.

Because of uncertainty in present methods of determining the temperatures of molten steel he explained a certain percentage turns out inferior, and is scrapped, the loss being sufficient to erect a score of Chrysler buildings annually. The practiced human eye has furnished the only generally workable method of estimating the steel temperature from its glow.

Even the thermocouple, a pair of wires that can be thrust into the hottest steel and that will record the temperature to within hundredths of one degree was not efficient because it required seven to eight minutes for a reading.

That is too slow; the photo-electric eye operates as fast as sight, its measuring stick being the light emitted from the glowing metal. It runs a meter calibrated in degrees of temperature, and registers changes when the human eye can scarcely see a difference in the color of the glow.

Armour Represented by Deans at Meeting

Deans Penn and Palmer attended the annual meeting of the North Central Association of Colleges and Secondary Schools held last Friday night, March 21.

Professor W. C. Wichendson, president of the Case School of Applied Science at Cleveland, Ohio, was the principal speaker of the evening.

The North Central Association is made up of all the recognized schools in the central part of the country and to a certain extent controls the requirements and standards of those schools which are its members. Recently Crane College, Bradley Tech, and Iowa Wesleyan were expelled from membership.

Drawings on Display at Art Institute

The first set of drawings sent by the Association of Colleague Schools of Architecture are now on exhibit at the Burnham Library of the Art Institute. The designs are from the Universities of Pennsylvania, Washington, Oregon, Kansas, Yale, Cornell, Syracuse, Harvard, Georgia Tech., Pennsylvania State College and the Alabama Polytechnic Institute.

The next set will include drawings from Armour, University Southern California and numerous other universities that are members of the association.

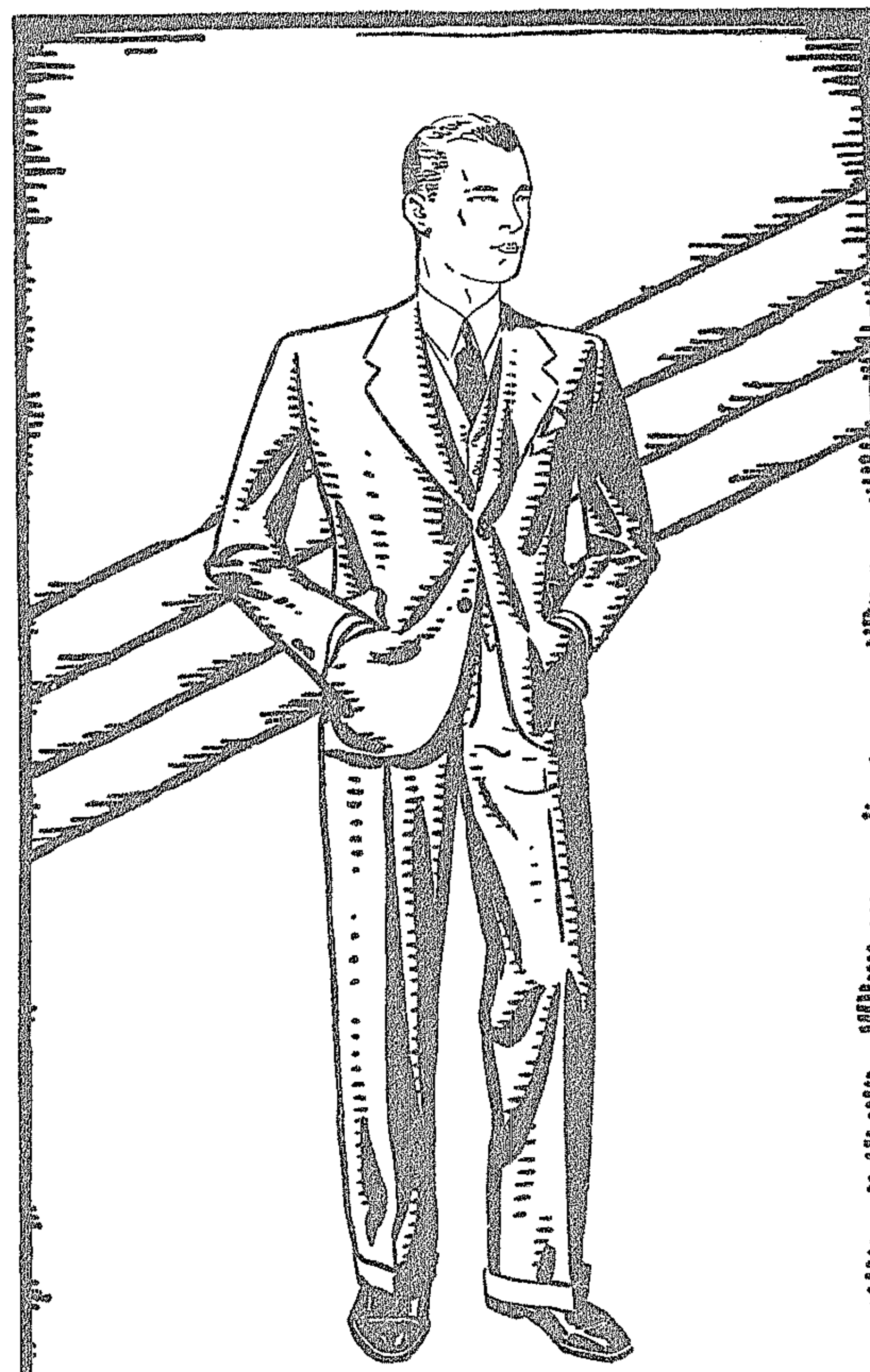
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ARMOUR TECH TRACKSTERS WIN FIFTH CONSECUTIVE MEET OF INDOOR SEASON AT BARTLETT

Track Stars Take Six Firsts to Win Triangular Meet From Sears-Roebuck and Chicago Normal

TO COMPETE IN CENTRAL A. A. U. CHAMPIONSHIPS

By winning a large portion of first and second places Armour's track team won its fifth consecutive indoor meet at Bartlett gymnasium, University of Chicago, last Saturday. Tech gathered 53 1/2 points to take first place from Sears-Roebuck Y. M. C. A. who scored 26 1/2 points. Chicago Normal College took third with 24 points.

Elmer Sademan as he has done repeatedly took firsts in both the mile and two mile runs. His two victories totaling ten points made him high point scorer of the meet. James came in second in both the mile and two mile races.

Tech scored a clean sweep in one event, the quarter mile run. Sturm won first being pushed the entire distance by Fox. Hirsch and Helmick won third and fourth respectively.

The 50 yard dash final ended in a blanket finish. Sturm was edged out of first place by Sisulak of Sears. Jens after a poor start finished in fourth position.

Besides winning a place in the shot put Nap Kara won the 50 yard low hurdles. Don Paul again won the shot put with a heave of 46 feet. Don also took a third in the high jump.

Team Loses Relay

By far the most exciting event on the afternoon's program was the relay race in which each man was to run one lap of the track. Harold Fox carried Armour's colors as lead off man, Fox after a poor start attempted to pass the field on the far turn. In doing this Harold was forced to an outside lane. Since Armour had drawn the inside lane its passing had to be done there. Incidentally in the passing Armour lost considerable distance. Hirsch ran second and picked up several yards when he gave the baton to Jens who ran third. Jens trailed the Normal man until the last turn where he was finally able to pass him. Sturm running anchor tried hard to make up the distance to the Sears team but could not quite make the tape first. Tech took second in the relay and Normal was third.

Summaries

One mile run won by Sademan, Armour; James, Armour, second; Sarcles, Sears, third; Norak, Sears, fourth. Time, 4:45.8.

50 yard dash—Won by Sisulak, Sears; Sturm, Armour, second; Cohen, Normal, third; Jens, Armour, fourth. Time, 5.6.

440 yard run—Won by Sturm, Armour; Fox, Armour, second; Hirsch, Armour, third; Helmick, Armour, fourth. Time, :54.1.

50 yard low hurdles—Won by Kara, Armour; Cohen, Normal, second; Brefford, Normal, third; Bangert, Normal, fourth. Time, 6.5.

High jump—Won by Bangert, Normal; Brefford, Normal, second; Paul, Armour, third; Dahmar, Sears, fourth.

Two mile run—Won by Sademan, Armour; James, Armour, second; Sears, third and fourth. Time, 10:31.

Shot put—Won by Paul, Armour; Gordon, Sears, second; Kara, Armour, third; Bangert, Normal, fourth. Distance, 46 feet.

One-half mile run—Won by Iverson, Armour; Suffoke, Sears, second; Timmermans, Armour, third; Borrowdale, Armour, fourth. Time, 2:09.2.

Pole vault—Won by Bangert, Normal; Burke, Sears, second; Brafford, Normal, third; Patterson, Sears and Helmick, Armour, tied for fourth.

Relay—Won by Sears; Armour, second; Normal, third.

Crane Nudges Out Armour Swimmers

In a return meet held at Crane College last Thursday, March 20, the Armour swimmers were nudged out by one small point, the final score being 38-37 in favor of the West Side lads. At the previous meet held a couple of weeks ago, Armour won over Crane by a very small margin, which illustrates how evenly matched the two teams are.

From the close score it may be seen that the times of the events were fast. The 100 yard free style, where Knox and Carlstrom took second and third places, and also the 150 yard backstroke event, were outstanding examples of fast time. The time for this backstroke event was eight seconds faster than in the last encounter with Crane. Manager Vander Velde, entering his first race in a long time, did some fine sprinting and gave a nice demonstration of a strong finish.

Captain Strauch and ex-captain Trognitz, as well as Cavanaugh, showed some good work in their events, Strauch winning the diving event by several points, while Trognitz and Cavanaugh led in the breast stroke by almost a pool-length.

This meet may be the last one of the season, unless a meet with a Big Ten school can be arranged, or with some other team which will give Armour strong competition.

Summaries

160 Yard relay—Won by Crane (Hanson, Retsky, Hellard, Shaw); second, Armour. Time, 1:21.1.

200 Yard breast stroke—Won by Trognitz, Armour; second, Cavanaugh, Armour; third, Bizell, Crane. Time, 2:51.2.

40 Yard free-style—Won by Shaw, Crane; second, Carlstrom, Armour; third, Retsky, Crane. Time, 0:19.4.

220 Yard free-style—Won by Hillard, Crane; second, Davison, Armour; third, Topp, Crane. Time, 2:48.4.

150 Yard back-stroke—Won by Connelly, Crane; second, Weston, Armour; third, Vander Velde, Armour. Time, 1:58.1.

100 Yard free-style—Won by Hillard, Crane; second, Knox, Armour; third, Carlstrom, Armour. Time, 1:01.4.

Fancy diving—Won by Strauch, Armour; second, Harson, Crane; third, Blur, Crane.

Medley relay—Won by Armour (Vander Velde, Trognitz, Knox); Crane, second. Time, 3:29.4.

Racqueteers Get Into Action Soon

At a meeting of tennis candidates held last Wednesday Coach W. W. Colvert and Captain A. Winkler spoke of the membership of this year's team.

Manager W. Manske then told of the rules of the coming tournament. There will be no set time for the different rounds to be finished, but the games must be played as soon as possible or they will be forfeited. No players can use the Armour courts unless he wears tennis shoes. The courts will be repaired as soon as the weather permits.

The following is the tentative schedule for the 1930 tennis team. April 25—Lake Forest at Armour.

April 29—Loyola at Armour.

May 2—Marquette College at Armour.

May 6—Northwestern College at Watertown, Wis.

May 13—Loyola at Loyola.

May 15—Detroit City at Armour.

May 19—Lake Forest at Lake Forest.

May 22—Marquette College at Milwaukee, Wis.

May 23—Northwestern College at Armour.

May 26—Michigan State Normal at Ypsilanti, Mich.

May 27—Detroit City at Detroit.

TECH SHORTS

Big Week

Last week was rather a busy one for Tech students. Besides two very interesting assemblies, there was a dual track and swimming meet and a triangular track meet on Saturday.

Swimming met an unexpected defeat at the hands of Crane on Thursday by a single point. A week ago when Tech defeated Crane, the final event, the 300 yard medley relay decided the victor. However, of the seven meets engaged in, Armour took top honors in five of them. The losses were at the hands of Culver and Crane.

Must Be Spring

On State Street the other day we noticed a man who did not have any shoes on. This is a sign of something, possibly Spring.

We're sure it's Spring, for Coach Krafft has issued a call for baseball candidates. Already 45 men have responded. After a few weeks of practice this number will be reduced to a workable squad of some 20 odd men.

Big League Style

The baseball team will present a rather different appearance this Spring. In the past the boys have been accustomed to wearing light grey sweat jackets and black caps. Krafft has secured some very good looking black and yellow jackets with Armour Tech in black and yellow letters on the back. The caps are of white crowns with black visors, Brooklyn style.

The loss to Crane in swimming was balanced when the tracksters defeated the thinclads of Crane at Bartlett gymnasium. This made the fourth victory for the track team.

Wisconsin Trip Off

Lonnie Stagg reports that the track meet with Wisconsin State Normal College will probably have to be called off. In place of this a relay team will be sent to the Drake relays if present plans materialize.

When the mile race of Tuesday's program was run, a Crane lad immediately took the lead. The first three laps were run at a very slow pace. Iverson then stepped out and finished a half lap ahead of the field. Sademan, who was to run the half mile, took an easy second place ahead of Graham of Crane. Nap Kara of cigar and banana fame, came through to a first in the hurdles and second in the shot put. Maybe Nap is back in his frosh days when he won everything he attempted.

Leigh Has Hope

Last Fall we wrote a good deal of the golf tournament which was to be held then. It seems that our notices were a little premature as the competition has just recently been settled. Professor Leigh, who is director of the golf team, hopes to present a formidable squad this year although present indications are not quite so hopeful.

Some time this week work is to begin on the Armour tennis courts. Practice will begin under the direction of the new Coach, Professor Colvert, when the courts are in playing condition.

Tech Tracksters Whip Crane Men

In the dual track meet at the Bartlett gymnasium last Tuesday, Armour completely outclassed the Crane Junior College tracksters, 52-29.

After the first two events the score was a tie, each team having taken a first, second and third place. Jens took second in the 50-yard dash while Sturm came in third. The first place was made by Kara in the high hurdles.

Pushed to better time by Harold Fox, Sturm broke the record set here at Tech for the quarter mile. Fox and Hirsch took second and third places respectively. In the half mile, having dropped back for the first few laps, Sademan took the lead and finished first.

The first quarter of the mile race was a mere jog. Iverson then took the lead and with increased speed finished one-half lap ahead of the field. Second was taken by Sademan.

James set the pace in the 2-mile and led from start to finish. By the time the race was three-quarters finished, only three men were on the track and all three were Armour men; giving another first, second and third to the Tech score.

First place in the shot put was won by Don Paul. Kara managed to make a second. When it came to high jump, Paul could not make a second against the Crane man, Friberg.

Most of the events were run in slow time, with the one exception, when a new record was established in the quarter mile run.

Summaries

50 yard dash—Won by Lewis, Crane; Jens, Armour, second; Sturm, Armour, third. Time, 5.7.

50 yard high hurdles—Won by Kara, Armour; Engler, Crane, second; Carlson, Crane, third. Time, 7.4.

One-mile run—Won by Iverson, Armour; Sademan, Armour, second; Graham, Crane, third. Time, 5:10.

440-yard run—Won by Sturm, Armour; Fox, Armour, second; Hirsch, Armour, third. Time, 53.7.

Two-mile run—Won by James, Armour; Smith, Armour, second; McKinney, Armour, third. Time, 10:48.

Shot put—Won by Paul, Armour; Kara, Armour, second; Asp, Crane, third. Distance, 46 feet 1 inch.

One-half mile—Won by Sademan, Armour; Ronin, Crane, second; Fredericks, Crane, third. Time, 2:12.

High jump—Won by Freiberg, Crane; Paul, Armour, second; Holden, Crane, third.

Pole vault—Won by Holden, Crane; Gallop, Crane, second; Luckett, Armour, third.

Well, anyway, Spring is here, according to the calendar. There are lots of things about Spring. Name: baseball, tennis, invitational track meets, golf, interfraternity indoor baseball, outdoor track, etc. A. H. J.

FIFTY CANDIDATES ANSWER CALL FOR BASEBALL SQUAD

Practice on Outdoor Diamond Begins Shortly

GET NEW EQUIPMENT

Nearly 50 men answered coach W. C. Krafft's call for baseball candidates last Thursday. The meeting was held in the main building where Krafft illustrated by chalk demonstrations the proper method for playing each position.

Many of last year's regulars were missing from the meeting. Had they been in attendance the total number present would probably have been swelled over the 60 mark. The large number of prospects will give Krafft a good selection for his first squad. Outdoor practice was to begin yesterday, depending upon weather conditions. The squad is to be cut to a workable group in several weeks. Extensive training in all departments of the game will be on the program until this time.

Until last week the Notre Dame game was not officially placed in the schedule. Negotiations for this game were held up pending the appointment of a baseball coach at Notre Dame. The date of the game as announced previously is April 14 at the South Bend School.

The baseball season will begin on April 10 when Armour meets Morton Junior College in the first game at Ogden field.

New equipment has been purchased for the team. Several new uniforms and sweat jackets for the entire team have been secured. Special bats for the regular members of the team have arrived. These were selected by the men when they visited the factory last Fall.

Candidates who desire to try out for the squad should apply to Coach Krafft either in the gymnasium office or in the locker room located at the north end of Ogden Field.

A. T. A. Meeting to Be Held Early This Week

W. King Simpson, president of the Armour Tech Athletic Association, announces that there is to be a meeting of the Association sometime this week. Time and place of the meeting will be announced on the bulletin board in the main hall.

The A. T. A. will discuss plans for the coming athletic events also they will pass on the recently completed baseball schedule. Other business such as Honor Cycle awards and appointment of managers will be considered.

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