

Armour Tech News

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Armour Institute of Technology, Chicago, Illinois

Tuesday, March 8, 1938

Sear, Kent on Last Talk of E. E. Series

Civil Engineering Series Begins Saturday

The ninth and last program in a series of applied scientific broadcasts concerned exclusively with electrical engineering and touching upon the social and economic values of the many contributions of things electrical to our every day life, was "Sound Description of Principles of Radio Engineering." The program was presented March 5, over Station W.C.F.L. at 6:45 p.m. under the direction of Alexander Schreiber, publicity director of Armour Tech. Guest scientists were Arthur William Sear, Assistant Professor of Electrical Engineering at Armour and Earl Lewis Kent, Instructor in Electrical Engineering and Director of Television Research at Armour.

Explain Frequencies

Professors Sear and Kent explained that the stimulus for sound is a body in a state of vibration. The pitch of the sounds we hear is dependent upon the frequency of vibration of the stimulating source. Speech requires a wide range of frequency in the formation of words. Therefore, transmitting vocal sounds by radio, it is necessary to convey all of the frequencies of the voice at the same time in order that the listener may be able to distinguish sounds produced by the speaker.

Mr. Kent explained that the essential frequencies for an intelligible speaking range are from 100 to 2500 cycles per second. Musical frequencies range from 35 to 6000 cycles per second. The ear is most sensitive to a frequency of 1000 cycles per second. Prof. Sear said that a wider band of frequencies brings out the naturalness and color of tone, and that because of this fact, methods of recording and reproducing music and speech have been greatly improved.

New Series Starts Saturday

By the use of a special filter, frequencies below two hundred cycles per second and above 3000 cycles per second are filtered out. The voice of a baritone can be made to sound like a bass. Similarly, the tone control of a radio eliminates high frequencies and emphasizes the bass region, and vice versa.

Next Saturday, a new series of related educational broadcasts concerned with the field of civil engineering will be presented over station W.C.F.L. at 7 o'clock. Dr. L. E. Grinter, Director of the Civil Engineering Department and Dean of Armour Tech's graduate division, and Mr. William M. Simpson, also of the Civil Engineering Department, will be guest scientists.

Players Give Party as Members' Reward

As a celebration of the financial success of their recent production, the Armour Players Guild decided to give a party. At the post-production meeting held recently, it was decided that the members should have some measure of return for all their efforts in the form of a merry good time. After discussing the problem over and over, the date was tentatively set for either the 18th or 19th of this month. As far as is known at present, the party will be held in the Mission building.

The Guild will have as its guest of honor the lovely young Miss Kavanagh, who so ably played the female part in their last play, "The Marriage Proposal." She will be presented with a gift from the Guild to show the appreciation she so much deserves. A committee has been appointed for the selection of an appropriate gift.

The last party given by the Guild some time ago was quite a memorable event. The members attended a performance of "Tovarich," enjoying a pleasant evening. All concerned are looking forward to the coming party with keen anticipation.

Experts Contribute to Armour Engineer

The March issue of *The Armour Engineer* promises to be an interesting one. With a circulation of more than twenty thousand copies, this magazine will be ready for distribution in about two weeks. As usual, the articles are written by men who are authorities in their respective fields. Three engineers, two presidents of large companies, and a noted psychologist are among the contributors.

Their subjects will be as follows: "Transoceanic Flight," "Radio in Domestic Air Transport," "Bituminous Coal, Our Major Source of Energy," "Commercial Application of X-Rays," "Soot Comes of Age," and "Suiting the Man to the Job."

Student Speakers Compete at A. S. M. E. Assemblies

Two student speakers, A. N. Schrieber and S. Gryglas, will be heard by members of the Armour branch of the A.S.M.E. this Friday at 10:30 in Science Hall. These talks will be two of a series given in competition for the choice of delegates to represent the Armour branch at the convention which will be held in Milwaukee April 18th and 19th. Here the delegates will compete for various prizes.

Gryglas will speak on "Stratosphere Flying" and Schrieber will probably talk about some trends in railroad transportation.

Movies were shown at the meeting last Friday in the Automotive Laboratory. The Budd Body Corporation presented two movie reels and the Standard Oil Company gave three reels dealing with the distillation of crude oil and the lubrication of cars.

Alpha Chi Schedules Pledge Smoker and Tri-Chapter Dance

Prospective pledges to Alpha Chi Sigma, professional chemical fraternity, will be guests at a smoker to be held tomorrow evening at the Pi Kapp house. Also on the Alpha Chi schedule is a tri-chapter dance with Northwestern and Purdue to be held at Northwestern's home hall, Saturday, March 26. These events follow "Armour Night," held last Tuesday by the professional chapter.

The smoker, planned for the chapter's own rooms, will be held in the Pi Kapp house instead, due to the extensive renovation being carried on by the fraternity. Ping pong, poker, and pool will be offered as a pleasant diversion from the Armour routine.

Bids for the dance have been distributed among the members. Advance returns indicate that almost the entire chapter will be present. Thorne Hall will offer a pleasant atmosphere. An excellent orchestra, ample parking facilities, and delicious refreshments will contribute toward making the evening a pleasant memory.

At the last meeting of the fraternity, P. J. Peltier was elected to represent Alpha Psi Chapter at the national convocation to be held in New Orleans in the near future. He will spend an entire week in attending the meetings and conferences.

Frosh Co-op Class Elects Officers; Olson, President

Mr. L. J. Lease, coordinator of the co-operative courses, called a meeting of the freshman co-ops on Monday, February 28. The purpose of the meeting was to form a class organization and elect class officers.

M. Lease spoke briefly preceding the election. He related some of his experiences with leaders in industry, concerning the co-operative courses. He said that the co-op courses could fill a long-felt need in industry for far-sighted engineers who know their business from the ground up.

The election was then held and the following were selected to lead the group: Kenneth Olson, president; Robert Warner, vice-president; William Skene, secretary; and William Dienhart, treasurer.

Night Students Elect Permanent Officer

Walter Koch, recently elected president of the Evening Division Student Association, assumed the reins at the first executive meeting of the Division held last Saturday. A membership drive was formulated which should, at its conclusion, bring practically all of the 2,000 night school students into the fold.

The first steps toward this end will be the dissemination of Division news and the distribution of membership cards. A fee of fifty cents will be collected from each member to cover incidental costs of propagation. Probably one dance will be included in the forthcoming program of events.

The officers recently elected are as follows: W. E. Koch, president; A. Rulis, executive vice-president; H. A. Lynette, secretary; and Leo Faltelson, treasurer. The divisional officers also elected at the same meeting are, for the Monday-Thursday section: R. J. Wnukowski, vice-president; C. Bielko, recording secretary. Elected for the Tuesday-Friday section were: A. L. Simandl, vice-president, and J. Sabo, recording secretary. T. Deuser and W. Cook were appointed to the membership committee. At some future meeting the other three vice-presidents, provided for in the constitution, will be elected.

Co-op Club Arranges Second Annual Dance; Rhythm by Prindl's Band at Graemere

The dance committee of the Co-op Club has completed the details of the second annual Co-op Club dance, and bids will be on sale this week. The date selected is Friday, April 1st, and the place is the beautiful grand ballroom of the Graemere Hotel, at Homan Boulevard and Washington. The club was fortunate in obtaining the services of Mickey Prindl's fine orchestra. Mickey features two talented soloists, so a highly enjoyable evening of dancing is in store for all who attend.

Bids will be on sale by the middle of this week and can be obtained from club members or from Miss Alberta Haw in Mr. Lease's office. The price is \$1.50, and the number of bids is limited.

Prizes of one bid each will be awarded the two students who submit the first and second best posters advertising the dance. These should be submitted before the end of next week.

Frat Council Passes on Freshmen Week with Decisive Vote

Freshman week, a combined orientation and fraternity rushing week for incoming freshmen, was voted upon and passed by the Interfraternity Council when they held their regular meeting last Wednesday evening at the Triangle House. This clinching vote had been deferred for months due to the opposition of several of the fraternities. The final vote was seven to one.

A bill was also suggested giving the Interfraternity Council an operating fund. At the start of each year every fraternity member and every pledge will pay fifty cents dues to his house which will turn it over to the Council. This action gives the Council power to act on decisions without special assessments from each of the fraternities. It enables cups and trophies to be purchased for interfraternity competitions, and it will also go toward the publishing of the fraternity handbooks.

The freshman week as it is planned will occupy the first week before school in the fall semester. The first day will probably be devoted to registrations and psychological examinations. The fraternities will sign the freshmen during the first days and have the rushing dates during the rest of the week.

At the next meeting to be held at the Rho Delta Rho house, the final details of the freshman week will be completed.

Armour to Sponsor Midwest Conference on Power April 13-15

The Midwest Power Conference will be sponsored by Armour Institute of Technology with the cooperation of six state universities, from April 13 to April 15. Headquarters for the conference will be located at the La Salle Hotel. L. E. Grinter, head of the Civil Engineering Department and dean of the graduate school at Armour, is the director of the conference. Stanton E. Winston, of Armour's Mechanical Engineering Department, is Conference Secretary. In former years, starting with 1926, the conference was under private direction, but in the future will be directed through the sponsorship of Armour. The state universities cooperating are Iowa State College, Purdue University, State University of Iowa, University of Illinois, University of Michigan, and the University of Wisconsin. Local and national engineering societies will also cooperate.

The first meeting of the conference, on April 13, will feature lectures by C. F. Hirshfeld, Philip Swain, A. H. Lovell, and T. C. Poulter. There will also be group conferences and a smoker with entertainment. April 14 follows with conferences on stationary power plants and power measurements. Before luncheon, lectures on valuation of power plants will be given. Following luncheon, conferences on metals and power plant operation will be offered. Lectures on hydropower will be next, followed by an informal dinner. The last day will feature inspection trips to Armour Institute and the Carnegie-Illinois Steel Company.

Rosenwald Museum Opens West Wing

Prof. Spencer's Models on Exhibition

One of the greatest scientific and industrial museums of the world became a step closer to completion, when two miles of exhibits in the west wing of the Rosenwald Museum of Science and Industry were formally opened Tuesday, March 1.

The opening ceremonies, which were attended by many prominent men, were presided over by chairman Rufus C. Dawes, president of the Century of Progress, and Dr. Phillip Fox, director of the museum. Members of the Armour Tech faculty who were present were acting Pres. H. T. Heald, Dean B. B. Freud, Dean L. E. Grinter, Dr. L. R. Ford, Dr. E. H. Freeman, Mr. J. G. Potter, Professor W. A. Spencer and Mr. G. E. Ziegler.

A feature of the new exhibits is a well selected group of mathematical models designed and built by Professor Spencer, impressing upon the mind vivid picture of type curves, areas, surfaces, and solids. This group of models is unique in materials and design. Tempered prestwood, plastics, chromium, and silk thread, coupled with bright colors make the models distinctive. Other exhibits include displays, many of which were on exhibition at the Century of Progress Exposition.

Professor Spencer's models were on exhibition, from July to October last year, at Columbia University in New York. These same models were on exhibition at the meeting of the American Association for the Advancement of Science and Associated Societies at Indianapolis Dec. 27-30.

Senior Chemicals to Tour Packing Plant 9:30 Today

At 9:30 a.m. today, the senior chemicals will visit the subsidiary of a large packing concern. The subject discussed will be "Fats and Oils." The Economy Fuse and Manufacturing Co. was host to the senior chemicals last Thursday. They were shown how fuses having carrying capacities of one to one thousand amperes, are manufactured.

Honoraries Arrange Banquet for March 15

One week from tonight the honorary fraternities will hold their inter-honorary banquet at the Swedish Club. The dinner will be a combination smorgs-bord and dinner.

In charge of this banquet will be the inter-honorary council composed of H. J. Bodnar, Tau Beta Pi; C. K. Nauman, Pi Tau Sigma; J. D. Sheehan, Sphinx; M. Zar, Chi Epsilon; N. K. Anderson, Phi Lambda Upsilon; G. Palka, Eta Kappa Nu; L. B. Parker, Salamander; S. Gryglas, Pi Nu Epsilon; and R. A. Kliphardt, Scarab.

The council will meet this week to complete plans and discuss fully the arrangements of the banquet.

Plans Completed for Dad's Night Banquet

Plans are nearing completion for the second annual Dad's Night banquet, to be held the evening of March 30 in the spacious Mediterranean room of the Lake Shore Athletic Club, situated on the Outer Drive, north of the Furniture Mart.

The affair, beginning at 6:30 p.m. with a general get-together between the fathers and sons and being followed by the dinner at 7 o'clock, will afford a good opportunity for dads to meet other men who have sons at Armour, and to get acquainted with the professors and instructors who are shaping their sons' careers.

Speakers will include acting president H. T. Heald, former alumni, and some of the fathers themselves. The dinner will be made more enjoyable by groups singing. Afterward, anyone may, if they so desire, tour the entire club. The evening will be climaxed by a smoker, at which time those present will be able to talk with one another informally.

Faculty members, as well as the students and fathers, are cordially invited to attend the second annual Dad's night. Tickets will go on sale soon at \$1.50 each.

Prof. Penn, Group Leader, at U. of I. Survey Conference

Last Friday and Saturday, March 4 and 5, a surveying conference, sponsored jointly by Department of Civil Engineering of the University of Illinois, and the Illinois Society of Engineers, was held at the university.

The conference, attended mainly by licensed surveyors of the State of Illinois, had a representative from Armour Institute in the person of Professor J. C. Penn of the civil engineering department. He was the leader in the discussion of the new Registration Law and other phases of land surveying. Other important discussions dealt with recent happenings in the fields of land, highway, railroad, and topographic surveys.

Interesting discussions were given on statewide plane coordinates, which take the higher mathematics out of precisely controlled surveys. Talks were also presented on the latest methods of aerial photographic surveys.

Traction Authority to Talk at W.S.E. Meeting Friday

Next Friday at 10:30 in Room B-Mission, the Armour Chapter of W.S.E. will present Mr. Robert Kingley, director of the Chicago Regional Planning Board on "Regional Planning in Chicago."

Students in all departments will find the lecture of exceptional interest because of the relationship of the subject matter to the current traction problem in Chicago.

Among the many interesting phases of the subject will be a discussion of the proposed super-highway for Congress street.

It is generally known that Chicago is far behind New York in that we have no elevated highways to speed up transportation to the outlying districts of the city.

New Frosh Class Brings Enrollment to All-Time High

Mechanicals Lead Other Departments in Number

Information made available this week from the registrar's office revealed that 75 freshmen entered Armour in February, bringing the day school enrollment at the present time to 972. This is the largest enrollment in the history of the school. Upward trends were exhibited in all departments with the mechanical and chemical departments leading. The latter department showed the greatest single increase when approximately one third of the number entering in February, signified their intention of becoming members of the chemical engineering department.

Chemicals Next

The mechanical engineering department leads the list with an enrollment of 295, followed closely by the chemical department with 264.

Other enrollments are electrical engineering 158; civil engineering, 95; architectural, 84; fire protection engineering, 54; and engineering science, 16.

Enrollment by classes showed that there are a total of 324 freshmen. This is the largest freshman class ever enrolled at the Institute. The sophomore class has 262 students also an all time high. There are 166 third year men and 158 seniors enrolled. Miscellaneous enrollment revealed 44 part time students and 18 graduate students.

Upward Trend Revealed

Other interesting data compiled by the registrar's office since September 1920 revealed the average loss of enrollment of each class per semester; the per cent of decrease between the first and second semester is 9.8%; between the second and third semester, 6.9%; between the third and fourth semester 5.7%. The largest percentage decrease occurs between the sophomore and junior year with a loss of 14.9%. Between the fifth and sixth semester the reduction is 1.2%; between the sixth and seventh semester 9.4%; and the seventh and eighth semester, 2.3%.

Statistical data of the total registration each year since 1926, had shown only a slight trend upward. Up to 1926 the enrollment increased to an average enrollment of 750 students. From 1926 to 1935 it had gone upward to an average of 800. This last year number has been the peak with almost 900 students for the September enrollment.

The figures given in the above data are exclusive of the students enrolled in the cooperative course. The cooperative students number well over

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R. Berger '35 Leads Oil Venture in Persia

Chief operator of the Anglo-Iranian Oil Company will be the new title of Richard F. Berger, Armour chemical engineering graduate of 1935, and brother of Edward C. Berger, senior chemical student. Mr. Berger will leave Monday for his new post of activities at Abadan, Persia, at the head of the Persian Gulf.

He obtained his bachelor's degree in '35, and his master's degree in '36. The subject of his master's thesis was, "Heat Transmission in a Gas Fired Furnace." At the conclusion of his stay at Armour, he took a position with the Universal Oil Products Company. This company sold a patent to the Anglo-Iranian Oil Company and Mr. Berger will supervise the installation and operation of the new procedure.

He will travel by train to New York, by boat to London, taking a plane to Abadan. The rich oil fields of Persia have recently been subjected to a more thorough exploitation, the control of this and other Anglo-Persian companies consequently. A wide field of activity has been opened to chemists and chemical field.