



Joint Assembly Meets Success

Over 800 Hear Dr. Thomas Describe Electrical Phenomena

By W. Laube

In a joint assembly of day and night students last Saturday, Dr. Phillips Thomas of the Westinghouse research laboratories gave an enlightening demonstration on "Adventures in Electricity." This was the first of a series of assemblies whose purpose is to further fellowship between day and night divisions.

By 2:30 the Assembly Hall had been prepared for the occasion with a public address system and a demonstration table on stage, full of conglomerate apparatus. The hall was almost filled as the speaker was introduced.

Describes New Air Filter

"The up and coming generation is a peach of a set of people," he said, "but problems are coming up with them." Solving these problems in the laboratories has resulted in this apparatus.

Mechanical air filters may remove 90 per cent of all air impurities, but the harm done is done by the other 10 per cent. Filtering by the Cottrell process (precipitation of all impurities to a grounded plate after charging them to 100,000 volts) removes almost 100 per cent of the impurities, but is too massive for practical use. The new filter works on the same principal, but here the air is forced between alternate grounded and charged plates, which are much closer. This arrangement solves all the difficulties at once, and increases its efficiency as well.

Shows Marvel Magnet

A new alloy of aluminum, nickel, and iron was discovered by accident in Europe. It proved to be as brittle as glass, and pieces retained almost 100 per cent flux density permanently when magnetized. A sample one pound magnet which lifted over 20 pounds was shown. A stroboscope was demonstrated, which revealed a rhythmic design in splashing water. A photoelectric relay was also shown.

An Ignitron tube, by which enormous alternating currents can be accurately controlled, was demonstrated in a new use. A condenser discharging through the tube causes a brilliant flash which lasts for one-millionth of a second. If a wire, connected so as to prevent the discharge, is broken by a swiftly moving object, the flash will come quickly enough to see it, even though it might be as fast as a bullet. This was demonstrated with a rubber ball shot from a carbon dioxide gun.

Secretaries of student fraternities, clubs, classes, and other organizations are requested to call at the Registrar's office for letters addressed to them by Associate Dean Tibbals. Information about the various school organizations is being collected.

Mathematical Wizard Covers Four Year Education in Quarter Book

By R. Perry

It must be essentially a waste of time, and basically it will no doubt wound many industrious students, to learn of the deception perpetrated upon them by the school fathers in prescribing four years to adequately cover the principles of an engineering education. It was only last week that the scales dropped off, the wool was removed, and many were enlightened by the purveyor of a pamphlet guaranteed to ease the mental travail inherent in arithmetic calculations. Notwithstanding the fact that the audience happily chorused the answers to his pet problems before he could illustrate how speedily a solution could be reached with the short cuts, he stands as a symbol.

Clad in the robes of a messiah and carrying aloft the billowing flame of the torch of wisdom he shall return, and having returned, will his library consist of "Shortcuts to Arithmetic"?

Players to Present One-Act Play Nov. 19

For their annual fall production, the Armour Players will present "Where the Cross is Made", a one act play by Eugene O'Neill, in the Mission auditorium at 10:30 Friday, Nov. 19.

Scenery and properties will be in charge of members of the Armour Players, and with the exception of one, all members of the cast are Armourites. Mary Russo, who is appearing in a current Hull House production, has the feminine role. Students who saw Miss Russo in "The Red Robe", and "Waiting for Lefty", will welcome the opportunity to see her again.

Students may purchase tickets from any member of the dramatic society for ten cents.

Fraternities Plan Rushing Reforms

New rushing rules was the topic discussed at the Armour interfraternity council dinner and meeting held last Wednesday evening at the Delta Tau Delta house and it was proposed to have the new rushing week, a week before school opens, to be called Freshman Week. The week will comprise the following activities: registration, orientation tests, group meetings and group assemblies, and also rushing, which will take place in the latter part of the week.

Those present were the interfraternity council, which consists of the head officer of each fraternity, and Professors S. M. Spears, W. B. Fulghum and W. J. McLarney, who are the faculty advisers. The host for the last meeting was Pi Kappa Phi. The next dinner and meeting will be held at the Phi Kappa Sigma house next Wednesday. A dinner and meeting will be held at a different house every two weeks on Wednesday.

Dr. Poulter to Speak On Pressure Effects

Dr. T. C. Poulter will speak at a dinner meeting before the Chicago Section of the A.S.M.E. on Nov. 19 at the Naval Reserve Armory. The study and application of high pressure phenomenon and a resume of Byrd's last Antarctic Expedition are the topics which Dr. Poulter will cover in his talk.

His main topic, that of high pressures, will deal with the effect of high pressure on matter, compression of water to half volume, and changes in composition of matter while under high pressures. Dr. Poulter has reached pressures of 1,500,000 pounds per square inch. The explanation of the methods used in this research work is to be supplemented by lantern slides. The actual objects which he subjected to these enormous pressures will also be shown.

Dr. Poulter was asked to speak also of his experiences at the South Pole.

Heald to Speak at W.S.E. Meeting

Dean H. T. Heald, acting president of the Institute, is scheduled to speak at a meeting of the Engineers' Council for Professional Development next Thursday evening. The meeting is sponsored by the junior engineers, and will be held in the W.S.E. rooms at 205 Wacker Drive, 12th floor, at 7 p.m.

Dean Heald will discuss the work of the E.C.P.D. with particular reference to its interest to junior engineers. Some of the ways in which the junior engineers may participate in the program of the Council will be pointed out.

The E.C.P.D. is a conference of engineering bodies organized to enhance the professional status of the engineer through the cooperative support of those national organizations directly representing the many different phases of an engineer's life. The E.C.P.D. carries out the work of improving the engineer by selection and guidance of those who seek to enter engineering schools, formulation of criteria for engineering colleges, encouragement of training of the young engineer, and recognition of engineers who have met suitable standards.

J. R. Van Pelt, Jr., past president of the W.S.E., will supplement Dean Heald's address. The subject should be of interest to all engineers, and students are cordially invited.

Students Take Initiative in Student Union Drive

Plans have been developed for several years to use Mission Hall partly or wholly for a Student Union but no motion has been made to carry the work through. Now the student body is taking the initiative and will promote a plan for the new Student Union.

By way of the TECH NEWS, a campaign has been inaugurated to draw student interest. Work of organization will be carried on under the guidance of student leaders. Most likely, C. W. Dunbar, president of the A.T.S.A. and the TECH NEWS editors will form a nucleus of organization.

Drafting Room to Lounge

It is planned to change Mission Hall into a Student Union. The present Civil drafting room would be converted into a lounge for the student body with plenty of reclining chairs and light reading material. Other class rooms in the building would be remodelled into offices for the alumni association. The possibility is seen of moving the kitchen to one end of the ground floor and forming a large dining room which might be used for all student banquets.

Campus Club to Move Into Newly Decorated Rooms

The Campus Club will move into its new quarters on the third floor, first entrance Chapin Hall this week pending the completion of the remodeling program of the rooms by the club members. At their first meeting officers for the coming year will be elected and a program will be organized for the season.

Coincident with the election will come a determined drive for new members. The club provides lounge, study room, and recreational facilities such as a ping pong table, radio, and a pool table for its members. The organization is entirely social and all students at Armour are eligible for membership and invited to join.

Students interested in becoming members of Armour Tech's Campus Club are invited to visit the rooms and become acquainted with the members.

Faculty, Student Delegates to Visit National A.I.Ch.E. Meeting at St. Louis, Mo.

Twelve seniors, several juniors, and two faculty members, Professors McCormack, and Kintner, are planning to attend the national student meeting of the A.I.Ch.E. at St. Louis, Missouri, next Monday and Tuesday. Here students of chemical engineering from colleges all over the country will meet, exchange ideas and experiences, and learn many things about their future profession that cannot be adequately handled in the classroom.

Because of the wide variety of chemical plants in the district, two plant visits of special instructive value have been selected. The first plant to be visited will be the Monsanto Chemical Company on Monday, November 15. Here the student members will see the company's new pilot plant, in which are consolidated the various essential steps between laboratory and full scale production. The plant provides excellent facilities for these steps, fulfilling a three-fold function: research, semi-plant, and preparation for full scale installation.

The second plant to be visited will be the brewery of Anheuser-Busch Inc. on Tuesday. In this plant the procedure and equipment used some twenty years ago may be compared with modern engineering methods.

After the dinner to be held at the Kings-Way Hotel on Monday and the luncheon on Tuesday, several outstanding chemists and chemical engineers will be heard.

Reverend Stewart to Address Armistice Day Assembly on Thursday

Five to Pick New Armour President

At the meeting of the faculty committee last week, Professor McCormack and Professor Grinter were elected to serve on the committee of five, to select Armour Institute's new president. Three members of the board of trustees, E. D. Griffenhagen, B. E. Sunny, and C. S. Davis will act jointly with the two professors.

Until a new president takes the place of Dr. W. E. Hotchkiss, Dean H. T. Heald will act as executive officer of the Institute and occupy the corresponding offices on the 2nd floor of Main. It is expected that he will act in this capacity for at least six months. Dean Heald has been with Armour Tech since 1927 when he came here as an assistant professor of engineering education.

Assistant Dean C. A. Tibbals is moving his headquarters to the office formerly used by Dean Heald.

A.S.M.E. Head Lectures Before Armour Branch

Mr. James H. Herron, president of the American Society of Mechanical Engineers, spoke to the Armour student branch of the society yesterday at a special meeting held at 11:30 in the assembly hall.

Mr. Herron, who is touring the country speaking before the various branches of the society, discussed the society's affairs, explained the advantages of membership in the organization, and pointed out its numerous activities.

The prominence of Mr. Herron in the engineering world is evident from the fact that after receiving his M.E. degree at the University of Michigan he quickly rose from apprentice to draftsman and eventually to the head of an engineering firm which bears his name. He is inventor of the air compressor inlet valve unloader and other devices for use with air compressors and metallurgical furnaces. He has been an active member of the A.S.M.E. since 1917, his work being connected with the Cleveland chapter. Previous to his election to presidency he was vice-president for the year 1934.

Prof. Harris to Give Slide Rule Lectures

At last Friday's meeting of the Armour Tech Math Club, it was announced that Professor Harris of the mechanics department will deliver a series of talks and demonstrations on the use of the slide rule. Under classmen, sophomores especially, who are bewildered at Mr. Harris' lightning-like slide-rule calculations will have the opportunity to gain a thorough insight of the intricate manipulations this instrument demands. The exact date of these meetings will be announced soon. The lectures by Professor Harris will be similar to the popular talks he gave last year before the Math Club.

President A. Zarem of the Math Club led last Friday's meeting, which was held in Science Hall, through a ten minute business meeting before continuing his talk of "Tricks in Mathematics" begun at the previous meeting. Members present at the meeting voted for dues of twenty-five cents a semester. Zarem expressed his desire to see more student speakers addressing the group. Invitations have been extended to several prospective outside speakers. Attention was called to the coming mathematical exhibition to be held at Adler Planetarium within three weeks. Professor Krathwohl has asked that Armour's student interested in mathematics arrange an interesting display for this exhibit. Progress is being made in this direction by members of the Math Club.

Glee Club Also to Participate in Ceremonies

Right Reverend George Craig Stewart will address the Armour student body next Thursday morning at the annual Armistice Day assembly in the Mission at 10:30. The Musical Clubs will also participate in the assembly and make their first appearance of this semester.

The Right Reverend Stewart is Bishop of the Diocese of Chicago of the Protestant Episcopal Church and in addition to being a religious leader, he is an outstanding citizen, lecturer, author, and educator. He is a regular speaker at Princeton University, Northwestern University, and the Western Theological Seminary.

He received his B.A. degree and his D.D. degree from Northwestern University, the L.H.D. degree at Kenyon College, and the S.T.D. degree at the Western Theological Seminary. Bishop Stewart was ordained a member of the Methodist Episcopal ministry in 1900, and soon rose to the position of rector of St. Luke's Chapel in Evanston. During the World War he was an active chaplain; and was consecrated a bishop in November 1930.

Bishop Stewart is a trustee of Northwestern University and the Western Theological Seminary. He is the author of numerous popular books including *The Victory of Faith*, *The Face of Christ*, *The Call of Christ*, and many others dating from 1911 to 1935.

New Laboratory Now Completed

Investigation of Insulating Materials to Be Conducted

Continuing its active expansion program, the Research Foundation is preparing to open an Insulating Material Research and Testing Laboratory located on the second floor of the Research Foundation Building under the direction of Professor Peebles, assisted by Dr. Carl Anderson.

Room Heavily Insulated

The laboratory proper consists of two parts, the constant temperature room, and another room for preparing sample panels and sections. The constant temperature room is twenty feet square and ten feet high. The walls and ceiling of the room are lined with two layers of two inch cork insulation.

Under the cork insulation is buried a maze of wire leading to seventy thermocouples, which are located in the walls, ceiling, and floor of the room. These wires lead to a master control panel located outside the room. This panel will enable an observer to determine the temperature of any part of the room exactly, at any time. In order to simulate weather conditions two refrigerating coils will be suspended from the ceiling, and heating units will be placed on the floor.

Can Erect Entire Wall

With a room of this type, full size panels may be built for testing purposes. Roofs of different types and entire walls can be easily erected in the testing room. The cooling units on one side of a panel, and the heating units on the other will provide a wide range of temperatures for testing the efficiency of insulating materials. Cross sections of the panels will be equipped with glass. Since temperature effects can be accurately observed by the condensation of water vapor, the insulating qualities of the material may be observed through the glass.

The laboratory will be serviced by an I-beam trolley furnished with a one ton hoist. In this manner all types of material can be handled with ease. The first type of work to be undertaken in the new plant is the testing of stove insulations.