



Electrical Wonders Shown Friday At General Assembly

Dr. Phillips Thomas Gives Baffling Demonstration

With the coming of Dr. Phillips Thomas of the Westinghouse research laboratories to Armour Institute next Friday, the first miracles of a startling new scientific era will flash briefly before the eyes of the Armour students. And "flash" is no exaggeration, for among other wonders this scientific expert will bring from behind the scenes of a great research laboratory into the Armour auditorium at ten o'clock, a tiny two-inch lamp which casts a brilliance equal to one-fifth the sun's surface brilliance.

Formerly at Princeton

The Institute's distinguished visitor, has had a wealth of experience both in educational and practical scientific circles. He is a former instructor at Princeton University from which he received his doctor's degree, and has been associated with Westinghouse Electric & Manufacturing Company since 1912. Five years of his career have been engaged in numerous engineering developments in the initial design of capacitors and various insulation problems. Dr. Thomas is the inventor of the ultra-audible microphone and glow discharge microphone used by KDKA and KYW in 1923-24, an important step in the development of studio broadcasting. Of late he has participated in the research and development of electronic and light sensitive devices of all kinds including many applications of what is popularly called the "Electric Eye." In addition, Dr. Thomas has made numerous contributions to scientific literature and is a member of the A. I. E. E. and of the American Physical Society.

Illustrating his lecture with demonstrations only of devices that are already finding practical application in the world of today, Dr. Thomas will talk on "New Horizons of Science."

Black Light Display

Invisible black light will be harnessed. (Continued on page four)

Class Head to Be Elected By Sophs This Fri.

On Friday of this week when the Sophomore Class elects its officers the stormy question of just who will lead the senior underclassmen will have been decided. The smoke of the petitioning battle will clear away on Thursday noon, the dead line for all nominations, enabling the committee in charge of election activities to investigate the validity of the petitions.

To avoid confusion it has been officially announced by the committee that each petition blank must contain in addition to the prospective officer, of which there are six, the names of twenty-five different members of the Sophomore class as endorsers.

Steering Committee

Members of the steering committee E. R. Ther, Richard Talcott, and Sam Fina as well as Earl Huxford and Warren Umbright who will organize and tabulate the results for the election meeting on Friday morning, have indicated that the nomination for the coveted position of president, is very closely followed by that for A.T.S.A. representative, whose influence and power in affairs financial and managerial, has been increasingly large. Positions for the vice-president, and treasurer, together with that of secretary and social chairman are more or less evenly contested.

Meeting Postponed

Because of the important school activities necessitating the hour on Friday morning usually devoted to class meetings, it is imperative that the Junior Class meeting scheduled for this week be postponed indefinitely. Frank Pfeffer, acting president, issued the request that members of the Junior Class watch bulletin boards for notices on the deferred short forthcoming meeting.

Eye Men Hear About Lithography Process

Members of the Armour Eye learned of some new phases of commercial photography last Friday evening in the Student Union when Joe Meyer of Rightmire Berg Co. spoke on Photo-Lithography. His talk was accompanied by a display of samples, and demonstration of some processes used. Following the talk, Alfred Wong showed some of the natural color shots he made last summer of the New York World's Fair.

Salon in November

As part of the Armour Eye program for this semester a salon is planned which will take place about the first of November. Every member is expected to enter at least two prints for the judging which will be done by several well-known photographers. Best prints will be exchanged with those other members of the Associated Camera Clubs of the Chicago Area, and will be exhibited in their salons.

Polaroid Talk at 11 Tomorrow

"Polaroid", fascinating new light polarizing material, will be the subject of a lecture, sponsored by the Armour branch of the American Society of Mechanical Engineers, before the student body tomorrow, at 11 o'clock, in the auditorium. Dr. Martin Grabau, Manager of the Technical Division of the Polaroid Corporation will present an illustrated lecture covering applications of the recently developed product. Dr. Grabau, a graduate of Harvard, was an instructor of Physics at Harvard and became associated with the Polaroid Corporation in 1935.

Classes Excused

Due to the large attendance at last year's lecture, given by Dr. Wheelwright, one of the pioneers of the Polaroid Corporation, it was deemed necessary to hold the lecture in the auditorium. The wide-spread interest of the subject to students of all options, has prompted the Dean's office to excuse all classes that hour so that all students can attend the lecture.

Show Applications

The lecture will start with a brief review of the nature of light polarization and a description of the new synthetic material known as "Polaroid". The remainder of the lecture will be devoted to a survey of the applications of polarized light. As examples of the uses to which Polaroid has been put, applications are found in automobile headlight intensity control, sun glasses, photography, industrial inspection lighting, advertising displays, stress analysis and the unusual three-dimensional motion pictures.

Orcutt Gives Eye Examination Free

A series of eye tests, instituted last year by Mrs. A. C. Orcutt, will be offered again this semester to Armour students. The purpose of these tests is to help students discover any defects in their sight, which might be corrected by proper care.

These tests are not intended to be a complete visual check, but are designed to find the general defects in eyesight. If serious discrepancies are discovered, the student will be advised to consult his own oculist.

Use Telescopical

Examinations are to be made with the telescopical, a modern development of the stereoscope. Different cards, designed to fathom the discontinuities in the individual's eyesight are shown to him through this instrument. After completion of the examination, Mrs. Orcutt will summarize the results and make definite suggestions to the student for further treatment.

Although the tests will be required only for entering students, the service is extended to all other students. Appointments must be arranged with Mrs. Orcutt, who has offices in Chapin Hall.

A Message from the Personnel Department

To the Students of the Undergraduate College

"No, I don't hire graduates from that school," said an employment manager recently.

"Why is that?" asked the company president. "I thought you were a graduate of that school yourself."

"I am, and I'm not proud of it. In my day many of us cheated our way through. I did some of it. It left an unclean feeling in me—some sort of stain that I can't forget. We thought we were smart at that time—putting something over on the pros. Now I know we were just covering up our weak spots. I have tried to make up for it ever since. I understand that cheating is still done at that school. We don't want those weak spots in our plant."

This is the report of a real conversation, but not about Armour.

Another industrialist said, "Cheating in school is a kind of scholastic racket. One who runs away from work in that way will not be an honest employee or employer. Business doesn't need him."

Recently an Armour faculty member sent the following question to employment managers in twenty large plants: "What four personal characteristics, ranked in order of importance, do you consider necessary for department foremen and supervisors?" In 90 per cent of the replies "honesty" was ranked first. "Cooperation, or ability to get along with people" received second place. No one actually possess the second without the first. They are inseparable.

In any sizeable group of people are some dishonest members. In any large group of students some cheaters will be found. However, in some colleges, (Princeton and Washington and Lee are examples) student opinion has practically wiped out cheating. A student seen by other students to cheat is so ostracized by his confreres, is left so utterly alone, is so shunned, that he can't stand the pressure of social opinion against him and disappears from the campus over night. A similar condition obtains in the College of Engineering at the University of Michigan.

Armour is pleased to feel that student cheating is not extensive in her classes; yet thoughtful and strong members of the student body express the opinion that there is too much of it, and that students who don't want to cheat are penalized in the matter of grades (which are usually comparative), by the weaker student who, by dishonest methods, hands in a better paper.

In order to protect the honest efforts of students, to cooperate with their request for help, and to promote fairness, the faculty, last year, appointed a committee to study the matter. The experiences and methods of other colleges were investigated, and the opinions as to the extent of cheating at Armour, its causes and cures, were obtained from many students and alumni. A brief summary of the findings is:

There is more cheating at Armour than the student body as a whole wants. In a very few courses it is pretty general, either because the demands of the course are in excess of average ability or because a few weaklings take advantage of being "put on their honor" and so everyone must cheat to obtain eventual fairness. This situation is rare. Most cheating is incidental and comes from the weaklings who don't know the work and can't take their medicine. Such cheating in sports would brand a participant as "yellow."

It is recognized that remedies must come from the administration, the faculty, and, with equal vigor, from members of the student body who do not condone dishonest practices. The administration and faculty are ready to instigate at once various changes which will tend to eliminate cause and opportunity for cheating. Quizzes and examinations will be more carefully proctored, not as a device to "catch 'em at it," but as a means of protection to the honest student, who forms the vast majority. A plea is made to the entire student body to cooperate in establishing social sentiment for scholastic honesty. Students themselves should be the first to personally reproach a colleague who transgresses and to talk with instructors about better methods in various classes for upholding honorable school standards.

Because students behave like any other group of high type human beings, a minimum number, the weaker few, will respond only to coercion. To meet that contingency, a faculty committee has been appointed. Cases of dishonest practices will be brought before this committee by students or faculty members. The alleged offender and the complainant will appear before the committee, definite charges with proofs will be made before the defendant who may plead guilty or defend himself. If found guilty, in cases of freshmen, the first offense will result in a vigorous warning and a zero grade on the work in question. The second offense will mean suspension from the course with failing grade. The third offense will mean suspension or expulsion from the Institute, as one "whose presence is detrimental to its progress." With sophomores, juniors and seniors, why by this time should know how to prepare their work adequately, the warning as above will be omitted.

Any honest and clear thinking person will grant that only a weakling cheats; average or good students shouldn't have to. If they do have to, to obtain normal success, requirements must be changed. Student racketeering is not smart; it is merely evidence of mental or spiritual weakness. The skillful, consistent cheater sometimes can "get away with it," but not without character damage.

Signed: C. A. Tibbals.

Registrar Lists Students and Fraternity Scholastic Averages

Correy Lynn Plays For Arx Dance at Shawnee Nov. 3rd

Less than three weeks remain for Armour students to purchase their bids for this year's Arx Dance which is to be held at the beautiful Shawnee Country Club on Friday, November 3. The bids are easily distinguished by their unusual appearance and are being sold by fraternity representatives and members of the Armour Architectural Society, which is sponsoring the affair.

Feature Correy Lynn

Correy Lynn and his orchestra will hold the musical spotlight on the evening of the dance and those present are sure to enjoy his rhythmic style of playing. In the few years of its existence Correy Lynn's band has become very well known in Chicago, and its reputation is rapidly spreading throughout the country.

The music will have added appeal because of the elaborate surroundings of the Shawnee Club. All of the facilities of the club will be at the disposal of the dancers. Two large lounges, an open air terrace, balcony, and spacious ballroom are among the accommodations offered to Armour men at the dance.

Bids \$1.50

The committee in charge, which includes E. C. Pointek, D. A. Dodge, L. H. Reinke, and H. T. Stowell, has promised a good time to all who attend the affair. The bids are printed on gold metallic paper, mounted on a light wooden plaque. The bids are obtainable for \$1.50 and only a limited number will be sold to avoid overcrowding.

Located in Winnetka, the Shawnee Country Club is within easy reach of all sections of Chicago. All in all, with a good orchestra, location, and fine bids the Arx Dance should be a gala occasion for Armour Tech.

Human Engineering Laboratory Gives Mental Ability Quiz

Each person's ability can be broken down into a number of separate mental elements. To measure, isolate, compound and study these elements which enter into everyday human activity, and to guide a person so that he may be able to exercise to the full the powers with which he is endowed, is the sole aim of the Human Engineering Laboratory. To accomplish this a series of tests have been compiled.

Open to All

Although Glassner House is an integral part of the Research Foundation of Armour Institute, the tests are by no means limited to Armour students. No recommendations or references are required and anybody from nine to ninety can take these tests. Of course the application of the results depends a great deal upon the age and educational background of the examinee.

Within three weeks of the date of testing, reports are mailed. The brochure discusses in detail the outstanding characteristics and their significance. Results of these tests are not divulged to anyone without the permission of the examinee.

Give Characteristics

To any man, satisfied, discontented, or phlegmatic, the laboratory is able to present an inventory of his outstanding characteristics. These characteristics may disclose some hitherto neglected aptitudes and may lead to a fuller realization of one's potentialities.

The Human Engineering Laboratory is not a money making institution. The home itself was donated by the Architect's Club and any source of profit is used to further psychological research.

Camras Leads Seniors Naum Paces '41

Scholastic averages for the school semester, February to June, 1939, have been released by the registrar's office. Marvin Camras, E.E. leads the Senior Class with an average of 2.97, and the top man of the Junior Class is Lionel Naum E.E., who holds an average of 2.77. Two Sophomores, Aaron Kolom and Alfred Norwood, start this year with perfect 3.00 averages.

Classes Are Same

The relative standings for the various departments, classes, and fraternities are substantially what they were last September. The senior class, as usual, leads the other classes. This is due largely to the fact that in the first two years the men in the lower portion of the class drop out to a greater extent than the men with the better records. For the same reason the Junior class leads the Sophomore class.

In past years, the fire protects and science students usually lead the other departments in scholastic standing. This year is no exception except in that the electricals beat the science department to second place. The high standing of the fire protects is largely due to the large proportion of scholarship men in the department.

Tau Beta Leads

The honorary fraternities, lead by Tau Beta Pi the all-engineering honorary, all have averages in excess of two. Pi Tau Sigma, the mechanical honorary, is in second place. Among the social fraternities, Sigma Alpha Mu is again in first place with 2.08. Triangle, in second place, leads the social fraternities which own houses. Alpha Chi Sigma leads the professional fraternities.

The first ten men in the Senior class of this year are:

Marvin Camras, E.E.	2.97
Henry Newman, Ch.E.	2.85
John Catlin, M.E.	2.83
Francis Opila, C.E.	2.83
Alvin Winkler, M.E.	2.82
Sidney Heenan, Ch.E.	2.78
Ralph Wagner, M.E.	2.76
John Gerhardt, Sci.	2.74
Thomas Hunter, F.P.E.	2.74
Donald Sunde, F.P.E.	2.72

In the Junior class the high men are:

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Sound Laboratory Makes Noise Test

Sound, vibration, and their application to industry and public service, is the theme carried on by the Sound Laboratory of the Research Foundation. Under the leadership of Dr. Leedy, the laboratory at present is finishing a survey of the noise level values of the flush valves contained in the various water tanks found in the Institute. This study is the preliminary details for the redesigning of flush valves, which are the cause of the noises emitting from water tanks.

Vibration Measured

The projects undertaken recently are well diversified and are representative of the manner in which this particular phase of physics can be put to practical use. Probably the most important was that of measuring the vibration amplitudes for the Chicago subway, now under construction. Using an instrument that can accurately determine amplitudes varying from 0.0000006 inches to 2 inches, determinations were made under theatres, the elevated, street car tracks, freight subways and other vibration producing centers. In connection with this a noise level survey was made in the loop which recorded the various noise intensities in decibels. This work was made possible through the use of seismographic equipment similar to that used by Dr. Poulter in the previous Antarctic expedition and which is used in extenso in modern oil field prospecting.

Another application was made in a study of the properties of various iron forgings using the vibration measurements as the basis of the tests.