



Hold Election of Officers for New Branch of Society

Faculty Members to be Honored Guests

An important meeting of the Armour Branch of the Society for the Advancement of Management is planned for Wednesday, Feb. 22, at 12:20 in the Physics Lecture room. As it will be for the purpose of forming the policies and committees, it is extremely important that both the active members and all students interested in the society attend.

Last Thursday evening, the organization had an interesting meeting. After supper in the north dining hall of the Student Union the group adjourned to the west meeting room, where officers for the remainder of the semester were elected. Tom Collier was unanimously awarded the position of president; Irving Footlik, vice president; John Barale, secretary; and Bernard Oswald, treasurer.

Fallacies Explained

After the officers were elected Professor H. P. Dutton spoke on "The Relation of the Personnel Department to Modern Industry." In this talk Mr. Dutton pointed out the popular fallacy of believing that higher wages will increase business production and thereby decrease unemployment. The trend should be in the opposite direction Professor Dutton said. He proved his point by citing that the cardinal reason for losing our arms market to Germany and our cotton market to England was the high wages imposed upon the finished product. Because of the decline in foreign trade, American production decreased and relief rolls increased. If the high wages are to continue, there is little hope for immediate recovery. The wage trend, according to Professor Dutton, will be definitely downward.

Enrollment Peak Passed

Mr. Dutton also pointed out that the maximum student enrollment has been reached. At present there are many vacant seats in the grammar schools indicating that the enrollment peak has passed. This, Professor Dutton said, was reason enough for Armour Institute not to expand. Because of sickness Mr. Mason Smith, the Personnel Manager of Marshall Fields, was not able to present his talk on personnel problems.

Mechs Feature Student Speaker

Student speakers are to be featured in a new series of A.S.M.E. meetings starting this Friday at 10:30 in Science Hall. Bernard Oswald, M.E. '39, will be the first speaker and will start the series of three discussions on steam plant engineering. His talk is entitled "Modern Boilers" and will be illustrated with moving pictures. All types of modern boilers will be discussed in regard to methods of operation, efficiency, adaptability, and the various other elements pertaining to the proper selection of a boiler unit.

The material of this lecture will be augmented in the following two meetings by "Modern Stokers" and "Pulverized Fuels." The material for these three lectures is being furnished by the Combustion Engineering Corporation, New York, manufacturers of boilers, stokers, and other steam equipment.

This semester, the greater portion of the A.S.M.E. meetings will be devoted to speeches by student speakers in the anticipation of selecting a student to represent Armour Institute at the A.S.M.E. convention to be held at Lewis Institute, Chicago, this spring.

Officers of the A.S.M.E. have also announced that an inspection trip through the south-eastern Chicago industrial area is being planned for some time early in March. These plans have not been completed as yet, but full particulars will be made known in the near future.

Frosh Course Introduces New Chem Analysis

Keeping abreast with new teaching methods, Armour Tech has introduced a new system of analytical chemical analysis for second semester freshmen. The course is called semi-micro analytical analysis and is a cross between the two widely known systems, micro-analysis and macro-analysis.

Micro-analysis is the detection of the different elements in unknown compounds using very small apparatus and extremely sensitive balances. It involves extraordinarily careful and accurate laboratory methods in order to obtain good results.

Work at schools which give such a quantitative course is usually carried on in the very early hours of the morning. This is to prevent vibration of passing motor cars and other vehicles from disturbing the balances while materials are being weighed. The microscope is an important part of this work and is used in detecting slight changes in color and molecular structure of materials during chemical reactions. A centrifuge is used for precipitation of ions. The centrifuge resembles a small hand operated grindstone. It contains two or more small, tapered containers in which the tubes of materials are placed. When put in motion, the containers revolve at tremendous speed, the particles of precipitate rapidly being forced to the bottom of the tube.

Macro-analysis, formerly taught at Armour, accomplishes the same purpose that micro-analysis does, but requires different methods. Apparatus twenty times bigger and much larger quantities of materials are

(Continued on page four)

Introduce Mies van der Rohe At Arch Dinner

Professor Ludwig Mies van der Rohe, Armour's new director of the Architectural Department, is to be presented to Armour Architectural Alumni at the All Architectural Banquet to be held at 6 o'clock Friday evening, February 24, 1939, in the Union dining hall.

President Heald will preside and present Professor van der Rohe and his associates, Professors Hilberseimer, Peterhans, and Rodgers. Other architectural faculty members present will be Professors Dornbush, Mell, Harper and Krehbiel. The purpose of the banquet is to acquaint former students with the new principles and program of architectural education founded by Professor van der Rohe.

An exhibit of some of the work of the new director, which appeared recently in the galleries of the Art Institute, will be set up in the lounge of the Union. It is composed of enlarged photographs of his most famous works, including his famous German Pavillion, housing projects, early modern skyscrapers, and scale models of small and large houses executed with the finest detail and care.

This banquet is expected to rival the very impressive banquet at the Palmer House last fall in honor of the new director.

Professor van der Rohe is considered to be the most eminent professor of architecture in the world and is known as a famous architect in Europe. His associate, Professor Hilberseimer, is an authority on city planning in Europe; Professor Peterhans is an authority on photography; and Professor Rodgers is a well known American architect.

Scarab Fraternity with the cooperation of the entire architectural student body, is sponsoring this banquet, which President A. M. Richardson of the fraternity promises will be an occasion interesting to former and present students of the architectural department.

Dean Tibbals Will Attend College Personnel Meeting

Dean Tibbals leaves today to attend the meeting of the American College Personnel Association, which will convene tomorrow and continue through Friday. This association is made up of deans from American colleges as well as a number of private instructors and is concerned with problems relating to school personnel.

One phase of this year's convention will be a discussion of the use of educational tests such as those conducted by Professor Krathwohl here at Armour. Other topics of interest to the assembled members will be discussed at the meeting.

Choice of Menus To Be Offered at The Junior Formal

When the Juniors lift the curtain on their formal, March 10, there will be an abundance of excellent food, good music and gaiety. Chairman Don Charlton has completed arrangements for the eight-course dinner which offers the famous cuisine of the Congress Hotel. The menu selected is:

Supreme of Shrimp and Crabmeat Cocktail
Celery-Radishes-Olives
Consomme Cultivateur
Unjointed (half) Fried Chicken
or
Broiled Lake Trout Maitre d' Hotel
Buttered String Beans
Au Gratin Potatoes
Florida Salad-French Dressing
Ice Cream Pie
(Raspberry and Pistachio)
Petite Fours and Candies
Coffee-Tea-Milk

Dinner will be served from ten thirty on, so that a choice of main courses may be made after midnight if desired. Dancing beginning at nine thirty, will continue through the serving of the dinner and will last until one thirty. The sweet music of Griff Williams added to the tasty food of the Casino service, offers a combination that will make this year's formal the real highlight of Armour's social calendar.

Included among the guests of honor will be President and Mrs. H. T. Heald, Mr. and Mrs. G. S. Allison, and Dean C. A. Tibbals. Special tables will be arranged for party groups, and may be reserved as soon as the bids are purchased. The bids are \$5.50 and cover the cost of dinner and dancing.

Invitations are now in the hands of the social committee consisting of Don Charlton, chairman, Jack Clark, Ernest Mandel, and Gene Worcester. They may be purchased from any of these men or from the class social chairman. Don Charlton will be in the lounge of the Student Union at one o'clock every day except Wednesday, and may be contacted for bids or arrangements concerning formal dress.

The Secret of the Dead Rat, or From Where Is the Smell Coming? Phew!

By ART HANSEN

Great and spontaneous activity has beset the maintenance department of the school during the past week. Perhaps you too, dear student, have noticed this activity, the hustle and bustle in the main lobby of our hallowed halls. The grim facts must now be divulged. There's a rat in the school! Yes, we know that sometimes you call your dear fellow classmates just that, but this rat (or rats) is a true member of the rodent family of either M. Norvegicus or M. Alexandrinus, or perhaps even M. Decumanus or M. Rattus.

At last reports, the maintenance staff was still busily tearing out the walls in said lobby of Main with the undying determination to find "Brother Rat" who was either dead or dying. The casual observer, on close observation, could notice one professor after another holding his nose as he hurried past "the spot."

Munitions, Inc. was overjoyed when the tense 'phone call came in to the order desk: "Fifteen hundred of your best gas masks, capable of offstanding

Offer Two New Physics Courses

In an effort to bridge the gap between sophomore and graduate physics, the physics department has announced a new intermediate course in the theory of wave motion sound, and light. This particular course is one in a proposed sequence of five courses, the scope of which includes a further study of the main subjects considered in sophomore physics. In addition to these topics, the course as a whole investigates such advanced subject matter as rockets, planetary motion, vectorial analysis, and the application of mathematics to physical theory.

First in the series is physical mechanics, which presupposes a knowledge of differential and integral calculus and engineering mechanics.

Potter Is Instructor

Mr. J. G. Potter, who conducted the intermediate course in physical mechanics during the past semester, is conducting the course in wave motion sound, and light. He stated that his class last semester was limited to a few students because of program difficulties, the few die-hards who took the course turning up at 7:30 a.m. in order to fit it into their programs. By giving advance notice of the classes, and by proper adjustment of the hours, the department will make it possible for every student desiring to take the courses to do so.

Another new course offered by the physics department is being conducted by Mr. S. J. Black. This is a non-credit course in physics laboratory theory and technique. The purpose of this class is to instruct the students in the use of instruments, in the interest of improving the quality of their experiments, the course including the theory of precision, limits of accuracy, and other related subjects.

It is expected that this class will result in more accurate experiments, for the instructors have noticed that careless, incorrect work is due, in many cases to the students' spending too much valuable time on learning the intricacies of the apparatus.

Dance Held in Student Union by Faculty Wives

Bright lights, gay music, and charming ladies heralded the first collective dance sponsored by the Faculty Wives Club last Saturday evening. Mrs. Swineford, hostess, directed the functions of the gay affair. The dance was preceded by a dinner served in the main dining room of the Student Union.

Although functioning quietly the club has been active in the Institute for over two years. The completion of the new quarters in the Student Union affords unusual opportunities for social affairs and the members are enthusiastically planning future parties.

Musical Clubs Present Annual Concert at Goodman Theater

Dance Club Opens Coed Date Bureau

Tomorrow, during the regular meeting of the dance club, the members will make arrangements through the dating bureau for dates for the dance to be held February 24.

On February 15, the dating bureau committee was elected. The committee is composed of the executive body, with Albert Kunickis, chairman, and James Duncan and Charles McAleer, assistants.

This bureau is to be open to all members of the dance club, and a card index of all girls expressing a desire to attend Armour functions is on file. These cards contain information as to whether the girl is tall, short, blonde, or brunette, and as to the type of partner she prefers.

By becoming a member of the club at the meeting tomorrow in the West Room of the Student Union at 5:15 p.m. one may obtain a membership card which will admit him to the social and provide him with a date.

Students Requested to Fill in Questionnaire

Leading all other groups in returning the questionnaires enclosed in their grade envelopes, the seniors have a total of twenty-five percent returned. The results from the other groups are:

Junior Class	18%
Sophomore Class	16%
Freshman Class	13%
Arch.	24%
Ch. E.	16%
C. E.	23%
E. E.	18%
Sci.	31%
P.P.E.	21%
M. E.	15%

These questions are part of a survey being made by a member of the registrar's office staff in an effort to determine how the average student at Armour spends his time. There is no reason why a one hundred percent return should not be obtained since the blanks require only a minutes' time and need not be signed. Last week was the second week since the sheets were sent out and it's high time for some real results—how about it fellows?

Propose Organization of Debating Team at Armour

Armour Institute is to be represented by a debating team in the very near future, according to a recent announcement by the English department. Merrill G. Christopher and Walter B. Fulghum have been approached by many students in the last few weeks and have given their approval to the formation of a debating organization.

Many colleges close to Chicago have debating teams and are in competition with each other throughout the year, therefore locating teams to compete with should not be a difficult task.

Debating activities will give an opportunity for the use of logical argument and scientific method as taught in the present sophomore English courses. Tentative plans have been made for the formation of two teams, if the interest shown is large. This will enable the members to engage in intra-school competition.

Prospective debaters are to meet for the purpose of organization this Friday at 10:30 in room 2E of the Student Union.

Numerous Soloists To Highlight Program

Before the curtain rises on the fourth annual Goodman Theater concert of the musical clubs, to be given Thursday evening, February 23, at 8:30, the audience will be thrilled by the tumultuous strains of Bergh's great classic, *Honor and Glory*, played by an unseen orchestra.

As in the past, the program will be punctuated by the performance of several soloists. Several of these soloists will be from the orchestra and the rest are members of the glee club; all are the ultimate of Armour perfection.

The soloists are: W. H. Mashinter, violinist, who will render Rimsky-Korsakow's *Chanson Indoue*; J. D. Charlton, trombonist, who will solo in *Ave Maria*; P. H. Woods, oboe, who plays *Pale Moon*; Harold Doolittle, trumpet, who will play *Elsa's Dream*; G. E. Danforth, piano, who will offer his rendition of *Malquena*; and T. W. Yeakle, baritone, who will sing *The Red Man's Death Chant*.

Play to Packed House

It has been the ambition of the musical clubs since the first Goodman Theater to pack the house, and from all reports it looks as if this ambition is about to be realized. Practically every ticket in the house has been sold, and a last minute drive is going on to have a complete sellout.

This year the program will be entirely different from those of previous years. The program will be: Overture "Zampa".....Herold Orchestra

Creation HymnBeethoven
Silent StringsBantock
The TrumpeterDick Glee Club
Agnus DeiBizet
Elsa's DreamWagner
Intermezzo from "Jewels of the Madonna"Wolf-Ferari Orchestra

The Open RoadMallette
Hymn to the Night.Campbell-Tipton
Finale from Overture
"1812"Tschaikowsky
Glee Club and Orchestra
Intermission

InvictusHahn
Kentucky BabeGeible
Redman's Death Chant.....Bliss
Glee Club

(Continued on page two)

Robert Jaffee Wins Tau Beta Pi Contest

Robert Jaffee, former managing editor of the *Armour Tech News*, was chosen winner of the Tau Beta Pi pledge essay contest. Mr. Jaffee's story on "A Philosophy of Life" was awarded the \$5.00 prize, and is now in competition with the winners of the other chapters. In March the National Council will select the best essay and announce the winner of the \$50.00 prize.

When complimented upon his good fortune Bob said, "Oh . . . I won five bucks, but it's all gone now."

At a meeting last Thursday, the by-laws of the Armour chapter were passed and approved, and the announcement that pledging will begin within the next two weeks was made.

In 1855, at Lehigh University, the first chapter of Tau Beta Pi was born, its purpose being to mark in a fitting manner those who have conferred honor upon their Alma Mater by distinguished scholarship and exemplary character as undergraduates of engineering and to foster a spirit of liberal culture in the engineering colleges of America.

Established in 1906, the Illinois Beta chapter of Tau Beta Pi is the oldest honor organization at Armour. Membership in this organization is limited to the upper eighth of the junior class, and the upper quarter of the senior class. At present there are fourteen student members—all of whom are seniors—and thirty faculty members.

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Assemblies

It is a regrettable fact that the attendance at the school assemblies is not what it should be. Last Friday, the motion pictures which were shown in the

auditorium were seen by an audience that was only one-half what it should have been. This was in spite of the fact that the pictures were of definite interest to engineering students, were quite entertaining, and were of a sort that have proven popular here in the past. All these qualities should have made the program one of the best attended in the year. The fact that it was not seen by many students provokes thought.

Publicity is one thing which must be given to any program in order to make it a success. If it is not brought to the attention of the men, as a whole, they cannot be expected to respond. In this case, notice of the assembly was not posted on the bulletin board until the day before the meeting took place. There was no notice in the NEWS; no announcements in classes. This did not give the students adequate time to learn of the affair. The appalling lack of publicity accounts for the lack of attendance at this program, as well as at others.

That good publicity can bring a capacity crowd to a lecture was proven by the Polaroid talk, given by Mr. Wheelwright. In this case the lecture was adequately planned well in advance. The news was spread around the Institute by all available means. As a result the students flocked to Science Hall to hear what it was all about. This came about not only because the subject of the lecture was naturally appealing to men, but because it was brought to their notice in a manner which aroused their interest. Every student knew about it and wanted to attend.

If the institute officials will follow the general plan that they used in the Polaroid lecture, the attendance at the various assemblies which they plan for the students will be much better. Lack of student interest, now a serious item, will be overcome. All this can be accomplished quite simply by adequate planning of the assemblies, in advance, and then a good campaign of publicity to let the students know what is on the calendar and arouse their interest in it.

CO-OP NEWS

H. Krantz

All Co-ops take note: If you are interested in abolishing membership dues in the Co-op club, attend the meeting of the club, scheduled for Friday, February 24. Time of meeting: 10:30 A.M. Place: Assembly Hall in the Student Union. Discussion of dues and automatic membership will occupy the major portion of the time. Freshmen are especially invited, and all Co-op classes scheduled for this hour will be dismissed.

Two of the questions to be voted on at this meeting are: should dues be abolished, and should all co-ops automatically become members of the club. John Croak, 1A, president of "The Blotto Club," announces that Bob McMacken, 1A, is leading with well over 100 points. Seven blots on any other wise acceptable drawing plate

TRIANGLE

Howie Coyle's gang from the Triangle outfit finally called quits to *Hell Week* last Sunday. The five survivors were guests of honor at a swell feed thrown downtown. They probably had good appetites, if hard work means good appetites. In fact, they worked so hard that the police have hinted that they may do a little work for the state in the way of rock breaking. If the various articles brought in during last Wednesday's scavenger hunt are returned, this last item may be avoided. The new actives may be identified, if that is possible now, as Lawrence Beebe, Ed Clark, Frank Haase, John Woods, and Harry Quande.

RHO DELTA RHO

The boys atop the news room selected the lambs for the slaughter last Friday eve. A *Hell Week*, that's going to make past *Hell Week's* appear like pink teas, is being prepared by such humanitarians as Salzman and his crew of Arx cutthroats, Bi-swing Rothenberg, and the terrible Weisch. The slogan is now "The only good pledges are dead pledges." Sonny Weissman has promised to help make good on the slogan. Pins have been hung on a couple of February men and a brace of '41's. The latest additions are Edward Franks, Aaron Kolom, Nathan Iglitzen, and Marshall Newmark.

are required for entrance. Each time the black India "feather" records a point, "Blotto" must be screamed in no uncertain manner.

Ben Kallevik, 4A, in a recent discussion on the plotting of a graph for a laboratory experiment: "Well, what do you care. All we want is a few smooth curves - -"

Prof. Winston (teaching thermo to 3A's in Dr. Anderson's absence, and addressing a certain dozing pupil): "Are you sleeping?"

Student: "Not right now, but I was."
When the freshmen co-ops razed a certain instructor, the prof, ironically exclaimed: "Well, it's nice to be liked," after which one student asked, "How do you know?"

What would happen if: Bernard Domenz, 1A, lost his singing voice? "Fresh-Air" Garvey, 4A, forgot to open the windows during any one of his classes? K. J. Kleinwachter, 4A, couldn't find an audience to listen to his "Travel-talks" about Yosemite National Park? Ed Ruhe or B. J. Nigrelli, 4A's, lost his pichle deck; C. T. Streit, 3A, quit smashing up his car (the other fellow's, too, for that matter)? Andy Blaids, 4A, were bigger than Stanley Zalewa, 4A? (Stan was instrumental in badly damaging Andy's 75 cent slide-rule case).

According to the 3A Co-ops, Prof. Winston's favorite expression in asking for opinions of students is, "How do you feel, brother?" The response is usually "Not so well."

CONCERT—

(Continued from page one)

Pale Moon Logan
Chanson Indone ..Rimsky Korsakow
Maleguenia Arr. by Grofe
Orchestra
Musical Clubs Program
The SleighKuntz-Baldwin
Song of the Jolly Roger....Candisli
Glee Club
Ballet WaltzTschaikowsky
Rangers SongTierney
Glee Club and Orchestra
Alma Mater

Everything points toward this as the finest concert ever presented at Goodman Theater by the musical clubs. During the last year there has been a large increase in enrollment, swelling the number of members in the glee club to seventy-five and the number of members in the orchestra to forty-four.

For the convenience of those who bring dates to the concert, plans have been made to go in a body to one of the downtown hotels, where special arrangements have been made to eliminate the cover charge or minimum. This has been done to accommodate those who want to go somewhere nearby after the concert, but who do not want to pay the price usually charged at downtown hotels.

The Slipstick

Cleave to the slipstick; let the slapstick fly where it may.

Editor of Slipstick:

Have you heard the one about the butcher who accidentally sat on the meat grinder? It seems he got a little behind in his work.

If you can use this I know of a great many more.

Thank you,
Eejaybee.

Dear Eejaybee:

I was quite surprised to receive the above letter from you. This column will be glad to print any item which its readers think worth printing. Just drop your contributions in the Armour Tech News' Box in the bookstore. Remember the sender receives full blame.

Yours for more jokes,
Hi Yo Silver.

Help, Help, Keep this Column.

Prof. Olsen: And when Lord Chesterfield saw that death was near he gathered all his friends around him. But before he died he uttered those last immortal words—who can tell me what the dying words of Lord Chesterfield were?

Frosh class (in chorus): They satisfy.

Dr. Larkin (in Constitutional Law): In the legal world, what's right is right and what's left is the client's.

Everything that could be done to make the great unemployed meeting a success had been accomplished. A large hall and a good speaker had been engaged. When the latter arrived he seemed to be in a crabby frame of mind. Looking around he beckoned the chairman.

"I would like to have a glass of water on my table, if you please," he said.

"To drink?" was the chairman's idiotic question.

"Oh no," was the sarcastic retort, "when I've been speaking a half hour I do a high dive."

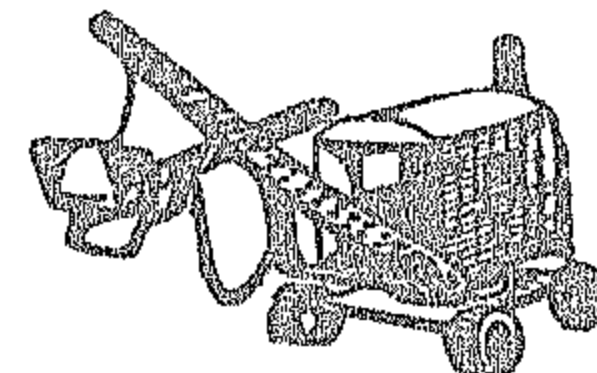
First Communist: Nice weather we're having.

Second Communist (grudgingly): Yes, but the rich are having it too.

She laughed when he sat down—
But when he played!!!

The other day Yeakle and Windblad were nodding wisely at each

Steam Shovel



Our big, broad, blushing and bold man of the week is soph ROY JACOBSEN. By the grapevine it has leaked out that the glamorous little gal named CYNTHIA which he took to the soph dance was truly only 16. Not only that, but he had to be interviewed by this Winnethka gal's momma before she would allow her daughter to accompany him. Also . . . that he had to have her home at 2:30 at the very latest. Oh, these flaming youth of today.

IT LOOKS BAD FOR CERTAIN JUICE STUDENTS, ESPECIALLY FOOTLIK. DUE TO HAVE THEIR CYCLE PICTURES TAKEN DURING PROF. NASH'S JUICE LECTURE, THE ABOVE MENTIONED STUDENT BEGGED AND PESTERED TEACHER TO LET THE BOYS OUT, BUT TEACHER SAID NO. AN ENVOY FROM THE OFFICE BROUGHT LIKEWISE RESULTS. DANNY (PIC) JACOBSEN FINALLY STEPPED INTO THE BREACH AND SUCCEEDED IN RELEASING THE CAPTIVES.

Sig (Artist Model) Moculesski had the boys, especially the seniors, in a dither last week with that art book full of photographic gems of artists models (very artistic, giving you the BARE facts). The baritone section of the glee club was in an uproar and could hardly sing a note

other and then looking pityingly at the rest of the class. When asked the "Why for?" they explained that they had just read Thomas Edison's statement that only two men in a hundred are intelligent.

Son: Father, what is a chemise?
Father: A chemise, my son, is a lady chemist.

It's a funny world. If a man gets money, he's a grafter. If he keeps it, he's a capitalist. If he spends it, he's a play boy. If he doesn't get it, he's a ne'er-do-well. If he doesn't try to get it, he lacks ambition. If he gets it without working for it, he's a parasite. And if he accumulates it after a lifetime of hard work, he's a sucker.

So long parasites,
Hi Yo Silver.

at rehearsal due to the circulation of the book (that solves the mystery, "O. G.").

We suspect RUSS (PANCHO) KCTAL uses cement instead of grease on his gears in his Chevie (or is it molasses?).

Next Thursday night is the night of nights for the glee club and orchestra. Then they will give their annual Goodman theatre concert before a rellout crowd. It will be a grand treat, providing Yeakle doesn't sound like a dying cowboy in the "Red Man's Death Chant" and that Mashinter gets the frogs out of his "cigar box." We hope to see Gromak and his mad Russian act again.

"FRITZIE" (STUMBLE) SCHULTZ HAS THE WRONG ATTITUDE ON WOMEN. AFTER THIS, HENCEFORTH, AND IN THE FUTURE HE WILL (WE BET) NOT MAKE REMARKS ABOUT CERTAIN PEOPLE'S WIVES WHILE THOSE CERTAIN PEOPLE ARE WITHIN EARSHOT, OR BE SHOT.

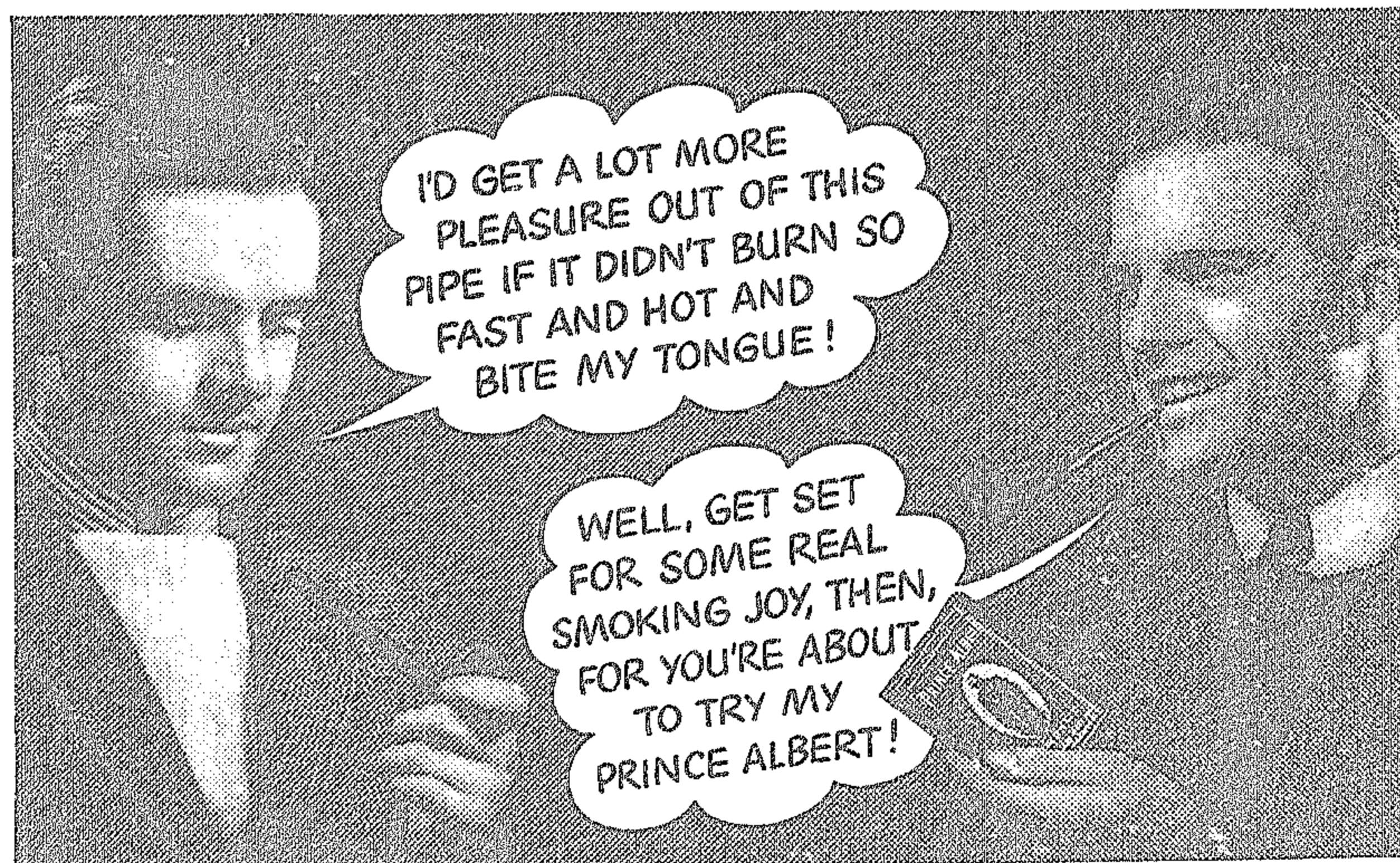
"Sonny" Weissman, the Gay Giggole of the Mission building, has promised to bring five (5) (no less) (absolutely) (yes, we said five) sizzling glamour girls to the first dance club social. Personally, we're from Missouri (and have to be shown).

Incidentally, "Sonny" volunteered to join the glee club, but his generous offer was received with catcalls and boos.

Social note:—JOHN DOYLE and DOUGLAS RIESER (the little cut-ups) were busily engaged in their favorite pastime in the lunchroom last week cutting out the CUTEST paper dolls.

As "Doc" Catlin gazed fondly on the picture of screen star Frances Drake in the Mechanical drafting room, Prof. Winston strode in. With a stern look on his face he instantly removed the picture from the wall as Doc cringed in a corner. The last fierce remark of "Brother" Winston were muttered thusly: "Hm-m-m, not bad. I think I'll hang this on the office wall.

Nothing bashful about Armourites. Consider . . . Paul Foss was observed (and we dont mean maybe) riding down to school on the Logan Square "L" the other morning with his girl friend riding on his lap all the way down to the loop (Whats her 'phone number, Paul?).



I'D GET A LOT MORE PLEASURE OUT OF THIS PIPE IF IT DIDN'T BURN SO FAST AND HOT AND BITE MY TONGUE!

WELL, GET SET FOR SOME REAL SMOKING JOY, THEN, FOR YOU'RE ABOUT TO TRY MY PRINCE ALBERT!

SAY - P.A. SMOKES COOL AND TASTY EVERY PUFF! TRY IT, MEN!

SMOKE 20 FRAGRANT PIPEFULS of Prince Albert. If you don't find it the mellowest, tastiest pipe tobacco you ever smoked, return the pocket tin with the rest of the tobacco in it to us at any time within a month from this date, and we will refund full purchase price, plus postage. (Signed) R. J. Reynolds Tobacco Company, Winston-Salem, North Carolina



Techawks Drop Pair; To Battle DeSales in Season Finale Today

Three Seniors Play Last Game

Today, at the 108th Engineers Armory, the Armour basketball squad will bring its season to a close when it faces the high scoring DeSales College of Toledo. The latter, employing a fast breaking offense and an up the floor—man for man defense, have averaged nearly 60 points a game so far this year.

Taking the floor for their last game as Armourites will be Co-Captain Ed Swanson, Bill Hoffman, and Al Kubicka while Joe Janicek and Co-Captain Paul Henriksen, the other seniors on the team, will watch from the sidelines. The latter two have been shelved by injuries which terminated their college careers earlier in the year.

DeSales Victors in Toledo

In their previous meeting in Toledo, the Ohioans won out in the second half, 51 to 35 when the Armour players tired before the constant flow of fresh DeSales substitutes. The Techawks had little trouble matching the Toledo squad in the first half until the last minute of play when the DeSales boys started throwing them in from all over to take a one point lead at half time.

In the second half, the home team opened up and using a fast cross court passing style of offense doubled the Armour score of 15 points for the period. The Techawks were distinctly at a disadvantage, being unable to cope with the new attack. However the last week has found the players analyzing the DeSales offense and setting up an appropriate defense.

Visitors High Scorers

The DeSales team can be rated second only to Detroit U. on the Armour schedule. The Toledo squad has run up totals of 82, 79, 64, 54, and 51 points in five of their games and in doing so have been able to control the ball for such a long period of time that the opposition had very few chances to score.

Probable lineups:

DeSales	Armour
Thompson, f	Norkus, f
Smith, f	O'Connor, f
Holtie, c	Swanson, c
Durst, g	Kubicka, g
Mosser, g	Scherer, g

Cardinals 29, Armour 25

Coupling deadly shooting with smooth ball handling, the North Central quint defeated the Armour five 29-25 in the Techawks final road game of the season. Bouquets for the evening's performance should go to Eddie O'Connor who played a bang-up ball game in spite of a recurring illness.

As has been tradition for the past years, the North Central game was nip and tuck throughout the entire game. Despite the fine fighting spirit the Techawks displayed, the best they could do was to finish second to their arch-rivals, the Naperville Cardinals. The North Central offense consisted of a variety of blocking plays which all reverted to the pivot-man, Keith, who, in turn, would feed the forwards.

Tiefenthal Leads Cards

North Central took the lead early when Tiefenthal drove in the center basket a pair of dribble-in shots. These two buckets were matched by Armour's new star, Ed O'Connor, who dropped in a pair of long shots. What the Techawks lacked in ability, they made up for in fighting spirit and were able to hold the superior North Central team to a three point lead at the half, the score being 13-10.

The type of play in the second half was a repetition of the first half with the Cardinals increasing their lead to four points, making the final tally 29-25.

North Central (29)	Armour (25)
Morin 0 5 0	Norkus 2 1 1
Oesterle 0 4 0	Sliva 1 0 0
Bettinger 2 1 0	O'Connor 2 0 3
Umbright 1 0 1	Swanson 4 1 2
Keith 2 0 0	Scherer 1 0 2
Stacey 0 2 2	Kubicka 0 1 4
Immel 1 0 1	Weber 0 2 2
Tiefenthal 4 1 4	
Beebe 0 0 0	
Totals 10 39 9	10 35 15



By Jim Fahey

See where the basketball team has become mathematical conscious especially Herb Sher who became engulfed with the mysteries of calculus. It seems that just before the North Central game Herb decided to do some calculus in the locker room. Engaging in a duel with a derivative, Herb didn't notice the team leaving the locker room or the attendant locking the door. Until rescued a few seconds before game time, Herb split his time between his calculus and the sending of shouts for help through the key hole.

Last week, our student union manager received a pleasant surprise when he received his professional referees license from the N.B.A. The license was very meritoriously deserved according to our source of information. Congratulations, Sonny.

Seems the flu epidemic is concentrating on Armour. Due to its devastating influences, the track team had to withdraw from the Illinois Relays when too few men were able to get in condition.

The flu didn't stop with the track team but hit the basketball squad also. Norkus spent several days abed while Eddie O'Connor, who should have been in bed, sniffled his way from one class to another. To top it off, Coach Stenger was taken down with a case last Wednesday, and although he was able to direct his team in the Detroit Tech game, it was with the greatest difficulty that he managed to talk.

Our hat goes off to Ed Swanson, who today will be playing his last game for the Armour Techawks. Eddie, while acting as the spearhead of the Armour attack, has taken several beatings under the basket and yet, stayed in there and fought

Third In Row Evens Swimmers' Record

By winning two meets in two days, the Armour Tech swimming team evened up their season's score at three all. On Thursday night the Techawks nosed out Bradley Polytech 32-30, while on the following night they whipped Kalamazoo Teachers College, 48-30. Both meets were held at Bartlett pool.

Since the last North Central affair, the tanksters have not lost a meet. Within a week they have taken North Central, Bradley, and Kalamazoo. By defying all rules and regulations, Davis of Bradley entered four events and won them all. Armour managed to win the meet by taking seconds and thirds and by winning the medley and backstroke event.

Quite a different story was unfolded Friday night when Kalamazoo paid the local squad a visit. Unlike the previous night, Armour won all events except the 100 yard breast stroke.

SUMMARIES—ARMOUR-BRADLEY TECH
40 YD. FREE STYLE Davis (B.), Radomacher (A.), Husold (A.), Time—1:17.
100 YD. BREAST Hippo (B.), Hutchings (A.), Stowell (A.), Time—1:38.4.
100 YD. FREE STYLE Davis (B.), Dodge (A.), Pettos (A.), Time—59.6.
DIVING Davis (B.), Pettos (A.), Points—59.1.
200 YD. MEDLEY Armour (Blume, Hutchings, Radomacher), Time—1:13.2.
220 YD. FREE STYLE Davis (B.), Dodge (A.), Foberg (B.), Time—2:38.1.
100 YD. BACK Blume (A.), Talcott (A.), Foberg (B.), Time—1:13.7.

SUMMARIES—ARMOUR-KALAMAZOO
40 YD. FREE STYLE Husold (A.), Radomacher (A.), Lilly (K.), Time—21.9.
100 YD. BREAST Wenger (K.), Moore (K.), Hutchings (A.), Time—1:17.4.
220 YD. FREE STYLE Dodge (A.), Royce (K.), Smith (K.), Time—2:38.3.
100 YD. BACK Blume (A.) and Talcott (A.), Colburn (K.), Time—1:33.1.
100 YD. FREE STYLE Pettos (A.), Lilly (K.), Dodge (A.), Time—1:01.4.
DIVING Blumberg (A.), Spvor (K.), Becker (K.), Points—74.8.
120 YD. MEDLEY Armour (Blume, Hutchings, Radomacher), Time—1:12.4.
100 YD. RELAY Armour (Dodge, Talcott, Husold, Pettos), Time—1:24.2.

as hard as any one else. It is unfortunate that so few Armour students were able to witness the playing of Swanson this year. If they did, maybe they'd realize that there are some fellows going to Armour who have that much desired and coveted school spirit.

Matmen Whip Herzl, Then Nose Out Purdue

Last Wednesday evening, the Armour wrestlers made a victorious invasion of Herzl Jr. College emerging victorious, 2 1/2 to 7/8. Severely handicapped by the scourge of influenza which ousted several regulars, the Herzl outfit was able to win only two bouts and had to default to Armour in the 121 lb. class.

At 128 lbs. Harrison of Armour and Potlack of Herzl fought to a tie, giving each team 1 1/2 points. Manager Ropok, at 135, easily dispensed with Kotula to add five more points to the Armour score. At 145, Hanna of Armour chased his man all over the mat but lost due to a two minute time advantage his opponent had in the first minutes of the bout. Nigrelli then took down Bell of Herzl by a decision.

Kazmierowicz Injures Foe

Kazmierowicz, wrestling at 165, made short work of Stanley by pulling his shoulder out of joint. Coach Weissman came to the rescue and put the arm back in place with no damage except a sore shoulder.

Captain Tullgren, at 175, displayed his usual ability by throwing Yablonsky in short time to give Armour another five points. The heavy-weight bout had many aspects of a professional bout and after nine minutes of emitting the fearful groans of a truly professional exhibition, Greenspan of Herzl won the decision over Pocius to give the Herzl outfit their total of 7 1/2 points.

Purdue Comes Close

Facing Purdue here last Saturday, the Techawks won 19 1/2 to 14 1/2 when three Purdue men ended their matches flat on their backs. Hanna, Till, and Tullgren were the victors by falls. The victory revenged a previous defeat at the hands of the Boiler-makers at Purdue.

128 LBS. Allman (P.) pinned Wagner (A.), 5:00 min.
135 LBS. Ropok (A.) beat Lindermon (P.), 4:45 min.
145 LBS. Hanna (A.) pinned Huston (P.), 4:35 min.
121 LBS.—Till (A.) pinned Safford (P.), 6:45 min.
155 LBS.—Tyrell (P.) beat Nigrelli (A.), decision. Time advantage 4:33
165 LBS.—Kazmierowicz (A.) and Post (P.) drew.
175 LBS.—Tullgren (A.) pinned Toth (P.), 5:25.
HEAVYWEIGHT Rossi (P.) won from Pocius (A.) by default.

Illinois Normal First Team In Tech Relays

THREE TEAMS ENTER

Although less than a week has elapsed since the last invitation to the Armour Tech Relays dropped into the mailbox, three replies of acceptance have already been received by John Schommer, Director of the Relays. Of the three entries, the outstanding telegram was that which officially entered the Cardinals of North Central, winners in last year's college division.

The honor of being the first to enter the Relays, which are scheduled for March 18 at the U. of C. fieldhouse, went to Illinois Normal last Wednesday. The third entry received was that of Milwaukee Teachers.

Universities Fail to Reply

Although no replies have been received from the universities, Director Schommer has already been promised the attendance of Wisconsin, Chicago, Northwestern, and Illinois. Several other universities have been contacted and it is believed that the division entry list may be increased from its seven of last year to ten or twelve.

Despite the rapid entry of the three colleges, the entry list isn't expected to increase materially until the last week or so before the running of the Relays. This is due to the fact that most of the places on the various teams aren't determined as yet, nor are the relay positions. Consequently the entries are held up until the team places are actually fixed.

The announcement of the entrance of North Central College into the relay guarantees the appearance, barring injuries, of the Cardinal flash, Rikli who last year paced the Red-birds to the championship in the college division. Aside from their star sprinter, the North Central team possesses few stand outs, presenting instead a well balanced outfit which garners a few points in nearly every event.

MY WORK TAKES PLENTY OF CONCENTRATION — THAT OFTEN MEANS NERVE STRAIN.

EVERY NOW AND THEN — LET UP — LIGHT UP A CAMEL.

SMOKERS FIND — CAMELS NEVER JANGLE THE NERVES.

SIDELINES

BY LEONARD ELGENSON

Spain has been the testing ground for modern weapons of war for two and a half years. The bomber and attack plane have taken the acid test. By means of high flying military airplanes the civilian population of Loyalist Spain has been exposed to frequent air raids. Bombings have not destroyed the morale of the people but seemed to strengthen and anger them against the opposing forces.

No terrific loss of life or great damage to property has resulted thus far, in spite of the fact that Madrid was subject to more air raids in two weeks than London had through the entire world war.

The effect of terrorizing the civilian populations of the large cities has worn off and the people consider the air raids as just one more unnecessary and unavoidable evil resulting from war. In fact pictures have been published in the newspapers and magazines showing residents of Madrid casually going about their business while enemy bombers fly overhead preparing to drop 500 or 1000 kilogram "eggs."

Anti-aircraft guns make it necessary for the slow flying bombers to keep an altitude of 15000 feet or more. Arguments may be presented pro and con on the efficiency of anti-aircraft fire, the facts stand that the bomber still keeps a good bit of atmosphere between the ground and itself. High altitudes are not highly conducive to accurate bombing because the various air strata may vary in velocity and direction. That is why the civilians do not run for shelter as soon as they see a fleet of enemy bombers overhead. It is not guaranteed that the observer will stay in the same spot if a bomb lands within a few feet of him.

Bombing of troops on the march is a more efficient way to damage the enemy. Since the large bomber is not highly maneuverable and must keep its distance it is not feared to any great extent. The type of machine that puts fear into the hearts of the ground troops is the dive bomber or attack plane. Flying at low altitudes it comes into sight very quickly. The sudden appearance gives the man on the ground very little warning or time to take any measure of safety.

The attack plane is a high speed airplane with extreme flexibility of control. Standard equipment includes four 30 or 50 caliber machine guns mounted at a downward angle of forty-five degrees in order to spray ground troops with lead slugs. In the fuselage or under the wings is located bomb racks capable of holding four to eight 25 pound demolition bombs. These bombs explode at the surface and spray the landscape with steel for many yards around. This equipment is used by the Loyalists against Franco. It is highly effective in surprising troop concentrations, causing a frightful slaughter with a resulting demoralization which could easily decide a battle.

CHEMISTRY—

(Continued from page one)

used. Test tubes hold 60 milliliters, while centrifuge tubes hold one to three milliliters. Precipitation is accomplished by filtering and evaporation, a long process of sometimes two or three hours. The centrifuge system of micro-analysis takes only two or three minutes at the most.

Semi-micro analysis is, at the present time, standard in only a few colleges. It was tried out here during last year's summer session, and according to Dr. Van Atta, chemistry instructor in charge of laboratory work, has many advantages over the old method, macro-analysis. It features the minute apparatus, the small portions of materials, and the general theory of micro-analysis. The work is so planned, however, as to avoid the long, tedious methods of micro-analysis without appreciably sacrificing accuracy.

Introduction of this method is expected to result in considerable money saving for both school and students. The surprising durability of the minute apparatus eliminates much breakage, a hazard which formerly played havoc with the student pocketbook. The use of small quantities of chemicals will, of course, save the school much money.

Subway Engineers Award Contracts For Second Tube

Work on Chicago's new subway is progressing rapidly. At present a pit twenty-five feet in diameter is being excavated on State Street south of Chicago Avenue. Locks are being built for pilot tubes to State street.

The second contract, which involves the work on Clybourn avenue, has been let. Out of approximately eleven contracts for the subway eight will be let by January of 1940. Two hundred engineers are employed so far. Some of the most important problems they have to consider are: protection of buildings and crossing of the river at La Salle street. The street cars run through a tube under the river on La Salle Street and it is not definitely known whether the subway engineers plan to tunnel under the tube or not.

There are surveying parties out continuously running levels before and after tunneling in order to determine whether there has been settlement of any building. Some of the curves which are necessary in order to get around the larger buildings will have a large radius of curvature in order to enable the trains to maintain a high speed. Adequate support for the elevated along Lake street must also be provided.

Excavation has been proceeding on schedule and to date no serious accidents have occurred.

Annual F.P.E.S. Smoker Held in Student Union

Beginning with cigars and sound movies and ending with ice cream and sandwiches, the Fire Protection Engineering Society's annual smoker will go down in the annals of the society as one of the most successful ever held. Under a smoke screen laid by cigars in the hands of the 45 undergraduates, alumni, and professors present, the first reel of a two reel show was flashed on the south wall of the main lounge in the new student union.

The Educational Film Company, in conjunction with the Veneer Association, presented "Forest Treasure," a story of the veneer industry. It is one of the few modern industries which must depend upon primitive methods for its supply of rare woods, which come from the inlands of Africa, Australia, India, and the Americas. Like the arms of a huge devil fish, this United States industry reaches into all parts of the world, bringing back rare woods, such as mahogany, sycamore, zebra wood, lace wood, olive wood, satin wood, walnut, and American oak.

These "diamonds in the rough" are barked and treated in a 190° F. steam bath from one to four days. After this bath they are moist and pliable enough to be sliced into veneer 1/28 of an inch thick. After these slices have been dried, they are trimmed and squared. Skilled workmen then piece these slices together in the many beautiful and intricate

patterns found in furniture and homes today.

These veneers are also used as facing for plywood, giving the effect of solid pieces with the advantages of economy, equal strength in all directions, resistance to shock and splitting, counteraction to expansion, and the possibility of manufacturing any size sheet demanded.

The art of veneer is by no means a new one. The only existing pieces of woodwork done by the ancient Egyptians, 3500 years ago, are veneered. Hundreds of years later, Chippendale, Heppelwhite, and Sheraton, of England; and Duncan-Phyfe of America, took advantage of this practice when they made the beautiful antique furniture so highly valued today. At present, 90 percent of our furniture is veneered and precious woods are within the budgets of everyone.

The second reel was on the comedy side, showing three shorts of Popeye. Popeye, with the aid of his faithful can of spinach, fought his way out of three extremely precarious predicaments in as many minutes.

Following this, Professor Finnegan presented the Crosby-Fiske-Forster Handbook of Fire Protection to Robert H. Harmon. This "bible" of the fire protection engineer is presented each year by Salamander, honorary fire protection fraternity, to the present sophomore who made the best scholastic record as a freshman. Its purpose is to promote good study habits among students entering the department, and results proved that it accomplishes its purpose.

The work and pleasure of the evening then being finished, the smoker was adjourned at 10 o'clock.

ARX NEWS

Here we are upon the eve of a very important Armour Arx function, first of its kind, the All-Architectural Banquet . . . Truly a grandiose idea (boy, do we hate ourselves).

Just remember—Occasion: All-Arx Banquet. Date: Friday, Feb. 24, 1939. Time: Six. Guest of Honor: Professor Van der Rohe. Resultant: One—of a good time.

The seniors are still pounding small houses into miniature . . . Things are quiet and slow, maybe because we all miss Johanson's subtle and clean wit (sounds like a post-mortem). Poor Lorry . . . working. Famous last words: "well, I say . . ."

(Note: Johanson's gonna be at the banquet, if he can scrape up a buck, certainly you can!)

Cunningham has opened the Cunningham Beaux Arts Air Brush School. All Arx are invited to attend (upon remuneration of the necessary remuneration).

Skubic was around last week looking for a job, Baker had an idea, they both left the room, 10 minutes later the job-hunter came back alone with a look on his face which meant he'd just given up a ten spot.

There's a playboy in our midst; namely, Mr. E. M. Mandel . . . Life-class proved to be very interesting to all, especially the P. B. . . . She proved to be very friendly and was escorted throughout the nite by the P. B. . . . A most interesting evening.

Boz-Arts.

Show General Motors Movies At Assembly

"Color Harmony", a sound motion picture in full color, was one of the films presented at the first general assembly of the semester, in the school auditorium, last Friday afternoon at 10:30. The pictures, which were shown by Mr. Randegger of the General Motors Corporation, demonstrated the mechanism of an eye and explained the functions of the cones and rods of the retina, the sensitive portion of the eye. These cones contain chemicals which are sensitive to one of the primary colors.

When a beam of colored light strikes the cones, an electric current is set up which flashes a signal to the brain causing the sensation of color. The eye is capable of blending these impulses and registering the different color combinations and shades. The application of a pleasing combination of color shades to the modern motor car was then demonstrated.

Another picture entitled "Vacuum Control" explained the operation of various devices actuated by differences in air pressures. Soda straws, airplane wings and rubber suction cups were shown as examples of this phenomenon. The development of a new development in gear shifting was then shown. With no radical changes in the transmission, a system of levers operated by a lever on the steering wheel post replaces the conventional controls. However, 80 per cent of the shifting effort is furnished by a vacuum plunger operating from the intake manifold.



You'll enjoy these three stars in "WINGS OF THE NAVY" A Cosmopolitan production released by Warner Bros. coming soon to your local theatre.

★ GEORGE BRENT ★ OLIVIA de HAVILLAND ★ JOHN PAYNE

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that gives millions More Pleasure

. . . and millions of people before and after the show are getting more pleasure from the happy combination of mild ripe American and Turkish tobaccos found in Chesterfield.

It is the exact way these tobaccos are combined together that makes Chesterfields milder and gives them a more pleasing taste and aroma. This exact combination is found in no other cigarette.

When you try them you will know why Chesterfields give millions of men and women more smoking pleasure . . . why THEY SATISFY

Chesterfield

...the blend that can't be copied
...the RIGHT COMBINATION of the
world's best cigarette tobaccos