Engineer Talks On Fires in Hangers

Describes Protection At Our Local Airport

Mr. J. A. Neale, chief engineer of the Chicago Board of Underwriters, presented an interesting talk on "Fire Protection in Aeroplane Hangars" before the members of the F. P. E. S. April 6. Mr. Neale has had a good deal of practical experience along this line and consequently his talk was very enlightening.

The problem of fire protection in hangars came up three or four yeas ago and led to a great deal of controversy. It resulted in a new type of sprinkler system called a "hair trigger" sprinkler. This name was given to the sprinklers because they were very quick acting. Army and navy officials claimed that the hazard encountered in hangars could not be taken care of by water. Tests were made in Washington which confirmed the opinion that sprinklers could protect the risks.

Fire Hazard Terrific

A terrific fire hazard is encountered in this industry. The contents of a hangar are very combustible and also highly damageable. Most ships are covered with a combustible fabric and finished with a nitrocellulose dope making them very inflammable. There is also a large quantity of gasoline found in the hangars. Another point to be considered is the construction of the buildings which is bad because one or more sides may be open causing drafts. Moreover the airports are located at the outskirts of cities where the public protection and water supply are poor. Gravity tanks are outlawed because of the danger to planes landing and taking off.

It is estimated that four minutes from the time a fire starts in a hangar the contents are a total loss. A moderate sized hangar may contain a half million dollars worth of equipment or more. The loss in a hangar fire rarely runs under $100,000.

Describes New Hangar

Mr. Neale described a well equipped hangar that was built recently at the Municipal Airport. Officials would have liked to equip this hangar with a complete "deluge" system. The "deluge" system consists of open sprinkler heads controlled by a sensitive thermostatically controlled valve. This type of system was necessary because a plane could burn on the floor without giving off enough heat to open an ordinary closed sprinkler head. Because a flow of 1400 gallons per minute was necessary to operate a complete installation of this kind and only 2000 were available, this system could not be used. Instead the hangar was equipped with three lines of deluge heads on the floor and ceiling and the rest of the area with ordinary heads. Thus, water curtains could be produced, dividing the hangar in sections.

Pressure Tank Initial Supply

The amount of water required for these heads was 1400 gallons per minute. The pressure was supplied by two pumps operated by a 75 H. P. motor. A 9000 gallon pressure tank was included in the system.

The tank acted as an initial supply while the pumps were getting up to speed. A normal discharge pressure of 85 pounds was maintained. If the pressure dropped to 75 pounds the first pump started to operate and the second pump cut in at 70 pounds.

SIDELINES

(*Continued from page* 1)

changed—not that so much of the company under contract—but more so, that of the government under whose supervision it occurred.

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THE ESTABLISHMENT of intramural athletics is another step forward in campus activities, and worthy of due commendation. Only a week old, this type of activity has brought about numerous and all favorable comments from the student body, and is most certainly due for more. Congratulations are in order for the creators of intramural athletics—cooperation on the part of the student body will insure success through enjoyment. We suggest you watch the sports page for details and then make the most of them. Everybody in!

The Proverbial Worm Turns . . . . A Prof Gets Back at His Classes

"Gentlemen, I have several important announcements to make, so please pay attention. You'll pardon my walking in fifteen minutes late, as I had an exam in my last class and was held up for quite a while.

"Now, about those papers you handed in last month. I'm sorry I haven't handed them back until now but I couldn't get hold of certain references in time, and I wanted to do a good job on them. I'm sure you would rather have a good piece of work a little late than a slipshod job on time.

"As a matter of fact, I haven't read any of them as my eyesight has become poor and my doctor warned me not to do any reading until the end of the semester. You will notice that as a consequence I have given you all F's, in order to assure everyone of a square deal; since I know that marks don't mean a thing to you, but only the satisfaction of getting a piece of work done.

"Some of the papers are not going to be returned at all. Three or four of them I have all done and completely corrected, but I left them at home and will be sure to bring them next time, others I had all finished, and lost coming down on the train; others I have not had time to look over as yet because of my work on the *Faculty News*, the *Alumni News* and the *Hound and Horn*, but I will positively have them within the next couple of days.

"To turn to this morning's lecture —you will find practically all of it in the *Encyclopedia Britennica* under the title of Aristotle subtitle Empiricism. Please do not get the impression that I am copying from the *Britannica*. I wrote out my entire lecture last week, and then, happening to glance through the *Encyclopedia*, saw that the article there coincided remarkably with my lecture. Naturally I wasn't going to change my lecture, as the *Encyclopedia* is noted for doing a subject the best possible way anyhow.

"To return a moment to the subject of that examination. Several men have complained that I gave them questions on assignments I said they weren't to be responsible for. What happend was that I lost the book and didn't remember what Chapters I had assigned, and so I just asked questions here and there. Nevertheless, I will be glad to let anyone take a makeup who will report to my home at 611 Bayside Road, Yonkers, between the hours of 8 A.M. and 4:30 A.M., Monday morning, if I remember to show up for it.

"Incidentally, I might mention that I am going to miss a great many lectures from now on. However, I am sending in a substitute who can make his voice sound like mine and whose handwriting resembles mine also, so you will hardly notice the difference

"Of course if any of you report this to the Dean I shall have to come to classes; but I think that would be a childish way of settling the matter. Attendance should be a matter of choice, you know, and you should rely upon my intelligence not to abuse the privilege of this choice. Since I was interested enough to take up this course presumably I should be interested enough to appear every day, without the grammar school necessity of checking up on my attendance.

"You'll pardon my yawning at you so frequently this morning; it's a warm day, and I'm rather tired from some hard work I did last night. Excuse me a couple of minutes while I take a look at this morning's paper.

"As a matter of fact, you may as well go now, as we have pretty much covered today's ground. I know it's only half-past, but I want you to reach your next classes on time, so I won't hold you over. If anybody wants to hang around after class is dismissed and ask questions that's all right with me, except that I may ask them a couple of questions too—and mark on it, to make sure that I don't get a biased opinion about men who spend time hanging around me.

"Class dismissed."

—Herman Wouk, in Columbia Jester, Courtesy of University.

Give Scholarships to Graduate Men

Graduation, with its accompanying bugbear of unemployment, will for a great many of this year's seniors not mean an end of their college careers, for a number will receive fellowships and scholarships for graduate work. These are to be awarded by universities and organizations throughout the United States. Bulletins from a number of these institutions offering work of interest to engineers are posted in the main building, and in the laboratories of some of the engineering departments.

Travelling Fellowships Offered

Massachusetts Institute of Technology offers over a dozen fellowships and scholarships, carrying stipends of from $1500 to $150, besides a number of scholarships covering simple tuition.

Heading the list are Travelling Fellowships in Architecture and Chemistry, paying $1,500 a year each, and offering to two young graduates with a wanderlust, a wonderful opportunity to pursue their studies abroad while seeing the world.

Study in foreign lands, something that seems vague but desirable to the American undergraduate, is offered also by the American Scandinavian Foundation, which provides $1,000 each to a large number of young Americans for graduate study in Sweden, Denmark and Norway. A long and comprehensive list of technical and non-technical subjects is covered.

A. I. E. E. Offers Scholarships

Virginia Polytechnic Institute has graduate appointments for 18 in Engineering, Chemistry, Chemical Engineering and Fuel and Power Engineering research work, and in teaching fellowships. The stipends range from $600 to $400, the terms of service from 9 to 12 months. Free tuition and fees are also provided.

New York University and Columbia University have fellowships and scholarships to offer also, the latter's to be awarded by the American Institute of Electrical Engineers, the scholarships being in Electrical Engineering.

Civils See Production of Structural Steel

Complete operations in the fabrication of structural steel were witnessed by junior and sophomore civils, who visited the McClintic-Marshall Corporation, located at 84th Street and Stewart Avenue, April 4.

The engineers first visited the pattern shop where patterns of the structural members and plates are made of wood or cardboard. These patterns which are the exact reproduction of the finished pieces, minimize the shopwork because the worker places the pattern on the material and punches it accordingly without having to make a layout of each piece. This is very helpful in cases where a large number of pieces of the same pattern are needed.

From the pattern shop, the next section of the huge plant to be visited was the shop where the drilling, punching, riveting, and milling operations are carried out. Mammoth multiple punch presses and huge shears drew the interest of the visitors.

In the machine shop, the main operations were the making of parts for Dam No. 4 on the Mississippi River located at Alma, Wisconsin. The giant lathes which were turning down stock 8 inches in diameter left a waste in the form of a coil spring which was taken as a souvenier.

Two Tie in Contest for Dance Posters

Due to dissension in the freshman and sophomore social committees regarding the judging of dance posters entered in the contest, it was decided to award two prizes. The winners of the contest are I. M. Addis, a junior architect, and I. D. Thunder, a sophomore civil.

The rapid sale of bids is a positive proof of the assured success of the dance. Bids may be obtained from members of the social committee.

ARMOUR BASEBALL TEAM TURNS IN A VICTORY AND A TIE

In the opening baseball game of the season Tad Omiecinski, slugging Armour Tech first baseman, banged out a home run, and two singles to lead his team-mates on to a 7 to 3 victory over the University of Chicago at Greenwood Field last Tuesday afternoon. Another highlight of the game was the mid-season pitching performance turned in by George Mayer, star hurler of the Techawks. Lefty allowed the Maroons only four hits in seven innings of toil on the mound. Al Morelli, who relieved Mayer in the eighth inning, refused to give up so much as a single hit in the last two frames.

On the other hand, poor support on the part of the Maroons overshadowed the fine pitching efforts of Novak, a newcomer, who yielded only six hits in eight innings. The Chicago team committed seven errors.

Maroons Score First

Reed started the game by coaxing Novak for a pass, and went to second on Adamec's sacrifice. This Tech scoring opportunity faded a moment later when Reed was picked off second by an alert Chicago infield. Capt. V. Omiecinski watched a third strike go by to end the inning.

The Maroons picked up a run in their half of the first. Levin, centerfielder, and leadoff man for Chicago, who almost broke up a similar game last year, opened the inning with a single to left, and promptly stole second on the next pitch. On a passed ball Levin continued to third, and then stole home when Lauerman, who had walked was caught at second in an attempted double steal.

Tad Hits Home Run

Tad Omiecinski, first man up in the second inning, found one of Novak's offerings to his liking, and slammed it over the distant left field fence for his first home run of the year. Levin looked as if he would duplicate his performance in the first inning when he hit safely, stole second, and then went to third on a passed ball. This time, however, the Armour infield was not caught napping for he was trapped off third, Bartusek to Lauchiskis to Bartusek.

The Engineers scored a run in the fourth inning to go into the lead. Lillis walked with one dead and was forced at second by Bartusek. Joe went from first to third on Lauchiskis's single to right field, whence he scored a moment later on an error by Offil, the first of seven errors commited by the Maroons.

Hawks Gifted 3 Runs

In the last of the sixth the Hawk infield scored its initial double play of the season and the first of two in the course of the game. Offil singled to center with one down. Novak then grounded to Lauchiskis who threw to Biegler who in turn threw to Tad to complete the twin killing.

Vic Omiecinski opened the sixth with a double and proceeded to third on a passed ball. Tad singled to drive Vic home with the third Tech tally. Baker scored a run for Chicago in the seventh when he drove a hard hit into right field for a homer "inside the park." The Techawks were gifted three runs in the eighth by virtue of a hit, two errors and a base on balls.

Lefty Mayer ran into a mess of trouble in the last of the eighth, probably due to having been hit in the pitching hand by Novak in the previous inning. Two walks and an error loaded the bags for the Maroons. Morelli, who relieved Mayer, forced Cochran to ground to Vic Omiecinski who tagged Lauerman and doubled Levin at home. Munn, who had walked to start the inning scored, on the play. Comerford flied out to end the inning. Armour added another run off Laird in the ninth inning for good measure.

BOX SCORE

Armour (7)	AB	R	H	CH
Reed, cf	3	1	0	0
Adamec, lf	4	0	0	1
V. Omiecinski, ss	5	1	1	10
T. Omiecinski, 1b	5	1	3	10
Lillis, rf	3	1	0	0
Bartusek, c	4	2	0	12
Lauchiskis, 3b	4	1	1	4
Mayer, p	2	0	1	0
Biegler, 2b	4	0	1	0
Morelli, p	0	0	0	0
Shewchuk, rf	0	0	0	0
Totals	34	7	7	43

Chicago (3)	AB	R	H	CH
Levin, cf	4	1	2	1
Lauerman, rf	1	0	0	0
Cochran, lf	1	0	0	0
Hanrlow, ss	3	0	0	5
Comerford, 3b	4	0	0	1
Baker, 1b	3	1	1	11
Lewis, 2b	3	0	1	6
Offil, c	3	0	1	13
Novak, p	2	0	0	0
Wellding, ph	1	0	0	0
Bersson, lf	1	0	0	0
Laird, p	1	0	0	1
Thompson, 1b	0	0	0	0
Munn, ph	0	1	0	0
Kucina, ph	1	0	0	0
Totals	31	3	4	45

Armour	010	101	03[illegible]	7
Chicago	100	000	110	3

Errors—V. Omiecinski, Cochran, Hanrlow (2), Baker (2), Offil, Laird. Home runs—T. Omiecinski, Baker. Two-base hits—V. Omiecinski. Stolen bases—T. Omiecinski (2), Levin (4), Cochran (2), Lauerman. Double plays—Lauchiskis to Biegler to T. Omiecinski, V. Omiecinski to Bartusek. Struck out—By Mayer, 6; by Morelli, 1; by Novak, 6; by Laird, 3. Bases on balls—Off Mayer, 4 in 7 innings; off Morelli, 3 in 2 innings; off Novak, 5 in 8 innings; off Laird, 1 in 1 inning. Hits—Off Mayer, 4 in 7 innings; off Morelli, none in 2 innings; off Novak, 6 in 8 innings; off Laird, 1 in 1 inning. Hit by pitcher—by Mayer, (Cochran); by Novak, (Mayer); by Laird, (Lillis). Passed balls—Bartusek, 3; by Offil, 2. Winning pitcher—Mayer. Losing pitcher—Novak.

Tie With Chicago Normal

After seven innings of play, the game was called on account of darkness with the score standing Armour 4, Chicago Normal 4 in a practice game held at Ogden Field last Thursday afternoon. The extreme cold made it almost an impossibility to play good baseball.

Hayes, Baumel and Morelli took turns on the mound for Tech. This three-some struck out 13 Normal batters and allowed five hits and four runs, while Solomon, hurler for the visitors fanned 11 Armour men and permitted seven hits and four runs.

Al Lauchiskis was the Tech star on offense with three singles to his credit which accounted for two Hawk runs. Solomon pitched a fine game for Chicago Normal besides getting two hits at the plate.

BOX SCORE

Armour (4)	AB	R	H	CH
Reed, cf	3	0	0	0
Adamec, lf	4	0	2	2
V. Omiecinski, ss	4	0	0	0
T. Omiecinski, 1b	3	2	2	4
Bartusek, c	1	0	0	6
Phillips, c	2	0	0	6
Shewchuk, rf	2	0	0	0
Lukas, rf	2	0	0	0
Mayer, rf	1	1	0	0
Lauchiskis, 3b	3	1	3	1
Hayes, p	1	0	1	1
Baumel, p	1	0	0	1
Morelli, p	1	0	0	1
Biegler, 2b	2	0	0	3
Totals	29	4	7	29

Chicago Normal (4)	AB	R	H	CH
Swiryn, 2b	3	1	0	4
Kass, 3b	3	1	2	2
Lawler, lf	3	1	0	1
Smith, c	3	1	1	11
Solomon, p	3	0	2	1
Zindel, rf	3	0	1	0
Egan, ss	3	0	0	4
Feigel, ef	1	0	0	0
Mabbett, cf	1	0	0	0
Maloff, 1b	3	0	1	6
Totals	25	4	5	29

Chicago Normal	001	030	0 — 4
Armour	000	220	0 — 4

Errors—Solomon, Egan, Adamec, Phillips, Morelli. Two base hits—Adamec. Stolen bases—T. Omiecinski (2), Mayer, Hayes, Kass. Double plays—Hayes to Biegler to T. Omiecinski. Struck out—By Solomon, 11; by Hayes, 5; by Baumel, 3; by Morelli, 5. Bases on balls—Off Hayes, 2 in 3 innings; off Solomon, 2 in 7 innings. Hit by pitcher—By Hayes (Lawler); by Solomon (Reed).

A. E. Peterson Is Speaker to A.I.E.E.

Mr. A. E. Peterson, of the Commonwealth Edison Company training department, gave a combination lecture and movie to the A.I.E.E. Friday, April 6.

The movie presents a tour through the power house, reviewing the trend of development of the generating motor, from the early models to the powerful modern types. The first power machine at the Crawford avenue station, one of the Edison plants, generated 160 K. W. As the generators developed, the production of each individual machine increased to 5,000 K. W., 12,000 K. W., 30,000 K. W., and 100,000 K. W. A modern generator, that producing 100,000 K. W., eats up from 34,000 to 35,000 tons of coal daily.

The six machines at the Crawford Station produce a total of 424,000 K. W. There machines require half of the volume of water in the Chicago River to be pumped daily through the plant. Water of this kind is used for condensing purposes only.

Mr. Peterson was secured as speaker through the services of D. N. Chadwick, a senior electrical. These two had worked together as operators in one of Edison's power plants. Mr. Peterson stated that half the fun of the game was the constant danger connected with this type of work.

Oklahoma A. and M. college in its early days had a ruling requiring all students to leave their fire-arms outside the building—an excellent precaution against accidents to the more unpopular professors.

CULVER DEFEATS TECH BOXERS IN SATURDAY'S MEET

Geerearts and Suman Tally for Armour with K.O.'s

MEN SHOW ABILITY

The Armour Tech boxing team traveled to Culver Academy on April 7th, and was defeated by a score of 6 to 2.

The meet began with Goldman of Armour fighting Tausig of Culver in the 113 lb. class. The bout opened fast with Goldman giving and taking lefts and rights to the head and body. This tempo continued for two rounds but in the third the Culver man managed to do the fastest trading. The bout ended with Tausig winning by a decision.

In the 147 lb. class Breh was matched with Bransfield of Culver. The bout opened slowly with Bransfield being the aggressor landing hard blows to Breh's head. Breh retaliated with hard left hooks to his opponent's body. In the second round Breh stepped into a vicious right and went down for a short count. His opponent took advantage of Breh's condition whereupon Coach Weissman threw in the towel.

In bout number three, at 135 lbs., O'Herron of Culver began early to punish Bob Bothwell with a hard right. Bob went down from a hard right after gamely taking hard lefts and rights. Undaunted he arose to his feet but was too groggy to get away and the Armour towel made its second appearance.

Geerearts Wins by Knockout

Geerearts of Armour met Chase of Culver with both men fighting and guarding nicely. The fight continued with both men using their lefts and rights to the best advantage. In this wary exchange Geerearts showed a slight superiority. In the third round Chase failed to keep completely covered whereupon Geerearts promptly began to land telling blows. Shortly thereafter Geerearts landed a right so hard that Chase was catapulted out of the ring for a knockout.

Another 135 lb. bout was put on between Kasik of Culver and Anderson of Armour. The men were very evenly matched, but Kasik landed a few punches in the third round and thereby won by a decision.

Suman fought a short but very fast bout with Coffey of Culver. The first round opened with Suman decidedly the aggressor. He battered down his opponent's defense with hard, very fast, lefts, and then let loose with a right that cut Coffey's eye. The Culver man was unable to continue and Suman won by a technical knockout.

Captain McDonald's Last Bout

Captain McDonald in the final bout of his spectacular career at Armour met Davies of Culver. He entered the ring in fine form, dodging and weaving, and landing hard solid blows to Davies' body. The Culver man absorbed these blows however, and somehow landed some good punches of his own. Although McDonald fought a very good fight the judges decided to award the decision to Davies.

The meet culminated with Parrish of Culver meeting McAuliffe of Armour. McAuliffe got off to a fast start landing many hard and telling punches. Parrish however, was in slightly better physical condition and managed at the end of the bout, to have a slight advantage.

Summaries

113 Pound Class—Tausig (C) won decision over Goldman (A).

147 Pound Class—Bransfield (C) won technical knockout over Breh (A).

135 Pound Class—O'Herron (C) won technical knockout over Bothwell (A).

147 Pound Class—Geerearts (A) won technical knockout over Chase (C).

135 Pound Class—Kasik (C) won decision over Anderson (A).

147 Pound Class—Davies (C) won decision over McDonald (A).

142 Pound Class—Suman (A) won by technical knockout over Coffey (C).

160 Pound Class—Parrish (C) won by decision over McAuliffe (A).