

### Fleming, '14, Tells C. E.'s of "Bates Road Experiment"

Mr. M. J. Fleming, '14, C. E., now District Engineer for the Illinois State Highway Dept., was chief speaker at the W. S. E. meeting, held last Thursday. District No. 3, of which Mr. Fleming is overseer, has had more hard surfaced roads built into it than any other in the state, according to a statement by George A. Petters, who introduced the speaker.

**Tells of Road Experiment**  
"The Bates Experimental Road" was Mr. Fleming's topic. The road was started in 1920 near Springfield, Illinois. It was built on uniform soil conditions, was two miles in length, and consisted of sixty-three sections of varying bases, surfaces, and thicknesses. All the known kinds of road were included for the purpose of determining which was the best. Before telling of the tests conducted, Mr. Fleming said, "The results gained from the Bates Experimental Road pertain to rural highways and not to city thoroughfares as the two types of pavement differ in many ways."

**Two Theories Advanced**  
At the time the Bates road was built two theories of road construction were prevalent. The first theory advocated greater thickness of concrete at the centre than at the edge and the second, uniform thickness clear across. In testing the truth of these theories loads were applied day and night to the corners of each slab or section of concrete. "It was found," said Mr. Fleming, "that the corners were broken during the night. Upon further experimenting it was discovered that the edges of the road lifted as much as one-quarter of an inch off of the base at night, resulting in an unsupported edge which broke down." To counteract this "curling effect" a marginal bar was placed along the edges of the road.

**Frost Cracks Edges**  
Experimentation showed that frost action heaved the outer edge up, resulting in broken corners and longitudinal cracks. It was proved that tile placed along the road did not lower the water content under the concrete slab.

Traffic was started over the road in the spring of 1922. Drivers were held to a certain course on the road by lines painted on the road. Two thousand trips were made by day and one thousand by night. The lighter sections broke down first and finally the heavier ones failed under the strain. Extra sections built with thickened edges and containing the marginal bar proved more satisfactory.

The marginal bar as used in concrete roads of today is painted and greased to prevent any bond. Its purpose is to support and carry the weight from one side to the other.

The black line down the centre of the road was originally used to cover up the iron bar joint instead of being used as a guide for traffic as it is now.

In closing, Mr. Fleming said, "The tests made on the Bates road only covered a few months' time but they were equivalent to fifteen or twenty years of normal rural traffic."

### ANNOUNCEMENT

Owing to the fact that there seems to be some misunderstanding, especially on the part of the new students, Dean Penn wishes to have it made clear that the official Lost and Found Bureau is located in the Deans' Office. Articles which are found should be turned in there. Students who lose anything are to inquire there for it.

Armour Chapter of Beta Psi will act as host to the University of Illinois Chapter after the Chicago-Illinois game on November 17.

### A.T.A.A. And Board Control In Joint Session

(Continued from page 1)  
ter has been left in the hands of the A. T. A. A. It was decided, that since the fraternities make use of school property and equipment in playing their games, etc., this matter will rest with the A. T. A. A. in the future.

**Appointive Positions Filled**  
The appointments for positions in the A. T. A. A. were then approved. The following men were appointed:  
Fred H. Juergensen, School Social Chairman.  
John R. Yount, Publicity Manager.  
John W. Gamble, Interfraternity Athletic Manager.  
James Dawson, Interclass Athletic Manager.  
Floyd Ong, Chairman Reception Committee.

**Robin Elected Student Secretary**  
Through the absence of Wm. Jervis, duly elected secretary of the A. T. A. A., it was necessary for the board to select a new man. It was suggested that the runner-up in the last election for that office be elected. The records showed that Clarence Robin was second to Jervis, and his election followed.

Since the student body of the A. T. A. A. consists of a representative of all four classes, it remains necessary for the freshmen to select a man for that position. This is to be done at their next class meeting.  
The Musical Clubs, Publications, and the Honor "A" Society have yet to select their representatives to the Finance Committee of the Association.

### POWER OF QUIETNESS

Think for a minute of all the people you know. Put them in two classes; the noisy, boisterous, voluble folk and the quiet, calm, placid ones. Which kind would you prefer to spend most of your time with? The latter, of course. As far as getting things done is concerned at the end of the day which class has accomplished the more. Invariably the latter.

Picture yourself a customer and enter with me a department where a lot of unnecessary loud talking is going on among the employees. A distinctly unfavorable impression is made upon your mind at once. Is it not so? Again go with me to a business office where every one and everything moves quietly and systematically. Does not such an organization command your respect at once?

Reflect with me about the most forceful forces of nature. Do they not operate quietly?

Thunder booms with the noise of a thousand cannons, but it is the silent lightning which possesses power.

The sun, on which all life on this planet depends, operates without suggestion of noise.

The electric current, the modern miracle worker of miracle workers, indulges in no screeching.

That mysterious thing which we call time keeps on the even tenor of its way as frequently as the motionless air.

It is only the surface of the sea that ever becomes tumultuous; the depths are as silent as the grave.

Individuals, institutions, nature, all prove for us the power of quietness.

Don't be secretive, sphinx-like, that is worse, much worse than being noisy and voluble. But if you would be truly companionable and most efficient, be quiet.

Try to acquire the reputation of a quiet person if you would be a forceful person. —Exchange.

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### The Inquiring Reporter

Question: What do you think of the new six-column paper?

**Dr. C. A. Tibbals:** I think that this step indicates great progressiveness on the part of the staff. I hope that the paper will some day become a daily one.

**A. J. Stabovitz, '29, Ch. E.:** It shows that the paper is progressive and that there is plenty of news around school each week to fill an extra column. I'd like to see more pictures in the near future.

**T. R. O'Malley, '30, M. E.:** I think the idea is very good. It clearly shows that the paper is progressing. It's something we can be proud of.

**Professor W. A. Spencer:** The Armour Tech News is surely a fine paper considering the short time it has been in existence; and a six column edition is in keeping with its standard of progress.

**J. Goldman, '30, Ch. E.:** It looks as if the paper is very progressive. It shows an added interest on the part of the staff members to put the paper on a par with other collegiate papers. It has become a regular sized sheet.

**R. J. West, '32, E. E.:** I am all for it. I believe that with a six column paper, it is possible to use more headlines, which will enable more emphasis to be placed on the good things in school.

**J. J. Arends, '32, F. P. E.:** I think it is a very good idea. It shows a high degree of efficiency on the part of the newspaper staff in order to enlarge the paper and still keep the expenses down.

### LARGE N. S. ENROLLMENT

Professor Robert V. Perry, director of Armour Tech Evening School, reports the record breaking enrollment in that school of 1150 students, or more than twenty percent better than the enrollment last year, when the number was less than a thousand.

### 16 Schools Use Dean Palmer's Math. Text

Dean Palmer's ability as a textbook writer has once more been demonstrated. To date, his latest effort, "College Algebra," written in conjunction with Professor Miser of Vanderbilt University, and published by McGraw-Hill Book Co. of New York in June, 1928, has been adopted in sixteen of the leading colleges and universities of the country. The following is a list of the institutions using this text book:

- University of Denver
- University of Southern California
- University of California
- University of Minnesota
- Phillips Exeter College
- Vanderbilt University
- Western Reserve
- Stanton Military Academy
- Ward-Belmont Girls' College
- Rochester Mechanics Institute
- Carroll College
- Arkansas College
- Iowa Wesleyan College
- Tri-State College
- Case School of Applied Science
- Armour Institute of Technology

This new book bids fair to rival in popularity the "Plane and Spherical Trigonometry" by Palmer and Leigh, so familiar to the embryo engineers at Armour. This Trigonometry textbook is now the most widely used American college textbook in this subject. One hundred and fourteen schools, colleges and universities had adopted this book by the close of the school year last spring.

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### Fraternity Notes

During the past week three of the Social Fraternities have pledged additional men.  
Beta Psi: J. Dirkers, J. Kubika, and W. Trauten.  
Phi Kappa Sigma: Emil Blomme.  
Sigma Alpha Mu: Nathan Rosen.

The Phi Kaps have started something new in the form of a tea dance to be given every other Sunday. Last week saw the first attempt at such a venture and it met with great success.

Seven of the Theta Xi men attended the Delta Sigma Club pledge dance at the University of Chicago, last Saturday, November 3. The dance was given in Ida Noyes Hall in honor of the following pledges: Misses Henrietta Drager, Ruth Foster, Caroline French, Gustava Gore, Janet Lawrence, Nelliebelle Reardon, and Janet Works.

Armour Chapter of Kappa Delta Tau is to have an outing over this week end at the cottage of Louis Needleman at the Sand Dunes. The "bunch" is leaving by train Saturday afternoon, and all members have been instructed to bring both food and blankets—plenty of both. The Alumni is to be represented. Activities will consist partly of games, including football, baseball, tennis, and what-have-you?

### Farrell, News Desk Ed., Absent For Two Weeks

Fred B. Farrell, '29, C.E., has been unable to attend his classes for the past two weeks because of the serious illness of his mother. His absence has been a handicap to the staff of the NEWS, of which he is Desk Editor.

Preston E. Heath, '30, F.P.E., was called to his home in Denver, Colorado, Monday evening, when news reached him of the severe illness of his father. He was unable to say definitely when he would return. Heath is Assistant Editor of the 1929 Cycle, and a member of Theta Xi fraternity.

The Rho Deltas gave a pledge dance last Saturday, November 3, at their house. It was decorated to fit the Halloween atmosphere, and as a result of the activity of the pledges, "stop," "no parking," and other helpful signs were used to good advantage.

The house was filled to overflowing, most of the guests being alumni. The pledge emblem was printed on the cover of the program in honor of the occasion.

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*Sightseers returning from the Alps never fail to babble of the marvelous echoes that reverberate so obligingly from peak to peak. But no such phenomenon matches a certain echo that keeps circling this whole mundane sphere. It is the best-known cigarette slogan ever coined—the Chesterfield phrase "They Satisfy."*

qualities seemingly opposed—"they're mild, and yet they satisfy"—its descriptive accuracy was instantly perceived. Today it echoes and re-echoes wherever cigarettes are smoked:  
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