

Man of the week

This week Technology News is featuring a quiet unassuming young man as the man of the week. There is no need for Earl W. Mills to be otherwise, as a glance at his various accomplishments will bear out. Mr. Mills is a junior chemical engineering student and a high ranking member of his class scholastically.

Last semester Earl devoted the greater portion of his time to the office of president of the Coop Bookstore, which exhibited a great increase in sales while under his leadership. Earl is the star broad-jumper on Illinois Tech's track team. Last season he came very close to breaking the school record for this event, but is confident he will surpass that mark this year. Earl was recognized for his athletic accomplishments by being admitted as a member of Hono I, the honorary athletic organization.

Earl is a former member of TECHNOLOGY NEWS and is a member of AIChe. He is also the vice-president of Alpha Chi Sigma, professional chemical fraternity.

Mills was in charge of the senior advisors this semester, organizing this group which helps new freshmen become adjusted to college surroundings. He also organized a group of men to tutor freshmen having trouble with their studies; this service is free of charge.

It was because of his interest in the school and the student body, that Mr. Mills was elected first vice-president of ITSA last week. He is also devoting his time as a member of the Honor Board.

Aside from all of these school activities, Earl is a leader in church affairs, spending a large portion of his time in these activities. During the week he practices with the church choir, and on Sunday morn-

ing he teaches a Sunday school class. In addition Earl is president of the southern division of Christian Endeavor in Chicago.

Because of all these activities Earl is required to adhere religiously



Earl Mills, junior chemical engineering student.

Earl Mills

to a detailed schedule. Thus it is not necessary to explain why Earl Mills is a quiet young man or why he was chosen man of the week.

Navy inspectors here

As a consequence of the recent inspection of our school the navy commended it as having an excellent educational setup and therefore is going to send some of their men here to receive their education. Three fraternity houses were inspected by navy inspectors to determine what the housing facilities are. The reports on Delta Tau Delta, Phi Kappa Sigma, and the Graduate House have been sent to the navy; however a reply has not yet been received.

Entrance examinations for the navy programs will again be given at the school on April 2 from nine to eleven o'clock in the morning. The exact location will be announced later.

The best tunes of all
move to the ASSEMBLY HALL
Tuesday morning, March 23
at 11 a.m.

Demonstrate sound recorder for musicians

The music clubs, and their director, Gordon Erickson, were treated, last Thursday, to a demonstration of the wire sound recorder developed by the Armour Research Foundation. The demonstration was conducted by Mr. Vagtborg, director of the Foundation. The musicians were very much interested in the recorded and Mr. Vagtborg answered many questions.

The idea of the recorder first occurred to the inventor, Marvin Kamras when he was a junior electrical at Armour. Steel tape had been previously used for recording sound, but Kamras thought that wire might be used instead. He presented his idea to the Research Foundation, and was made a member of the staff and given an opportunity to develop it.

In its present form, the recorder uses a steel wire about the size of a human hair. This wire passes between several electro-magnets which are connected, through an amplifying circuit, to a microphone. The amplified current from the microphone passes through the magnets, thereby producing a varying magnetism in the wire which is kept moving past the magnet. When the wire is played through the receiving apparatus, this magnetism produces currents which are proportional to the original currents in the microphone. By means of proper amplification, and so forth, these currents are converted back into sound. This is, of course, an over-simplified explanation.

One advantage of the recorder is that a wire may be used over as many as 40,000 times. For to remove a particular record from the wire, the wire is merely passed through a strong, magnetic field

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be under an accelerated program. Failure to do good work will eventually result in the student's being drafted in the Army.

This new classification for freshmen was brought about when Professor Schommer recently telegraphed the War Manpower Commission in Washington concerning the draft status of engineering freshmen. In this telegram he emphasized the fact that there is a crying need in both the armed services and industry for competent engineers. Most of the seniors who graduated are now in the armed forces, while many of the juniors and sophomores are in the reserve programs and thus subject to call into the forces. This telegram also stated that.

Many members of the freshman class failed to register for the new semester, because of their insecure draft status. Therefore it is expedient that all engineering freshmen be permitted to continue their college studies; if this is not done, the supply of engineers will soon dry up.

Schommer based this report on the results of a questionnaire he had sent to 150 industrial firms. The statistics compiled showed that the industrial needs for engineers is far greater than the technological institutions are able to provide. Hence the great need to keep students in engineering colleges.

which "wipes out" the previous record and makes the wire ready for use again. For this reason, the recorders are very cheap to operate, and it is estimated that after the war they will be produced for about \$50. At the present time, they are being used by the Navy.

THE BEST TUNES OF ALL
MOVE to the ASSEMBLY HALL

Research adds an X-ray unit

One of the newest General Electric X-ray diffraction units has recently been added to the equipment of the engineering mechanics laboratory at the Armour Research Foundation. The new unit differs from the older units built by General Electric in that it is portable and can be carried about by two men. The new unit has a water-cooled power supply and is equipped with a track for a standard camera.

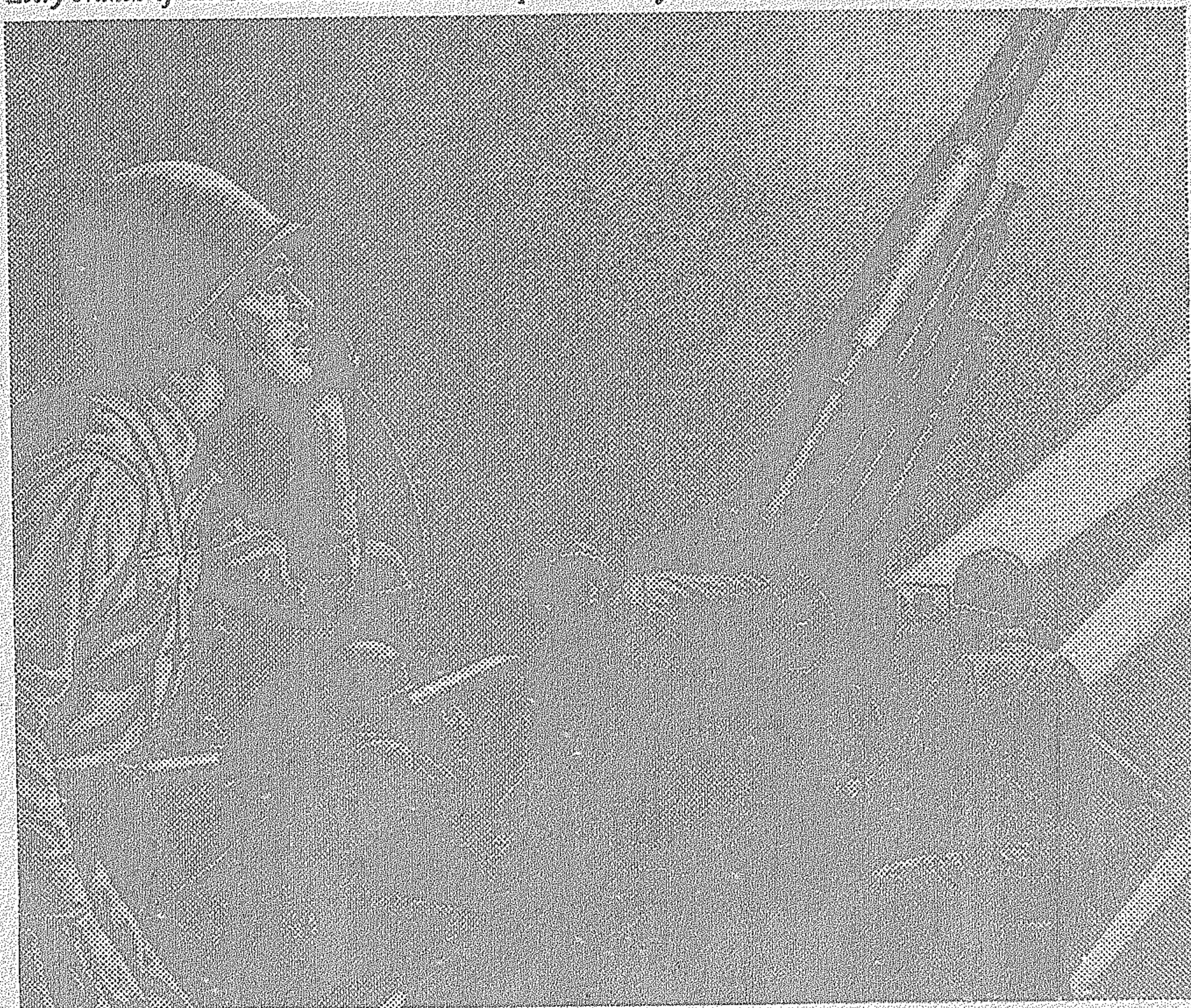
The X-ray unit is at present mounted for laboratory use in a universal standard so that pictures may be taken of any sample whether horizontal or vertical. This enables experimenters to photograph a specimen, which is at the same time attached to an electrical strain gage so that the actual value of the strain under study can be measured.

In the laboratory, the new equipment is being used with an adjustable calibrating bar designed by members of the Foundation staff. This calibrating bar is so arranged that any stress in the bar is always at the same distance from the camera.

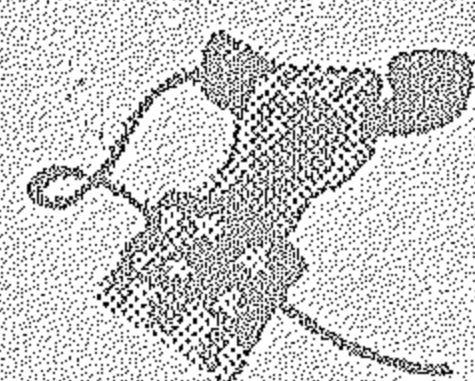
This unit can be used with tubes having any standard types of targets, depending on the type of work for which it is desired. Each metal gives off a characteristic wave-length when bombarded by an electron beam.

Preliminary studies have been made on several types of steels. These studies can give information concerning the previous history of the specimen both in respect to inelastic strain and heat treatment.

Every branch of the Armed Services uses the telephone. One of a series, Anti-Aircraft.

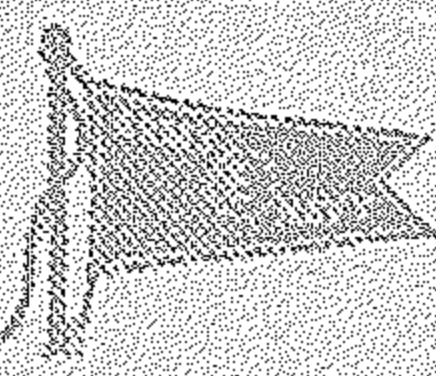


To his mother and dad it seems only yesterday that he was using the family telephone to call his high school sweetheart. But today the orders he sends and receives over his wartime telephone help speed the day when love and laughter, peace and progress shall again rule the world.



Western Electric

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