

Sr. Dance Site Grand Ballroom Of Drake Hotel

As has been the custom in previous years, the Senior class of Armour will hold their annual dance Friday evening, December 20. The date, the day that classes are dismissed for the Christmas vacation, was decided on after lengthy deliberation by the Senior social committee.

At The Drake

Among many important considerations that have been studied by the committee is the place of the dance. After a careful survey of the leading metropolitan hotels, the Drake was decided as the scene of the Senior dance. To insure plenty of room for the twinkling toes, both the Main ballroom and the adjoining Towers room have been obtained for the evening.

Although no definite plans regarding an orchestra have been made, the committee has been hard at work selecting the most desirable music for the time-honored event. The general scheme of the evening is to have one big and one small band. This idea of two bands is not new, for the Seniors used it with great success in their Junior formal last March.

Informality will be the key-note of the dance, the Senior Christmas party. Because of its nearness to Santa Claus time the date, December 20 is considered ideal for such a theme.

Football Team To Hold Dance For Sweaters

A cheery social note to brighten the coming winter's bleak blasts is the new football dance. The boys from Armour football team will conduct the affair Friday night, on the Student Union lounge's dance floor.

Considering the importance of the affair, the mere 75 cents charged for bids is very nominal. It will be worth the price of admission to see some of the football stars, so agile on the gridiron, shimmy around the dance floor.

To Purchase Sweaters

In charge of the dance will be the men who have played on the Institute's unofficial tackle team. From the proceeds of the dance, the students plan to purchase sweaters for the team.

"Even if you don't support us on the football field," say the members of the team, "please turn out and support us on the dance floor."

Scavenger—

(Continued from page one)

When the exuberant throng returns to the Union, which will be around 10 o'clock, the various trophies collected by the teams will be weighed and measured, and proper prizes awarded. After this ceremony, tasty and nourishing sandwiches will be supplied in quantity to the crowd. Barrels of cider will also be available. The remainder of the evening will be spent indulging in some good, old fashioned stag games such as poker, pinochle, etc., and in a general "bull" session.

Tickets Out Today

Because of the limited capacity of the Union for such an affair, only 150 tickets will be distributed. It is expected that these duckets will go on sale today. These passports to an exciting and hilarious evening are but 50 cents, and may be begged from Bud Murray, Fred DeMoney, Art Hauswald, Bob Greenberg, Thurber Stowell, and any senior commissioner.

Practice To Supplement Theory In New Air Conditioning Laboratory

Air-conditioning and refrigeration have finally made their formal debut at Armour College on a truly commendable scale. A brief inspection of the newly christened air-conditioning and refrigeration laboratory in the basement of Machinery Hall will readily illustrate the benefits of this innovation.

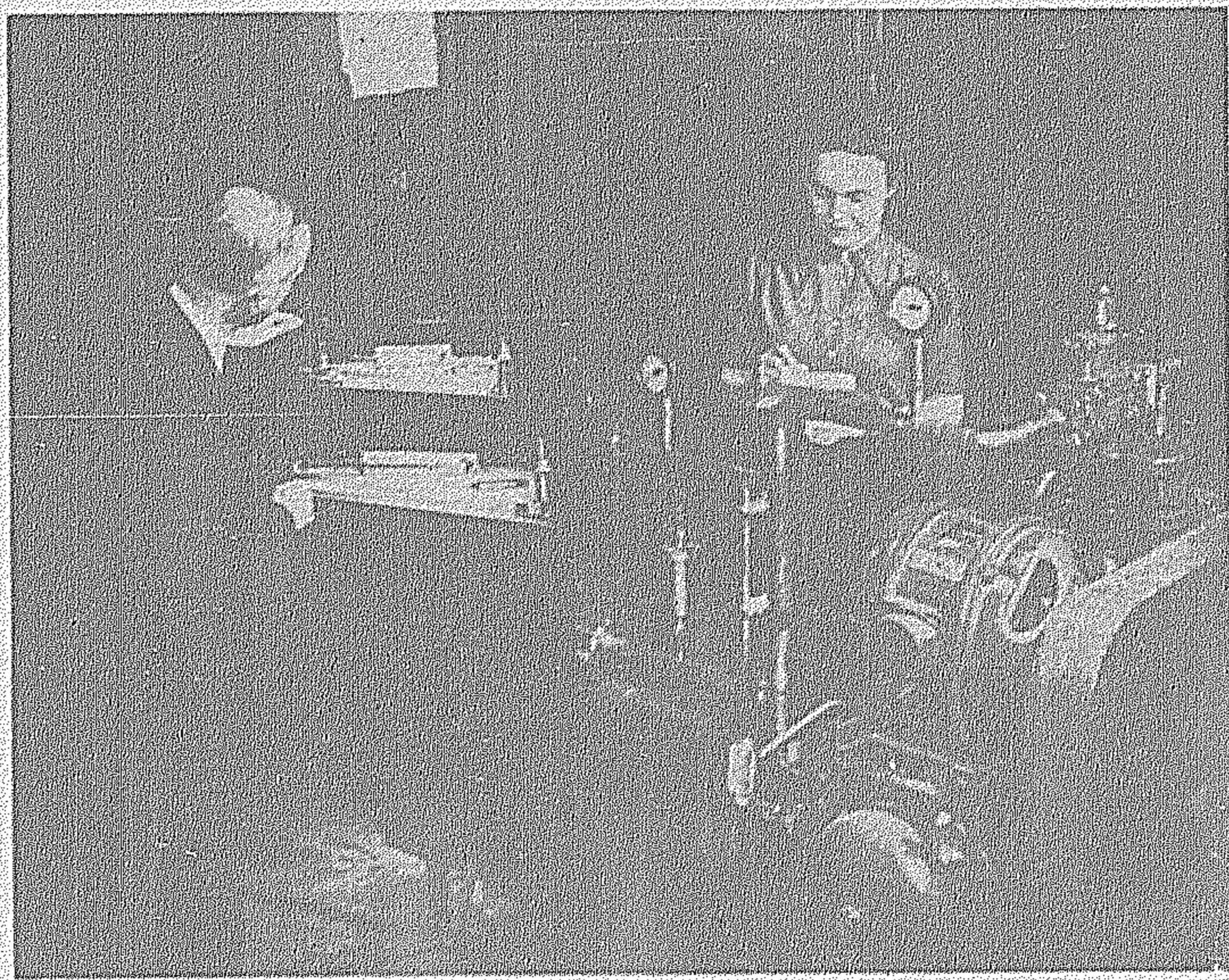
The installation has made possible the replacement of theoretical courses in these vital subjects by actual experimental study using commercial machines. The new equipment shares the room with some older steam machinery formerly located in the Main Building.

Peebles Instructs

All mechanical engineering students and probably the fire-pro-

ated back against the rear wall of the laboratory. This consists of a complete air-conditioning unit which is capable of performing more feats than a flea circus. Air enters this long tunnel-like structure through an adjustable damper at one end. A powerful blower attracts the unsuspecting air into the machine and then whisks it along through treatments which vary in temperature from a cold shower to a stroll over the burning sands of the Sahara. The air is first subjected to a series of very fine sprays of water. These may be adjusted to merely wash the air or to add or remove moisture as desired. For example, summer air might contain excessive humidity. In this

SOME LIKE IT HOT!



Prof. James C. Peebles gives the pilot tubes the eye as Betty Reese takes down data in a test of the new air conditioning unit in the basement of Machinery Hall. To the right is the special Freon Compressor. By Anderson and Raymond, Staff Photographers

tection and chemical engineers are to utilize the modern facilities of the lab. during their mechanical laboratory courses under the guidance of Professor J. C. Peebles.

Probably the first collection of pipes, dials, valves, and other choicely assorted screws and bolts which opens the eyes of the uninformed visitor as he enters the spic and span room is a commercial water cooler. It consists of a series of cooling coils connected to a five-ton Freon compressor, the latter having been graciously donated by the Mills Novelty Company. The cooling medium in the machine is Freon, which is a gas under ordinary conditions. This compressed gas is led from the compressor into a water-cooled condenser where the low-temperature causes the gas to condense to a liquid. Next the compressed liquid is allowed to expand into the gaseous state through an injector valve. As the expansion of a liquid into a vapor absorbs much heat, the water, which is passing over the pipes containing the expanding gas, is cooled considerably. The compressor has a capacity of five tons; this may also be expressed as the removal of 60,000 B.T.U.s (British thermal units) of heat per hour. This means that the device will cool between six and seven gallons of water per minute from a temperature of 65°F (approximately the temperature of tap water in summer) to 45°F. Commercially this type of machine is used to cool everything from babies' milk to beer. Incidentally, many room-coolers work on a similar principle, with the air being blown over a cooling coil of expanded Freon gas.

Complete Unit

A second piece of apparatus (and by far the largest) is situ-

case the water sprays would be controlled so as to cause the condensation of undesirable water vapor. In winter the situation would probably be reversed because then it is necessary to add moisture to the dry, cold air.

Versatile

The next element of the unit is a steam heating coil which has a capacity of 375,000 B.T.U.s per hour. This coil resembles an automobile radiator and heats the air when added warmth is necessary. After the air has passed over the heating coils, it travels through the cooling coils (no fooling)! The explanation of this apparently paradoxical situation lies in the fact that heating or cooling effects are usually desired at different times. Thus one element operates while the other does not. This arrangement allows the air-conditioning unit to function the entire year round, giving a completely versatile type of air-conditioning.

The cooling coils of the machine are similar to those on the water cooler mentioned previously. Freon is again the cooling medium; the same type of compressor is used in both cases. The ILG Electric Ventilating Company donated the air-conditioning unit proper, while the thermostatic controls were supplied gratuitously by the Powers Regulator Company. The thermostatic controls automatically govern the temperature of all elements of the unit. The entire device is designed to demonstrate the complete possibilities of a commercial installation. Students will conduct various tests with the equipment, including humidifying, dehumidifying, heating, and cooling.

Safety Devices

A very important advantage en-

Britain-U.S. Naval Trade, Subject Of Graduate Lecture

What will be the result of the recent trade between the United States and Great Britain? Such was the topic discussed by Dr. John Day Larkin last Friday, November 14.

Two points were brought up by Dr. Larkin. One was whether or not the President or Congress has the right to authorize such an agreement and the other concerned the complications of this act with International Law.

Throughout the history of our government, the President of the United States has had the power to receive ambassadors, dismiss them, and to recognize foreign governments. Since the President receives foreign delegations he should be the one to make arrangements for international agreements. Theodore Roosevelt made several agreements following the Spanish-American War which Congress did not ratify. Theodore Roosevelt then preceded to put these agreement into effect through the channels mentioned above. Also the President being commander-in-chief of the army and navy would have authority to make a trade which might prove beneficial to the army or navy.

Congress claims its right to exercise such agreements exists in the fact that Congress must appropriate money and equipment for the army and navy.

Lewis' Seminar Has First Meet

Lewis Undergraduate Chemistry Seminar held its first meeting of the quarter at 3 P.M. last Thursday. A 200 gram sample of Flossie Moss', superb cake and 150 cc of coffee were used in the first experiment.

Mr. Norman Kharasch addressed the group on the purposes of the organization in giving the student an opportunity to express himself, an ability which Mr. Kharasch asserted is as important as the knowledge of the science itself. The second objective of the seminar is the formation of a Lewis Chemical society, which may at some future time become affiliated with the American Chemical Society. He summarized the purposes of the seminar by the symbol C3 meaning coffee, cake, and chemistry.

Dr. Duncan MacMillan was introduced by Mr. Kharasch, and spoke on the liquid ammonia series. After his brief talk on the solubility of compounds in this medium, the meeting was opened for group discussion.

Florence Moss, Lowell Stevenson, Harriet Kott, and Allen Falkman were named as a committee to arrange the details of membership, dues, and programs for the remainder of the quarter.

Math Is Applied To Plasticity In Sadowsky's Talk

"Applications off Differential Geometry to Plasticity" was the title of a lecture by Dr. Sadowsky of our mathematics department. This talk is one of a series of lectures held every other Friday in room 105 Chapin Hall.

Helpful to Engineers

In his discussion the speaker emphasized that the subject is quite complicated and can be approached from two different standpoints, one phase is the engineering aspect of plasticity, and the other is a pure mathematical analysis which can then be applied to the actual case. Dr. Sadowsky has written a detailed paper on this topic, and he says that engineers have found his method of analysis very helpful for the solution of some practical problems.

Steel Slip Lines

Finally Dr. Sadowsky showed photographs to demonstrate the experimental evidences for his theory. These photos show certain slip lines in rolled steel, the shape of which agrees very closely with the shape that has been predicted by the theory.

Since some of the theory is based on equal differential areas, some of the experiments require many accurate measurements and a multitude of tiresome computations.

Department Busy

This afternoon Dr. L. Ford will lecture to the Mathematics Club at Northwestern University. His talk is scheduled at 4:30 in the afternoon in room 323 Music Hall, and the theme is "Conformal Mapping and Its Engineering Applications."

Following the lecture the Mathematics Club will give a dinner at 6:15 p.m. All members of the mathematics faculty and their wives are cordially invited, and many of them expect to attend.

Special Systems

One of the most important concepts in all mathematics is that of ordering relation. Perhaps even more important than "simple" ordering, such as occurs for integer, real numbers, etc., is so-called "partial" ordering. Professor Wilcox, in the near future will discuss recent developments in the theory of partially ordered systems, with particular reference to their applications to the foundations of geometry.

Early in December Dr. Sadowsky will go to New York to present a paper on this new method before the American Society of Mechanical Engineers.

The next lecture of this Friday morning series will be given November 6, at 10:10 a.m. in room 105 Chapin Hall. Dr. John DeCicco will speak on Differential Elements.

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