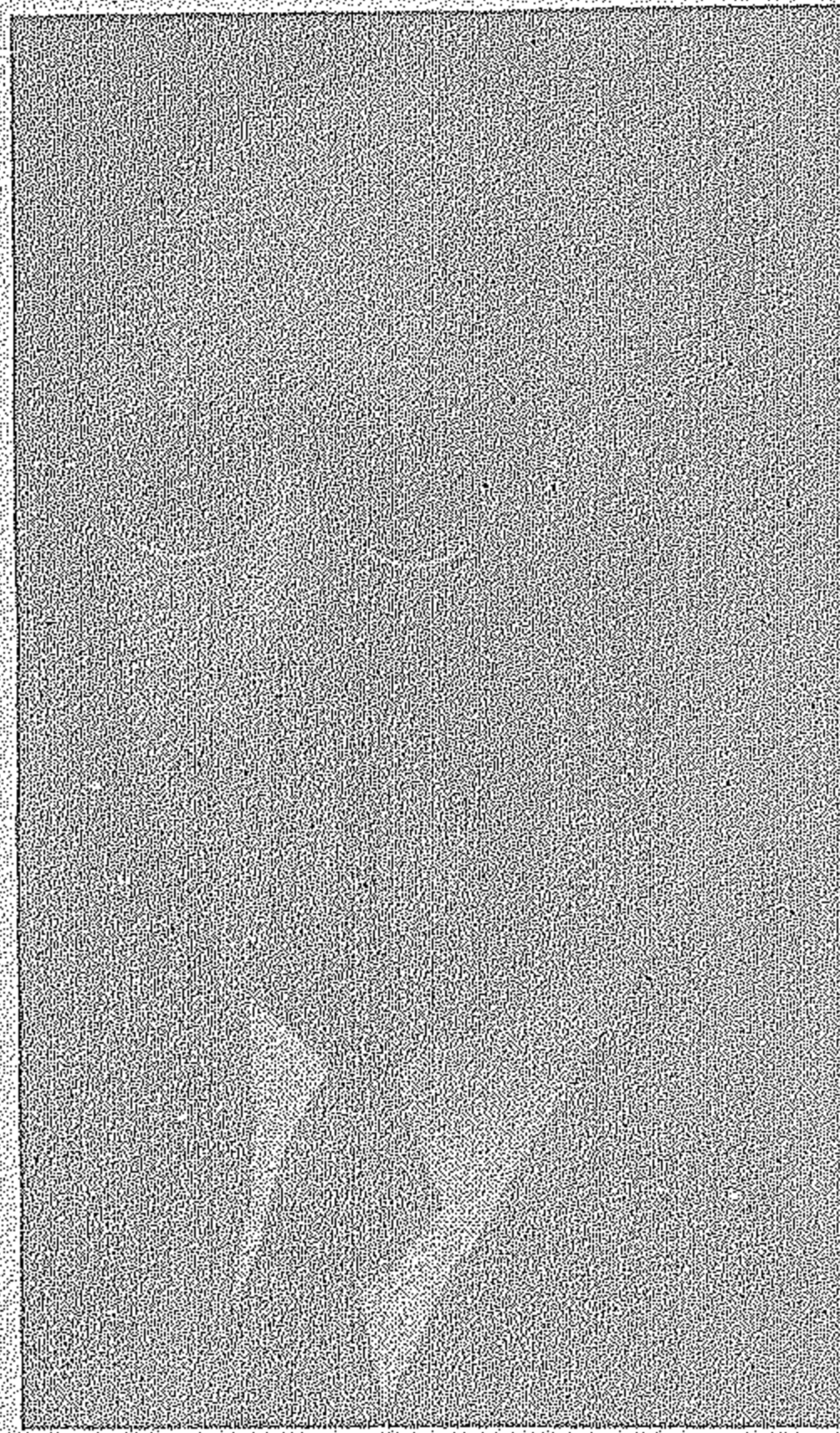


# THE OTHER SIDE

## Reisner expert in many fields

Although information as to the pedagogical ability of the various members of our faculty can be readily obtained from practically any member of the student body, they have an extremely limited knowledge of the research work which has been and is being done by these men. In an attempt to enlighten the members of the student body in this matter, the IIT chapter of the Society of Sigma Xi, national honorary scientific research fraternity, is sponsoring a series of articles which will appear in TECHNOLOGY NEWS during the following weeks. This week a short biography of Dr. Hans Reissner is being presented.

The idea of the controllable pitch propeller is well known to most of us. Similarly, all of us are familiar with the construction of all-metal, steel, and aluminum planes. The design of both the first all-metal steel-aluminum plane and the first truly practical controllable pitch propeller were the result of Dr. Reissner, research professor of engineering. If the work of Professor Reissner had been confined to these two developments, it would have been sufficient to make his lifelong reputation. However, Professor Reissner's contributions in the field of elasticity, structural analysis, aerodynamics, hydrodynamics, and physics have been so numerous and of such an important nature that it is impos-



Hans Reissner

sible to discuss or even mention all of them here.

Before Dr. Reissner's entry into this country he was a consultant to the German Air Ministry and to several German airplane engine factories. He was then regarded as one of the leading propeller experts in Germany.

As a student Dr. Reissner studied under Professor Muller, one of the founders of graphical and analytical statics. He received his engineering diploma (master's degree in engineering) in 1900. Soon afterwards he left for the United States

where he worked as a structural draftsman for a short time. After returning to Germany and receiving his doctor's degree, he became a professor of engineering mechanics in Aachen.

In 1912, Professor Reissner went to Berlin where he was a professor of engineering mechanics until 1936 in the Technische Hochschule (Institute of Technology). During this period, he published papers on the oscillations of frame structures, structural analysis of "spherical shells," and special gravitational fields. Soon afterward Dr. Reissner entered the field of aviation in the development of which he was to play a considerable role. His pioneer investigations in the field of aerodynamics explained previously little understood phenomena. Investigations into the nature of stresses and deflections of airplane structures, and systemization of aeronautical engineering all gave impetus to aeronautical science.

Since arriving in this country Professor Reissner has published papers on the vortex theory of the screw propeller which have greatly clarified the influence of parasite drag on blades. Returning to the field of his doctor's thesis, professor Reissner, in explanation of the Tacoma bridge crash, has recently published a paper on bridge vibrations in the Journal of Applied Mechanics. This paper gives formula to avoid aerodynamic instability of suspension bridges. At present, besides his work in elasticity, Dr. Reissner is consulting on theoretical propeller design for the major propeller manufacturers. It is indeed our good fortune that this country and IIT have the services of such a great man.

## Outstanding men selected for honoraries

Twenty students were recently elected to the honorary fraternities at the Illinois Institute of Technology. Membership in the organizations is granted on the basis of outstanding scholarship and leadership in extra-curricular activities.

Initiates of Chi Epsilon, civil engineering honorary, are Robert Walther and Sheldon Young.

The honorary fraternity of electrical engineers, Eta Kappa Nu, elected Stanley Cooper, Wesley DeBruin, and Roger Paterson.

Pi Tau Sigma, an organization for outstanding mechanical engineers, named the following men: Thomas Dunsheath, Earl Goldberger, Ernest Hedeon, Jr., Bryon Round, Charles Rowbotham, Robert Schneller, Jack Soderberg, Charles Farr, Marcus Heidman, Frank Carqueville, James Carroll, Lowen Shearer, Bert McClenaghan, Robert Erikson, and Robert Botham.

## Dr. Dohrenwend WSE speaker

Dr. Clayton O. Dohrenwend, Supervisor of Engineering Mechanics at the Armour Research Foundation, spoke to the Western Society of Engineers, April 5th, on the latest developments in strain measurements. The meeting took place in the evening at 205 W. Wacker Drive.

Lantern slides were shown in addition to demonstrations of actual equipment. Dr. Dohrenwend described the various available types of electrical strain gauges and related equipment, and showed how and when they could be used, both in the field and laboratory. The measurement of rapidly changing strains, up to 8,000 cycles per second, was also discussed, and important new developments on accurately determining strains in structures subject to impact loads, revealed.

Demonstrations were given on laboratory type measurements for such complex problems as eccentricity in springs.

Also receiving attention were the use of X-rays for the study of plastic strains. These unusual presentations enabled the members of the Society and their guests to become acquainted with the latest developments in a field which is of particular importance to mechanical engineers.

## Engineer shortage topic of conference

Illinois Institute of Technology and Northwestern will serve as hosts at the annual meeting of the Society for Promotion of Engineering Education to be held at the Drake Hotel on June 18-20.

This year the society is faced with the critical problem of supplying engineers to the nation. With national production speeded up for the war effort, the most conservative estimates indicate that at least 80,000 more engineers are needed. Some estimates are as high as 200,000. How to meet these needs with a current graduation of only 15,000 engineers a year will be the theme of the conference.

Arrangements for this meeting will be directed by President Henry T. Heald.

The objects of the society, as set forth in its constitution, are the promotion of the highest ideals in the conduct of engineering education with respect to administration curriculum, teaching work, and the maintenance of a high professional standard among its members. The means of reaching these goals, as listed in the constitution, are educational research, meetings for the reading and discussion of professional papers, and the publishing of reports of papers, discussions, and communications.

Lewis gets the call on the best songs of all

## ESMWT trainees complete ten-week chemistry course

Thirteen trainees recently completed the ten week war training course in chemistry given at IIT under the Engineering, Science, and Management War Training program.

The fact that 12 of the graduates are women emphasizes the new importance of women in the war effort.

A luncheon was held last Friday, April 2nd, by the graduates at Carson Pirie Scott and Company to celebrate their completion of the course. John I. Yellott, director of war training at Illinois Tech, was speaker at the gathering.

## Former instructor visits IIT's campus while on furlough

Private Allen Walker Reed, a former English instructor at IIT, visited the campus while on a furlough last week. Private Reed entered the Second Service Command at New York City last summer, and was assigned to work on a dictionary of army terms.

While he taught at Illinois Tech, he did research work on British pronunciations for his Dictionary of Britishisms. In addition to this, he has written a number of articles for various journals.

Reed says he enjoys army life and plans to return to Illinois Tech after the war ends.

## POWER

(Continued from page 1) mechanicals are advised to attend either morning or afternoon sessions, if their program permits.

Students who wish to attend the conference are asked to make reservations before hand so that registrations will be ready for them at the Palmer House. Pre-registration cards should be filled out and returned to Professors Nash or Winston before Wednesday, April 7.

Features of this year's convention are the "All Engineers" dinner, on Thursday evening, and the Army Engineering Hour, to be held on Friday night. James D. Cunningham, Chairman of the Board of Trustees of IIT, will be the toast master at the dinner. The speaker of the evening is James L. Walsh, U. S. Army, Retired. His subject will be "Logistics, Science of Survival." Henry S. Aurand, Commanding General, Sixth Service Command, will introduce Col. Walsh. Entertainment is to be provided during the dinner by the Illinois Tech Musical Clubs, under the direction of O. Gordon Erickson. The Army Engineering Hour is a war time feature of the conference. It has been organized for the benefit of attending Army engineers, but anyone registered with the conferences. Following the army hour there will be a social hour.

### ALL SCHOOL SOCIAL COMMITTEE

meets in UZW Friday, April 9, at 5:00 p. m.

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