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Official
Undergraduate
News Organ
of Technology

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ON THE ALDRED LECTURES

THE Aldred Lectures will long remain a monument to the intelligent interest with which friends of the Institute regard its efforts to produce successful engineers. Mr. Aldred, himself a banker, is interested in engineers, having been associated with them through most of his life in water power developments in this country and in Canada. He was early impressed by the achievements in engineering fields of the so-called "practical man" who, while not very familiar with the scientific principles involved, is blessed with abundant common sense and a large capacity for learning by experience.

The lecture series was conceived with the idea of driving home the enormous importance of this factor of common sense to the Technology undergraduates. In Mr. Aldred's own words, "It will be a contribution to the engineer's training if the lectures give the student an opportunity of coming in contact with men who have made an outstanding success in their various lines of undertaking and best illustrate the value of practical experience, coupled with technical knowledge."

"This contribution is put forward with the hope that it will assist the graduate student going out to take up his life work by having in mind at the outset of his career that the work he is to do must be a practical contribution to the problems of the day."

It is a curious observation that the effect of the lectures has been precisely the opposite of laying before the Seniors a practical program for their endeavors after graduation. The speakers, all men who have reached the heights of their phases of engineering, have succeeded in firing the imaginations of their listeners, in giving them a glimpse behind the scenes in undertakings of stupendous magnitude, but they have not told the Seniors much about how they could use young engineers, and what types of employment would be most likely to yield quickly that "practical experience" which all agree is essential to successful engineering.

A student returning home, his fancy alight with Doctor Modjeski's description of five and six hundred foot spans, to sit up all night working out his forty foot span bridge problem, might wonder a little if he did not come closer to the practical in the class room.

The Tech takes great pleasure in announcing the following elections to Volume XLIV:

Managing Board: General Manager, D. A. Henderson '25; Editor, H. G. Burt '25; Managing Editor, J. P. Ramsey, Jr. '25; Business Manager, A. M. Worthington, Jr. '25.

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Business Department: Advertising Division; Assistant Managers; T. A. Mangelsdorf '26, W. H. Taylor '26; Advertising Staff; P. L. Mahoney '26, E. F. Stevens '26 (Leave of absence). Circulation Division: Assistant Managers; R. F. Butler '26, M. P. Woodason '26, W. J. Mearls '26 (Leave of absence): Circulation Staff; W. H. Reed '27, H. M. Houghton '27, J. S. Harris '27. Treasury Division: Treasury Staff; George Gerst '27, G. A. Hall '27, L. F. Van Mater '27, W. A. Witham '27.

The charms for the best work in the various departments during the past two weeks have been awarded to: Charles Rich '26, Night Editor; F. E. Anderson '26, News; F. W. Gratz '26 Editorial and Features; and George Gerst '27, Business Department.

Research In Gears Being Conducted at Technology

Preparations for original research for determining the effect of speed upon the strength of gear teeth are being made by the Mechanical Engineering Department of the Institute. The American Society of Mechanical Engineers, sponsor of the tests, has undertaken the development of a machine invented by C. H. Logue, in 1920, which will make it possible to arrive at accurate determinations. Facilities at the Institute, unobtainable anywhere else, governed the Society in choosing that the test be conducted here. Professor Miller, who made a recent trip to Philadelphia to investigate plans for the gear tester, states that several months will be required to construct the machine after the plans have been put in final form by the department.

Several theoretical methods have been devised to calculate differentials in velocity ratios and increment loads as related to mass and speed, and the purpose of the Logue machine is to afford a means of checking these theoretical computations.

The new gear tester consists of a wide faced pinion mounted in bearings on a swing frame which carries a pair of engaging gears in telescoped shafts, the outer ends of which can be twisted and locked together by a powerful friction clutch. The movement used in twisting is measured by a weighted lever, and this measures the load on the gear teeth acting in equal and opposite directions upon the wide faced pinion. By means of a Watt parallel motion connected to a stylus in contact with a smoked glass or photographic film, the shifting of the gears running in contact will be indicated, giving a story of the increments and decrements in the load carried on the teeth.

The machine was brought to its final form by Wilfred Lewis, of Philadelphia, president of the Tabor Manufacturing Co., and Daniel Adamson. Mr. Lewis is chairman of the A.S.M.E. Research Committee on Gears.

The success of the experiments with the machine will bring to light facts hitherto unknown about the effect of speed upon strength, friction, and wear, and offers opportunities to solve other questions that may arise for solution. Of most importance, the experiments of the Institute will prove the correctness of either the Walker or Lache method for computing the ratio of allowable load.

HARVARD ALUMNI WILL CONGRATULATE ELIOT

On March 20 representatives of the 45,000 Harvard alumni and many leading citizens from all over the country will gather at Harvard to do honor to President Eliot on his ninetieth birthday. President Eliot served for forty years, from 1869 to 1909. During this long period he was responsible for the development of the graduate schools and for the institution of the elective system in the undergraduate college. Under the leadership of the President Emeritus, there was a nation-wide raising of the entrance requirements to Universities, which naturally resulted in an equal raising of the standards of both secondary schools and of graduate colleges. President Eliot graduated from Harvard in 1853 and was elected to the presidency of the University when but 35. As chairman of the committee of ten of the National Educational Association in 1890, President Eliot aided in lifting the level of the secondary schools of the country and in presenting more options for entrance examinations. For many years he has been a prominent figure in the advancement of education.

Play Directory

ARLINGTON: "Going Up." Stock company musical comedy. Fair.

COLONIAL: "Music Box Revue." An unusually good show.

COPLY: "Secrets." A romantic comedy by Rudolf Besier and May Edginton.

HOLLIS: "The 1st Year." Last three performances of a very good comedy.

MAJESTIC: "America." A Griffith movie.

PLYMOUTH: "You and I." With H. B. Warner.

ST. JAMES: "The Alarm Clock." Laugh producing farce.

SELWYN: "Stella Dallas."

SHUBERT: "Up She Goes." Last week here.

TREMONT: "Zander the Great." With Alice Brady. Last week.

WILBUR: "The Dancers." A love story.

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