

Book Published by Prof. Milne

Professor of Mathematics Solves Many Problems on Damped Vibration Theory

A little book is being published by the University of Oregon Press which is causing the printers more trouble than anything they have ever before attempted to print but which, when finished, will be a tremendous boon to scientists and mechanical engineers. The title of the work is "Damped Vibrations."

In this book Professor W. E. Milne, of the mathematics department of the University, sets forth the solutions to many of the problems connected with the measuring of friction which heretofore have been merely approximated.

To one who has gone no further in mathematics than geometry the book is nothing more than a complicated collection of figures, both Arabic and Roman, Greek and Latin letters and mathematical symbols, with a little explanatory matter. It was necessary for the University Press to order whole new magazines of characters for its linotype machines in order to set the copy.

Professor Milne began at the very beginning when asked to tell what the book would accomplish. "A damped vibration," he said, "is any sort of vibration that is retarded by friction."

For example the pendulum swings for a while and then comes to rest. The retardation which brings it to rest is the damping."

Some of the most difficult mechanical problems arise through the necessity of measuring the relation between the speed of vibration and frictional resistance. It is this problem which Professor Milne has solved in his little book.

"The amount of frictional resistance depends upon the speed of vibration," the professor said. "In many cases the resistance increases directly with the velocity. In such instances the computing of the retardation of vibration is comparatively easy."

"In others the resistance increases as the square or other power of the speed of vibration," he continued. In these the computation is much more difficult and has never before been solved mathematically. Mechanical engineers have heretofore merely approximated the retardation, Professor Milne said.

The book consists of four parts, the first dealing with general qualitative results, and the character of the motion which follows. It serves as an introduction to the more detailed study which follows.

The second division is given to a very minute study of the case in which the retardation varies according to the square of the velocity of vibration.

The third is the part in which engineers will be most interested. It gives solutions for more complex cases important in the designing of hydraulic surge chambers in which only approximations have been used before. Numerical tables useful in actually working problems are given in the last part.

Professor Milne began working on the problem in the summer of 1921. The suggestion came from a speech given at a meeting of the American Association for the Advancement of Science in Seattle. The summer of the following year he was aided by an army computer from the ordnance department. Students also have helped with the computation. Funds for these services were provided by the University research department.

One of the interesting facts concerning Professor Milne's work is that it was accomplished entirely by mathematics without mechanical experiment. Professor Van Zandt at California had previously performed experiments which check with Professor Milne's solutions.

Tri Delts First In Posture Test

The bronze plaque depicting the joy of perfect posture offered to the women's house making the highest average in the tests conducted by the seniors in the department of physical education for women was awarded to Delta Delta Delta, according to the results of the tests announced yesterday. The Tri-Delts stand highest on the list with a lead of nine-tenths of one percent over Tau Nu, which was given a rating of 80 percent.

The two houses standing next on the list are Kappa Kappa Gamma and Pi Beta Phi with a grade of 78 percent for

both. The Oregon club is fifth with a rating of 75 percent.

The posture examinations Thursday evening came as the closing event of a one day drive by the physical education seniors intended to arouse the interest of the girls on the campus in better physical appearance. The program for the day included a mass meeting of the Women's League at which a stunt "Posture Follies" was given by the junior and senior gym majors. A film entitled "Foot Follies" was also shown.

The drive was under the direction of Charlotte Clark with Mildred LeCompte in charge of the program at the meeting in the afternoon. Posters depicting the members of the "Hump" family and others bringing out grousing details of poor posture were prominently displayed about the Woman's building during the meeting and a vote on the most effective one gave the honor to Frances Habersham with Mildred LeCompte and Esther Pike taking second and third places respectively.

SPORTS

By Webster Jones

TENTH INNING RALLY GIVES FROSH VICTORY IN HARD FOUGHT GAME

Yesterday's frosh-rook game was not lacking in critical moments, a last minute climax, or a happy ending, the score being frosh 4, rooks 3.

Fred Harrison, whose twirling held Rook sluggers at bay in the first game of the series, played the part of the conquering hero in yesterday's melee also. Coming to bat in the last half of the tenth inning with the baby Beavers holding a one run lead, Harrison slapped one of Coleman's benders on the nose for two bases, scoring Slade and Hobson.

Considering the fact that Coleman pitched for the Ag youngsters day before yesterday, the lanky boy deserves a lot of credit for his showing in yesterday's struggle. He was nicked for eight hits during the ten innings, walked one man, hit two and sent 12 of the Lemon Yellow yearlings back to the bench via the strikeout route.

"Fuzzy" Carson had a pretty good day in the box himself, and although he passed four men and struck out but seven, he allowed the rooks but seven safeties and kept them well scattered. With the exception of a bobble in the tenth when he threw to catch a man going second when the man going first would have been an easy out, Carson pitched a heady game and crawled out of some bad holes without letting any runs across.

Sigrist, the Aggie right fielder, copped off the hitting laurels for the day with three hits out of four times at bat, one of his swats going for four bags. That hit, incidentally, was one of the longest seen on the local diamond for many moons. It sailed over Terrell's head and by the time the speedy little left fielder could catch up with it, it had rolled around the corner of Susan Campbell hall.

Terrell had a good day with the stick, bagging three singles out of five attempts. Bittner, Scriptures and Harrison each slugged out a two base hit. The only other extra base hit of the game was made by Coleman and went for three bases.

Summary: 123 456 789 10—R H E
Rooks 000 101 000 1—3 7 3
Frosh 000 002 000 2—4 8 4

OREGON TEAM LOSES DUAL TRACK MEET IN NORTH; SCORE IS 80-45

University of Washington, Seattle, Washington, May 26.—(Special to the Emerald)—The University of Oregon lost the dual track meet this afternoon to the University of Washington by total score of 80 to 45. Cold wind and rain prevented the showing up of Oregon's best men. Larson was off and failed to place in either race—the century or the 220. Spearow, Oregon pole vaulter split points in his events, on account of the cold, without jumping.

Oregon got three firsts: Jack Hunt,

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taking first in the high hurdles. Three places were garnered in the quarter and the relay was won by the Oregon team. Hurley, Washington sprint ace, was high point man of the meet, with 15 marks to his credit.

OREGON DEFEATED BY WASHINGTON'S TENNIS TEAM IN TOURNAMENT

The University of Washington tennis team easily defeated the varsity by a score of 7 to 0 in the tournament played yesterday afternoon on the varsity tennis courts. Every match except one was lost to the Washington team by two straight sets out of three. The last match of the meet was hotly contested by both teams and three sets were played in order to determine the winner. Hesketh's brilliant net playing and Marion's service were the deciding factors in this set.

The winning Washington team was composed of some of the best intercollegiate players on the coast.

Hesketh won the singles in the Pacific Coast conference meet at Seattle on May 11 and 12, while Langley and Hesketh won the doubles in the meet. Three teams were entered—University of Washington, Oregon Agricultural College, and University of Oregon, and Washington won the meet.

The Oregon team was composed of Capt. Steve Williams, Leon Culbertson, Hugh Starkweather, Frank Rice and Harry Meyers. Rice and Meyers are new men on the team this year. Rice played in the Reed College meet and the O. A. C. meet and Meyers also played in the O. A. C. meet. The next tennis meet will be with O. A. C. at Corvallis on June 2.

Summary of meet:

Doubles: Langley and Livengood of Washington defeated Starkweather and Rice of Oregon 6-4 and 6-2. Hesketh and Marion of Washington defeated Williams and Culbertson of Oregon 7-5, 4-6 and 6-1.

Singles: Marion of Washington defeated Rice of Oregon 6-4 and 6-2. Johnson of Washington defeated Meyers of Oregon 6-1 and 6-1. Livengood of Washington defeated Starkweather of Oregon 6-1 and 6-1. Langley of Washington defeated Culbertson of Oregon 6-1 and 6-0. Hesketh of Washington defeated Williams of Oregon 6-0 and 6-3.

VANDAL PLAYERS WIN SERIES FROM VARSITY

University of Idaho, Moscow, Idaho, May 26.—(Special to the Emerald)—The University of Oregon baseball team lost the second game of the two game series this afternoon to the University of Idaho by a score of 12 to 8.

Latham, the versatile athlete, pitched the last seven innings of the game and allowed only two hits in that time. Latham has played almost every position on the squad—from first base to outfield and infield and now he has pitched a creditable game to round out his experience.

Batteries: University of Idaho, Golden and Guernela. University of Oregon, Brooks, Latham and Cook.

Summary: R H E
Oregon 8 12 5
Idaho 12 11 1

WOMEN TENNIS TEAMS LOSE TO O. A. C. CO-EDS

Playing under threatening skies and with a breeze to fight the Oregon and O. A. C. women played off the interclass intercollegiate single and double matches in tennis yesterday. Oregon took junior doubles; soph singles and frosh singles and doubles. O. A. C. won the contest with both senior singles and doubles to her credit and junior singles and soph doubles.

BEST SUGGESTION TURNED IN BY ART RUDD NETS PRIZE

In competition with all members of the Portland Oregon Journal staff, Art Rudd, University correspondent for that publication, won first prize in the March contest, for the best suggestion turned in, for the improvement of the paper. The contest is conducted each month among the staff members of the Journal and the reward is of monetary nature.

Rudd has been connected with the Journal staff for seven years in both the capacity of correspondent and in the office and has been the Journal's campus reporter for the last three years.

ELEPHANT LIKES MOVIES

"Oscar," the elephant, who plays a leading role in Thomas H. Ince's production of "Soul of the Beast," developed a mania for screen appearances during his eight weeks' association with the movie company. "Oscar" is a prize member of the Selig Zoo and he became violently attached to all the members of the Ince company while C. Gardner Sullivan's great human interest story was in production. Early every morning he would begin to stamp and trumpet in his impatience to get out on location for he knew that work meant sugar.

FASCINATING DRAMA AT HELIG

Against a rural background of rare beauty and charm, the new William Fox offering, "The Village Blacksmith" which opens a three day engagement at the Helig Theatre Monday, unfolds a fascinating drama through which runs a romantic thread happily knotted in the end. There is a train wreck in this picture that is thrilling in its realism. Furthermore, occurring as it does at a crucial moment, the suspense is increased to the breathless point.

Monday and Tuesday Glenn Hunter

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