

YALE LABS SCENE OF ROAD RESEARCH TESTS

Six Army Trucks Sent from Technology—Return in Two Weeks

The six trucks that have been in use in the research work being done in the Electrical Engineering Department for the last four weeks left Sunday morning for the Mason Laboratories of the Sheffield Scientific School, New Haven, where they will be put through extensive tests for the purpose of determining the manner of energy absorption in various parts of the vehicle.

This particular branch of research or the tractive resistance of roads has been attracting wide interest in the army, scientific institutions, government bureaus and among truck manufacturers. The work is being directed by the Quartermaster Department through Major Mack L. Ireland, who has his headquarters here at Technology.

Do Research as Thesis Work

The following men are assistants to Major Ireland in the research work being carried on as a part of their thesis work: Captain G. H. Steele, Q. M. C., U. S. Army, special student at the Institute; R. C. Burrus '22,

Course II; H. Y. Tsui '22, Course I; P. E. Gruter '24, Course IX; R. W. Dennis '24, Course IX; R. B. Frost '21, Course IX, and C. H. MacFarland.

Backing this investigation, and taking active part in it are, the Division of Investigation and Tests of the United States Bureau of Roads, the Society of Automotive Engineers, the Massachusetts Highway Commission, the Connecticut Highway Commission, Yale University, Harvard University, Massachusetts Institute of Technology, and the Committee on the Economic Theory of Highway Transportation of the National Research Council.

Make Actual Road Tests

For the last month these trucks have been under tests that have been carried out over the concrete road on the Newburyport Turnpike at Lynnfield, Mass., and upon the return of the trucks from Yale these test runs will be continued.

The cars being tested consist of three standard army "B" trucks, one White reconnaissance car from the army, one three-ton trailer, and one seven and one-half ton Mack.

The Mason laboratories are equipped with a 100 HP absorption dynamometer which is the principal instrument for determining energy losses when the vehicle runs under its own power. Numerous tests for the study of heat radiation of the trucks' radiators are a part of the program and tire friction experiments are an important phase of the series of laboratory tests.

The trucks going to New Haven are equipped, some with pneumatic, and some with solid tires. Each type will be tested under varying loads and speeds. The tests made in the laboratories will be conducted in such a manner as to simulate road conditions and enable direct comparison to be made to the results obtained in the road tests.

'21 MEN RECOMMENDED FOR DEGREES

Several members of the class of '21 who completed their requirements during the summer were recommended to the corporation for their bachelor degrees at the Faculty meeting Wednesday. Professor A. L. Merrill announced the candidates yesterday. They are:

Course I: J. J. Collins, W. A. Fleming, W. M. B. Freeman, A. T. Johnson, F. B. Kittredge, O. B. Sias.

Course II: J. H. Becker, A. H. Blake, A. L. Bond, W. W. Brown, E. P. Clark, W. P. Corbett, E. S. Dennison, V. Dixon, A. Esner, J. A. Facet, P. L. Hanson, D. F. Simon, J. W. McNaul, J. Moosbrugger, P. A. Nelles, Jr., R. C. Poole, H. F. Rettew, W. J. Hamburger, L. C. McCloskey.

Course III: A. D. Harvey, A. O. Mills, W. H. Leonari.

Course IX B: C. S. Ekersigan, E. W. Jackson, W. R. McKeen, H. Victor, A. Kinzel.

Course X: A. R. Davis, R. B. Frost, O. G. Wilson, P. N. So.

Course XIII: P. Scott.

Course XV: C. C. Westland, C. A. Morss, A. W. Norton, H. W. Reinhardt.

E. E. SOCIETY HEARS ALUMNUS SPEAK ON BOSTON ELEVATED

At a meeting of the Electrical Engineering Society last evening in Walker, G. W. Allen '99, a prominent alumnus told about the electrical department of the Boston Elevated. Business matters of the Society were discussed, and movies were shown.

CATHOLIC CLUB HAS DINNER

The Catholic Club had a dinner Wednesday in north hall, Walker. Dean Talbot spoke on the necessity of obtaining knowledge outside of specialized service and Coach Kanaly outlined the Institute policy in regard to athletics. The old and new chaplains of the organization were on hand, the former to say a few words of farewell and the latter to be formally presented.

TICKETS GO ON SALE

Tickets for Musical Clubs' Dance, October 28, 1921, will be placed on sale at 12 o'clock today in the main lobby.

THEATRES (Continued from Page 2.)

mor and interest, with capable acting throughout. Nothing of lasting interest, but an entertaining presentation of crook stuff and mind-reading, in a novel manner.

PLYMOUTH: "The Woman in Bronze," 8:15. A very emotional play in which Margaret Anglin takes the leading part with even more than her customary skill.

HOLLIS: "Declassee," 8:15. Ethel Barrymore triumphs again in a brilliant, emotional story of the adventures of a titled English lady adrift in the wilds of New York.

COPLEY: "The Mob," 8:20. Galsworthy's famous wartime play appears for the first time in Boston. An exceedingly strong and thought-provoking note is sounded.

MAJESTIC: 8:00. Shubert Vaudeville making a strong bid for favor.

BOSTON OPERA HOUSE: 8:15. "In the Night Watch." Buckets of blood. Good dramatic action, well enough done. One more week.

ST. JAMES: "THE TEASER," 8:15. You know what the word means. A comedy of bad manners, suitably acted. Good music. Next week, "Under Cover."

ARLINGTON: "Manon," 8:15. Massenet's most popular opera at popular prices. Music well suited to scenes of good manners and easy morals. Next week, "The world's most popular opera," Il Trovatore.

FENWAY: (Fri. Sat.) Elsie Ferguson in "Sacred and Profane Love." Elaine Hammerstein in "Handcuffs or Kisses." (Sun.) Wallace Reid in the "Charm School." Wanda Hawley in "Her First Elopement."

B. F. KEITH'S: 8:00. The Four Mortons present a skit of songs and jokes. Patricola entertains with violin and song. Frances Pritchard features in a "Dance Duel" of waltz and jazz.

SYMPHONY HALL: Sat. Oct. 22, at 2:30, Edmund Clement the noted French tenor offers his art to the Boston public. Sun. Oct. 23, at 3:30, Efrem Zimbalist will perform a violin recital. The appearance of this master will no doubt be met with much pleasure and enthusiasm.

Tues. Oct. 25, at 8:15 and Wed. Oct. 26, at 2:30 and 8:15 three distinct concerts by the incomparable Anna Pavlova, her Ballet Russe, and her entire Paris and London organization with a Symphony Orchestra. The performances are the first of its kind in Boston this season and in all probability will be the last.

SELWYN (Formerly Park Square): "The Three Musketeers," 8:15. Douglas Fairbanks in an unusually fine picture. Chuck full of mystery, intrigue and adventure. There is sparkling court life, fiery love, and action all the time.

TREMONT TEMPLE: "Over the Hill," 8:15. A sentimental story showing a cross section of home life. Well done.

GLOBE: "Way Down East," 8:15. The greatest yet screened.

ST. JAMES: (Next Week) "Under Cover." A story of smugglers, house parties, and love. This piece had a long and successful run in Boston on its first production and is a favorite.

KEITHS: 8:00 (Next week). Featuring "The Singers Midget." To be reviewed later.

ST. JAMES—THE TEASER 8:15

The New York run of this play began sometime in August, and it is only due to accidentally favoring circumstances that it has been released for stock use. The management of the St. James has again shown discretion, and has chosen a play to satisfy the large and attentive audience. The talent at the disposal of Director has again been used judiciously, and the characters are portrayed to the best possible advantage.

This is a play of manners—mostly bad manners—which furnishes continuous entertainment. The title is a word too well-known to need explaining to most who will read this column. Leona Powers takes the role and pleases the audience. She appears at the age of fifteen from the heart of Michigan, faintly reminiscent of Peg o' My Heart, and for some months makes life interesting for her aunt and her satellites, from the moment she explains that she is late because she spent the previous night with her gentleman friend. The authors are practiced hands and attempted to

achieve tragedy, but the audience knows it to be straight comedy. The happy ending is inevitably coming, and secure in the knowledge of this, one can laugh when the Teaser forces herself and her friends into desperately compromising positions with all the abandon of a modern statesman. She herself cuts the knot, and happiness is distributed to everyone with a flavor of orange blossoms before the final curtain.

The music is good as usual and compares favorably with that to be heard along Tremont Street at any non-musical show.

MUSICAL AND HUMOROUS NUMBERS AT KEITH'S

"The Four Mortons" present songs and dialogue of Irish nature and very amusing. Ensign Al Moore has a truly jazz band of sailors. Ernest Ball, a song writer, sang some of his famous pieces while Patricola put over some lighter ditties. Frances Pritchard does some very clever waltzing and jazzing. Billy Dale gives a Parisian skit, while Will Cressy and Blanche Dayne depict New England country life.

NEW WIND TUNNELS BUILT IN AERONAUTICAL LABORATORY

Extensive construction operations have been going on in the M. I. T. Aeronautical Laboratory. Two new wind tunnels are being erected in the airdome. One of these will be the second largest in the United States and the fourth largest in the world.

The large tunnel will be 81 feet long with a diameter of 7 feet 6 inches. The propeller is 14 feet in diameter and will be driven direct by a 100 horsepower motor mounted on a concrete pier. A wind speed of 80 miles per hour will be attained. The average size of the models tested will be 3 feet. The new tunnel is of the venturi type, much superior to the old tunnel of rectangular section.

The smaller tunnel, which is now almost ready for operation, is of the same type but of smaller size. Its length is 42 feet and its diameter is 4 feet. The test models will average 18 inches in width. The propeller is 8 feet in diameter and is driven by a 17 horsepower motor which will give a wind speed of 60 miles per hour.

An idea of the increased efficiency of the new tunnels can be obtained by comparing the above figures with the following ones, which refer to the old tunnel, which has just been dismantled:

Length, 42 feet; diameter, four feet; wind speed, 30 miles per hour; motor horsepower, 13. It will be seen that the new tunnel, with nearly the same horsepower, has doubled the wind speed. This increased efficiency was obtained by several improvements in design. The cross section has been made perfectly circular, and the taper and flares have been made and more gradual. Veneer and plaster have been used in the construction, the plaster being laid on metal lath. Both of these methods are new departures in wind tunnel construction. The design of the propeller has been improved, and several accessories for straightening out the air flow which

CALL FOR '24 CHEER LEADERS

There will be a meeting of candidates for 1924 Field Day cheer leaders today at 5 o'clock in room 10-250.

were formerly considered essential were found to be unnecessary and were omitted.

As most Technology students know, the Institute's wind tunnel was the oldest in the country in point of continuous service, having been in use since 1913. Most of the U. S. Army's airplane model testing has been done here for the last four years, and a new contract has just been signed which gives an enlarged scope to the work. The new tunnels will also be employed in research for aircraft companies and for private individuals.

REPRESENTATIVES OF '25 MEET (Continued from Page 1.)

to sign a card saying that one is in sympathy with the aims of the association—a pledge of purpose.

Taylor then spoke of the representatives' biggest job namely, getting the men out for the teams, and keeping those who signed up. He stated that the crew needs men and the tug-o-war needs the men who signed up and only came out one day. There are twenty good men out for football, but it takes more men than that to make a team.

Anyone who wants to go out may report at the track house at 5 o'clock, except those for crew who may report at the boathouse just east of the Cottage Farm bridge. Taylor urged that the freshmen get out and watch practice to encourage the teams.

The need for experienced cheer leaders was also spoken of and candidates requested to report to G. W. Bricker '23 in room 2-190 Thursday at 5 o'clock.

The committee will meet again next Monday at 5 o'clock in room 2-190. If a representative cannot attend he is asked to send a substitute. The following is a list of the representatives:

Sections A and 1, J. H. Lanigan; 2, G. L. Bateman; 4, B. E. Groenwald; 5, N. R. Calley; 6, D. R. Campbell; 7, D. R. Taber; 8, R. G. Hills; 9, E. H. Fish; 10, G. B. Fletcher; 11, S. B. Waugh; 12, H. O. Lumb; 13, R. P. Price; 14, M. A. MacDuffie; 15, S. F. Elliot; 16, D. O. Oxnard; 17, L. W. Olson; 18, C. E. Knight; 20, Bowman McKennan; 21, Alexander Black; 22, Glennon Gilboy; 24, N. H. Russel.

NEW SERVICE STARTED IN WALKER DINING ROOM

A new service is to be inaugurated in the Walker cafeteria whereby almost all waiting at the noon-day rush will be eliminated. The plan is, that the "hot counter" which has not been used since before the war, will be used to dispense the thirty and forty-five cent special lunches. The present counter will be used for all other dishes. The superintendent of the dining service hopes that this plan will solve the present difficulty, but if it does not he stands ready to alter it until the service is such as students have a right to expect.

In entering the counter room, two lines will be formed instead of one as at present. The line on the right will be for special lunches and the one on the left for the odd dishes.

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WELCOME '22, '23 and '24

and Greetings to 1925

It's going to be a great year, here at the 'STUTE, and we are planning to do our part over in Walker by giving you better Service than ever—best food you ever ate and plenty of it at moderate prices.

TECHNOLOGY CAFETERIA