

A Record of
Continuous
News Service
for 43 Years



Official
Undergraduate
News Organ
of Technology

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MANAGING BOARD
W. G. Pierce, Jr., '24 General Manager
P. J. Cardinal '24 Editor

ASSOCIATE BOARD
J. P. Ramsey, Jr., '25 News Editor
H. G. Hart '25 Sports Editor
R. L. Ditzel '25 Features Editor
A. M. Worthington '25 Advertising Manager
D. A. Henderson '25 Circulation Manager
J. H. Hooks '25 Treasurer

In charge of this Issue:

OFFICES OF THE TECH
News and Editorial—Room 3, Walker Memorial, Telephone, Univ. 7029
Business—Room 302, Walker Memorial.

SUBSCRIPTION PRICE, \$2.50 PER YEAR
Entered as Second Class Matter at the Boston Post Office

Member of Eastern Intercollegiate
Newspaper Association

O. B. Robinson '26

FRATERNITY LIFE AND SCHOLARSHIP

THE recent publication of the fraternity scholastic records is taken by some as an indictment of fraternity life at Technology. This is superficial judgment because there are several conditions inextricably involved in the situation which have a vital effect on these scholastic records. Most important among these is the circumstance that the bulk of activity work is carried by members of the various Greek letter organizations.

A survey of actual conditions manifests that the student activities are superintended and stimulated by men from the fraternities and dormitories. The reason for this is the approach toward organized directive endeavor and the pursuance of a policy of activity participation which characterizes the fraternities. By so working the fraternities carry on an indispensable function in Institute life, for to destroy the motivating influences they exert would spell decadence or dissolution for student enterprises. The dormitories, because they are a unit, function in somewhat the same manner, though not so intensively.

It is not only a fair assumption but an unmistakable fact that this participation redounds in a degree of diminution of scholastic work, for it is an obvious impossibility for the average man at the Institute to keep his studies on a relatively high basis while engaged in outside activities. This decrease in scholarship furnishes no arraignment of fraternities, nor does it necessarily imply that all activity men flunk subjects. It simply represents the inevitable result of a man not limiting his college life to studies alone. Make an abstract addition of his activity work plus his scholastic work and the sum representing work done and value received will far exceed that of the student who specializes in studies. And furthermore, the activity man has benefited the Institute in a necessary field.

There is not, however, any defense of mediocrity among fraternity men. The non-active Greek is responsible for turning in a commendable scholarship record just as any other man not in activities. No records of the general standing of non-fraternity men are available, but the records of the fraternities indicate that they are probably farther below the non-fraternity level than they should be. The fraternities should by all means bring their average above passing, and until they do criticism will be directed against them and justly so. Here also is an opportunity for the Inter-Fraternity Conference to do some constructive work by vigorously promoting a higher scholarship standing.

We suggest that the lounge room of building 5 be reserved for the exclusive use of the ditch-diggers' branch of the Royal Sons of Ham.

FRESHMAN SPORTS

NO man can look back upon his college days without remorse if he has failed to support his university in one way or another. All freshmen are required to do a certain amount of physical training. Why not kill two birds with one stone by completing the requirements and upholding the name of Technology at the same time? Of course, there are no freshmen on the Varsity teams, but that does not mean they have no chance of doing anything for their Alma Mater. There are plenty of opportunities on the freshman teams. The crew season is now starting into full swing. The facilities are sufficient to take care of almost any number of men. Track offers unlimited openings. All the minor sports are anxious to have new men. Don't shift the burden to the other fellow's shoulders. Go out for a sport and make a team. And bear in mind the axiom, "He who hesitates is lost." Sign up today!

These fellows who adjust the thermostats in the class rooms to suit themselves are another example of taking the law into private hands. If they don't end this malicious practice there's liable to be a new lab deposit for temperature breakage.

ON COURTESY

THANK You!—Two smiles, and two people go on their way feeling better. It is a question who felt the most pleasure, the man who held the door for a moment so that it would not slam in the face of the man behind, or the latter, who sang out the pleasant "thank you." Contrast this with the thoughtlessness of the man who carries on a conversation while you are trying to follow a lecture. Both are the result of habit, but how infinitely bigger is the man who has acquired the habit of courtesy.

Courtesy can be cultivated; each small effort helps to make it a habit. We owe respect to those who undertake to teach us, the least we can do to show this is to nod to them when we meet them, realizing that often we have an advantage over them in that we know them and they may not know us. Another good habit is to forget the gloom of an impending exam while walking thru the corridors so that it will be possible to say hello to a passing friend. Whether you sit next to him in class, or occasionally see him at the gym, he will appreciate your recognition. It is the innumerable small things which make politeness. They are noticed most when neglected, as when men employ football strategy to get out of a large classroom, or some one rounds the corner in the corridors without either applying the brakes or taking due precaution. These are a few suggestions. It is possible to be a gentleman as well as an engineer.

HARVARD BRIDGE

Past and Present

This is the second and last of two articles concerning the varied history of the old Harvard Bridge and the efforts which are now being made to replace it by a more modern structure. The recent agitation for a new memorial bridge is discussed in this article.

In the event that a new structure is erected to replace Harvard Bridge, a move to christen it "Technology Bridge" will have very serious consideration, said the Hon. H. S. Clark, chairman of the Senate committee on Metropolitan Affairs, in discussing a report of the Metropolitan District Commission which is now before his committee.

The report relates to "the construction of a new bridge over the Charles River Basin near the location of the Massachusetts avenue bridge between the cities of Boston and Cambridge." The construction of Harvard Bridge was accomplished by a board of commissioners elected jointly by the two cities, but during the intervening 33 years, the legislature voted that the construction of all bridges across the Charles up as far as Watertown be supervised by the Metropolitan District Commission, which is maintained by funds appropriated by the State.

Oppose Memorial Island

Professor C. M. Spofford '93 was a member of the advisory committee which assisted the Commission in preparing its report, in which is embodied the fruit of four years' agitation for a new bridge. Two proposals are made: one is to resurface the structure; and the other is to build an entirely new one.

Both Commission and legislature are definitely opposed to the erection of a bridge with a memorial island in the center. Robert D. Andrews, the architect whose design was finally approved by the Commission, says in regard to this matter: "After three years' study of the problem of a war memorial in connection with a new Harvard bridge, the conclusion is forced upon me that it is not possible to place any monument at the center of the bridge without detriment to the general landscape of the Basin. The view westward is too important to be sacrificed by intruding upon it anything claiming attention. If architectural emphasis is to be given the bridge, it should occur towards the ends of the bridge and not at the center."

Designs Follow Italian Bridge

Two drawings of the proposed bridge appeared in the last pictorial section of The Tech. Its most unique feature is its approaches, which are abutments of earth built out from each shore, serving to reduce the length of the bridge proper. This provides at each end of the bridge a sort of plaza with balustraded terraces, where people may assemble to overlook the river.

The bridge proper has seven arches of about 120 feet span, rising to a height of 20 feet above the water. The elliptical form of arch was suggested

by the Bridge of the Trinity in Florence which is accounted one of the most beautiful bridges in the world. The material for the outer masonry is limestone, similar to that of the buildings of the Institute. "The use of this material," said Mr. Andrews, "establishes a bond of color between these buildings and the bridge which is of advantage to both." Its cost is much less than granite or marble and as a building material it is quite as uniformly durable. At the water-level, the material is granite.

The parapet of the bridge is mainly solid, but is pierced at intervals with open balustrades. The outline of the parapet, as seen against the sky, is unbroken from end to end.

Not to Build Now

The cost of the bridge and approaches will be \$2,750,000. A temporary bridge for use during construction can be provided by moving the present bridge upstream onto temporary piers at an estimated cost of \$250,000.

But on the advice of Major Lewis E. Moore, the Commission finds it quite as feasible and much cheaper to reconstruct the present bridge so as to fit it for traffic requirements for the next 30 years. The iron work has been carefully prevented from rusting and is in good condition. Major Moore believes that by increasing the stiffness of the roadway surfacing, the greater part of the vibration of the present structure can be removed.

The original bridge was designed to carry a dead load of stringers and flooring weighing 30 pounds per square foot, and a live load of 100 pounds per square foot. The stresses used in designing the iron work were 10,000 pounds per square inch in compression and 12,000 pounds per square inch in tension, both of which are very conservative values. According to recent figures, the heaviest traffic which the bridge will be called upon to carry will not be a live load in excess of 70 pounds per square foot. This allows a roadway weighing 60 pounds per square inch to be put on without exceeding the capacity of the ironwork.

Abandon Wooden Stringers

Three types of pavement can be put down without exceeding this capacity, a wood block pavement, a vitrified brick pavement, and an asphalt pavement. The wood block pavement is recommended.

In any case, in order to minimize vibration and stiffen the pavement, the present wooden stringers must be abandoned and new steel stringers installed. Six-inch planking will cover the entire width of the roadway on top of the stringers. A concrete sidewalk will also be laid and the curb raised to a height of 18 inches. A new fixed span will replace the draw, increasing the width at that point, and the railing will be renewed.

The cost of this reconstruction will amount to about \$585,000.

The legislature appears to favor the resurfacing of the present structure to the erection of a new bridge.

DELIGHTFUL COMEDY AT ARLINGTON THIS WEEK

"Tangerine," the delightful little musical comedy in which Julia Sanderson starred in New York and Boston not long ago, is played by the Berkeley Comedians at the Arlington Square Theater this week. The music, humor, and rather entrancing plot that were present in the original production are still there, the only criticism being that the players exhibit a marked ability at forgetting their lines. This difficulty should wear off, however, in the course of the week.

The plot centers about three divorced husbands and a young chap who desires to unite them with their former wives in order to restore his fiancée's faith in marriage. Reconciliation takes place on the island of Tangerine, where a divorced husband rules as king and where the women work to support the men. Rather complicated circumstances result, but the kingdom is eventually destroyed and all return to America to live happily ever after.

Johnnie Fields, in the low comedy role of the king, is the stellar performer, singing and acting in the manner of the old school. Ann Milburn as the heroine is equally charming and effective and is a possessor of excellent vocal qualities, but Phil Darley, who plays the hero, is not so successful, giving at times an unemotional, almost wooden performance. To William Ladd, who was a member of the original cast and to Kay Korbett, as the juvenile lovers, must go the dancing honors of the show.

C. E. M.

An intensive drive for the Harvard Endowment Fund is now in progress to sign up all those members of the class of 1924 who will graduate this month. Other members of the class will also be "tackled" later. A committee has been appointed by the senior finance committee to canvas all the men in the dorms or in rooms near by. Others who live further away will be reached by mail. The goal set for the drive is \$150,000.

Patent Office As A Life Work Field

By Karl Fenning, Assistant Commissioner of Patents

The Constitution of the United States provides for granting patents and as early as 1790 Congress enacted legislation for the grant of patents for inventions. The United States Patent Office as such was established in 1836 and was included in the Department of the Interior when that Department was established in 1849.

A patent is granted an inventor to give him exclusive rights in the invention he discloses in his application. It is essential, therefore, that the disclosure be sufficient to instruct fully in the performance of the invention. For a great many years college graduates have gone into the Patent Office as examiners. Their function is to examine applications for patents to see what the alleged inventor thinks he has produced that is new and to see that the disclosure is complete. A good examiner should have enough curiosity to make him want to know the patents and prior publications relating to the particular devices he examines and also those in related subjects in other divisions of the Patent Office. He should have a good enough memory to be able to remember where to find a description he has seen and enough interest in procedure to enable him to acquire a knowledge of principles and decisions in patent law and a ready wit in applying them to the case in hand.

All sorts of things come to the United States Patent Office from the simple darning needle to the complicated steam engine or printing press; from the simple electro magnet to the most complicated system of automatic telephony or wireless transmission of intelligence; from electro-chemical or metallurgical processes to the refining of petroleum or the production of dyes

or other chemicals from coal tar. By protecting the interests of the public and seeing that improper patents are not granted, the examiner performs a service to the public of the highest order, just as his service to the inventor consists in allowing to the inventor a patent sufficiently broad to give him the exclusive rights to his invention.

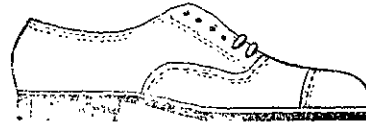
The positions in the examining corps of the Patent Office are filled initially from a list made up of those who pass a technical civil service examination, and promotions within the office are made on a strictly merit system. The entrance salary has been fixed by Congress at \$1860, beginning with the 1st of July, 1924, and increases of salary are provided for by promotions from time to time up to \$5,000 a year. The positions are under the civil service and are not political. An employee can not be dismissed except for cause after hearing, and provision is made for retirement with pension in old age. There are over 500 members of the examining corps and the appropriation bill for next year makes available sufficient funds to put in the corps about 100 additional examiners. While the additional examiners are, in terms, temporary employees for about two years, everyone who passes the civil service entrance examination in 1924 is practically assured of transfer to the permanent corps before the two years are up.

The civil service entrance examination includes such subjects as are pursued by the scientifically inclined graduate of a college or a technical school. In addition to physics, mathematics and a reading knowledge of scientific French or German, an examination in the reading of mechanical drawings is required as well as a familiarity with the applied sciences in the field of mechanics, mechanical arts, industrial arts and processes and applied chemistry. Optional engineering examinations may be taken. Examinations are held in many places throughout the United States at short intervals. Complete details of the examinations, as well as the time and place, may be obtained from the United States Civil Service Commission, Washington, D. C.

FRANK BROTHERS

Fifth Avenue Boot Shop
Between 47th and 48th Streets, New York

The satisfaction of style and worth



Permanent Exhibit
Room 217, Abbot Bldg.,
Cambridge, Mass.

Don't Throw Away Your Old SHOES

We Fix Them as Good as New
By Goodyear Welt System
C. EMANUELE

84 Mass. Ave. at Commonwealth Ave.
Phone Copley 2517-M

BRAIDED CORDS and COTTON TWINES



Trade Mark

SAMSON CORDAGE WORKS
Boston, Mass.

WRIGLEYS

After Every Meal

Have a packet in your pocket for ever-ready refreshment.

Aids digestion.
Allays thirst.
Soothes the throat.

For Quality, Flavor and the Sealed Package, get

