

## TECHNOLOGY HARRIERS WIN FROM DARTMOUTH

Green Succumbs to Cardinal and Grey Over the Former's Course in Hanover by the Score of 24-31

CAPTAIN HERZOG FIRST

Technology defeated Dartmouth in a cross-country race held Saturday afternoon in Hanover by the score of 24-31, low score winning. Captain Herzog '19, crossed the tape first, finishing in 30 minutes 13 seconds. He was followed five seconds later by Captain Gerris of Dartmouth.

The race started promptly at 2.00 o'clock from the Alumni Gymnasium and continued over one of the hardest courses in New England. The topography of the land about Hanover is extremely rough and hilly, and, in this respect, the Dartmouth harriers had the advantage of rough daily practice, whereas the Technology men were forced to do level work practice entirely, with the exception of Saturday afternoons.

The Institute runners captured first, fourth, fifth, sixth and eighth tallies, while those for the Green finished second, third, seventh, ninth and tenth.

With the exception of Gerrish and Avery, both veterans, the Dartmouth team was mediocre. This, taking into consideration the roughness of the course, probably accounts for the considerably better time made, on the average, by the Technology men.

The order of finish and the time of the runners follows:—Herzog T., 30.13; Gerrish D., 30.18; Avery D., 30.48; Half-acre T., 31.05; McCarten T., 31.50; Dorr T., 31.57; Daniels D., 31.11; Carpenter T., 33.20; Slack D., 33.55; Lewis D., 34.15.

## FORMER INSTITUTE STUDENT SEVERELY INJURED IN AVIATION

Was an Instructor in the Army Aviation School at Institute

William Eastman, Jr. '18, was injured last Friday at 1.00 o'clock while starting an airplane engine in the hangar in the rear of the Institute building. The engine had been standing for about three hours and started unexpectedly easy, the propeller hitting Eastman before he had time to avoid it. Eastman suffered a compound fracture of the left arm and a concussion of the brain. He is on the dangerous list at the Massachusetts General Hospital.

Eastman was a member of the class of 1918, having been a student in Course II until the time when he was drafted last summer. After he was drafted he was detailed to the government army aviation school at Technology and was serving as an instructor in airplane engines. He was the Advertising Manager of The Tech last summer.

## TECHNIQUE 1919 CALLS FOR FIELD DAY PHOTOGRAPHS

Technique 1919 requests all those who secured good photographs on Field Day, either of the parade or of the athletic events, to bring the prints or negatives to the Technique office, 75 Massachusetts Avenue. If the owner does not care to leave his pictures at the office, he should leave his name so that the Photographic Editor may see him personally.

Technique also wishes to obtain all photographs taken at the Brown, the Intercollegiate and the Spring meets last year. Such pictures should be presented at the Technique office at 5.00 o'clock on Wednesday, or from 1.00 to 2.00 o'clock Wednesday.

## M. I. T. A. A. MEETING

There will be a meeting of the M. I. T. A. A. at 5.00 o'clock tomorrow in Room 4-132. All the managers of athletic teams are requested to be present and also the three student members of the Advisory Council of Athletics.

## War Time Tech to Give War Time Dinner Saturday

By the time this issue of The Tech is published every undergraduate should have received an invitation to the War Time Dinner given by The Tech on Saturday evening at the Walker Memorial. It will be the first All Tech affair held in the new student building, but its chief significance will be in the rallying to the services of the nation of all those who have the true spirit of Technology. Patriotism will be the keynote of the gathering and the speakers will be the most distinguished representatives of Technology in the war that can be se-

cured. All slackers and pro-Germans will be unwelcome! In addition to the speakers, moving pictures which were taken at Camp Cunningham under the auspices of The Tech will be shown to the undergraduates for the first time.

Owing to the limited seating capacity of the Memorial, it will be impossible to serve more than seven hundred men at dinner. It is hoped that in spite of this those who obtain the remaining tickets will avail themselves of the opportunity to hear some of the Institute's biggest alumni and see the Summer camp "movies."

## 1921 CREW WINS

Freshmen Show Superior Oarsmanship Field Day

Promptly at 1.30 on Friday afternoon the three shells left the starting point at the Cottage Farm Bridge. The weather was fine and the river very calm, making conditions ideal for a good race. All three boats got off successfully at the first start. The Sophomore crew had the center course, with the first freshman eight on the side nearest the Boston shore, and the second freshman crew nearest the Cambridge side. Almost from the very beginning the second freshman crew began to lag behind, and the first 1921 eight made equivalent gains, so that when the boats reached the Harvard Bridge this shell was over a length ahead of the Sophomores. And the freshman crew went over the finish line, in front of the eastern end of the Institute, about two lengths in front of the Sophomores, winning the second annual crew race.

Harvard University again offered the use of her shells and launch to Technology. The officials, Messrs. A. W. Stevens, H. E. Worcester and R. W. Van Kirk, followed the race in the motorboat, and officiated both at the start and finish. There is no official time for the race, but it is said that the winners covered the three-quarters of a mile in about eight minutes.

Technology is fortunate in having Mr. A. W. Stevens of the Boston Athletic Association for a coach. He has devoted a great deal of his time to put the men in shape for the race. It is not necessary to have had any previous experience to obtain a position on the class eight, and as usual the majority of the new men are novices. Their success is accounted for by their enthusiasm and the untiring efforts of Coach Stevens.

Manager Loueks '18, of the Technology Rowing Association, is responsible for much of the success of crew work at the Institute. He has given all his time to it and is anxious to have it incorporated in the regular program of Field Day events. The other officers of the Rowing Association are:—M. Untertsee '19, Captain; H. J. Daube '19, Assistant Manager, and J. J. Hinds '20, Second Assistant Manager. At present there are three candidates out for the managership of the freshman crew, Stefan, Clements and Nixon. One of these men will be chosen manager about the middle of November. In the Spring, after further competition, one of the three will be selected as Second Assistant Manager of the Association.

The lineups for Friday's race were as follows:—

1920—1, Cofren; 2, Schildbach; 3, Moy Ding; 4, Burroughs (Capt.); 5, Noelke; 6, E. Wason; 7, A. Wason; 8, McNear; Cox., Givener. Average weight, 157 pounds.

1st 1921—1, Skinner; 2, Lovis; 3, Haskell; 4, Lloyd; 5, Hauber; 6, Bardes; 7, Clarke; 8, Thulman (Capt.); Cox., Sandberg. Average weight, 140 pounds.

2nd 1921—1, Olcott; 2, Nelson; 3, Sherman; 4, Hawes; 5, Del Agulla; 6, Parsons; 7, Rose; 8, Hinds; Cox., Davidson. Average weight, 133 pounds.

## NOTICE

There will be a meeting of the Second Assistant Managers of The Tech today at 2.00 o'clock in The Tech office.

ADVERTISING MANAGER.

## CLASS NOMINATIONS MUST BE IN ON NOVEMBER TENTH

Special Elections to Be Held Soon to Fill Vacancies

Owing to the number of vacancies in class offices caused by men entering the service of the country, a special election will be held soon. All nominations will be due at the Information Office, Building 10, November 10. Each must be signed by ten members of the nominee's class. Only those men who have paid the Student Tax may vote or hold office.

The Senior Class will elect a Treasurer, two Executive Committee members and one Institute Committee member. The Junior Class will elect a President, one Executive Committee member and one Institute Committee member. The Sophomore Class will elect a Treasurer, one Executive Committee member and one Institute Committee member. The freshmen will elect all their officers, i. e., a President, Vice-President, Secretary, Treasurer, two Executive Committee members and two Institute Committee members.

R. A. Wilkins '18, Treasurer of the Senior Class, is soon to enter the naval aviation service. O. D. Burton '18, former member of the Institute Committee for the Senior Class, has resigned in order to take up gas and flame work in Washington.

## TECHNIQUE URGES 1918 FOR PORTFOLIO PICTURES

Field Day Teams Will Be Photographed This Week

Up to the present time but few Seniors have made appointments for their formal picture for the Senior Portfolio. As the time this year for taking these pictures is extremely limited, all 1918 men should make a special effort to have their pictures taken early. Appointments can be made with R. P. Hackett '19, Portfolio Editor, any morning except Wednesday from 8.45 to 9.00, and on Wednesday between 12.00 and 1.00, or with any member of the 1919 Technique Board, at the Technique office in the Activities Building opposite the Co-op. A memorandum will be given each Senior when an appointment is made.

The Notman Photograph Co. has reserved the hours from 1.00 to 2.30 to take pictures for the Senior Portfolio. If these hours are inconvenient the Seniors may arrange for special sittings with the photographer.

Seniors should have their formal pictures taken for publication in Technique whether they expect to return to the Institute next term or not.

At 1.15 today the pictures of the freshmen and Sophomore Field Day relay teams will be taken at Notman's, 4 Park street. All men are urged to be prompt.

At 1.15 on Wednesday the picture of the freshman tug-o-war team will be taken. The Sophomore tug-o-war team will have its picture taken at 1.15 on Thursday.

Both the freshman and Sophomore football teams will have their pictures taken at 1.15 on Friday.

## CATHOLIC CLUB

The first meeting of the M. I. T. Catholic Club will take place at the dinner to be given by the club Wednesday, November 7, at the Walker Memorial at 6.00 o'clock. Tickets may be had from members or anyone on the Executive Committee.

## 1920 TAKES FIELD DAY HONORS IN THE SECOND CONSECUTIVE YEAR

Sophomores Victorious in Both Relay and Tug-O'-War While Freshmen Surprise Dopesters and Take Football Game

5 TO 4 IS FINAL OUTCOME

OWING to the fine weather and the hearty enthusiasm always connected with Field Day a record crowd witnessed the victory of 1920 over the freshmen on Friday, to the score of 5-4. This is the second time Field Day honors have been taken by the present Sophomores, last year's freshmen winning the relay race and the football game from 1919. This year, however, the football game was won by the in-coming class while 1920 took the relay and the tug-o-war.

## Freshman Football Victory

From the very first of the game the breaks seemed to be with the class of 1921 and together with the aid of being slightly faster, although lighter, and being imbued with more "pep," the freshmen seemed to have little trouble in piling up a score of twelve to their opponents seven. The spectacular playing of Captain Hurley and Whelton, the fast quarter of the freshman eleven, together with the stubborn fighting of the line and the "toe" of O'Hearn, was largely responsible for the two touchdowns over 1920.

## First Quarter

Abercrombie kicked off to the freshmen, who carried the ball to the center of the field, with Hurley and Waterman going through the line for consistent gains. On an end run at this point the freshmen fumbled, Wood '21, recovering. Hurley went through the line for fifteen yards and on the next play Waterman went through for the first touchdown. O'Hearn failed to kick the goal.

O'Hearn then kicked off for the freshmen, the Sophomores failing to cover the kick until the ball had rolled over their goal line. It was brought out to the Sophomore 20 yard line. Dana, quarter for 1920, went through the line for five yards and Pender went through right tackle for first down. On the next play Pender added another five yards to the Sophomore drive, but the Sophomores were penalized for offside. Skinner made first down again on two runs. Dana again caught the freshmen asleep and put ten yards behind him on a plunge through center. Skinner made another gain through the line, but failed to make a first down, and the first quarter ended

(Continued on page 4)

## NEWS MEETING

THERE WILL BE AN IMPORTANT MEETING OF THE NEWS STAFF AND CANDIDATES TOMORROW AT 1.05 IN THE TECH OFFICE.

## CALENDAR

### Monday, November 5, 1917

1.15 P. M.—1920 and 1921 Relay Pictures. Notman's, 4 Park Street.

1.10 P. M.—Aero Club Election of Officers. Room 3-270.

4.00 P. M.—1921 Wrestling Squad. Caf.

5.00 P. M.—Banjo Club Rehearsal. Room 3-270.

5.00 P. M.—M. I. T. A. A. Meeting. Room 4-132.

### Tuesday, November 6, 1917

5.15 P. M.—Freshman Competition, Business Assistants, Tech Show Management. Activities Building.

### Wednesday, November 7, 1917

12.00 to 1.00 P. M.—Appointments with Portfolio Editor 1919 Technique. Activities Building.

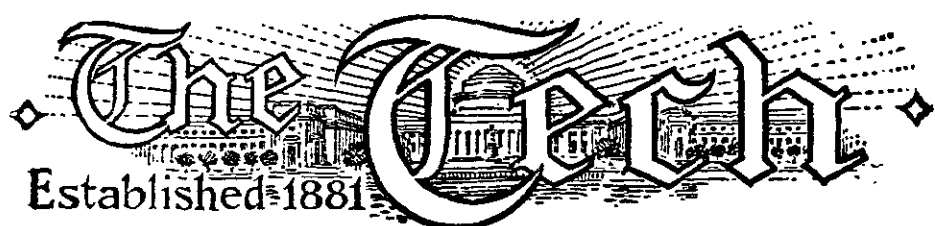
1.15 P. M.—1921 Tug-O'-War Team Pictures. Notman's, 4 Park Street.

1.00-2.00 or 5.00 P. M.—Field Day Pictures Due at Technique Office.

4.05 P. M.—Aero Club Class in Gas Engines. Room 3-270.

6.00 P. M.—Catholic Club Dinner, Walker Memorial.

(Continued on page 2)



Entered as second-class matter, September 16, 1911, at the Postoffice at Boston, Mass., under the act of Congress of March 3, 1879.

Published twice a week during the college year by students of the Massachusetts Institute of Technology.

MANAGING BOARD

Paul C. Leonard '17.....Chairman of the Board
George B. Hutchings '18.....General Manager
Kenneth Reid '18.....Editor-in-Chief
W. Raymond McKenney '19.....Managing Editor
Lawrence Winant '20.....Advertising Manager
O. Donn Burton '18.....Circulation Manager
John W. Meader '19.....Treasurer

IN CHARGE THIS ISSUE

A. Kruse '20.....Assistant Night Editor

Subscription \$1.50 for 53 issues, in advance. Single copies 3 cents. Subscriptions within the Boston Postal District or outside the United States must be accompanied by postage at the rate of one cent a copy. Issues mailed to all other points without extra charge.

News Offices, Charles River Road, Cambridge, Mass.; 152 Purchase Street, Boston, Mass. News Phones, Cambridge 2600, Main 3810. Business Offices, Charles River Road. Business Phone, Cambridge 2600.

Although communications may be published unsigned if so requested, the name of the writer must in every case be submitted to the editor. The Tech assumes no responsibility, however, for the facts as stated nor for the opinions expressed.

The Editor-in-Chief is always responsible for the opinions expressed in the editorial columns, and the Managing Editor for the matter which appears in the news columns.

MONDAY, NOVEMBER 5, 1917

FIELD DAY

FRIDAY saw one of the most successful of Technology Field Days. The freshmen went down in defeat, losing the relay race and the tug-o-war, but retaliating in the football game. Outweighed practically to the man, the first year team played an excellent game and saved their class from a scoreless loss. The yearlings deserve a lot of credit for the graceful and sportsmanlike manner in which they accepted their defeat, not an ignoble one by any means.

To the Sophomores goes the distinction of having won their two Field Days, the goal of all classes, and they are to be commended for their accomplishment.

The post-Field Day celebration at Ye Wilbur in the evening is another thing which will go down in Technology annals as a credit to the undergraduate body. Nothing there was to mar a perfect evening. To the cast of "Love O' Mike" is due the thanks of everyone who attended the performance for the enjoyable entertainment and for the hearty cooperation with which they made possible a banner night.

THE CREW RACE

WHILE not one of the tallying Field Day events, the second annual crew race furnished one of the interesting features of the day. That there is an increased interest in this activity, was shown by the presence of three crews in the race. The men who went out for crew, while not sharing in the honors of Field Day, will undoubtedly receive all the credit due them for their good work. Still more, thanks are due to Mr. Stevens, the coach, who has for two years devoted his time and efforts to making crew an activity which will take its place with the other sports at Technology. Would it not be an excellent idea for the Advisory Council on Athletics to take up the matter of making the crew race one of the point-counting Field Day events?

CLASS NOMINATIONS

NOMINATIONS for the class officers of the freshman class and for the vacancies in the upperclass offices caused by the war are due by the end of the week. This year is an unusual one in that a special election is necessary and what would be merely the election of the freshmen officers assumes almost the importance of a general one. The necessity of a wise choice need not be called to the attention of the three upper classes, they have already had experience and should profit by it. The freshmen, however, may be a bit hasty in their choice of nominees. Because a man is an athletic idol does not necessarily mean that he will be the best class officer, but neither does it signify that he will not. The elections are deferred until after Field Day in order to give the freshmen an opportunity to know each other before electing, and they should by this time have something to go by in judging a man's ability. A full list of nominees, whom the class thinks best fitted, will insure the election, later, of desirable officers.

Last week the granolithic walk in front of the Institute Buildings was completed. The walk fills a sore need. However, there still remains an equally pressing one. The portion of Charles River Road on the side nearer the buildings is not only an eyesore, but also a detriment to safe traffic. After the slightest rain, the street is nothing but a mess of mud holes, or rather ponds. Technology has done her part and Cambridge should do hers.

The Cross-country team has proven its worth by winning its first two runs, the one with Harvard and the other with Dartmouth. Indications of a successful season are at hand and the way is made clear to a realization of Technology's cross-country ambitions.

TECH NIGHT

(Continued from page 1)

ments on Technology life These two took the parts of two students, who appear reading the latest issues of The Tech to talk over the doings of the day. They bemoan the fact that Cambridge is dry, but console themselves with the thought that Bevo is still obtainable. It seems that Haskell has led an unhappy career; was forced to give up swimming because of the new walk between Walker and the Institute; was rejected from leading lady of the show because he lacked shape; and, finally, is now out for The Tech. They make their adieus after agreeing to meet at the Woodcock. Another song which made a hit, through both itself and its rendering, was "Poor Little Baby Vampire," sung by "Luella." "Love O' Mike," like all other good things, must have an ending, but there are few things having as nice an ending as this show did. It is said that several fellows decided to make the stage their career after having seen the happy outcome of this very enjoyable performance.

TECHNIQUE BUSINESS STAFF

All Sophomore candidates for the Business Staff of Technique must leave with Business Manager Riegel a copy of their schedule, stating their preference for the two hours they will be expected to spend in the Technique office during the week. Actual work in the competition starts today, and those men who have not received assignments should report immediately to the Business Manager.

FRESHMAN WRESTLING

The first exercise for the freshmen who intend to substitute wrestling for gymnasium work will be held in the basement of Building 2, in the Caf, at 4 00 o'clock this afternoon. Mr. Gracey will give a short talk on the subject and will demonstrate some of the more elementary holds, breaks and counters. Following this there will be an actual wrestling bout between Capt. Giles '18, and ex-Capt. Rounds '17. If there is time the rest of the hour will be devoted to the practice of the first lesson. As eighty men have already signed up for wrestling, as the space available is limited, there will be no room for spectators other than members of the prospective squad. Until definite hours are decided upon the squad will meet from 4.00 to 5.00 o'clock on Monday, Tuesday and Wednesday.

Advertisement for Mellin's Food. Includes text: "We are advertised by our loving friends", "Prepare baby's food according to the Mellin's Food Method of Milk Modification", and an image of a baby.

Custom Tailoring

WE EMPLOY NO HIGH PRICED SALESMEN TO SOLICIT YOU

When a man purchases once we rarely lose him as a customer.

Why?

Because we have always been able to give quality by supervising the manufacturing in our own workroom.

Because our prices are low for the kind of suits we build. That is due to low selling expense.

Our Wish

is that you will investigate before ordering your suit or overcoat.

Harvard Cooperative Society

SIMPLEX WIRES AND CABLES

NEW BUILDINGS OF M. I. T. WIRED WITH SIMPLEX

SIMPLEX WIRE & CABLE CO. MANUFACTURERS 201 DEVONSHIRE ST. BOSTON CHICAGO SAN FRANCISCO

Armstrong Transfer Co.

Baggage, Carriage and Automobile Service at all Railroad Stations Branch Office in Railroad Ticket Office, Ames Building, Cor. Court and Washington Streets.

Purchase your railroad ticket in advance and let us check your baggage to destination thereby saving you the trouble of rechecking at station.

Brookline Office—1296 Beacon St., Brookline. Telephone, Brookline 3020. General Office—271 Albany St. Boston. Telephone, Beach 7400.

NEW ENGLAND STRUCTURAL CO. INDUSTRIAL ENGINEERS

and SPECIALISTS IN STEEL CONSTRUCTION

Complete Contracts for Power Plants, Factories, and all Industrial Enterprises

Works: EVERETT, MASS. Sales and Engineering Office: 110 STATE ST., BOSTON, MASS.


James W. Brine Co.

ATHLETIC AND SPORTING GOODS

Military Uniforms and Goods Now Our Specialty

- Baba Coats .....\$9.50
Flannel Shirts from.....\$2.75 to 3.75
Spiral Puttees from..... 3.00 to 4.00
Leather Puttees from..... 6.00 to 10.00
Best Quality of Worsted Slip-Ons, such as worn by the boys in service, over flannel shirts, from.....\$4.00 to \$5.00 each

Harvard Square CAMBRIDGE, MASS. 286 Devonshire Street BOSTON, MASS.



**FORTY DAYS**  
FROM FOUNDATION TO ROOF  
at COLT'S ARMS

This record, made on the second of four contracts, can be repeated for any other manufacturer in need of a good permanent concrete building for early occupation

Built by  
**ABERTHAW**  
CONSTRUCTION CO.  
BOSTON

**AERO CLUB TO HOLD ELECTION OF OFFICERS**

Courses in Gas Engines to Start This Week

At 1.10 o'clock today the Aero Club will hold an election of officers in 3-270 and will enroll the names of its members for publication in the Technology Monthly. The vice-president, one member of the program committee and three members of the executive committee are to be elected. As announced a short time ago the Monthly has been appointed official organ of the Club and will print a list of all members in the first issue.

At 4.00 o'clock today the two hour gas engine course will begin in the same room. This course, which was at first intended for freshmen and Sophomores only, has attracted so much attention that it was decided to open it to everybody.

Those unable to attend the class today, are requested to come to the same room at the same time tomorrow, when a division will be formed for instruction on that day. On Wednesday, at 4.05 o'clock, the second hour class will be held. The course will be in lecture form and will include the reading of certain current articles suggested by the instructor. At its completion everybody will receive a certificate from the Aero Club.

The work will include explanations and descriptions of the magneto, ignition system, carburetor, etc., of all the types of engines. The different cycles in which the various machines operate and the relative positions of their cylinders will also be taken up. The Aero Club expects to have standard engines and parts to accompany the lectures. After these are completed a practical laboratory course will probably be arranged.

A one-hour course in Airplane Design will be started probably on Friday at 4.00 o'clock in conjunction with the gas engine lectures. This course will be based on the course given to graduate students by Mr. Klein of the Institute instructing staff. There will be two sections; one, as stated, on Friday, and the other at some hour not yet determined. A few simple problems will be given from time to time. C. H. Tavener '19, the president of the Club, will lecture for the first two weeks.

The Aero Club has secured the services of two well-known men to address the members. The first will be Dr. Morton Prince of Boston, uncle of the late Norman Prince, who was killed while flying for France in the Lafayette squadron before America entered the war. Dr. Prince has recently returned from a visit to Europe and will undoubtedly have many interesting things to say about the role of aviation on the battlefield. He will appear before the club some time in the middle of this month.

The other speaker is Professor Havens of the Mechanical Engineering department, who will lecture on "Airplane Dopes." The dates of his lectures will be arranged later.

**BANJO CLUB**

Until further notice, the Banjo Club will rehearse on Mondays at 5.00 o'clock in Room 3-270 and on Thursdays at 8.00 o'clock in the Emma Rogers Room.

**Technology Men in War Service**

The Tech wishes to print the names of Technology men in War Service, whether in a military or industrial capacity, together with the branch of such service with which they have allied themselves. Notification of any corrections or changes in the information given in this column will be appreciated. Address any information of this character to the Managing Editor, The Tech, Massachusetts Avenue, Cambridge, Mass.

**Class of 1899**

J. L. ROCKFORD, 2d Battalion, Field Art., Plattsburg.

**Class of 1907**

L. F. ERNEST, 2d Battalion, Field Art., Plattsburg.

**Class of 1908**

W. J. E. BARCUS, 2d Battalion, Field Art., Plattsburg.

C. C. FORD, 2d Battalion, Field Art., Plattsburg (resigned from camp).

J. MATHER, Capt. C. A. C.

H. V. SPURR, 2d Battalion, Field Art., Plattsburg.

**Class of 1909**

F. M. GREEN, Capt. C. A. C.

F. G. PERRY, Capt. C. A. R. C.

F. S. McCLINTOCK, Capt. C. A. R. C.

**Class of 1910**

R. K. ARMES, 2d Battalion, Field Art., Plattsburg.

**Cyass of 1911**

H. B. C. ALLISON, 1st Lieut., Aviation Sect., S. O. R. C.

G. W. BARNWELL, training at Fortress Monroe, Va. C. A. C.

E. E. BESSE, 1st Lieut. O. O. R. C.

P. BURDETT, in O. T. C. of C. A. C., Fortress Monroe, Va.

H. C. DAVIS, Jr., 1st Lieut. Ord. Dept., Benicia Arsenal, Benicia, Cal.

J. J. DEVLIN, commissioned 1st Lieut. E. O. R. C. Located at Ayer with 301st Engrs.

G. O. FERGUSON, 2d Battalion, Field Art., Plattsburg.

G. C. GEORGE, 1st Lieut. E. O. R. C.

J. S. GRAVELLY, Capt. O. O. R. C.

J. A. HERLIHY, in charge of 109th Squadron, Camp Kelly.

W. F. HERRICK, U. S. Aviation Service.

W. K. HOGDMAN, Sergt. 24th Co. C. A. C., at Fort Banks, Boston.

F. C. JEVETT, Quartermaster, 10th Deck Div. (Marblehead), on board U. S. S. Nebraska.

R. W. LEWIS, 1st Lieut. E. O. R. C.

R. H. LORD, 1st Lieut. O. O. R. C.

J. L. McALLEN, 1st Lieut. E. O. R. C.

H. L. MANLEY, 1st Lieut. O. O. R. C., Camp Donighan, Okla.

L. W. PERRIN, Capt. of 301st Inf., Ayer.

F. B. PIGEON, 2d Battalion, Field Art., Plattsburg.

S. H. SCRIBNER, Sergt. R. R. Corps of Engrs.

E. G. WHITCOMB, training at "seventh Plattsburg."

R. C. WOODS, aero mechanic, Navy Aviation Squadron.

**Class of 1912**

C. G. PROUTY, 2d Battalion, 3d Battery, Field Art., Plattsburg.

(Continued on page 4)

**1919 SHOW ISSUES CALL FOR BUSINESS MANAGERS**

Business and Publicity Competitions to Start This Week

The freshman competition for the three Business Assistants on the Tech Show Management will start tomorrow afternoon at 5.15 in the Tech Show office, 75 Massachusetts Avenue (opposite the Co-op), when Business Manager Denison 19, will explain the details of the competition to all candidates. This competition will be open only to members of the Class of 1921.

Next Friday afternoon the competition for the office of Sophomore Assistant in the Publicity Department of the Show will be started. One man will be selected as a result of this competition, and he will automatically be promoted at the close of the season to the position of Publicity Manager of the 1920 Show, provided his work during the year is satisfactory. Candidates for this position will meet in the Tech Show office on the first floor of the Activities Building opposite the Co-op at 5.15 o'clock, at which time the first assignments will be given out. The competition will be short, lasting probably two weeks, and will be such as to test a man's general knowledge rather than his previous experience in show work.

The duties of the Publicity Department are varied and require that a man be able to do more than just publicity work. The department is one of the most important in the Management and the success of past shows has been very largely due to its work. All the competitions for the cast, chorus, ballet, orchestra, and the production of the play are run under its supervision. The department keeps the Show before the Boston and Cambridge public by articles in the newspapers, billboard and poster advertising, and through the Alumni Association. The Assistants are required to do much of the work of the Stage Department in order that they may become acquainted with the progress of the Show, and be able to substitute for any of the men of that department if necessary.

Within two weeks the freshman competition for the two positions of freshman Assistant Publicity Manager will be started.

The freshmen selected in both the Business and Publicity Departments will be required to compete again next year for the Sophomore positions; but past evidence proves that the experience of a year's work on the Show Management makes it fairly certain that the man will outdo inexperienced competitors. The Sophomore Assistants will become the managers of their respective departments in their Junior year. From the Sophomore members of the Business Department the Treasurer is also appointed. All Managers, including the Treasurer, will be eligible for the position of General Manager in their fourth year.

**1918 MAN DIES AT UNIVERSITY OF WISCONSIN**

Whitney A. Russell, formerly a student of the class of 1918 at the Institute and who was continuing his studies at the University of Wisconsin, died at Madison, Wis., last Friday.

**AIR SERVICE JOURNAL**

Devoted to the Interests of the Army and Navy Air Services

Prints, every Thursday, all the news of the air services, personal activities, foreign events, developments in the industry, notes of the flying fields, special articles on military and naval aeronautics, photographs of aerial happenings throughout the World, progress and achievement in brief and attractive form.

\$3 yearly; Foreign \$4. 10 cents a copy

Address

**AIR SERVICE JOURNAL**  
120 West 32nd St, New York

Nothing will be more appreciated this Christmas by your relatives and friends than a good photograph. Mention **TECH** and receive special rates.

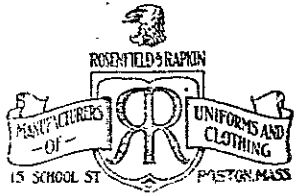
**CHAMPLAIN STUDIOS**  
161-164 Tremont St.

**M. I. T.**

**UNIFORMS and EQUIPMENT**

AT

Reasonable Prices



**ROSENFIELD AND RAPKIN**

**MISS A. I. DARLING**

Typewriting-- Multigraphing

Wide experience in scientific work of all kinds. Thesis, reports, notes, etc. Foreign languages. French a specialty. Dictation taken directly at machine. Accurate and neat work. Reasonable prices.

1388 Massachusetts Avenue  
Rooms 3 & 7  
HARVARD SQUARE  
Telephone Cambridge 894-W

**CHARLES H. TENNEY & CO.**



**Managers**  
**Accountants**  
**Engineers**  
**Purchasing Agents**  
**Sales Managers**  
**Dealers in Investment Securities**

EXECUTIVE OFFICES

201 Devonshire Street  
BOSTON

New York City Office  
19 West 44th Street

**U. S. NEEDS TECHNICAL MEN FOR SERVICE DURING WAR**

For further information concerning these positions, communicate with the nearest Secretary of the Civil Service Commission or the M. I. T. Committee for National Service, 908 Union Trust Building, Washington, D. C.

Position	Service	Salary	Date of Exam.	Cir. No.
Ass't Coal Mining Engineer	Bureau Mines	\$1,800-2,400	Nov. 13	2099
Anesthetist	Freedmen's Hospital	\$1,200	Nov. 13	2089
Inspector of Small Arms Ammunition	Manufacturing Plants	\$1,500-2,400		2078
Specialist in Rural Economics	States Relation Service	\$1,500-1,800	Nov. 7	2072
	Dept. Agriculture			
Ass't Electrical Engineer	Bureau Standards, Dept. Com.	\$1,400-1,800	Nov. 6	2069
Qualified in Municipal Research				
Radio Inspector	Office of Radio Inspector, Bu. Navigation, Dept. Com.	\$1,200-1,600	Nov. 7	2068
Ass't Curator	Div. Mineralogy and Petrology	\$1,800	Nov. 7-8	2067
General Mechanic	Federal Trade Commission	\$840	Nov. 6	2060
Accounting and Statistical Clerk	Interstate Commerce Commission	\$1,200-1,620	Nov. 21	2103
Chief Clerk	Bureau Education, Dept. Interior	\$2,000	Nov. 20	2107
Topographic Draftsman	Departmental Service	\$900-1,500	Nov. 21-22	2085
Copyist Topographic Draftsman	Departmental Service	\$480-1,200	Nov. 21-22	2085
Mining Draftsman	Bureau Mines	\$1,020	Nov. 21-22	2102
Immigrant Inspector	Immigration Service, Dept. Labor	\$1,380	Nov. 21	2101
Metal Furniture Draftsman Bu.	Const. and Repair, Navy Dept.	\$4-6 p. d.		2086
*Scientific Ass't				
Dairying	Dept. Agriculture	\$1,000-1,440	Nov. 7-8	2063
Entomology	Dept. Agriculture	\$1,400	Nov. 7-8	2063
Farm Management	Dept. Agriculture	\$1,800	Nov. 7-8	2063
Grain Standardization	Dept. Agriculture	\$1,800	Nov. 7-8	2063
Home Economics and Calorimetry	Dept. Agriculture	\$1,440	Nov. 7-8	2063
Horticulture	Dept. Agriculture	\$1,200	Nov. 7-8	2063
Deck Officer	Const and Geodetic Survey	\$1,200	Nov. 7-8	2074
Apprentice Fish Culturist	Departmental Service	\$600-960	Nov. 7-8	2064
Ass't Observer	Bureau Fisheries	\$900	Nov. 7-8	2064
Electrician	Bureau Fisheries	\$4-5 p. d.	Nov. 7-8	2064
First Class Steam Engineer		\$1,200-1,500	Nov. 7-8	2064
Junior Mining Engineer		\$1,200-1,500	Nov. 7-8	2064

\*Open for women

All Walker Memorial Dining Rooms

Are Open to All Tech Men NOW

Open Daily and Sunday

**Robert A. Boit & Co.**

40 Kilby Street  
Boston

**INSURANCE OF ALL KINDS**



**STONE & WEBSTER**

FINANCE public utility developments.

BUY AND SELL securities.

DESIGN steam power stations, hydro-electric developments, transmission lines, city and interurban railways, gas plants, industrial plants and buildings.

CONSTRUCT either from our own designs or from designs of other engineers or architects.

REPORT on public utility properties, proposed extensions or new projects.

MANAGE railway, light, power and gas companies.

NEW YORK BOSTON CHICAGO



**BLUE PRINT PAPER**

Complete stock of Manufacturers of

**Drawing Materials**

and  
**SPAULDING-MOSS CO.**  
**Drafting Room Furniture**

Tell Us Your Requirements  
Catalog on Request

A. H. Spaulding '14

# Collins & Fairbanks Co.

Young Men's Hats, Coats, Caps,  
Gloves, Aviation Helmets, Hoods,  
Caps, Leather Coats :- :- :-

383 WASHINGTON STREET :- :- BOSTON

Iron :: Steel :: Metals

# Arthur C. Harvey Co.

374-394 Congress Street BOSTON, MASS.

TELEPHONE, MAIN 7000

TOOL STEEL SHEET IRON BOILER TUBES  
PLATE STEEL CONCRETE RODS METAL LATH  
SOLDER COPPER ZINC

We Are Equipped to Cut to Length Anything Carried in Stock

# RHODE ISLAND TOOL CO.

WILLIAM C. DAET '91, President

MANUFACTURERS OF

BOLTS, NUTS, CAP AND SET SCREWS,  
SCREW MACHINE PRODUCTS

QUALITY FIRST

PROVIDENCE, R. I.

# VENUS 10¢ PENCIL

No matter what course  
you're taking you need  
this famous pencil!

BECAUSE of the  
superlative qual-  
ity of material and  
workmanship, VENUS  
is the finest pencil it is  
possible to make.

If you like a thick  
soft lead that marks so  
that you can read the writing  
halfway across the room,  
choose the soft degrees 6B—  
5B—4B.

For short-hand notes or easy  
writing 3B—2B—B  
(medium soft) are popu-  
lar.

For sketching, gen-  
eral writing purposes,  
etc., HB—F—H—2H  
(medium) will prove  
desirable.

For drafting, a medium hard  
pencil gives the best results and  
you'll like 3H—4H—5H—6H.

For very thin, narrow lines for  
extremely accurate graphical charts,  
maps, details, etc., 7H—8H—9H are  
available.



**FREE!**

This box of  
VENUS sam-  
ples free.  
State the  
course you are  
taking.

American Lead Pencil Co.  
215 Fifth Ave., Dept. P.P., New York

### MEN IN SERVICE

(Continued from page 3)

A. W. UNDERHILL, 2d Battalion, Field  
Art. Sect., O. R. C.

Class of 1913

R. B. CURTIN, 2d Battalion, Field  
Art., Plattsburg.

M. E. LANGLEY, 2d Battalion, 3d  
Battery, Field Art., Plattsburg.

C. H. WOOD, 2d Battalion, Field Art.,  
Plattsburg.

Class of 1914

H. S. BUSBEY, 2d Battalion, Field  
Art., Plattsburg.

A. C. DORRANCE, 1st Lieut., C. A.  
R. C.

W. G. HANSER, 2d Battalion, 2d Bat-  
tery, Field Art., Plattsburg.

E. E. MURPHY, 1st Lieut., C. A. C.  
Class of 1915

G. J. EASTER, Ord. Inspector of steel  
helmets.

F. J. WALL, 2d Battalion, 3d Battery,  
Field Art., Plattsburg.

Class of 1916

W. P. BOATWRIGHT, Capt. C. A. C.

H. R. CROWELL, Aviation Sect., S.

E. R. C. With British Flying School.

C. W. EDDY, Machine Gun Instructor,  
at Fort Sill, Okla.

C. P. HAWES, 2d Battalion, Field  
Art., Plattsburg.

V. A. JASIONOWSKI, 2d Battalion,  
Field Art., Plattsburg.

Class of 1917

F. S. CONATY, 1st Lieut., Fort Leav-  
enworth.

W. L. DENNEN, 2d Battalion, Field  
Art., Plattsburg.

W. W. EATON, 2d Lieut., in France.

S. M. LANE, Ensign, U. S. R. N. S.,  
Bureau of Construction and Repairs,  
Boston Navy Yard.

R. T. LYONS, 2d Battalion, 2d Bat-  
tery, Field Art., Plattsburg.

H. J. McDONALD, 2d Battalion, Field  
Art., Plattsburg.

W. F. POND, 1st Lieut. Engrs. Corps,  
Washington, D. C.

J. W. PROCTER, commissioned as 1st  
Lieut., Ord. Dept.

Class of 1918

D. W. CLARK, 2d Battalion, Field  
Art., Plattsburg.

R. T. COLLIER, Corp. Co. B, 14th  
Engrs., France.

C. C. LONG, 1st Lieut., Engrs. Corps,  
Washington, D. C.

E. W. NEFF, naval architect, Los  
Angeles Harbor.

D. PARKINSON, naval architect at  
Los Angeles.

H. F. B. ROESSLER, 2d Battalion,  
Field Art., Plattsburg.

R. B. SMYTH, private in Co. F, 14th  
Engrs., Exped. Force in France.

H. WELLS, preliminary training avia-  
tion, Berkeley Cal.

Class of 1919

G. W. GIBSON, 2d Battalion, Field  
Art., Plattsburg.

### 1920 WINS FIELD DAY

(Continued from page 1)  
with the freshmen on their own eight  
yard line. Score, 6 to 0 in favor of the  
freshmen.

### Second Quarter

Somerby went in for Gee at left tackle  
for 1920. O'Hearn kicked from behind  
his own goal line to Dana, who fumbled,  
and Wood '21, recovered on the thirty-  
five yard line. On the next two plays  
Captain Hurley gained six yards for '21,  
and the Sophomores lost five when they  
were penalized for offense. Kranz went  
in for Pender '20, who was injured in  
the last play. Hurley went through for  
twelve yards, followed by Whelton with  
a gain of five. Here on a cross buck  
Whelton got loose and, after dodging  
through the Sophomores' second defence  
ran eighteen yards for the second touch-

down for the freshmen. O'Hearn failed  
again to kick the goal. Badger went in  
for MacDonald '20. O'Hearn kicked off  
again, Badger receiving on the thirty-  
two yard line, but was thrown after car-  
rying the ball but three feet. The fresh-  
man line then held like the proverbial  
stone wall and the Sophomores forfeited  
the ball on downs. Whelton then tried  
a forward which failed, the ball falling  
short of Wood, who would have had a  
clear field for a touchdown. O'Hearn  
then tried a dropkick, which, however,  
went wild. Kittredge recovered the ball  
on a punt and on the next play Abbott  
'20, tackled Waterman for a loss of  
eight yards. O'Hearn then punted again  
to Bray and the first half ended with  
the Sophomores coming steadily up the  
field. Score, 12 to 0 for the freshmen.

### Third Quarter

O'Hearn kicked off to the Sophomores,  
who punted back to Whelton. O'Hearn  
kicked to Dana on the Sophomores' 20  
yard line. Skinner went through the  
freshman line twice for first line. Brad-  
ley then went in for Kranz. Skinner  
punted again and Whelton let the ball  
roll over the line. It was brought out  
to the twenty yard line where the Soph-  
omores held the freshmen backs for  
downs. O'Hearn then punted and '20 re-  
turned the honors with a thirty-five yard  
punt to Dana. Skinner then carried the  
ball for first down and Bray and Brad-  
ley made another ten yard mark. The  
Sophomores were then penalized fifteen  
yards for holding, which handicapped  
them materially. Skinner then tried a  
forward pass to Dana which failed and  
the ball went to '21 on their own twenty-  
eight yard line. At this point '21  
made a costly fumble and Captain Casey  
recovered the ball for the Sophomores as  
the quarter ended. Score, 12 to 0 for  
the freshmen.

### Last Quarter

Somerby went in for Gee '20. Skinner,  
Bradley and Bray made nine yards in  
successful line plunges and Bradley took  
the ball over for the first touchdown for  
the Sophomores. Abercrombie kicked the  
goal. 1920 then kicked off and O'Hearn  
received on the twenty yard line and  
punted back on the next play to Dana  
on the '20 twenty-five yard line. The  
ball went to the freshmen on the next  
play when 1920 fumbled. Hurley then  
carried through the line for ten yards,  
but '21 was penalized five for holding.  
O'Hearn then tried another dropkick but  
failed. The ball then went to the Soph-  
omores and Bradley tore through the '21  
line for first down. Barker then went  
in for Abbott '20, and Merrill replaced  
Young for '21. Skinner punted to the  
freshmen on their forty-five yard line,  
when Hurley went around the end for  
seven yards. O'Hearn punted the ball  
over the goal line and it was brought  
out to the twenty yard line. Bradley  
then carried the ball through the line to  
the thirty-five yard line and the whistle  
blew with the score still in favor of the  
freshmen, 12 to 7.

### Football Lineups

1921—E. W. Booth (Mgr.) Wood, l. e.;  
Kittredge, l. t.; Northup, l. g.; Young, c.;  
Beattie, r. g.; O'Hearn, r. t.; McGill, r. e.;  
Whelton, q. b.; Hurley, l. h. b.; Waterman,  
r. h. b.; Murphy, f. b.  
1920—J. A. Philbrick (Acting Mgr.)  
MacDonald, l. e.; Gee, l. t.; Davis, l. g.;  
Abercrombie, c.; Buckley, r. g.; Casey,  
r. t.; Abbott, r. e.; Dana, q. b.; Skinner,  
l. h. b.; Bray, r. h. b.; Pender, f. b.

### The Relay

The honors in the relay race went to  
the Sophomores, making the second year  
in which 1920 has been victorious on the  
track for the first three men the fresh-  
men were leading, but the lead was soon  
out down and the last man representing  
1921 finished about thirty yards behind  
Captain Downey of 1920. The fight for  
the inside of the track by the first two  
men, Knight '20, and Poole '21, was  
probably what hindered 1920 from mak-  
ing a record in the event. The time for  
the winning team was four minutes  
fifty-two and two-fifths seconds, which  
is just two and three-fifths seconds short  
of the record established by the class of  
1913. Ash and Matthews '20, running  
third and fourth, decreased the lead of  
the freshmen and changed it to a Sopho-  
more lead respectively.

### Relay Team Lineups

1920—Knight, Whitten, Ash, Mat-  
thews, Fauer, Bradley, Wilson, Mills,  
Briekett, Ormon, Bossert, Downey  
(Capt.) Substitutes—1st, Shea; 2nd,  
Wilson.

1921—Poole, Burckett, Conant, Paint-  
er, Cowie, Janod, Guffey, Evans, Scott,  
Pridmore, Bowden, Sheldon (Capt.) Sub-  
stitutes—1st, Clark; 2nd, Kirkpatrick.

### 1920 Wins Tug-O-War

The Tug-O-War also went to the  
Sophomores with the first two pulls.  
The first one was fairly easy for 1920,  
the time being one minute fourteen and  
three-fifths seconds. The second pull  
was much more evenly matched and for  
the first minute and a half the plumb  
line did not move more than three inches  
to either side. The final time for the  
second pull was two minutes and forty-  
three and one-fifth seconds.

DU PONT AMERICAN INDUSTRIES

## Chemical Products

For Factory and Laboratory

**DU PONT**

**Chemical Products**

- Acetic Ether
- Amyl Acetate
- Aniline Oil
- Bronzing Liquids
- Colloidion
- Dart's Creosote
- Dead Oil
- Dimethylaniline
- Dinitrophenol
- Ether, U. S. P.—1900, and
- Anaesthesia
- Ethyl Acetate
- Flotation Oils
- Iso Amyl Acetate, C. P.
- Iso Amyl Alcohol, C. P.
- Lacquers
- Leather Renovators
- Leather Substitute
- Solutions
- Mantle Dips
- Naphthalene
- Paraloid
- Patent and Split Leather
- Solutions
- Pegamoid Aluminum
- Paint, Pitch
- PONTAR—A Road Mak-
- ing Material
- PONTOKLENE — For
- Cleaning Autos
- PY-RA-LIN Enamels for
- Wood and Metal
- Refined Acetone Oil
- Refined Creosote
- Refined Fusel Oil
- Sulphuric Acid
- Shingle Oil
- Sodium Acetate
- Soluble Cotton
- Solvent Naphthas
- Solvent Thinners
- Sulphur Black
- Waterproof Cement
- Wood Preservatives

**WE ARE** the manufactur-  
ers of coal tar products,  
pyroxylin, and its soly-  
ents and many preparations in  
which these materials form the  
chief ingredients.

Our plants at Parlin, and  
Deepwater Point, N. J., are de-  
signed especially to care for the  
particular requirements of the vari-  
ous industries in which our products  
are used, and they represent the  
most modern development in con-  
struction for the manufacture of  
these products.

Expert supervision and thoroughly  
equipped working laboratories which  
control our factory operations, assure  
UNIFORM QUALITY of the  
highest standard.

The Du Pont Company's large re-  
sources enable us to command the  
best available in technical skill, raw  
materials and unequalled facilities  
and these advantages place us in  
a position to offer the best possible in  
the three most important considera-  
tions of QUALITY, PRICE and  
SERVICE.

The technical skill and facilities of  
our laboratories are at the disposal  
of our customers, present and pros-  
pective, in working out any problems  
connected with the use of our  
products.

We invite your correspondence.

## DuPont Chemical Works

Equitable Bldg. - New York City

DU PONT AMERICAN INDUSTRIES

E. I. du Pont de Nemours & Co. - - - Wilmington, Del.

Industrial, Agricultural, Sporting and Military Explosives

Du Pont Fabrikoid Company - - - Wilmington, Del.

Leather Substitutes

Du Pont Chemical Works - - - 120 Broadway, New York

Pyroxylin and Coal Tar Derivatives

The Arlington Company - - - 725 Broadway, New York

Owned and Controlled by E. I. du Pont de Nemours & Co.

Ivory Py-ra-lin, Auto Sheeting, Cleanable Collars

Harrisons Inc. - - - Philadelphia, Pa.

Paints, Pigments and Chemicals

# The Advantages We Offer

An efficient and courteous organization,  
progressive methods, large resources and three  
offices, conveniently located in different sections  
of Boston, combine to make the Old Colony Trust  
Company the most desirable depository in New  
England.

Capital and Surplus.....\$ 13,000,000

Total Resources over..... 165,000,000

## Old Colony Trust Company

52 TEMPLE PLACE 17 COURT STREET 222 BOYLSTON ST.  
BOSTON

# MERRIMAC CHEMICAL CO.

BOSTON, MASS.