

## REDUCE STUDENT TAX TO TWO DOLLARS AND HALF

Levy By Institute Corporation  
Compulsory With Freshmen  
and is Expected From All  
Other Students

### NO WALKER MEMORIAL EXPENSE

The compulsory student tax has been reduced from four dollars a term to two and a half. This reduction was made because the use and consequent upkeep of the Walker Memorial is curtailed by the government's occupancy.

Acting on the petition for such a tax made by the Ways and Means Committee of the Undergraduates, the Corporation, through its Executive Committee, had announced that hereafter all students entering the Institute must pay a tax of four dollars a term for the maintenance and promotion of student life at Technology. Students already attending the Institute will not be required to pay the tax, but may subscribe to the levy at their option, though unless they pay the amount they will not receive the privileges of the tax-payer.

Inasmuch as the scope of the student life of the Technology woman is narrower than that of the male student at the Institute, the student fee for the co-ed had been set at one dollar, with the stipulation that such moneys will not be used for the benefit of athletics or the Walker Memorial.

According to the statute authorizing the levying of a compulsory tax, no part of the amount raised can be used for any class function or activity which discriminates against any member of the student body. It is further provided

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## X-COUNTRY CALL TODAY

Princeton Meet Will Be Held  
Despite War

With the opening of the Institute today comes the first call for candidates for the cross-country and track teams. A complete schedule has been arranged, including nearly all of the meets of former years. On Saturday, September 29, the first hare and hounds run of the year will be held. This is open to all, will be neither long nor hard, and is meant to bring out new material. These runs will be repeated every Sunday until October 27.

The preliminary trials for the Sophomore relay team for Field Day will be held Wednesday, October 17, and those for the freshman team will be held the following Friday. A special appeal has been issued to the freshmen to start training at once for these trials so that their class may be well represented in its clash with the Sophomores. The freshmen will find that they can overcome 1920's extra experience only by consistent work. However, the war has cut a big hole in the Sophomore team. Probably not more than six of the twelve members of the team will return.

The handicap track meet will come on October 27. Field Day is scheduled for November 2, and the annual handicap cross-country race will be at Wakefield on the 3rd. The contract with Princeton, by which that college sent a cross-country team here last fall, calls for a return race at Princeton this November. As Princeton has resumed athletics, this will fill the vacant date of the 10th. The N. E. I. C. C. A. will likely be held on the 17th, and the I. C. A. A. on the 24th.

Because of the depletion of the upper classes due to the war, the success of the track team is in the hands of the Sophomore and the freshmen. All men, whether they have run before or not, must come out at this time, according to Coach Kanaly, and help to build up a strong team. "Lack of experience is no excuse at any time, and least of all now. The freshmen will have no added military duties, and will not be required to take gym if they take up track work."

## REORGANIZE ARMY FOR TRENCH FIGHTING —INFANTRY REGIMENT WILL NUMBER 3755

WASHINGTON, Sept. 22—Revised plans for the organization of the armies being sent across the Atlantic for military service in France were announced by the War Department today, showing that the maximum strength of the infantry regiments to be sent into the trenches will be 3,652 men each, with 103 officers. The infantry divisions will contain 27,152 men and officers. This enlargement has been obtained by increasing the number of men in the infantry regiments.

The hand-to-hand character of modern trench warfare is sharply illustrated in the detailed tables of organizations for infantry units made public. Only a few years ago the wise men of all armies predicted that because of high-power, long-range artillery and rifles and automatic and machine guns, troops would never come to actual grips. The complete reorganization of the whole infantry service outlined in the new tables, however, is based on the proven fact that the battle will be decided by the foot soldiers, fighting breast to breast with bombs, bayonets and knives.

Included in the equipment of American regiments which enter the trenches are "trench knives," one of the most up-to-date developments of European battlefields. In addition, each infantry

division will have 416 machine guns. Less than two years ago the American Army had not more than 1,200 of these weapons for its entire active and reserve stock. American troops will enter the trenches equipped and organized in a way that no other army engaged in the war has been able to provide. Every lesson learned by the Allies has been adapted promptly, and the overseas units will be supplied with every weapon found useful.

### Bombers and Sharpshooters

The tables published today fix an infantry platoon as the operating unit. It will be composed of fifty-eight enlisted men under a Lieutenant. The old days of the solid company ranks of men with rifles on their shoulders and bayonets at their belts are gone. In each platoon there will be a section of twenty-two bombers and rifle grenadiers, two sections of twenty-four riflemen—all of them trained marksmen and the only survival of the old infantryman—and one section of eleven auto-riflemen, who will handle the light machine guns or the automatic shoulder rifles that may be developed. This means that there will be four light ma-

(Continued on page 3)

### ALUMNUS CITED FOR DARING RESCUE OF ARTILLERY CAPT.

Donald Belcher '02, in American Field  
Service, Gets "Croix"

PARIS, Sept. 8—Donald Belcher '02, of Newtonville, Mass., an American ambulance driver, has just been cited in the Order of the Day for having gone to the rescue of officers and men of a battery of artillery who were being subjected to a violent bombardment by shells of large caliber and aided in removing the wounded. The Order of the Day, in outlining the feat of Belcher, says he showed courage and devotion above praise.

According to the following letter, written by a former reporter of the Boston Globe, Belcher received the croix de guerre.

"Two of our section already have the croix de guerre. They are Donald Belcher of Newtonville and A. R. Kittredge of Waltham. The German shelled a battery with a heavy fire one day and killed a bunch of officers and men. Belcher and Kittredge went out to the battery with the poste commander and a commandant of artillery, and between lying in a ditch to dodge big shells, managed to turn their cars around on the narrow woods road and get away all safe.

"They haven't actually got their decoration yet, but have read their citations. It was stupendous luck, because the commandant was with them (even to lying in the ditch with them). Had there been only brandardiers they'd never had a chance to be noticed officially."

### NO RHODES SCHOLARSHIPS FOR AMERICANS NEXT YEAR

Entrance of U. S. into War Postpones  
Grants of 1918

Owing to the entrance of the United States into the war it has been decided by the trustees of the Rhodes Scholarship Trust to postpone the election of all Rhodes scholars for the year 1918.

As Massachusetts is one of the states which would have been omitted that year in any event, this postponement will mean that there will be no election of a Rhodes scholar from this state until the year 1919 when a scholar will be chosen to go to Oxford for the years 1920 through 1923. Meanwhile in order that candidates who have prepared to take the qualifying exam may do so and thus become eligible for the next election of scholars. The examinations arranged for October 2 and 3 will be held as usual. Candidates intending to compete for such examinations should apply at once to President A. Lawrence Lowell of Harvard for further information. No applications will be received after September 27, 1917.

## MEET IN GREAT COURT

Annual "Courtmyte" Called For  
Friday Evening

Music, speeches, and a spirit of good-fellowship will feature the annual Courtmyte which will be held next Friday evening, Sept. 28, and the chief object of which is to get the incoming class together and to bind them into a solid body, and to instill into them the Technology spirit.

At 7:30 the freshmen will meet in Smith Hall (Room 10-250) where the heads of the various activities will explain in detail their work and will point out the way by which the freshmen may get into these activities. The band will be present and will play the popular Institute songs which the m.c. will sing.

After this meeting, which will last probably forty-five minutes, the men will adjourn to the Great Court and will form into a body directly in front of building 10. Preceded by the band, the three upper classes will then parade around the freshmen and take their respective places. The Seniors forming in a body in the center between the DuPont and Lowell Courts, the Juniors in DuPont and the Sophomores in Lowell. After this several talks welcoming the new men and explaining to them the history and ideals of the Institute will be made by members of the faculty and other older men.

### PRESIDENT MEIKLEJOHN SPURS AMHERST MEN TO STICK

Appeals to Them to Build While Those  
in Field Fight

AMHERST, Sept. 22—Amherst College began its 97th year today. At the chapel exercises, President Alexander Meiklejohn addressed the student body, using as his subject, "Are We Slackers." He urged that, as Americans have entered the war to destroy a hated method of living, it was for Amherst men to waste no time in giving themselves wholeheartedly to the task of building up worthier ideals, and a nobler manner of living. He said that the slacker of today was the man who had no care for right, and did not wish to know what it means. He concluded: "Come on you men of Amherst, and meet the world that waits for you. Never had young men entering life the chance that waits on you. The world of men is molten, waiting the form that you will give it. And will you fail to do your part? While others fight, will you forebear to build? There are not many slackers here today. I think that in the spirit of the time, though ranks are thin, we shall not lose our kinship with our brethren in the field but will fight and think to better human life."

## TWENTY PER CENT LOSS EXPECTED IN FINAL ENROLLMENT

143 Matriculate Friday and 552 Saturday—Officials  
Place Total Registration Figures at  
Fifteen Hundred

### STUDENTS LAST YEAR NUMBERED 1935

THE enrollment of students at Technology will probably be less affected by the war than at any other college in the country. This is due, undoubtedly, to the fact that there is a great demand both in the army and in industrial lines for technically trained men and many students because of this have decided that the best way in which they can serve their country is to fit themselves to fill these positions.

The total enrollment for last year was 1935, while conservative estimates for this year place the total at a little over 1500. This is a decrease of only about 20 per cent, while a number of other colleges estimate their loss at over 30 per cent.

At the close of registration Friday night 443 men had handed in their material and by Saturday night 552 more had enrolled, making a total of 995. These returns showed a marked increase in the freshman class. Indications are that the Sophomore class will be about normal but that the Junior and Senior classes will show a decided depletion.

By the efficient distribution of materials and the excellent work of the information bureaus in the registration rooms, much of the attendant confusion was avoided. The registration material is given out in Room 3-410 where it is to be filled out. Having been filled out, it is to be handed in at the information office where a registration card is given in exchange. This card is to be taken to the Bursar's office, where it will be countersigned upon payment of the first installment of \$150 of the tuition fee. The total fee for the whole year is \$250. Attention is called to the fact that registration closes at 5:00 o'clock this afternoon, after which a penalty fee of five dollars is charged for registration.

Several addresses and entertainments have been arranged for the freshmen for this week. The first of these will be held today at 1:15 o'clock in Smith Hall when President MacLaurin will tell the men the duties which they as students must perform for their school and their country.

On next Friday evening, September 28, the annual Courtmyte will be held. At 7:30 o'clock all freshmen will meet in Smith Hall where the heads of the various activities will explain these activities to them. They will then adjourn to the Great Court where, joined by the other three classes, they will be addressed by members of the Faculty and other older men.

On Saturday night, September 29, the freshman dinner will be held and following this dinner will be the regular freshman parade. The dinner will be held in the Walker Memorial Dining Room.

### NEED MEN FOR CIRCULATION DEPARTMENT OF THE TECH

Several Positions Open to Freshmen,  
Sophomores and Juniors

There will be a meeting for all candidates for the Circulation Department of the Tech in the Tech office next Wednesday, September 26, at 5:00 o'clock. At this meeting the circulation manager will explain the work in the various departments and will give all the details of the competition.

Because of the number of men not returning to the Institute this year on account of the war, several of the higher positions in this department have become vacant and for this reason it is desired that not only freshmen but also Sophomores and Juniors attend this meeting. A Junior will be chosen for assistant circulation manager, one Sophomore will be chosen for the Mailing Division, and another Sophomore for the Sales and Delivery Division. The freshmen will compete for all of the various branches.

## FIELD DAY NOVEMBER 3

Candidates For Freshman Relay  
Team Meet Today

Definite announcement has been made by the track management that Field Day will be held this year as usual and Coach Kanaly has issued a call for all candidates for the 1921 relay team to report to him at the track house today. Cross-country practice for all will also begin today and it is requested that men intending to try out for this report as soon as possible.

Field Day is considered one of the biggest days of the year at Technology and is an event in which all classes take much interest. It was inaugurated in 1901 as a substitute for the old-fashioned cane-rush which form of contest had proven itself too dangerous to be continued any longer.

The events of Field Day consist of a football game, a relay race and a tug-o-war, the freshmen and Sophomores being the contestants. Class numerals are given to the winning tug-o-war and relay teams and to both football teams. The class winning the majority of the events is proclaimed winner of Field Day and has its numerals engraved upon the Field Day Cup.

Last year a crew race between the two classes was introduced and it is probable that it will be continued this year, although it will not count in deciding the winner of the day.

The Class of 1920 won Field Day last year with victories in the relay race and the football game. The Sophomores won the tug-o-war in 15 2-5 seconds which established a new record for the Institute. The 1919 men also won the crew race, but this did not count in the score.

Field Day will be held this year on Saturday, November 3.

### EXCHANGE PROFESSOR TO TAKE NEILSON'S CHAIR

Prof. Cestre Will Give Two Courses at  
Harvard College

The gap in the English department of Harvard caused by the withdrawal of Prof. William A. Neilson to become president of Smith College will be temporarily filled by Prof. Charles Cestre of the Faculte des Lettres at Bordeaux, France, who will arrive in Cambridge this week as exchange professor.

### BEGINNING TODAY

## THE TECH

Will appear as a Morning  
Paper

MONDAYS and THURSDAYS

# The Tech

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MONDAY, SEPTEMBER 24, 1917

## WELCOME, CLASS OF 1921

TODAY marks the beginning of a new organization, the Class of 1921. From now on there will come into existence traditions, experiences and characteristics particularly identified with that organization. Every new man should therefore feel that he has a new responsibility beginning today. It is essential that the Class start right in order to make a clear record for its four years of existence. The numerals 1921 will be a particular designation that will stick to every one of you new men during your course at the Institute and when you enter the Engineering World Let these numerals remain clear of all stigma so that you freshmen as alumni may look back with pride on a brilliant record of your four years at Technology.

## The Letter Box

Frederick W. Grover '99 writes:

"I have been spending the summer at the Bureau of Standards working with others on a circular on wireless measurements to be issued by the Bureau soon. I expect to return to Colby College in October. College opens late this year to allow students who have been engaged in the movement for helping in the farm work of the state to finish this work before taking up their college work again. I have met not '99 men here, but I have seen quite a little of Washburn '09 and Hunt '07, who have also been at the Bureau of Standards this summer engaged in war work."

Mr. Clancey M. Lewis '99 writes:

"I met W. C. Phalen of our class up in the Olympic Mountains September 2 and as the day was Sunday and raining we had ample time to recount our undergraduate experiences and recall a number of familiar faces and names. He mentioned having had quite a pleasant visit with W. M. Corse recently in Buffalo. Phalen, as you know, is a geologist with the U. S. Bureau of Mines, and at the time I met him he was en route to look over some ferro-manganese deposits, large bodies of which are exposed to the surface in the vicinity of the resort where we were stopping, and some development work has been done. This is but a small item in Dr. Phalen's investigations this season, as he has been in the field since April and has inspected every known deposit of manganese, traversing every state in the Union. He has thrown off a good deal of the grind acquired at Tech and is gradually becoming a faithful and characteristic servant of our Bureau System of the Government.

As for myself, I have been actively identified with the Red Cross drive and during the month of June had charge of five of the largest counties in the State (Washington), and with capable assistants was successful in more than doubling our apportionment. Just now I am active in closing up preparations for the 18th Annual Good Roads Convention of the Washington State Roads Association, which will be held in Bellingham, Wash., September 27-28, and of which for the past year I have been secretary. These activities together with the secretaryship of the China Club of Seattle and the acting secretaryship of the Home Committee of the 18th Engineers (Railway), which regiment is now in France, are part of my public service and extra to my regular work as secretary of the Manufacturers Association."

## START COMPETITION FOR TWO TECHNIQUE BUSINESS ASSISTANTS

The competition for the two positions of associate business managers on the staff of Technique 1919 will be started Thursday, September 27. The competition will be open to Juniors only. Business Manager J. L. Riegel '19 will meet all men interested at 1.00 o'clock Thursday in Room 8-205, at which time the details of the competition will be outlined.

## REDUCE STUDENT TAX TO TWO DOLLARS AND HALF

(Continued from page 1)

that the Institute Committee shall have charge of the care and expenditure of the tax money, subject to the approval of an advisory committee of the Corporation.

The actual plan as outlined differs only in one or two minor details from the scheme suggested to the Institute Committee early last term by the Committee on Ways and Means, which led the larger body to petition the Corporation for the adoption of the compulsory tax, the Corporation added to the items covered in the Student Committee's report—Institute Committee, Class Dues, Athletics, Walker Memorial, and Health Insurance—the provision for a reserve fund bringing the original estimate to \$8 for the Institute year.

The adoption by the Corporation of the compulsory system came as a glad surprise to most Technology men who have been connected with the collecting of money from student activities by the various methods used in previous years, such as the blanket tax, athletic dues, or voluntary contribution. That the tax had really been authorized was announced in a circular enclosed in the report of standing sent to each student last Monday. A copy of the notice follows:

The following rules are the ones originally promulgated by the Executive Committee of the Corporation:

1. That a tax of \$4 per term be levied on all male students attending the Institute who enter after September 1, 1917, and who pay, or have paid on their behalf, more than half the regular tuition fees for the term and that the corresponding tax for students who pay one-half the regular tuition fee or less be \$2 a term.

2. That in the case of female students the tax be \$1 per term for those who pay more than half the full tuition and \$0.50 per term for those who pay half or less, and that no part of this tax be appropriated for the maintenance of athletics or of the Walker Memorial.

3. That this law be levied on all students, including graduate students, special students and unclassified students.

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## AVIATION STUDENT KILLED

Attempted to Loop the Loop Too Close to the Ground

MT. CLEMENS, Mich., Sept. 22--Wilbur D. Mong, a cadet aviator of Cleveland, was killed this afternoon when his airplane crashed to the ground on the Government aviation field. It was said that he attempted to loop the loop too close to the earth.

Mong was in the air for several minutes before the accident took place, and at one time he reached an altitude of about 2,000 feet. Many persons outside the aviation field were watching his machine as it began to descend rapidly. Suddenly the aviator seemingly attempted to loop the loop and his airplane crashed downward.

Mong is the first aviator to lose his life at the local field.

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A direct means of communication between the Technology and the National Government. If there is anything you wish to know in Washington, write to the Technology Bureau.

"Don" Stevens '11 is in charge of the flying field and U. S. Navy Aviation School at the Goodyear Tire & Rubber Company. Here the blimp type dirigibles are being erected under his supervision, and U. S. Navy men are being trained in free balloon flying, kite balloon flying and dirigible balloon flying. The men are being trained by R. A. D. Preston '10, who has long been one of the foremost men in the country experienced in balloon aviation. He is working night and day to train the U. S. Navy men for coast defence work. The equipment includes the largest hangar and gas generating plant in the country. The hydrogen plant is operated by C. N. Hand '16. A detail of 50 U. S. Navy men are encamped on the premises.

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## MAJ. COLE PLANS "VOLUNTEER ADVANCE BATTALION" FOR JUNIORS AND SENIORS

The plan proposed by the War Department for a Reserve Officers' Training Corps to be organized at the Institute was not in workable shape for Technology nor were third or fourth year men eligible under the proposed plan. Pending information from Washington about rearranging the original plan of the R. O. T. C. Major Cole is organizing what is known as the Volunteer Advance Battalion.

The Volunteer Advance Battalion will be open to Seniors and Juniors and those Sophomores who do not enroll for the R. O. T. C. The work of the battalion will be devised so as to give a man the most valuable training for the duties of an officer in any branch of the service. Among the subjects contemplated for the course will be the following:

Physical Drill.  
Infantry Drill. This will be conducted on the principle of continued rotation of men in the varied positions so that every man shall be competent to instruct and command any unit to include the company.  
Field Engineer Drill. Trenches, Obstacles, Bridges, Sketching, etc.  
Military Signalling. Field Practice. Minor Tactics. Practical and theoretical, involving patrolling, advance and rear guard, out-posts, etc.  
Camp Sanitation. First Aid.  
Artillery and machine gun work as far as practicable.

Study and demonstration so far as possible of developments of this war. The above outline which will be developed as far as possible is designed to give a man a first class all round military training, and will if the course is pursued, make a man a very much better potential soldier for any branch. If such a battalion is organized the

Faculty will be asked to make it official, so that those enrolling must attend as a matter of duty and proficiency will be necessary as in any other course. The purely volunteer system; such as has been tried for two years with the Engineer Corps will not work. Men will be allowed to drop out only on approved petitions showing an absolutely necessary cause.

The uniform will be the regular olive drab with the trench coat, a short canvas overcoat with sheep skin lining.

All those who desire to enroll in such a battalion for three hours' work per week will enroll at the office as promptly as possible. Major Cole believes that three hours should be the minimum time, but if any can enroll for two hours who find the three hours impracticable, they will so state.

This first enrollment is provisional and is asked to ascertain the practicability of carrying out the scheme. After results are ascertained an announcement as to number enrolled, hours to be devoted to the course, etc., will be made and formal enlistments made. By that time it should be known whether the organization of R. O. T. C. units for the upper classes will be allowed.

Registration for the Volunteer Battalion is at present temporary. Men who sign will however be expected to confirm their registration later unless prevented by good reason. Enlistments in the R. O. T. C. will not be affected by any present registration in the Battalion. Definite information in regard to the R. O. T. C. will be published as soon as received from Washington. The R. O. T. C. has been established for Sophomores and freshmen but the details for the course have not as yet been received from the war department. Up to Saturday night one hundred and thirty-six men had signified their intention of joining the Battalion.

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To be admitted to the first-year class, applicants must have attained the age of seventeen, and must pass satisfactory examinations in Algebra, Plane and Solid Geometry, Physics, English, History, French, and German, and must present teachers' certificates for two of a series of elective subjects. A division of these entrance subjects between June and September or between two successive years is permitted.

Entrance examinations are held at the Institute in June and September of each year. In June, applicants may be examined also by the College Entrance Examination Board in New York, Philadelphia, Chicago, and many other cities in America and Europe. A circular stating times and places is issued in advance, and will be mailed on application.

Graduates of colleges and scientific schools of collegiate grade are admitted, without examination, to such advanced standing as is warranted by their previous training.

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Correspondence should be addressed to Prof. A. L. Merrill, Secretary of the Faculty.

### PUBLICATIONS

The Annual Catalog (issued in December), the Report of the President and the Treasurer (issued in January), the Programme (issued in June), and circulars in regard to Admission of Students from other Colleges; Summer Courses; Advanced Study and Research.

Any of the above-named publications will be mailed free upon application

### REORGANIZE U. S. ARMY FOR TRENCH WARFARE

(Continued from page 1)  
chine guns on the line for every sixty men, backed by the regimental and divisional machine gun battalions and companies armed with the heavy, water-cooled weapons that are the real first line of defense in trench warfare.

The use of trench knives supplants the old rifle and bayonet for forty men in each company of 250. These terrible weapons are long, keen knives, with heavy metal hilts, worn strapped to the left arm and are more for use in trench raids by men who cannot be encumbered with rifles and bayonets because of their special duties.

Originally the American army organization tables called for between 20,000 and 30,000 men in an infantry division. Then it was decided to reorganize those divisions so as to make them conform to the organization of the British and French infantry divisions in France. There were fewer regiments in the infantry and artillery brigades proposed, and the ratio of artillery and machine gun strength to infantry was increased. The strength of an infantry division was about 19,000 men. Since then the organization of the infantry divisions have undergone important changes.

#### Make-up Under War Conditions

Each infantry division will now comprise:

Organization	Number of Men
One division headquarters	164
One machine gun battalion of four companies	768
Two infantry brigades, each composed of two infantry regiments, and one machine gun battalion of three companies	16,420
One field artillery brigade composed of three field artillery regiments, and one trench mortar battery	5,068
One field signal battalion	262
One regiment of engineers	1,666
One train headquarters and military police	337
One ammunition train	962
One supply train	472
One engineer train	84
One sanitary train, composed of four field hospital companies and ambulance companies	949
Total	27,152

Under the new plans an infantry regiment, comprising 103 officers and 3,652 men, will be made up as follows:

Organization	Number of Men
One headquarters and headquarters company	303
Three battalions of four rifle companies each	3,078
One supply company	140
One machine gun company	179
One medical detachment	56
Total	3,755

Each rifle company has a strength of 250 men and six officers. It is composed of a company headquarters (2 officers and 18 men), and 4 platoons. Each platoon includes: One headquarters (2 officers and men); one section bombers and rifle grenadiers (22 officers and men); two sections riflemen (2 each, 24 officers and men); one section auto riflemen (4 guns, 11 officers and men). Total 59.

The machine gun company has 6 officers and 172 men. It consists of the headquarters (3 officers and 21 men); 2 platoons (each with 1 officer and 46 men), and a train (13 men). Its armament is 12 machine guns of heavy type and 4 spare guns.

#### Transportation Equipment

The transportation equipment of the regiment is: 22 combat wagons, 16 rolling kitchens, 22 baggage and ration wagons, 16 ration carts, 15 water cars, 3 medical carts, 24 machine gun carts, 56 riding horses, 8 riding mules, 332 draft mules, 2 motor cycles with side cars, 2 motor cars, 42 bicycles.

New fighting equipment for each regiment, in addition to the usual rifles, bayonets, pistols, etc., includes 480 trench knives (40 to each company), 192 automatic rifles (16 to each company), and 3 one-pounder cannon, manned by the one-pounder cannon platoon of the regimental headquarters company.

The new organization increases the ratio of artillery and machine-gun strength to infantry. In place of the old division of three brigades, with three infantry regiments in each, are two brigades, with two infantry regiments in each. But in the new, as in the old, organization there are three regiments of field artillery in each division, making the ratio of artillery to infantry regiments 3 to 4 in place of 3 to 9. A trench mortar battery, added to the artillery brigade, and a one-pounder platoon, attached to each infantry regiment headquarters company, adds to the gun strength of the division.

A division now includes a total of 14 machine gun companies. Each of the four infantry regiments has one; each of the two brigades has a machine gun battalion of three companies, and the division has a machine gun battalion of four companies. This gives each division a mobile machine gun strength of ten companies, which can be used as special needs require, while each regiment still has its own machine gun equipment in one of its component companies. In addition, there are forty-eight sections of auto-riflemen, each section carrying four light machine guns (automatic rifles)—one section in each of the four platoons making up each rifle company.

It is expected that this year's freshman class will be about 400 in number. First year men last year were 452 strong. The total enrollment this year according to officials will be 1500 whereas in 1935 was the number registered last year.

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### 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 Bldg., Washington, D. C.

Position	Service	Salary	Date of Exam	Cir. No.
Metallographist	Frankfort Arsenal	\$1,500-\$2,000		1938
Assistant Chemist	Frankfort Arsenal	\$1,500-\$2,000		1938
Assistant Steam Engineer	Penitentiary Service	\$1,000-\$2,000	Oct. 3	1963
Statistical Clerk	Departmental Service	\$900-\$1,200	Oct. 3	1964
Assistant in Crop Acclimatization	Bu. Plant Industry	\$900-\$1,400	Oct. 3	1965
Telephone Operator	Departmental Service	\$600-\$720	Oct. 3	1966
Radio Draftsman	Navy Dept.	\$3.52-\$6 per diem		1983
Copyist Radio Draftsman	Navy Dept.	\$3.44 per diem		1983
Junior Chemist				
Qualified in Tars	Bu. Soils, Dept. Agri.	\$1,500	Oct. 2	1959
Investigator in Marketing Fruits and Vegetables	Bu. Markets	\$1,900-\$2,760		1985
Assistant in Marketing Fruits and Vegetables	Bu. Markets, Dept. Agriculture	\$1,200-\$1,800		1940
Agriculturist in Farm-Management Demonstrations	State Relations Service, Dept. Agri.	\$1,800-\$2,760	Oct. 2	1960
Law Clerk, Stenographer and Typewriter	Bu. Naturalization, Dept. Labor	\$1,000-\$1,400	Oct. 26-27	1897
Gauge Checker	Bu. Ordnance, War Dept.		Sept. 10	1332
Barn Architect	Office Pub. Rds. and Rural Engr'g. Dept. Agri.	\$1,800-\$2,400	Sept. 25	1986
Plate Cleaner	Departmental Service	\$2.69-\$4.16 per diem	Sept. 24	1987
Pathologist	Freedman's Hospital	\$2,000	Oct. 3	1989
Assistant in Plan Disinfection	Federal Horticultural Board	\$1,200-\$1,440	Oct. 3	1990
Senior Signal Engineer	Interstate Comm. Com.	\$3,000-\$4,800	Oct. 2	1988
Scientific Assistant in Public Health	Public Health Ser. Grade 2	\$1,500-\$2,000 \$900-\$1,500	Oct. 2	2006
Junior Topographer and Topographic Aid	Geological Survey	\$720-\$1,500		2007
Stenographer and Typewriter	Departmental and Field Service			2003

#### BIG ITALIAN AIRPLANES IN FLIGHT OVER CAPITAL

##### Washington Sees Machine Which Can Carry Ten Persons

WASHINGTON, Sept. 22—Aerial manoeuvres familiar to European battlefields were brought to Washington today by three Italian airplanes of the latest design and development. The flyers gave an exhibition of the greatest during the capital has seen.

##### Can Carry 10 Persons

One of the machines—a 500 horsepower Caproni—capable of carrying 10 passengers on bomb dropping expeditions, was the largest type of flyer which American military chiefs have seen.

The machines came to the capital from Langley field at Norfolk, in about two hours, and after giving exhibition flights over the polo grounds of Potomac Park, were expected to return tonight. Only one was able to leave, as one big machine was damaged in making a landing late this afternoon, while another is mired in the mud on the Virginia side of the Potomac.

Members of the cabinet, military and naval chiefs of the United States, Italy, France and Great Britain greeted the alien flyers and witnessed the flights. Franklin K. Lane, Jr., son of the secretary of the interior, made the trip in one of the machines.

Lt. Baldoli, of the Italian air service, gave a wonderful exhibition of flying that made a crowd of 40,000 persons gasp. At a height of 4000 feet he began looping and spinning and then turned the nose of his machine downward and began a tail spinning dive to earth. It was described as a spiral dive, as the machine constantly diminished the circles until it was close to the earth. The flyer then glided gracefully to his landing place, stretched himself, and 30 minutes later started another flight with Lt. Lane as a passenger.

A Sia machine, piloted by Lt. Ballerini, and carrying Lt. Abbetti as observer, ran out of gasoline when nearing the polo grounds and the flyers were forced to make a hasty landing on the Virginia side of the river, to avoid plunging into the water.

##### Big Bomb-Dropper

The big bomb dropping machine was the centre of interest. It was driven by Lt. Silvio Bessanti and the passengers from Langley field included Dr. William F. Durand, chairman of the national advisory committee for aeronautics; Dr. H. W. Stratton of the bureau of standards, W. B. Strout of the international aircraft and centralization board, S. J. Kubel of the geological survey, Capt. Tappi of the Italian army, and four mechanics. Secretary Lane, who was to have been a passenger, explained that the President had suggested that it was an unnecessary risk

#### UNITED STATES TO ADOPT ENFIELD RIFLE FOR NEW ARMY

In order to obtain a sufficient number of rifles with which to arm the new United States army in as short a time as possible, the War Department has decided to supplement its supply of

Springfields with a modification of the English Enfield rifle, which is being manufactured in this country in large quantities for the British government.

The operating mechanism of the new rifle, while differing in general design, has the same functioning features as the Springfield; that is to say, operation of magazine, loading and extracting, rotating motion of bolt and side ejection. The barrel is made of the same specifications as the Springfield, with the exception that it is two inches longer than that of the Springfield, which measures 23.79 inches.

The weight of the Springfield, with bayonet attached, is 9.69 pounds; the new Enfield model weighs about three-quarters of a pound more. The bayonet of the new arm is 1.125 inches longer than that of the Springfield, which is 16 inches long; the assembled rifle, with bayonet attached, is 4.125 inches longer than the Springfield, which measures 59.212 inches from the butt plate to the point of the bayonet.

The design of the bayonet of the new rifle is practically the same as that of the Springfield bayonet, the only difference being that in the new rifle the back or top edge of the blade is straight along its entire length and the front, or lower edge, tapers to a point.

The magazine is practically a duplicate of the Springfield, permitting the use of the same cartridge clip carrying five cartridges. In the Springfield the rear sight is on top of the breech end of the barrel, whereas in the new Enfield it is on the top rear end of the receiver.—Popular Science Monthly.

#### MONOLOGUES ON BOX CARS TELL OF R.R.'S WARTIME TASK

Missouri Pacific's Idea Indorsed by Railroad War Board

WASHINGTON, Sept. 20 (By mail)

—Did you ever see a box car talk?

The railroad's war board is making them do it. It's got them trained now so they go lumbering all over the country, carrying on a monologue for the benefit of anyone who will listen to them.

What they say is:

"Please load me to capacity. Fill me full. See that I'm unloaded immediately at my destination. Load me up again and start me on another trip at once."

"My boss, Uncle Sam, is at war with Germany. I've got a lot of work to do for him, and the more I can carry at one time and the quicker you get me loaded up and started, the better our chances will be of licking Germany."

The idea is a success. It's educating the public to do just that. It originated with the Missouri Pacific, which has had a system of monologue freight trains running between Kansas City and St. Louis for some time. The war board extended the stunt to the whole country.

The board hopes in this way to make every freight car do double the work it does in peace time, thus meeting the abnormal demands of war time. The first talking car that went out bore this monologue in white letters on a

black background:

"I was loaded to FULL CAPACITY in St. Louis today.

I will be in Kansas City tomorrow. I will be unloaded and reloaded there in 24 hours.

I will soon be back in St. Louis for another load.

I would rather move than loaf.

MOTION MEANS MONEY."

In their journeys back and forth between St. Louis and Kansas City, the cars have "talked" to thousands of people and have helped to drive home the idea that every car must be loaded to capacity and kept moving.

#### 101ST ENGINEERS RECEIVE DIPLOMAS AT WENTWORTH

Principal Arthur L. Williston yesterday afternoon presented graduation diplomas to 826 members of the 101st regiment of United States engineers, formerly the 1st Corps of Cadets, who had completed their course of military and technical training at Wentworth Institute, Col. George Bunnell, commanding the 101st, thanked him and his staff.

All rapid-fire construction records are being broken at the Camp Dix cantonment, as a result of the splendid organization of 7000 men formed by Irwin and Leighton within the short period of five weeks. Mechanical ability, supported and guided by modern efficient business practice, made it possible to build barracks so rapidly as to surprise the hustling army men in charge.

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