

INSTITUTE NAVIATORS IN TRACK MEET TODAY

Final Contest of the Season Between the Flights of the Technology Naval Aviation School At 3.15 O'clock

FAMOUS ATHLETES COMPETE

The final track meet of the year for the Technology Naval Aviation School students will be given at Tech Field this afternoon at 3.15 o'clock. The meet is the occasion of much interest and rivalry between the flights, as it will settle the athletic supremacy among them. Some of the finest athletes of the country will be present to compete, among them the well-known runners: Shay, Erdman and Clintock. The meet represents much work on the part of Ensign Squibb, who has charge of the event, and offers a varied program of novel and exciting events. The first event is the hundred-yard dash, which bids fair to become one of the speediest races run off on the field. After the dash is run off, a spectacular event will take place in the guise of the shoe race. Next comes the tug-of-war, which, from looking at some of the husky Naviators, will doubtless be a contest between giants, and one that will bear watching. Following this will be the three-legged race, the centipede race, the equipment race and the chariot race. These will show that our officers are clever and adept men as well as good athletes. The hundred-yard swim will come next, and as everyone has seen the aviators in swimming at some time or other, it will need no booming. As a windup, comes the relay race between all the flights that can raise a team. It will consist of a course of 75 yards for each man, and as all the best men are entered, it will probably be the finest sight of the day.

LIEUTENANT A. R. KNIGHT, '17. WRITES OF WORK IN FRANCE

Technology Graduate Relates Experiences "Over There"

Mrs. Franklin P. Knight has just received an interesting letter from her son, Lieutenant Arthur R. Knight, a graduate of Technology, with the Class of 1917, now one of the intrepid aviators with a French escadrille. It will be read with pleasure by many of his Institute friends. It is as follows:
Dear Mother: I received your letter today and am glad that you have



LIEUT. A. R. KNIGHT '17

heard from me so often lately. I have also heard from you more frequently, having been settled in the one place. Wanderhoef, who has been my pilot since March, was retained as a pilot instructor when I was sent to be put into the French escadrille. I was very sorry to be parted from him as he is a fine type of a fellow, absolutely clean living and dependable in addition to being a mighty good flyer. One of the best there is going. He is, as I believe I told you before, a New York fellow, a Princeton graduate of the

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INSTITUTE MAN WITH WRITERS WHO SEE CAMP SERVICE WORK

Nine noted writers, one of them a Technology graduate, paid a visit to Boston last week, to make a survey of the War Camp Community Service, as it is exemplified at the camps and other military and naval stations in and about Greater Boston, and they departed for New York fully satisfied that nothing is being left undone to provide amusement and pleasure for the service men during their leisure hours.

The party included Gelett Burgess, '87, Princess Radziwill, Basil King, L. Wallace Hopkins, Jessie Payne, Captain George Schirmer, Dr. William T. Hornaday, Berton Braley and Edward Hungerford. They were the guests here of the Boston War Camp Community Service.

The itinerary included visits to all of the Technology Government schools, the Radio School at Harvard, Camp Devens at Ayer, visiting at the latter place the Soldiers' Club in West street and the Enlisted Men's Club at Robin's pond. After luncheon they were driven to Nantasket, where they met Joseph Lee and others connected with the war camp community service and were dined at the Atlantic House. Special entertainment was provided later at the South Shore Service Club, including a dance given by the Special Aid Society of Allerton.

BALLOON OBSERVERS NEEDED

The Division of Military Aeronautics is in need of several hundred young men between the ages of twenty-five and thirty-five years for duty as balloon observers. The candidate should have a technical training that will help him to read maps and photographs of the terrain and to calculate distances and angles. The Division of Aeronautics sends the successful applicants to one of its training schools, of which it has five—at Arcadia, Cal.; Fort Omaha, Neb.; John A. Wise, San Antonio; Lee Hall, Va., and Fort Sill, Okla., the last two being the schools where the candidates get practice in connection with the Artillery camps in these places. The candidates, upon completion of their courses, receive commissions as second lieutenants, and are sent abroad for further education.

Protect your soldiers with your savings. Buy W. S. S.

AVIATORS GIVE PLAY

Flight Twenty-Eight Bids Farewell To Receiving Ship

About four hundred naval aviators were given a treat when Flight Twenty-eight gave a vaudeville show in the main lecture hall in building 10. They were about to move over to the Main Ship, known to the landsman as the Walker Memorial, and before they went they wanted to leave some sort of a remembrance. A good show seemed to be as good as anything else, and so they set to work, and the result was seen last Friday night.

The big hit of the evening was the act by the glee club of the Receiving Ship. They gave several pieces, and they all were good. Two other very popular acts were sketches entitled "The Kaiser's Throne Room," and "The Officer of the Sea." They were both considered mighty good comedy. Anderson, the intercollegiate champion club swinger from Amherst, was one of the performers, and he gave a very good act. Probably the most unusual act of the evening was the one given by J. F. Rogers, when he took the part of a girl, in a dance.

Everybody enjoyed the show, and at the end they all gave a hearty vote of thanks and a mighty fine farewell to Flight Twenty-eight.

The philosophy of the W. S. S. is save, save, save.

ALL MEN 21 SINCE JUNE 5 MUST REGISTER AUGUST 24

The War Department authorizes the following from the office of Provost Marshal General:

In order to clear up any misunderstanding that may exist the Provost Marshal General desires to emphasize the fact that regardless of any grounds for exemption that may exist, all young men in the United States who shall have reached their twenty-first birthday since June 5 and on or before August 24, must present themselves before their local boards for registration between the hours of 7 a. m. and 9 p. m. August 24.

Any claims for exemption may be filed subsequently in filling out the questionnaire blanks which will be furnished to the registrants.

Provision will be made for the registration by mail of any person who expects to be absent on registration day from the jurisdiction of the board where he permanently resides, but in such a case extreme care should be taken by him to see that his registration card reaches his home board on or before August 24. Such persons are advised to apply at once at a local board for instructions as to how to proceed.

TECHNOLOGY STUDENT WAS RADIO OPERATOR OF KELLOGG

Writes Description of Sinking of American Tanker

William A. R. Brown, former student at Technology, radio operator on the tanker Frederick R. Kellogg, torpedoed by a German submarine Aug. 13, en route to Boston from Tampico, is a Roxbury boy, a son of Mrs. William G. Brown of 42 Lambert street.

He was graduated from the Dudley Grammar School, Mechanic Arts High School, and after completing a two-years course in Technology, was graduated from the Radio School at Harvard. "We had just sat down to supper," he said, describing the loss of the Kellogg, "when there was an awful crash, and the whole room was filled with black, choking powder smoke. We ran from the room and already the water was rushing along the corridor. As we climbed down the stairs I could feel the ship going down, and when I reached the deck the water was over the tops of my shoes. Then I realized that the crash must have been a torpedo.

"The officers' quarters and wireless room are near the forward end of the ship and I immediately started to run there. The ship was going down rapidly by the stern, and every step I took the deck was sloping more, and when I reached the stairs leading to my cabin it was like running uphill.

Radio Power Gone

"I rushed into the wireless room and threw in my switches, but there was no power. The water was nearly halfway up the funnel, so I knew that the engines had stopped, and that I would not be able to use my set. I ran to the captain to report. He said, 'Save yourself.'

"I started to run back to the room, but as I did I saw that the water had reached the top of the funnel. The ship seemed to be almost straight up and down, with her bow out of the water. I knew there was no chance, so I turned to reach a lifeboat. The captain and another man was standing at the side of the ship, and the last boat was in the water. We all jumped at once into the boat.

"There were 30 of us in that little boat, and we couldn't get the oars out. Then everybody began to talk. From the time of the explosion till then not a word had been spoken. It was a race with death against time and everyone had been too busy to speak.

"Somehow we got the oars out and got away from the sinking ship. We rowed about and picked several men

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STUDENTS ARMY TRAINING CORPS AT TECHNOLOGY

President Maclaurin, Head of The New Educational Organization To Train Students In Case Of Any Urgent Need of Army

NEW CORPS DOES NOT AFFECT R. O. T. C. UNITS

A TELEGRAM to the Institute received last evening from President R. C. Maclaurin, who is in Washington, runs in this way:—"Students' Army Training Corps will be established at Tech. Entrance into this corps requires no action on the part of students at present.

Hope regulations can be issued in a few days. They now await the approval of the Secretary of War. Voluntary enlistment have been closed, and entrance into the S. A. T. C. will doubtless be by induction. The rights of members of the Enlisted Corps will be preserved."

SUMMER CAMP NEWS

Doings at Technology, Maine, By THE TECH'S Reporter

On Monday, August 5th, there was a meeting of the entire Technology Summer Camp student association at East Machias, Me. The meeting was called to order at 8 P. M. by Chairman Murchough. The minutes of the previous meeting were read by Secretary A. A. Brown and accepted as read.

Then followed the reading of the constitution by former associations. It was adopted with the omission of those articles pertaining to the Librarian and Dining Room Committee. The Chairman of the Council gave his report and called on Chairman Massey of the House Committee for his report. He gave the rules to be followed in the case of tents and grounds. He also announced that there would be an inspection of all tents every day at 12:45.

On Sunday evening Professor Homer gave a very interesting talk on knots and demonstrated the tying of a large number of them.

BASEBALL

The Committee on Sports has arranged a league of six teams. The names of the final winning team will be engraved on the cup that is in Bemis Hall. Up to this time six games have been played. The fellows are putting a lot of pep and enthusiasm into these games. Gresham especially is starring in the pitcher's box.

There has also been arranged a chess and a check tournament for those who are interested in these games. The games are played at any time during leisure hours.

The Show

On Tuesday night, August 6th, Chairman Akers of the Entertainment Committee called a general get-together meeting. The purpose of this assembly was to have individual acts and recitals in order to start things for the show which is to be given in East Machias in a few weeks. Genaske, Grover and Ayala played some clever pieces on the piano and Sunwalt was right there with his violin. Con and Robillard gave some snappy recitations, and Berko, Brain, and Akers sang. It was a very enjoyable evening. Not only did it do much to keep up the good fellowship among the crowd, but it also showed some good material for the show.

The next evening, August 7th, the tryouts for the show chorus took place. The chorus has not as yet been definitely chosen, but the list will be sent later.

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A circular from the Adjutant General's office recently received defines some of the limitations of colleges with reference to the S. A. T. C. The general purpose is to develop as a military asset the large body of young men in the colleges. To do this the War Department will supervise an efficient military instruction in all colleges enrolling the required minimum of students. The limitations are first that the institution shall be of college grade providing courses for not less than thirty-three weeks in the year and for two years or more, and be listed among the higher institutions by the U. S. Commissioner of Education. Students enrolled in preparatory departments are not to be counted and the college in order to be eligible for a S. A. T. C. must have on its enrollment at least one hundred able-bodied male students, of eighteen years of age or over.

Preparations are under way for the establishment of S. A. T. C. units in a large variety of different kinds of colleges, including colleges of arts and sciences, engineering schools, schools of mines, colleges of agriculture, of pharmacy, of veterinary medicine, teachers' colleges, law schools, medical schools, dental schools, graduate schools, normal schools, junior colleges and technical institutes.

In the colleges in which these training units are established, all the able-bodied students will be encouraged to enlist if they are above the legal age, eighteen, and under eighteen they will be encouraged to enroll. Students neither enlisted nor enrolled will not be entitled to enter the training units or to receive the special instruction. The enlistment contract of the students of more than eighteen will constitute the members of the Army of the United States, and they will become thereby subject to active service at the call of the President. The enlisted students will be on furlough status till called to the colors and will receive no pay or allowance except when attending summer training camp, in which case they will receive rations and transportation.

Instructors will be provided from various sources, over-seas officers returned to this country and college instructors who are now at the training camp are among these sources. The government will supply uniforms and equipment.

So far as the existing R. O. T. C. units are concerned, it is the intention not to disturb these and the status already earned and privileges will not be taken away. Institutions with R. O. T. C. units may establish S. A. T. C. units if they wish. In much the same way the Enlisted Reserve Corps which at the Institute has about one hundred and fifty students in it, will have its rights unchanged. This is the group enlisted some months ago and given a classification of its own, and to enter which the student must have been certified as in the "top-third" of the student body.

The Tech

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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.

IN CHARGE THIS ISSUE

Carole A. Clarke '21 Night Editor

WEDNESDAY, AUGUST 21, 1918

ISN'T THIS THE RIGHT IDEA?

THE following article was written by a member of the junior freshman class, and we are printing it because we think he has the right idea.

"Several members of the junior-freshman class have taken out papers for admission to the course in Coast Artillery, to fit them for enlisted specialists in the army.

"The junior freshman class seems to be doomed not to flourish. It started as one of the smallest classes which ever entered the Institute, and by the time it had gone through exams it was even smaller. Now it seems to be decreasing again. This time it is not exams that are weeding it out, but rather the call of our Country. As this war has progressed, and we have seen more and more of our friends go into service there has been a great deal of impatience that we are not also doing our "bit." We had been told time after time that we were doing the country a greater service by staying in the Institute than we could ever do by shouldering a gun. Yet we heard many who were ignorant of our work call us slackers, and the feeling grew that something should be done. And then the new draft bill was brought up, and we were told that men of eighteen were to be drafted. That was the straw that broke the camel's back, and about a half a dozen of the fellows started out to see if they could get into service. After the draft bill was brought up all enlisting stations were closed, for the very reason of keeping fellows who would not be needed in the service, and who were of more use in the colleges, from enlisting. There was only one branch that could be found in which enlistments were still going on. That was the Coast Artillery Training Course. It sounded good enough, if there was nothing better, and the fellows took out their first papers. So far it was easy sailing, but when they went in to see the Dean for a reference, he was not so glad to see them as they had expected. He told them that they were very foolish and that they ought to stay in school, and then what was more, he said, that he did not think that there was a very big chance of their getting in.

"Now if everybody is against this enlisting of the students, why are these students so anxious to get in? The reason is just this. Those fellows are all afraid of what will be said about them after this war is over. They have the idea that they will be pointed out by a jeering crowd as men that were slackers. They lack the courage to stick it out in the Institute. If they have not the courage to do this little job and do it right, will they ever have the courage to do the big things that are required in the service? True, there is another type of courage needed to stick out a job here than is needed to go over the top, but any man that leaves this Institute now, because he is afraid of what will be said is nothing more than a slacker and a coward. Your country needs you right here at this minute more than in any other place, and if you run away from this on account of fear, then you are not doing your full duty to your Country, and any man that does not do that in time of war is nothing less than a traitor.

"Now, fellows, try and stick it out, and when the country needs us, we will all be right there with bells on, but now we are here to work in the Institute, and to do that work well. Forget all about enlisting, and get down to work, and then you will have the right to hold your head as high as any enlisted man."

PERSONALS

Through the courtesy of Orville B. Denison, Secretary of the Class of 1911, THE TECH records the announcement in London social circles of the engagement of Miss Margaret Peile of Elchester County, Durham, England, to H. Stokes Waite, Course H, Class of 1911, who is now living at 17 Victoria street, London, S. W. 1, England.

In a recent letter Waite says, "In 1916 I went into partnership with Donald Campbell and Walter Gifford as consulting engineers on electrometallurgical work, especially electric steel and ferro alloys, and the construction of works for the manufacture of carbon electrodes for these industries.

"My London address might be the means of my being of assistance to M. I. T. '11 men in the Army passing through London."

Warren A. Strangman, who was graduated from the Mechanical Engineering Course at Technology with the Class of 1916, is now in the service of the U. S. Government. He has just finished a



WARREN A. STRANGMAN '16

course of instruction in meteorology and aerology at the Agricultural and Mechanical College, at College Station, Texas. Strangman is still in Texas, awaiting an assignment to some one of the Government Weather Bureau stations.

Ensign Philip J. Barnes, Naval Reserve Flying Force, who made a world's record for sustained flight in an airplane in England last week, lives in Minneapolis. He is not yet twenty-four years old. In 1916 he entered Williams College at Williamstown, Mass., and in June, 1917, he left college and entered the naval training school at Marblehead, Mass. He qualified for the flying force, and was detailed to the Curtiss Flying School at Newport News, Va. From there he was sent to the Technology Naval Aviation School for ground work training. He led the 200 graduates of the ground school while at the Institute.

Mr. and Mrs. Willard C. Warren of West Newton announce the engagement of their daughter, Margaret Moore Warren, to Mr. Gorham Lamont Cross, son of Mr. and Mrs. Theodore L. Cross of Utica, N. Y. Miss Warren is a member of the Class of 1919 at Smith College and her brother, Lt. Keith F. Warren is stationed at Camp Dodge, Iowa. Mr. Cross is a graduate of Amherst, Class of 1918, and is a member of Alpha Delta Phi and Phi Eata Kappa fraternities. He is now a student flight officer of his squadron at the Technology Naval Aviation School. His brother, Lt. Theodore Cross, is in France, serving as a balloon observer in the artillery.

Tom Whelan of Lynn, Massachusetts, the former Georgetown baseball and football player, left last week for the Bay Shore naval training station on Long Island, where he will complete a course of training for the army aeronautic service. He has been at the Technology Naval Aviation School for the last three weeks.

SIGNAL CORPS NEEDS MEN EXPERIENCED IN TESTING

Maj. Foster, Veitenheimer department signal officer, announces men are wanted for service in the army signal corps who understand how to make factory tests of electric cables and wires. Candidates must have a knowledge of insulation resistance, electric static capacity, Ohmic resistance, and measurements of cables and wires. The salary is \$120 per year with an excellent opportunity for advancement. Application may be made at the department signal office, 25 Huntington avenue.

MUCH WHITE PINE AND WALNUT WOOD NEEDED FOR AIRPLANES

A policy now effective in American airplane production is that of supplanting spruce wood supply by using selected timber of other more widely distributed commercial varieties. It is said that exhaustive tests made by the Forest Service, followed by experiments in construction, have proved that requisite qualifications of strength and lightness for airplane building are possessed in varying degree by other woods, notably white pine, and that under orders of John D. Ryan, head of the Aircraft Board, use of them was deliberately decided upon.

It is not intended, the technical men say, to displace the invaluable but somewhat inaccessible spruce with the other woods except in making the fuselage, finishing the body, and building up sections of the structure like the landing struts, where the strains and stresses of progress against air resistance do not center. Spruce will constitute the material for wing spars, struts, between planes and similar sections where these stresses do center.

Airplane specifications have been thoroughly overhauled in recent weeks, it is also said, in an effort to eliminate requirements of extraordinary structural strength and fineness of material in nonstrain-bearing sections, whether made of wood or of metal, which has hampered production and raised problems of raw material supply which have been more or less unsolvable, in view of the quantity of machines desired.

Much of this has only been possible because of the building during the past year, which has furnished an experience upon which to develop innovations. A policy of official secrecy concerning all details of the airplane program is still in effect.

Another much needed wood is that of the walnut tree which the Government needs for the propeller blades of airplanes and for gun stocks.

Walnut trees are scattered throughout the United States, growing in small groups, and it is a patriotic duty to make them available to the Government. Only a part of the lumber produced from any tree can be used, and the Government therefore cannot buy the trees direct from the owner. The trees should be sold to a sawmill having a Government contract for lumber, so that the wood can be sorted and all of it put to the uses to which it is adapted.

Owners of walnut trees can probably find out in their communities which sawmills have Government contracts, but if this information is not available, write to the Ordnance Department, Procurement Division, Small Arms Section, Washington, D. C., giving the number of trees and their location.

It is suggested that Boy Scouts organize expeditions to discover walnut trees, which will be an important element in the winning of the war.

Remember! the men in our Army and Navy do not expect luxuries, should we at home expect them? Buy necessities and war-savings stamps.

EDWARD A. BUSS '76 DIES

Edward A. Buss '76, long prominent as a civil and constructing engineer, died last Sunday at the Homeopathic Hospital in Boston at the age of sixty-two years. In the past two years or more he had so steadily devoted himself to his professional work and to outside charitable and philanthropic interests that his health began to fail, and in the middle of the winter he had a nervous breakdown. He recently went to the hospital for a surgical operation, which was successful, but his strength previously had been so weakened that he did not rally well.

Mr. Buss was a native of New Hampshire, but his entire professional life as an engineer, following his graduation from Technology with the class of 1876, had been spent in Boston. His work had been the construction of large factories throughout New England and New York state and he had been especially called into the work of building large paper mills.

In addition to his engineering work, Mr. Buss had been active in promoting the work of Morgan Memorial in Boston to which he had given much time and also his financial support, and from that he went by invitation to Brooklyn, N. Y., where the "Good Will Industries" were founded along similar lines to the work of Morgan Memorial. Mr. Bliss, after aiding to start this enterprise, had continued his interest in the work. He was a member of Boston Society of Civil Engineers and belonged to the New England Waterworks Association. His wife died about eight years ago, and of late years Mr. Buss had made his home in Woburn.

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KNIGHT '17 TELLS OF WORK

(Continued from page 1)

class of 1915. I believe he was as sorry to part from me as I was to have to leave him, for he tried in different ways to go with me. I have been paired up with Lieutenant Fairchild, "Fairie" as we call him. He has been flying on the Italian front and is certainly a good flyer. He seems to be a good fellow, also. I have also been parted from Longley, with whom I have been so long. But partings are not a new thing, by any means.

Aviation is Individual Work

After all, aviation is mostly individual work. You do not have the courage of the crowd to carry you along, as you do in other combatant branches of service, but are put upon your own resources.

After we left Clermont-Ferrand, our bombing school, the 13th of June, we spent two days in Paris. It certainly is a wonderful city, although much different now than in normal times. A large part of the population has left the city. The well-to-do people have had difficulty in getting out with their baggage, due to railway congestion while the other people have carried their scanty possessions off on dump carts. All along the line, even as far south as Central France, streams of refugees may be seen. All the government documents and securities have been removed. The cathedrals have been stripped of their beautiful interior statues and valuable furnishings; even the wonderful glass windows are being removed and replaced by plain glass.

The business is being carried on, however, and everything is fairly normal during the daytime. We visited several places of interest, including the Eiffel tower (1000 feet high), Champs d'Elysees; the Louvre, American University Union, including the Technology Club of Paris and the famous Notre Dame cathedral. The little medal which I am enclosing was given to me by a priest in Notre Dame Cathedral.

As I told you in one of my earlier letters, I was slated to go to England to be put into the Royal Flying Corps, but the plans were changed. We are flying with a French bombing squadron (night bombing) and are entirely under French supervision. Our only connection with the American army now is the monthly pay check, which is mailed to us. Before we were transferred from day to night bombing, we stayed a few days at an old chateau which was constructed in the 13th cen-

tury and is owned by a French duke, who is now bankrupt and no longer lives there. We were much interested in being shown about the place.

Night Bombing

Night bombing differs quite essentially from day bombing. To begin with, it is necessary to use altogether different types of machines, of less speed. In day bombing, we go up in formations of from seven to twelve machines and go over the lines at 15,000 feet or over, but do not as a rule go as far into Germany as at night, because of interference from enemy planes. The Germans have recently got out a new machine which they are using quite successfully to combat day bombing machines. They have a method of attacking a formation from underneath, where it is hard to get your machine-gun on them, both because of their position and their wonderfully quick maneuvering ability. They use incendiary bullets, which, if they hit your gasoline tank, set it afire, and you are apt to go down in flames.

In night bombing, you fly lower as a rule and go out alone, not in formation. The chief interference you have is from a barrage which they send up from anti-aircraft guns if they hear you coming. However, they cannot get an accurate aim and so seldom hit you, except by a chance shot. Your chief troubles are navigation and landing in the dark and the chance that your motor might stop. It is necessary to depend almost altogether upon instruments for navigation at night. You plan out your compass course from a map. However, when a compass is set up in a machine, it has a deviation, due to magnetic influences of the engine. This deviation for all angles of the machine must be ascertained before starting and the compass course corrected to take care of the deviation.

Then there is another factor, the drift, due to the wind. This is compensated for by means of a draft indicator. It is also necessary to have an instrument known as an inclinometer in order to keep your wings level while flying at night. This is especially helpful at night if the air is rough, and also in the day time when flying through or above clouds for any length of time. It is also necessary to have a knowledge of astronomy and meteorology for night work and I am busying myself with these subjects now.

Our aerodromes are not lit up at night as this would "give away" their whereabouts, so all we have to land by is a small searchlight which we flash on the ground.

Can you imagine going from a hun-

dred to 200 miles into Germany at night with a load of bombs, all by yourself, that is, each machine singly? Well, that is our work now, "Fairie" and I. We are living with French officers who treat us finely. In fact, their treatment of us is the best we have had yet. Their hospitality is wonderful. Last week I had to go to Paris with a young French officer as I have broken off one of my back teeth and had to have it crowned. It cost nearly twenty-five dollars. It is almost impossible to get gold here.

Shortly before I was transferred to night bombing, low altitude day bombing was abandoned as it proved to be too costly. It was tried for the first time this spring while the "big drive" was being carried on. It was very successful in breaking up attacks as you can imagine how it must be for a number of French planes to come skimming over the trenches at 100 feet and drop a load of bombs. But it was suicide for nine out of every ten flyers who went over, as on an average, only one out of ten got back. At 100 feet a plane is a dead shot for anti-aircraft guns which have a range of 10,000 feet. So you see, that although great results were obtained, they were too costly. I was only called upon to make one low altitude trip which I made and got back without a scratch, but my plane was peppered with bullets. Now, all day bombing is being done at high altitudes as formerly, over 15,000 feet.

There are four of us Americans and twenty French men in our squadron. Fine fellows, all of them, surely the greatest fellows in the world. We have good quarters, and bunks with sheets, just think of it, the first time I've slept between sheets for nearly a year.

Well, I must surely close now—with best regards to all the folks.

ARTHUR.

SUMMER CAMP NEWS

(Continued from page 1)

Last Saturday afternoon, August 17th, a dance was held at camp. The Entertainment Committee arranged for a regular camp orchestra, so with a boat-load of fair maidens from East Machias, there was no reason why any fellow shouldn't have had a fine time, which they all did.

COTTON AS A SUBSTITUTE FOR SILK GUNPOWER BAGS

Chemically treated cotton cloth, as a substitute for silk, is being tested out by the Ordnance Department.

If found practicable for ordnance uses, the discovery will effect the double result of meeting a serious shortage in silk, and of bringing about a money saving in the ordnance program estimated at between \$25,000,000 and \$35,000,000.

Tests at Aberdeen

Preliminary tests already made at the Aberdeen Proving Grounds have encouraged the department to proceed further with its experiments, and for this purpose an order for 5,000 yards of the new material has been placed with the concern responsible for developing the process of treating the cotton cloth.

At present millions of yards of silk are required in making the bags which contain the large powder charges used in firing of heavy artillery. These bags are inserted in the gun immediately behind the projectile, and the firing of them gives the propelling force that hurls the projectile at the target. This propelling charge is, of course, entirely distinct from the charge within the projectile that explodes the missile after it reaches the target.

Use of Silk Heretofore

Heretofore, silk has been depended upon for these bags for the reason that no other cloth material has been found that would meet the peculiar conditions required. It is essential that not a particle of the bag container shall remain after the gun is fired. Otherwise a smoldering piece of the fabric might cause a premature explosion when a new charge was inserted.

Owing to the great scarcity of silk, however, the cost of this material has increased enormously. This shortage is felt by all the warring powers, including Germany. Early in the war Germany is understood to have used a chemically treated cotton as a substitute for silk, but has since been compelled by the diminishing cotton supply to resort to other substitutes.

Plentiful and Cheap

It is estimated that the chemically treated cotton cloth now being tried out by the Ordnance Department, if entirely suitable, could be purchased in almost unlimited quantities, and at a cost far below that of the silk fabric now used.

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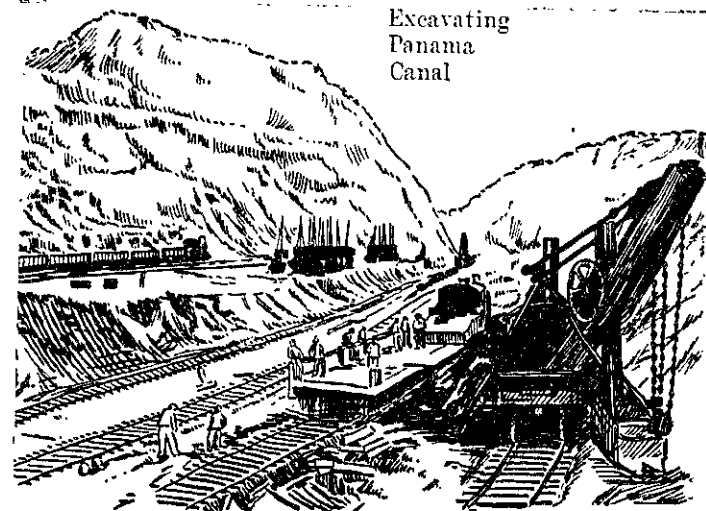
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From somewhere must come the ships, the shells, the food which will sustain the boys who fight. And from somewhere must come the money to pay for these. From where?

From the useless things we wasted. From the weakening habits which have cost us health and money. From the "more-than-enough" margin we've thrown away. We must save. The purchase of War Savings Stamps will help us. Into these we must put the wasted gasoline, the uneaten food, the treatings, the entertainments—all the unessentials which must pay for this war. From these we can hope to create the Democracy of the world, and to shorten the war as well.

Buy your War Savings Stamps bountifully. Take a pledge to buy them monthly. Think afterwards of what can be sacrificed. In this way you can begin to save. Your own conscience will be your gauge—your own intelligence can tell you where to draw the line. In this way you can take your self-respecting part in the Victory to come.

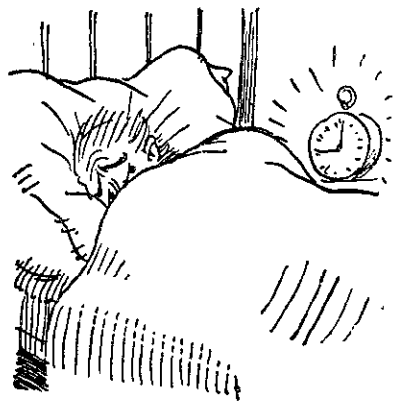
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TECHNOLOGY STUDENT WAS RADIO OPERATOR ON KELLOGG

(Continued from page 1)

out of the water. The ship stayed just as she was with her funnel level with the water and her bow in the air. The motor launch, which had got away on the other side of the ship, came around and we transferred some of our men to her.

Several Saw Periscope

"We were all looking for the sub to come up, and although several saw her periscope, she didn't show herself. Everything happened so quickly that we saved nothing except what we had on. The stern of the ship was on the bottom; that is the only thing that saved us, for she was sinking so fast that none of us could have escaped.

"I didn't have a chance to send an S. O. S. so nobody knew of it. The engine in the motor launch wouldn't work so we put up our sail and towed that boat. The life boats were at the stern and had been blown to pieces by the explosion. Our boats were small, and wouldn't live in a storm, so we headed for shore as quickly as possible. We saw several ships, but as soon as they sighted us they turned, for they knew that a sub was near. We were finally picked up by the Huron.

"The whole thing was over so quickly—only about three hours until we were picked up—that it was hard to realize what we went through.

"Do you wonder that the Hun must be wiped out absolutely? It was murder. No warning at all; and only luck that we got away. The seven fellows killed didn't have a chance.

"By the way, it happened on the 13th."

TECHNOLOGY S. M. A. AVIATOR WINS DISTINCTION IN ITALY

Lieutenant Willis S. Fitch of the American Aviation Corps, son of Mr. and Mrs. Arthur E. Fitch of 17 Rock Hill road, West Medford, Mass., recently distinguished himself by his excellent handling of a bombing plane on the Italian line in Northern Italy when attacked by five Austrian airplanes about thirteen miles inside the enemy territory. Lieutenant Fitch was one of a bombing squadron and his machine was intercepted before reaching the objective inside the Austrian lines.

Bombs Austrians

When Lieutenant Fitch observed enemy planes arising to the attack he dropped bombs on two of their aviation camps and started back for the Italian lines. He was overtaken about thirteen miles from the Italian lines by five Austrian scout planes. He was without support, the other bombers in his formation having preceded him to the home hangar. He was pilot and dived to obtain the maximum speed and then pursued a zigzag course to the Italian lines. Meanwhile his machine gunner maintained bursts of fire at the pursuing scout planes of the Austrians.

One Austrian plane came down in a dashing attempt to destroy the bombing American machine and passed within twenty-five feet. The enemy's fire was inaccurate, but that of the lieutenant's machine gunner was true and the scout plane went into a swirling nose dive to the earth.

Returns, Repulsing Attacks

The four other Austrian airmen attacked in turn from varying distances, but the fire from the bombing plane each time frustrated their efforts. Lieutenant Fitch's escort saw his predicament by this time and returned, driving away the Austrian scouts.

Lieutenant Fitch's parents received a letter from him this week stating that while distributing propaganda fifteen miles behind the Austrian lines July 16, his plane was pierced five times by anti-aircraft shells. He was struck twice by shrapnel, though fortunately sustaining only slight injuries.

Lieutenant Fitch is a native of Medford, twenty-two years old, a 1913 graduate of Medford High School and of Dartmouth College. '17. He was actively interested in military drill at the Medford High School, winning several prize individual drill medals and being captain of the prize winning company of the High School Battalion.

Graduate of Technology S. M. A.

He attended the College Men's Training Camp at Plattsburg in 1916 as well as the 1917 Officers' Training Camp there. He was one of the first squad of candidates sent from Plattsburg to the Ground School of the Technology School of Military Aeronautics in June, 1917. In September, 1917, he was sent to Italy to train for the flying corps, was commissioned a first lieutenant and assigned to active service in March this year. June 18 he was sent to the Italian front in Northern Italy as a bombing pilot in the first detachment of Amer-

ican aviators to fight in Italy. His father, Arthur E. Fitch is cashier at the National Union Bank, 40 State street, Boston and is also a lieutenant in the Medford Home Guard Battalion.

CHINESE PATRIOT VISITS MASSACHUSETTS COLLEGES

Technology Proves of Great Interest to Promotor of Culture

Technology and several of the other institutions of learning about Boston have been entertaining for the last few days, although unknown to the greater number of the Hub's citizens, one of the founders of the Chinese republic, in fact, the leader of the Progressive party in China, which, in 1911, overthrew the Manchu dynasty, in power for 2000 years, and established a government of the people that is modelled to a great extent on the American republic.

Tang Hua Lung, one of China's statesmen, and, up to a few months ago, when he resigned office to undertake his American tour, the first minister of education under the Chinese republic, has been paying a brief visit to Boston because he believes it to be the centre of culture and education of the country. He arrived last Wednesday, and yesterday afternoon he was tendered a complimentary reception and dinner at the Hankow Chinese restaurant on Essex street by the Chinese merchants of Boston, on the eve of his departure.

Visits American Universities

The noted Chinese is here at his own expense and at his own volition to make a survey and study of American educational institutions and their methods, with a view to introducing modern educational methods in China.

Tang Hua Lung is considered one of the wealthiest men in China. He is accompanied by Secretary and Interpreter Ho To Hui, a finely educated young man, who is able to converse in several languages as well as a large number of the 700 different dialects which are spoken in China.

Tang Hua Lung comes from the central part of China, in the province of Hupoh, where the revolution that resulted in the establishment of the Chinese republic was inaugurated, and, surprising as it may seem, there were few, if any, of his hosts of yesterday afternoon in this city who were able to converse with him, except through the interpreter. He is 43 years of age, married, and has one son and one daughter.

While in Boston he has visited Harvard University and Technology and was wonderfully interested in the work of each. Since he reached the United States about six weeks ago he also has visited Chicago University, Columbia University and the universities of Washington and Minnesota. He left last evening for Ithaca, N. Y. where he intends to visit Cornell University. He plans to return to China in about three weeks.

Chinese in Siberian Army

As he is not here on an official visit he has not tried to meet the officials of the country, but while at Washington he saw Secretary of the Interior Lane, Assistant Secretary of the Navy Roosevelt, and Assistant Secretary of State Breckinridge, but he made no attempt to seek an interview with President Wilson because, as he naively said through the interpreter: "The President is a very busy man these days, and I did not like to disturb him."

Tang Hua Lung is deeply interested in the war, and through his interpreter he discussed its possibilities and probabilities most interestingly with the Herald man. He expressed his regrets that China had been unable to take a more prominent part in the struggle.

"China has plenty of soldiers," he declares, "but they are of the old style and need much training in modern war methods. There are plenty of officers who have been trained in their profession in foreign countries and they could whip a large sized army into shape, but it would take much time. There are more than 800,000 trained men under arms in China.

"While I was a member of the cabinet last year we planned that China should send 50 divisions of 15,000 men each, but we lacked the organizing expenses, had no ships, and have been unable to arm and equip the men. We have some soldiers now fighting in Siberia with the Japanese but if we were able we would send many thousands more into the great fight.

"China is very sorry that she has been handicapped in this regard, but if the war lasts a year or two longer she will be prepared to send a vast army into the field."

PLATTSBURG CAMP HAS NEARLY 3500 STUDENTS

Plattsburg, Aug. 17—The intention of the war department to keep the quota of students at the students' training camp here at 3,500, the figure originally set, has twice been modified.

Saturday last, with the arrival of an excess of about 100 candidates, the commanding officer of the camp was permitted to accept the increment. Again, the first day of this week, there was an arrival of other college units, conforming in every respect to the war department's original requirements for student candidates, whose acceptance was likewise authorized. The number now in training is within a few of 3,500 but no more have reported and no more will be accepted.

May Open Another Camp

There is a chance, however, that a third camp may be ordered, opening Sept. 18 and continuing until within a day or two of Thanksgiving day. While the indications point to a third camp, the opinion of officers here is that, if ordered, it would be for older men than those now here.

Col. Dentler, post, camp and brigade commander, is greatly pleased with the fine selection made by the college presidents in picking the young men who they thought would eventually make good officers. "The great percent of the students are of fine physique, physically fit and bright," said the commander today, "and have gone at the task confronting them in a businesslike way and the week shows that they are attending strictly to the business laid out for them and right from the start have realized that discipline is the main thing—the real starting point in this intensive training. I am confident that Plattsburg will turn out a valuable lot of young men at the close of the camp, well fitted to go back to their colleges and there assist in bringing up to a state of high efficiency those students there in military science and tactics."

College Presidents Coming

The students now enrolled represent 187 colleges and Col. Dentler has extended an invitation to the president of each one of those colleges to be his guests here for two days and two nights. They will arrive here on the morning of Sept. 2, Labor Day, and that afternoon witness the field day athletic events and be tendered a review and parade of the brigade, consisting of the two students' provisional training regiments.

On the following day the presidents will spend most of the day in conference, at brigade headquarters, with the committee on education and special military training, which committee is an active part of the army general staff and is composed of officers and some civilians. The object of the conference is to determine the most efficient means by which the colleges can be of assistance to the war department in the procuring of the great number of officers that will be necessary for the proposed enlarged army. The idea is to make the colleges the foundation for three or four big military academies with training grounds at Plattsburg and other convenient places. The college presidents, during their stay will be cared for at the camp. Today Col. Dentler ordered the overhauling of two vacant company cantonments and the placing therein of 190 single cots and bedding and another vacant cantonment will be fixed up as a mess hall for the visitors.

Less Than 50 Rejected

Beginning on Wednesday last guard mount with guard duty of 12 hours' stretch was started for the student companies and each company, numbering 150 men, will have two tours of this duty during the period of the camp.

The complete roster of the camp was made up yesterday with the turning in at headquarters of the names of the students in the last three companies, X, Y and Z, of the 3d battalion of the 2d regiment.

NAVAL AVIATOR DROWNED

Mr. and Mrs. J. J. Fenton of Bellows Falls, Vt., have been notified that their son, Joseph J. Fenton, Jr. was drowned near Pensacola Fla., while making a flight in a hydroplane. His plane turned turtle when it struck the water. He was twenty-two years old and was instructed in the Technology Naval Aviation School last spring. He had been in Pensacola two months.

\$30,000,000 FOR BIG GUN PLANT

Approval of plans for a big gun re-planting plant, to be built in France at a cost of from \$25,000,000 to \$30,000,000, was announced recently by the war department. It is said engineering work for the great project, which will compare in size to the Krupp works at Essen, Germany, was completed and orders for equipment actually issued within 3 days after conception of the plan by the ordnance officers.