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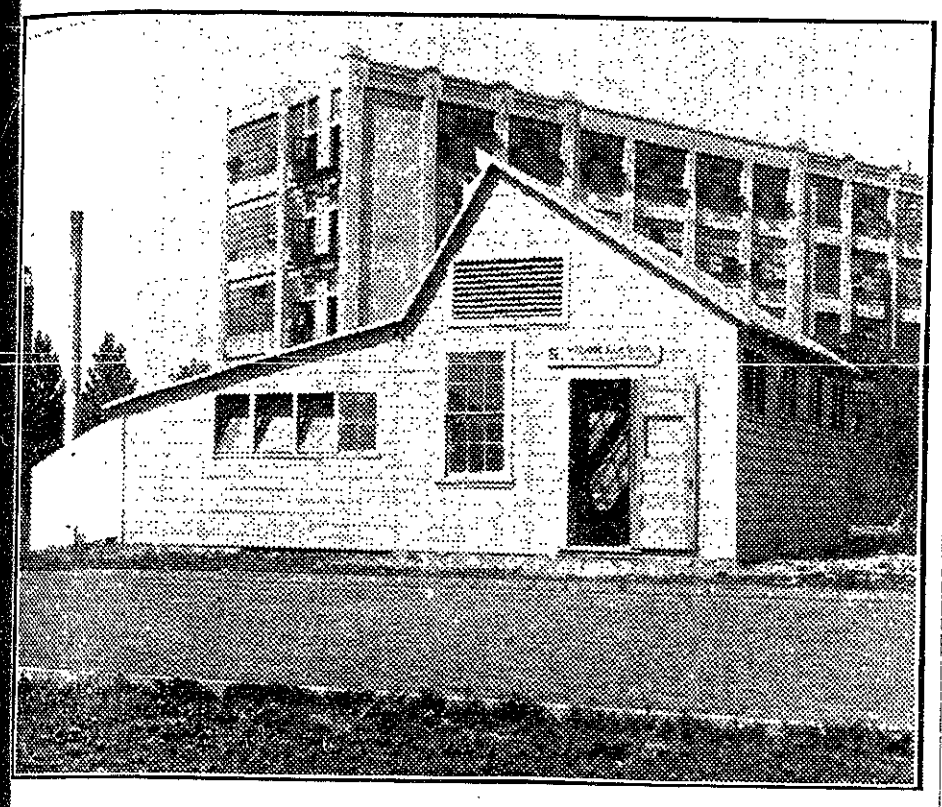
## *Machine Gun Shed Affords Aviators Firing Practice*



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TECHNOLOGY NAVAL AVIATION SCHOOL MACHINE GUN SHED

ONE of the latest additions to the "city" of the Technology Naval Aviation School is the Machine Gun Shed, situated on the Institute grounds on the edge of Tech Field which is furthest away from the main educational buildings. Although the building has the external aspect of being rather small, it is sufficiently large in extent to permit of the operation of several machine guns of different types. At the sloping part of the building a heavy dirt bank has been built up as a backing to the targets and alignment sights, the machine guns being placed directly opposite. Large windows have been provided in the roof, similar to those of a photographer's studio, thereby giving ample illumination to the interior.

The purpose of this shed may be obviously seen when the importance of the machine gun in modern airplane warfare is taken into consideration. Modern machine guns have not as yet been brought to such a standard of perfection that they will not jam, and therefore it is very necessary that an aviator know from actual practice the cause, prevention and remedy of this failure to operate. It is to gain this actual practice that the shed was added to the "city" of the Naval Aviation School, in anticipation of the fact that this additional knowledge may at some time easily be their salvation and the destruction of another of the "Boche" air-terrors.

### THOMAS F. HICKEY '20 DIES AT CAMP EAGLE PASS, TEXAS

**Course II Man, Private in Quartermaster Corps, is Stricken**

The funeral of Thomas Francis Hickey of 210 Harvard street, Dorchester, Mass., who died at Camp Eagle Pass, Texas, as a private in the National Army was held last week, the burial being in Calvary Cemetery, Dorchester, after military ceremonies, fifteen soldiers escorting the body from the home to the church and cemetery where taps were sounded.

Young Hickey was headed for the battle line when stricken. He put forth his best efforts to serve his country and looked forward to promotion which he declared he would soon secure. He was stationed at Camp Johnston with the Quartermaster Department and his ability was soon recognized. He was put in charge of a detachment of 100 men when they went to the Texas camp, near the border.

It was at the latter camp where death overtook him. He was born in Roxbury, Aug. 12, 1893, and was graduated from the Dorchester High School. He was in his second year at the Suffolk Law School and was vice-president of his class when he joined the colors. He took several examinations to be an officer and always secured a high percentage. He qualified for his charge of the detachment of 100 men with ninety-nine percent. He was a graduate of the Reserve Officers' Training School and was taking Mechanical Engineering course at Technology with the Class of 1920 when summoned to the National Army.

## TRAINS 3,000 A MONTH

**Camp Humphreys Very Quickly Equips Engineer Units**

Transformation of a forest into a great military camp in four months is one of the achievements of which the American Corps of Engineers boasts. Early in February of this year Camp Allen A. Humphreys at Belvoir, Va., was virtually unknown. American engineers were put on the job, and today it is a thriving, pulsating camp, a great city in itself, housing some 17,000 men, and growing day by day until by August it will accommodate 30,000.

Camp Humphreys, named for the first Chief of Engineers of the United States Army, is about twenty miles south of Washington, D. C., just below the town of Acotink, Va. Its confines cover the historic Lord Fairfax tract; to one side is Mount Vernon, home of George Washington, and in the other direction is Gunston Hall, plantation and typical old southern home of George Mason, illustrious Virginian, author of the Bill of Rights, the famous document which Thomas Jefferson made the cornerstone of the American Declaration of Independence. Camp Humphreys is peculiarly adapted for an engineer training school. In the hills and valleys America's citizen-soldiers are tunneling, mining, quarrying, excavating, fitting themselves for work on foreign battlefields.

(Continued on page 3)

### EXAMINATIONS FOR NAVAL ACADEMY INSTRUCTORS

**An examination will be held in Sampson Hall, U. S. Naval Academy Annapolis, Maryland, beginning at 9.00 o 'clock, Tuesday morning, August 20 1918, for the selection of instructors in the Department of Electrical Engineering and Physics. The examination will be competitive, and candidates found qualified will be eligible in the order of merit as determined by the Board of Examiners, for appointment to fill vacancies in this department. Should more qualify than there are vacancies for at present, their names will be placed on a reserve list for later appointment to subsequent vacancies if they so desire.**

**The salary is $1800.00 per annum. The appointments are annual, and reappointment depends upon the instructor's ability in the performance of all his duties.**

**Candidates must be American citizens. The age limits are 25 to 40 years though these may be waived in special cases. Candidates must have completed satisfactory professional courses in recognized colleges or universities. In grading the candidates, due weight will be given to past experience, letters of recommendation, etc. No person who has been classified under Class 1 of the Draft Act will be accepted.**

**The examination will be written and will cover the following subjects:—(1) First year College Chemistry; (2) Elementary and Advanced Physics, (more particularly those subjects pertaining to Electrical Engineering); (3) Laboratory work to correspond to (1) and (2); (4) Principles of Direct and Alternating Current Electricity, including storage batteries, direct and alternating current machinery, elementary telephony and radio telegraphy.**

**Blank forms of application may be obtained from the Superintendent, U. S. Naval Academy, Annapolis, Maryland, which must be filled out and returned to the Superintendent, without delay. Candidates having filled out and returned their form of application may appear before the Board of Examiners on the date above stated, without further authority. It is requested that they bring their references with them. The examination will take about 2 days.**

**(Signed) E. W. EBERLE,**
**Rear Admiral, U. S Navy,**
**Superintendent.**

### MEDICAL MEN MAKE VISIT OF INSPECTION AT TECHNOLOGY

The Directors of the Harvard-Technology School of Public Health made a visit to Technology in order to inspect the summer work of the Biology Department where about forty students are being trained for technical work in the Sanitary Corps and the Army Hospitals. Among the visitors were Dr. David L. Edsall, Dean-Elect of the Harvard Medical School; Profesor Theodore Huff, for ten years assistant professor of Biology at Technology, and now Dean of the Medical School of The University of Virginia; Mr. Edward Stuart, M. I. T., '10, a graduate of course XI, and well known for his work with the American Red Cross in Serbia, where he was in charge of the expedition for some time.

Remember! the men in our Army and Navy do not expect luxuries. Should we at home expect them? Buy necessities and War-Savings Stamps.

# *SUMMER CAMP OF CIVIL ENGINEERS TO OPEN MONDAY*

**Eighty Students To Attend Annual Surveying Camp At East Machias, Me.—Professor George E. Russell Is Resident Director**

**MANY IMPROVEMENTS IN PRESENT CAMP**

ONE of the evidences of the success with which the Institute has been able to hold its undergraduates is that the registration for the summer camp of Civil Engineering at East Machias, Maine, has reached the total of eighty students, against a maximum of past years of ninety-five showing a loss of only fifteen or sixteen per cent. from the most prosperous season which has yet been experienced. Professor George E. Russell, with the setting-up party, left for the camp yesterday evening, and the students, in three sleepers and a special car, will follow on Monday evening. The course of instruction will commence on Tuesday when the party has all arrived.

The Sophomores who attend the camp this year will do so under most advantageous conditions, and will find a study place for the next eight weeks which will be ideal. The use of the camp for the military groups of last summer has been the cause of many important improvements. Electric lights will illuminate the main streets as well as the tents and study rooms, while running water has been installed along the rows of tents, affording a copious supply for tent use and for showers, which latter have hitherto been only in the bath rooms of the administration building.

One of the improvements of last year which fitted the camp better for two hundred occupants, the number of its military groups, was the erection of the barracks. These will now furnish class and drawing rooms, which in the original structures were somewhat congested. The barracks will afford also a retreat that will be convenient in case of such a prolonged storm that the tents become thoroughly wet. The life is, of course, in the open, but there are times with a studious company that a house with a roof is desirable.

For use as a drill and athletic field, a space back of the administration buildings was cleared last year and replaces the old field in the hollow, the draining of which presented a somewhat complicated problem.

The camp is under the general direction of Professor C. M. Spofford, head of the Departments of Civil and Sanitary Engineering, while the resident director will be George E. Russell, associate professor of Hydraulic Engineering. His staff,—considerably cut down from the customary one by the demands of the war, for the Institute is at one time running the camp, the summer school, the school of junior freshmen and the school of seniors, in addition to the eight or nine schools for the United States Government,—will include Professor Arthur G. Robbins, Professor George L. Hosmer, and Professor John W. Howard, together with half a dozen instructors. These latter are mostly the late Technology graduates, and are John B. Babcock, 3d, Carl T. Humphrey, H. P. Etter, John W. Friery, John M. Hanley and Richard Rimbach. The steward

(Continued on page 3)

## E. C. BATES '68, DIES

**Member of the First Institute Class Succumbs Monday**

Edward Carrington Bates, '68, all his life a resident of Boston, died suddenly last Monday night while at his summer home in Ipswich, where he had gone for the season. His Boston residence was at 122 Marlboro street. Mr. Bates was born in Boston in 1848, the son of Edward C. Bates and Mary Caroline (Cook) Bates. They were both of old-time Boston families of prominence. Their son received his education in private schools in this city, preparatory to attending Brattleboro Academy, after which he went to Technology, where he was graduated with the first class sent forth, the class of 1868.

He then began work in his chosen profession as civil and railroad engineer and on going West was active in the earliest days of the Union Pacific Railway. This was the beginning of what proved a long and interesting career, in which he was closely identified with railroad construction. He was also an inventor of note and his later years were devoted to inventions, although in a less active way than formerly.

Mr. Bates belonged to The Country Club, Brookline, and to the Mechanical Engineers' Club in New York. He married Miss Edna M. Ellis of Boston, by whom he is survived, together with a daughter, Miss Consuelo E. Bates. There is also a surviving sister, Miss Caroline T. Bates.

### GERMAN-AMERICANS BUY BONDS

Professor Frank Vogel, head of the Department of Modern Languages at Technology, has just made up his report as chairman of the New England Third Liberty Loan drive of the American Citizens of German Ancestry. He reports that in New England more than 37,000 individual subscribers of German extraction took up no less than $5,000,000 of the bonds. Professor Vogel says that his society is already making its plans to increase this amount substantially on the occasion of the next loan.

You may not be able to fight, but you can save and buy War-Savings Stamps.

### PROFESSOR SEDWICK ENTERTAINS

**Professor and Mrs. Sedwick gave a luncheon in the Emma Roger Room to the students of Course VII and the Harvard-Technology School for Health Officers on Firday last. In all there were about fifty persons present, among whom were Professor and Mrs. Robert Bigelow and Professor and Mrs. Theodore Huff. Professor Huff is a graduate of course VII of the Institute and is now the head of the Medical college of the University of Virginia. A very pleasant hour was spent after the luncheon in singing patriotic songs with Mrs. Huff leading and Mr. Cohen at the piano. Mrs. Huff delighted all present by singing "Dixie."**

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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

Henry L. R. Kurth '21 ..... Night Editor

SATURDAY, JULY 27, 1918.

## "LET US HAVE PEACE"

SO spoke the master militarist of America three and fifty years ago. So say we, after viewing the desolation of three and a half years of the worst warfare the earth has ever known. Let us have peace—just as soon as the broken sword of Prussianism is tendered in unconditional surrender. Detesting war, we are forced to believe in a war which became necessary to regain peace for the world. Respecting peace, we protest against a pseudo-peace which the enemies of mankind may use as a preparation for renewed war.

If Might is God and Schrecklichkeit is its Prophet, then Prussianism is justified. Welcome peace and welcome the shackles which shall bind the world. But if such a standard is wrong, then Germany is wrong, and we dare not submit or quit until her power is no longer a menace. Let us have peace, but let it be a peace between peers. The only peer of democracy is democracy. When Prussianism flouted its own royal bonded word as a "scrap of paper," it forever abjured all right to enter into another treaty with self-respecting peoples. When Prussianism speaks now, no matter how fair the words, neither its friends nor its enemies believe. It does not even believe itself. Prussian speech is a mere means of disguising its purpose. How can there be a parley between Unfaith on its part and Unbelief on ours?

Prussianism's only absolution is restitution. Its only symbol must be "Surrender." Either surrender to the forces of the world which it has outraged or surrender to its subject peoples which it has deceived.

The people of Germany can again rise to the height of credibility in the world by trampling upon the dead body of Autocracy. When the people of Germany cry "Let us have peace!" we shall listen. As long as her voice is the voice of Prussianism we cannot hear!

## THE ROAD TO VICTORY

FOR the present there is scarcely anything so important to the Allied Cause as a little healthy pessimism, a readiness to believe that the best is not inevitably true, and that the worst is a possibility, that the Allies are not necessarily invincible nor the Germans yet willing to admit that they are beaten. The truly important thing is not the opinion of the people about the progress of the war, but the importance which they attach to its objectives, their determination to win them. The gravity of the present crisis will in no way shake the determination of the American people. It will steel their hearts, rouse their courage, deepen their conviction in the necessity of victory. Only one thing can cause an Allied defeat—a failure of conviction on the part of the British, French and American people of the greatness of democracy, of the splendor of the moral crusade upon which they have enlisted, of the necessity of victory to make the world safe for posterity.

We are in the business of summoning the resources of the greatest nation on earth in the purest mission that a nation ever espoused. Our factories become busy; our young men register; and our armies become trained, and we undertake our share in this conflict. Not to add a square inch to the territory of the United States; not to take from any man, woman or child living in the world a single thing which belongs to them; not even for the glory of successful arms; but in order to reestablish those principles of national justice without which national continuance and life cannot prevail, and to give to the stricken people of the world who have been fighting for the right, rest and respite to rehabilitate their almost destroyed civilization.

Newton Baker.

## THE TECH CHEERS INSTITUTE MEN FIGHTING AT THE FRONT

### Samson K. Cohen, '10, writes His Appreciation of Bi-weekly

The following communication has been received by THE TECH from Samson K. Cohen, a graduate of Technology, with the Class of 1910, who is now with the Corps of Engineers on the French front. Cohen's letter shows the value of THE TECH as a connecting link between Institute Alumni and undergraduates; such a letter is highly encouraging to those who are working for Technology and Technologians towards co-operation and service. The letter follows:

At the front in France.
June 16, 1918

Military Editor of THE TECH,

I have been delighted to receive copies of THE TECH through the Technology Branch of the American University Union in Paris. I an certain that every Tech man would like to read them.

My outfit has been at the front doing pioneer engineer work for over four months steady, after four and a half months of work in training behind the lines. But we are still there with the punch. Just keep on rotoing for an American Army that will eventually come to France and sweep the Boches off Mother Earth.

Yours in M. I. T.,
(Signed) SAMSON K. COHEN,
Class of 1910, Course 1,
1st Lieut., Co. A, 101st U. S. Engineers, A. E. F.

## GOVERNMENT TAKES DRASTIC ACTION IN LABOR QUESTION

### Attention Called to Plans of U. S. Employment Service

J. B. Densmore, Director-General of the Department of Labor, has requested that the following statement be called to the attention of the readers of THE TECH.

"We beg to direct your attention to the plans of the U. S. Employment Service, and to the great effect which this program will have upon the industrial life of the Nation.

"On August 1, the supplying of war industries with common labor will be centralized in the U. S. Employment Service of the Department of Labor, and all independent recruiting of common labor by manufacturers having a payroll of more than 100 men will be diverted to the U. S. Employment Service. This is in accordance with the decision of the War Labor Policies Board and approved by the President on June 17. (The War Labor Policies Board is composed of representatives of the War, Navy, and Agricultural Departments, the Shipping Board and the Emergency Fleet Corporation, the War Industries Board, and the Food, Fuel and Railroad Administrations. Its chairman is Felix Frankfurter, Assistant to the Secretary of Labor.)

"The above action was found necessary to overcome a perilous shortage of unskilled labor in war industries. This shortage was aggravated by an almost universal practice of labor stealing and poaching.

"While the restrictions against the private employment of labor apply only to common labor at the present time, these restrictions will, as soon as possible, be extended to include skilled labor. In the meantime, recruiting of skilled labor for war production will be subject to federal regulations now being prepared.

"This drastic change in the Nation's labor program has been found necessary in order to protect the employer and the employed, to conserve the labor supply of the communities and to cut down unnecessary and expensive labor turnover (which, in some cases, is as high as 100 per cent a week), and to increase the production of essentials.

"While non-essential industries will be drawn upon to supply the necessary labor for war work, the withdrawal will be conducted on an equitable basis in order to protect the individual employer as much as possible.

"Under the operating methods adopted, the country has been divided into thirteen federal districts, each district in charge of a superintendent of the U. S. Employment Service. The States within each district are in turn in charge of a State Director, who has full control of the service within his State.

"In each community there is being formed a local community labor board, consisting of a representative of the U. S. Employment Service, a representative of employers and a representative of the employed. This board will have jurisdiction over recruiting and distributing labor in its locality.

"A survey of the labor requirements is being made, and in order that each community may be fully protected, rulings have been issued that no labor shall be transported out of any community by the U. S. Employment Service without the approval of the State Director; nor shall any labor be removed by the Service from one state to another without the approval of the U. S. Employment Service at Washington. Every effort will be made to discourage any movements from community to community or state to state by any other service.

"This labor program has the approval of all producing Departments of the Government, through the War Labor Policies Board.

"It must be understood that farm labor will be protected, for the industrial program distinctly includes special efforts to keep the farmer supplied with labor.

"The requirement that unskilled labor must be recruited through the sole agency of the U. S. Department Service does not at present apply in the following cases:

"1. Labor which is no directly or indirectly solicited; 2. Labor for the railroads; . Farm labor—to be recruited in accordance with existing arrangement with Department of Agriculture; 4. Labor for non-war work; 5. Labor for establishments whose maximum force does not exceed one hundred.

"When the survey of labor requirements has been made and the aggregate demand for unskilled labor in war work is found, each State will be assigned a quota, representing the common labor to be drawn from among men engaged in non-essential industries in that State.

"These State quotas will in turn be distributed among localities. Within each locality, employers in non-war work, including those who are only partially in war work, will be asked to distribute the local quotas from time to time amongst themselves. Quotas by localities and individuals are to be accepted as readily as they are for Liberty Loan and Red Cross campaigns. This plan of labor quotas is a protection for all communities.

"The object is to keep any community from being drained of labor, and to use local supply, as far as possible, for local demand. The situation, however, is such that in ceratin cases some men may have to be transported over long distances.

"You will note from the above outline that this is probably the most drastic action that the Government has takn since putting the National Army draft into effect. The absolute necessity for this program can be seen when it is realized that in Pittsburgh, for instance, there are advertisemtnts calling for men to go to Detroit; while in Detroit street cars there are posters asking men to go to Pittsburgh. This same condition is apparent all over the United States, and in the consequent shifting of labor a great part of our war effort is dissipated.

"Because this is one of the greatest problems facing the nation today, we are asking that you give this matter your careful consideration. You will probably desire to carry some comment on this basic change in the Nation's labor methods, and we would suggest that if you desire to assign one of your men to look into this situation, the facilities of the Department of Labor and the U. S. Department Service are at your disposal."

## REPORT ON HYDROELECTRIC POWER AT NIAGARA FALLS

Acting under orders from the Secretary of War, Robert J. Bulkley and Brig. Gen. Charles Keller, of the Corps of Engineers, have been exercising a general supervision over the supply of electrical power in that portion of western New York in which Niagara Falls hydroelectric power is used. This supervision has been in effect since November, 1917, and its first result was to cause the Secretary of War to requisition for the United States all power generated or imported by the Hydraulic Power Co. nad the Niagara Falls Power Co., both of Niagara Falls, N. Y., and to distribute it to war industries.

### Companies Following Orders

Both companies affected obeyed loyally the orders issued December 28, 1917, and since then have been disposing of all the electric power under their control in exact accordance with the instructions of the representatives of the Secretary of War. Other power companies not requisitioned have been cooperating in the plans, and this has resulted in the curtailment of the supply of power to many minor and nonwar-essential industries and the assignment of the power so saved to plants producing war essentials. During the past winter difficulties caused by ice or shortage of coal were met by cutting off all but the essential industries and by supplying the latter with power in order of preference indicated in the schedules accompanying the requisition orders.

As a result of supervision accurate knowledge has been obtained of the uses of power generated in this country in the Nigara Falls district and that imported from Canada. This information shows that practically all the power available is used to aid the prosecution of the war, direct war industries securing an average of 85.29 per cent of the total power of the two requisitioned companies and an average of 54.29 per cent of the total power of the cooperating companies. Under war conditions the power supply falls short of the demand by about 200,000 horsepower, which amount is not based on new industries but is determined as the amount of power which could be absorbed by the industries now operating, were such a supply available.

### Proposed Enlargements

Some of this shortage will be relieved by the proposed enlargements of the steam plants of the Buffalo General Electric Co. and the Niagara, Lockport & Ontario Power Co. Additions to these two plants will aggregate 62,000 horsepower. By means of a further development by the American hydropower companies at Niagara Falls their existing supply of power, amounting to about 250,000 horsepower, will be increased by about 160,000 horsepower. In order to make certain that the fuel supply of the important steam-power plants in this territory will be maintained arrangements have been made to secure the early cooperation of the Fuel Administration to that end.

The increased allotment of power to the essential electrochemical industries in the Nigara district and to the plants devoted to the production of such essentials as ferrosilicon, electrodes, phosphorus, chlorine, and abrasives have conclusively demonstrated the beneficial results of regulating and controlling the distribution of power.

## SULPHUR IN ALASKA

The known sulphur deposits of Alaska are of volcanic origin and lie in the belt of active volcanoes that extends through the Aleutian Islands and Alaska Peninsula. The deposits on Unalaska and Akun islands and near Stepovak Bay, on Alaska Peninsula, were examined in the summer of 1917 by A. G. Maddren of the United States Geological Survey, Department of the Interior. The examinations showed that though there is some sulphur at each place examined there is little hope that any of it can be profitably mined at present or in the near future, for the deposits are of small areal extent and are probably shallow; supplies and labor are not at hand, the open season is short, the difficulties of transporting the material from the mines to ships would be great, and the haul to the larger markets would be long. A brief summary of the more important results of the investigation of these deposits has been published and will be sent on application to the Director of the Geological Survey, Washington, D. C.

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TO 75 MASSACHUSETTS

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FOR SIX MONTHS.

## 3,000 ENGINEERS A MONTH

(Continued from page 1)

The camp is the only engineer replacement camp in the country, and it is here the vast supply of engineers is to be kept, upon which General Pershing will call for men to expand and replace Engineer Units working with the American Overseas Army. Already replacement units have been sent across. Early in June 2500 men trained in all branches of engineering work were sent to General Pershing. The camp can train, equip and dispatch men to France at the rate of 3,000 a month, and by the first of the year the capacity will be raised to 6000 a month.

Washington newspaper correspondents recently were guests of the Corps of Engineers on an inspection trip to the camp and its vicinity. Every detail of the work was explained to them by Leadquarters officers of the staff of Lieutenant-Colonel Richard Park, who has been placed in charge of the greatest replacement camp.

Seventeen thousand men are at the camp at present. most of them drafted men, and new ones are arriving from civil life every day. There is a continual ebb and flow of troops, men being sent across the Atlantic as fast as they can be accommodated in France, and new ones arriving to take their places at the schools. Even after the war it is the Government's intention to make Camp Humphreys a permanent training camp for engineers. and all work is being done with that scheme in mind.

One of the most interesting features of Camp Humphreys is the light combat railway which has been constructed for the carrying of supplies through the reservation, as well as for training men in construction operation and maintenance of battleline railroads. A sixty centimeter, narrow-gauge road twelve miles in length, similar to the French roads, covers the camp, and all day trains of flat cars and gondolas run back and forth with construction material and supplies. The locomotives are built especially for foreign service. and the power is furnished by four-cylinder, fifty horse-power gasoline motors. So well trained are the Humphreys engineers that the construction gangs can lay track at the rate of half a mile a day.

These railways will be taken to France with the railroad engineers. and it will not be long before they will be running from the rear lines to the front, loaded with shot and shell and guns for American infantry and artillery. As rapidly as the battle line changes. the combat railway can be moved to conform with it.

All phases of engineering are taught at the camp. When the recruit arrives. he is put through the three principal schools—the sapper, gas defense and pontoon schools—in order that he may get the rudiments of the engineers' work. If he is found to possess special qualifications or technical ability he is sent through one or more of the following supplementary courses—highway and trench construction. railroad construction and operation. water supply work. forestry. animal transportation. camouflage. surveying, map production. electric wiring, reclamation, gas and flame. gas offense. mining. quarrying. bridge building. trestle work and others.

On the correspondents' inspection trip, three regiments of half-strength were marched in review—approximately 7000 soldiers filing past the commandant. his staff and his guests. with healthy stride and military bearing. marching to lively music of the camp band. In the outfit was one regiment whose drilling was especially attractive. With snap and precision, the men of this regiment marched across the parade ground heads high eyes front—men who eight days before were engaged in civil pursuits. They were the latest arrivals. and eight days after they had answered the nation's call for men. these young Americans were to the civilian eye a trained outfit of American engineers. apparently ready to face the foe. to do or die for the freedom of the world. Negro troops of the service battalion also commanded attention of the spectators.

When a man has been graduated from Camp Humphreys and is sent abroad, he is an engineer in the strictest sense of the word. He is more than an ordinary soldier—he is an expert in his line. the best engineer his officers can make him. and his officers are the pick of the engineer department—West Pointers and civilian engineers. including many Technology men, who have "joined up" so the country may have the benefit of their knowledge and practical experience.

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Which do we care more for, personal gratification or the principles for which the civilized world is fighting? If the former. we shall continue to spend recklessly; if the latter. we shall save to the utmost of our ability and with our savings buy W. S. S.

## SUMMER CAMP OPENS MONDAY

(Continued from page 1)

is W. K. Merrill. who has cared for some of the catering during the past year in the Institute buildings.

The situation of the camp at East Machias was selected after about twenty years of camps in various localities. and presents the features that a surveying camp needs for proper field practice. The ocean is at hand for the establishment of standards measured from tide level, the group of lakes and their streams and outlets give the opportunity for hydraulic work on a commercial scale, the country about is favorable for the practice of railroad engineering, and the forest lands which run north from the camp for scores of miles give every variety of topographic work that the young student will need. together with practice in the wilds in the essentials of pitching camp and general life in the open. Technology has so figured its engineering camp so that the students. to whom it is compulsory, will have vacation results in combination with necessary and helpful study.

## NEW REFRIGERATION PLANTS FOR OUR FORCES IN EUROPE

In order to comply with the needs of the expanding American Expeditionary Force in France. five refrigeration plants, which will each have a capacity to freeze from 3.000 to 4.000 tons of beef, are being constructed in France under the supervison of the Construction Division of the Army. Connected with these plants will be ice-making plants. The erection of them will enable the Army to hold greater quantities of fresh meat and other perishables in France and thereby safeguard against any temporary shortage of supplies in the event that food ships fail to deliver on time as the result of the activities of the enemy. All the materials and machinery to be used in the plants are being provided from this country, with the exception of the lumber and concrete, Cement for the making of the concrete is being obtained in France. Due to the work of the Forestry regiments which have been operating in the forests of France. the lumber needed for the buildings, amounting to millions of board feet, will not have to be shipped from this country, thereby saving considerable cargo space. The average length of each of the new plants is 800 feet long and 300 feet wide. Several of the plants are being erected with the assistance of the French government. The plants will be run by technically trained men who have had wide experience in refrigerating and ice-making plants in this country. All these men are now attached to the Army, having enlisted for this special service.

There is operating in France a refrigeration plant with a capacity of 5.000 tons of beef and an ice-making plant with a capacity of 5.000 tons daily. Every bit of material, including the lumber and machinery. as well as the workmen to build it. was sent from this country. This plant is now being enlarged to a capacity of 20.000.000 pounds of frozen beef. When completed it will be 1.700 feet long and 325 feet wide. Adjoining the plant. barracks for the operating force are being constructed. similar to those of the National Army cantonments in this country. Similar accommodations are being provided at the other plants.

In addition to building plants in France it was necessary for the Army to provide freezing plants and other special equipment in this country in order to insure the delivery of fresh meat in France. The equipment of the packers was inadequate to fill the needs of the Army and at the same time to care for the normal business of the country. As practically all meats shipped to France comes from the West and Middle West. additional refrigeration cars were built for service here and in France. The meat is carried overseas on refrigerated ships. many of which now in service were built for the needs of the Army. Others are in the course of construction. Experiments are being made to determine the advisability of manufacturing and sending to France mobile refrigeration trucks. This will mean that meat will be kept in a chilled state from the time it is killed in the packing houses till it is served to the field kitchen in France.

## HUCE NEW POWER PLANTS

Plans have been made to ask Congress for $200,000,000 to finance the erection of huge electric central power plants in various parts of the United States. to meet the needs of the country's war industries, according to a statement issued by William Potter. Federal fuel administrator for Pennsylvania.

The proposed legislation is in line with the efforts of the National Fuel Administration to conserve coal. transportation and the supply of electric power. Mr. Fuller said the territory most affected embraces Pennsylvania. New Jersey, New York. Eastern Ohio. Northern West Virginia. and indirectly New England.

# MEDICAL DEPARTMENT OF ARMY APPEALS TO COLLEGES FOR SPECIALLY TRAINED MEN

## Professor Sedgwick Says the Department of Biology At the Institute is Well Equipped to Meet Major General Gorgas' Demands

Maj.-Gen. Gorgas announced Sunday that the Medical Department of the Army would soon make an appeal to the American Colleges and Universities urging them to alter their curricula so that the third and fourth year students may receive special training which will enable them to qualify as officers and for other work in the medical department. The appeal will be sent to all the principal colleges and universities in the country, through the National Research Council.

"These colleges," said Gen. Gorgas, "will render valuable assistance to the department by offering these special courses to their students, who will enter the Army when they become of age or in the event that they volunteer before that time. The students desired are those who are taking various scientific courses. The course proposed by the medical department should appeal to men who are specializing in biology, plant pathology and in industrial and agricultural bacteriology.

"In a number of institutions the necessary course can be arranged by a simple modification of the already existing course in bacteriology with added emphasis on special subjects of value to the Army.

"As to completing such courses; arrangements for enlistments can be made through the surgeon-general's office if the applicant is under draft age, and if of draft age, he can be inducted into the service and assigned where his special training will be of value.

"This plan has already been tested in two colleges and the success attained has led the medical department to apply it to as many colleges as possible. From one such institution every man taking the modified course was admitted directly into the Army and went to one of the training schools where a portion of them will later qualify for commissions in the sanitary corps. Others have qualified for positions at field or mobile laboratory units and as assistantse in abse and evacuation hospitals."

A member of the news staff of THE TECH interviewed Professor Sedgwick, head of the Department of Biology and Public Health, and one of the directors of the Harvard-Technology School for Health Officers, and asked him in what way Technology was going to meet this appeal. Professor Sedgwick answered by telling of the work that his department has been carrying on since the eleventh of June, work that is intended to anticipate just such needs of the Medical Department as Gen. Gorgas mentions.

Professor Sedgwick told him also that the department was open to students in scientific work who were interested in this field. "Any man in the Institute," said Professor Sedgwick, "who is not in course VII who feels disposed to turn to work of a more medical nature will find that the Biology Department is well equipped to meet these needs."

The appeal is made to the various leading Institutions, and it is suggested that the courses in Bacteriology will be of special value. Men who have taken such courses can be enlisted in the Surgeon-General's office, if under draft age, and within the draft age can be inducted.

We are fortunate at the Institute in being well equipped in those courses that are specially needed and any men desiring to take them should confer with Professor Sedgwick.

In addition to the General Bacteriology, Dr. Slack's course in Public Health Laboratory Methods would be of great value, as they are the same as those used in the Army Hospitals. Courses in Industrial Hygiene, Vital Statistics, Epidemiology, Biology of Infectious Diseases etc., serve to train men for special lines of service in the Sanitary Corps.

# FOUR 'LIGHTLESS NIGHTS' OBSERVED EVERY WEEK

The United States Fuel Administration has made public an order effective July 24, restricting the use of fuel for outdoor illumination. Under the order the use of light generated or produced by the use or consumption of coal, gas, oil or other fuel for illuminating or displaying advertisements, announcements, or signs, or for the external ornamentation of any building, will be discontinentirely on Monday, Tuesday, Wednesday and Thursday of each week within New England and the States of New York, Pennsylvania, New Jersey, Delaware, Maryland and the District of Columbia and will be entirely discontinued on Monday and Tuesday of each week in all the remainder of the United States. The order excepts bona-fide roof gardens and outdoor restaurants and outdoor moving-picture theatres.

### Street Lighting Restricted

Street lighting in all cities will be restricted to the hours between sunset and sunrise and the amount of public lighting in any city will be reduced to that necessary for safety. The order charges local fuel administration officials with the duty of arranging with the proper municipal authorities for the regulation of public lighting, in accordance with the provisions of the order.

The use of light for illumination or display in shop windows, store windows, or in signs in show windows will be discontinued from sunrise to sunset and will be discontinued entirely on the "lightless nights" designated by the order.

The Bureau of Standards of the Department of Commerce has advised the Fuel Administration that it is estimated that about 500,000 tons of coal per year is used for advertising purposes, including display and show window lighting in the United States. Similar estimates fix the amount of coal used in advertising lighting in New York City at 16,000 tons per year.

With the miners of the country responding loyally to the appeals of the Fuel Administration for increased production, the weekly output of bituminous coal is surpassing all previous records. The efforts of the Fuel Administration, operators, and miners to increase production must be supplemented however, by the elimination of every wasteful or unnecessary use of coal. The enormous war demand for fuel makes it imperative that the country make the most economical use possible, even of the constantly increasing output.

### Text of the Order

The order restricting lighting reads:

It appearing to the United States Fuel Administrator that it is essential, in furtherance of the national security an ddefense, the sucessful prosecution of the war, and the support and maintenance of the Army and Navy, to lessen and prevent the waste of fuel, and to secure an adequate supply and equitable distribution and prevent, locally and generally, scarcity thereof, and that to these ends, it is necessary that the use of fuel shall be limited and restricted in the manner hereinafter set forth.

The United States Fuel Administrator, acting under authority of an Executive order of the President of the United States, dated August 23, 1917, appointing said administrator, and of subsequent Executive orders and in furtherance of the purpose of said orders and of the act of Congress therein referred to and approved August 1 1917.

Hereby adjudges that in his opinion the use of fuel or of light generated or produced by the use or consumption of fuel for any of the purposes hereinafdescribed, except as hereinafter provided, is wasteful practice or device in handling or dealing with fuel, and that the use of fuel or light for such purposes except as a foresaid is prejudicial and injurious to the national security and defense, and a cause of scarcity, locally and generally, and said United States Fuel Administrator, and subject to modification hereinafter from time to time.

### Public and Private Lighting

1. No city, village, or town and no person, firm, or corporation under any contract with any city, village, or town, shal use or consume any coal, oil, gas or other fuel for the maintenance of lights in streets, parks, or other public places of such city village, or town, except under the following restrictions and limitations.

(a) Street illumination automatically lighted maintained by or for any such city, village, or town, in the streets, parks or other public places thereof, shall be turned out not later than sunrise;

(b) Street illunmination lighted by hand in any such city, village, or town shall conform as nearly as may be to the requirements hereinafter prescribed for automatic lights;

(c) The amount of public lighting in any city, village, or town shall be only so much as may be necessary for safety, and the use of lights commonly known as cluster lights for purposes of display or decoration shall be reduced to such portion only of the cluster as is necessary for saftely.

2. The local fuel administration for the territory within which any city, village, or town is located shall arrange with the proper municipal or town authorities of such city, village, or town for the regulation of public lighting in accordance with the provisions of paragraph 1 of this order. Regulations for public lighting so arranged shall in each case be subject to the approval of the proper State Fuel Administrator, and in case regulations in accordance with said paragraph 1 for the public lighting of any city, village, or town, satisfactory to the State Fuel Administrtor of the State within which the same is located, shall not have been arranged between the local fuel administration and the proper municipal or town authorities as hereinabove provided, with ten (10) days from and after the effective date of this order, said State Fuel Administrator is hereby authorized and directed to prescribe such regulations for such city, village, or town, and the same shall be valid and binding.

### Lighting after Sunset

3. Outdoor lights within a city village or town, other than those mentioned in paragraph 1 of this order, which involves, directly or indirectly, the use or consumption of coal, gas, oil, or other fuel for illuminating or displaying advertisements announcements, or signs, or for the external ornamentation of any building shall be entirely discontinued on Monday, Tuesday, Wednesday, and Thursday of each week within New England and the States of New York, Pennsylvania, New Jersey, Delaware, Maryland and the District of Columbia and shall be entirely discontinued on Monday and Tuesday of each week in all the remainder of the United States.

Exception. Bona fide roof gardens where meals are served and outdoor restaurants also establishments devoted exclusively to the exhibition of outdoor moving pictures at which admission is charged are exempt from this section.

4 (b) The use of light generated or produced by the use or consumption of fuel for illuminating or displaying any shop windows, store windows, or any signs in show windows shall be discontinued from sunrise to sunset and shall also be discontinued on the nights specified in paragraph 4 (a).

5. The State fuel administrators within the several States are hereby directed and authorized to see that the provisions of this order are observed and carried out within their several States.

## INSTITUTE COMMITTEE MEETS

Following are the minutes of the Institute Committee meeting of July 25:—

"The sub-committee on Military affairs submitted an informal report on the status of the Freshman Drill during the past year.

"The Ship-yard Employment Committee reported that it had recommended several changes in the methods of awarding the Bemis prizes.

"The committee in charge of the proposed outing announced that it would be held at Nantasket on Saturday, August 3, the price for the complete ticket was to be $1.2..

"The board appointed to get out the new edition of "Concerning M. I. T." reported that it had secured some figures as to the cost of the book.

"It was moved and seconded that the report of the Military Committee be forwarded to the President of the Institute as expressing the sentiment of the Institute Committee.

"After a long discussion of each recommendation of the report it was moved seconded and passed that the report be returned to the committee for further consideration.

"It was moved, seconded and passed that the Alumni Avisory Committees be requested to call at least three formal meetings with the undergraduate heads of the various activities during each school year.

"It was moved, seconded and passed that $100 be advanced to the Board of "Concerning M. I. T." to serve as working capital for the first work of publishing the book.

"It was moved, seconded and passed that a campaign be started to collect unpaid Student Taxes in the present Senior Class for the Summer term, and that a statement of the disbursements of all funds obtained from the Student Tax be sent to each man of the class of 1919 who paid his tax during the past year.

"Messrs. Connors and Blye were absent.

"The meeting was adjourned at 6.30.

Respectfully submitted.
(Signed) George C. McCarten.
Secretary."

## THE SERVICE FLAG

The stars of the service flag should be of blue and of five points, one for each man in service in the Army or Navy of the United States. Each wounded man should be honored on the flag by placing on his star a Maltese cross of gold within the center of the star and not entering the triangle of the five points of the star. Each man honored in service should have a circle of gold which passes through each of the points of the star midway between the point and the base of the triangle formed by the points of the stars. Those who have died in service are to be honored by a gold star within the blue star of service. The entire blue star should not be covered, but a smaller star of gold should be placed within the blue star of service, with the sides of the gold star parallel with the blue star. Missing men have a pentagon of red in the background of the blue service star. The first side of the pentagon being drawn across the upright point of the five pointed service star at a point midway from the base of triangles formed by the base of the service star and the point of the star. The service star is left complete and the remaining surface of the pentagon is exposed in red. Men captured and imprisoned have a narrow circle of red outside the service star. The points of the blue star should touch the inner edge of the red circle. It is optional to place a wreath of laurel around the blue star with its inner gold star for a hero who has died in the service.

## AVIATION SCHOOL INSPECTED

Captain W. N. Irwin, chief of all air activities of the Navy, recently visited the Technology Naval Aviation School to inspect the work done and conditions which prevail there. Every advance possible will be made to the now highly efficient instruction of the cadets and authority has been given Captain Irwin to procure any additional facilities for the school which he may deem necessary. Captain Irwin has just completed an inspection of the Naval Air Base at Chatham, Mass., and discussed the projected improvement and enlargement of that station with Rear Admiral Spencer S. Wood, who is now in command of this Naval District.

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