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HARVARD-TECHNOLOGY SCHOOL IN PUBLIC HEALTH ESTABLISHED

Under Initiative of Prof. W. T. Sedgwick the War Department Sends Women to Institute For Training in Bacteriology

GRADUATES TO SERVE IN BASE HOSPITALS

An important step towards utilizing women in army work has been taken by the establishment by the Harvard-Technology School of Public Health of its intensive courses in bacteriology, chemistry and the various divisions of health work and administration. This school, which numbers twenty women and nine men, is the direct outcome of a missionary effort on the part of Dr. W. T. Sedgwick. Realizing a year ago that women pould be called upon to take the places of men in laboratories whose regular workers would be detailed to duties elsewhere, Profssor Sedgwick made the tour of New England colleges and explaind to women students his plans for summer course at Technology.

Meanwhile the War Department, aware of the plans of Dr. Sedgwick, made enquiries of him concerning the possibilities of special courses for laboratory technicians, and later issued a call for one hundred women to take the place of men in the laboratories of the U. S. A. base hospitals in this country. Under these circumstances and with a somewhat different layout for the courses, it seemed a proper matter for the Harvard-Technology School of Public Health to undertake, and yesterday the registration was completed, the newcomers received a word of welcome from Dr. Sedgwick and began at once what will be the backbone of the courses, those by Dr. F. H. Slack in public health laboratory work.

This school, which will complete its courses in September, will furnish a reasonable share of the specialists called for by the War Department, and every one of the students is certain of a place when the work is completed.

The work will be pointed directly toward the training of laboratory technicians, and the courses will include bacteriology, chemistry, industrial hygiene, vital statistics, sanitary science and public health, laboratory methods, and the various laboratory tests for infectious diseases together with military hygiene and preventative medicine. Most of the work will be done in the laboratories at Technology, the purely medical items being taken care of at the Harvard Medical School. Bacteriology will be taught by C. C. Stockman, 2d, a graduate of the Institute, and an instructor in the regular courses; chemistry will be in charge of Professor Edward Mueller, whose specialty at the Institute is bio-chemistry; Dr. Slack, along with the Boston Board of Health, will teach the laboratory methods, while the infectious disease tests will be under the care of Dr. William A. Hinton of Harvard. The registrar and general manager of the work is W. E. Brown, instructor in the Harvard-Technology School under the general supervision of Dr. Sedgwick. Dr. M. J. Rosenau, who is director of the school, and Professor George C. Whipple will aid if occasion needs.

This intensive school has called for students of the highest class and a majority of those registered bear college degrees. Radcliffe is represented by five of the women, Wellesley by four and Simmons, Smith, Mount Holyoke, Oberlin and Oregon Aggie by one each, while the men come from Harvard, Bates, Dartmouth, Tufts, Trinity, and Johns Hopkins.

In his opening remarks at the first session of this school, Dr. Sedgwick outlined some of the movements for war work for women. He had just returned from Vassar where there are something like five hundred women enrolled in the school for war service suggested by Dr. C. E. A. Winslow, one of the distinguished alumni of the Institute. He has himself been very active, for in addition to his teaching at Yale, where he is professor of Public Health and his services on the Connecticut Health Council, of which he is a member, he

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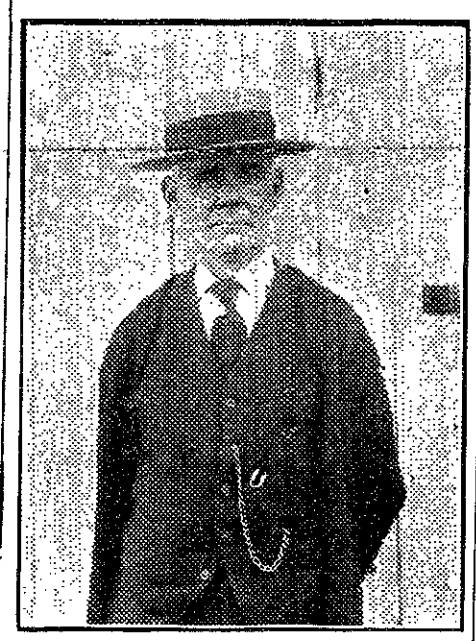
FAMOUS GROUND KEEPER

Michael H. Hoar Keeps Track in Fine Condition



(Copyright Boston Photo News Co.)
MICHAEL H. HOAR

Among the many celebreties at Technology is Michael H. Hoar, well known and liked by all men at the Institute, especially those on the track team. Mike has been ground keeper at the Institute since it moved from Boston to Cambridge, has taken a great deal of interest in our track teams and is wholly responsible for the excellent condition of our track, which has been pronounced by many to be one of the best in the country.

"Mike" was born in Cambridge on July 4, 1863. His father was one of the Cambridge volunteers of '61 and his name appears today on the soldiers' monument in Harvard Square. Mike came to the Institute upon the recommendation of Mr. Frank Kanaly, our track coach, and to the best of his knowledge will wind up his career here. He has been in the business of either promoting or contesting in athletic sports for forty years, having started at the age of fifteen.

At the time when Mike started his career as a runner there were practically no amateurs, because the prizes offered in all races were purses and consequently Mike has been a professional nearly all his life. In his time he was a noted track man and was considered one of the best one to ten mile runners in the country.

Even at this stage of the game he keeps himself in training and can hold his own against any man who will give him twenty-seven yards in the hundred. His latest challenge is to Frank H. Shay, holder of the quarter mile record, who is now at the Naval Aviation School and Mike is very anxious to have his challenge accepted.

NAVY WANTS PHOTOGRAPHS OF MEN KILLED IN SERVICE

The Navy Department authorizes the following:

Secretary Daniels requests that photographs of men of the Navy who have lost their lives in service against the enemy be sent to Recruiting Division, Bureau of Navigation, Navy Department, to be preserved in the Navy's records.

To perpetuate the memory of enlisted men of the Navy, lost during the war, photographs are now being carefully collected. As rapidly as these pictures are received copies are made and the originals returned to the owners. A photograph of each man is then forwarded to the training station where he had began his career in the service. There a memorial gallery of honor or a hero's corner is formed so that for all time the faces of the men of the Navy who have made the supreme sacrifice may be honored by the youths of the future sent to the station fo rtraining.

Relatives of men who have been lost in the present war who have not received requests for pictures art asked to mail them to the Department for this memorial. All pictures should be securely wrapped after they have been marked with the name, branch of service and training station the young man entered after enlistment. These should be addressed to the Recruiting Division, Bureau of Navigation, Navy Department, Washington, D. C. When copied, the photograph will be returned to the sender with one of the copies.

MILITARY STAFF OF ARMY AVIATION SCHOOL

Capt. G. Chittenden, Sig. R. C. A. S., Commandant; Lt. H. G. Knight, S. C., Asst. Commandant; Lt. L. L. McGrady '17, Sig. R. . A. S., Adjutant; Lt. J. B. White, Sig. R. C A S, Supply Officer; Lt. C. M Smith, S C, Asst. Supply Officer; Major C. S. Butler M. R. C. ,Medical Officer; Lt. F. W. Bartol, M. R. C., Asst. Medical Officer; Lt. F. J. Marshall, D. R. C., Dental Surgeon; Lt. A. Hendrichs, S. C., Insurance Officer; Lt. L. Folsom, Sig. R. C. A S, Asst. Adjutant; Lt. P. L. Brass Sig. R. S. A. S, Instructor in Military Studies; Lt G. S. R. Denton, Sig. R. C A S, Inst. in Military Studies; Lt. C. H. Kicklighter, Sig. R. C. A. S., Inst in Military Studies; Lt L. H. Bailey, Sig. R. C. A. S., Inst in Military Studies.

Department of Academic Administration: Prof. Charles B. Breed, President of Academic Board; J. C. MacKinnon, Asst. to Pres. of Acad. Board; Paul C. Leonard '17, Recorder.

Heads of Deparaments and Assistants: Airplanes, F. V. duPont, Lt. S. S. Mason, Sig. R. C. A. S. (Asst.); Engines: D. A. Fales, J. G. MacCormack; Motor Transport: A. Matheson, E. P. Sheehan; Signalling: A F. Murray; Observation: A. F. Murray, H. L. Foster; Gunnery: Lt. G. W. Wyman, N. A., Air Service. There are about forty other instructors and assistants.

LIMESTONE INDUSTRY

The quantity of limestone sold in the Bowling Green district, Warren County, Ky., in 1917 for use in building operations was 201,582 cubic feet, valued at $107,279, or 53 cents a cubic foot, or 21 per cent. in quantity and of $12,421, or 10 per cent. in value compared with 1916, but an increase over both 1914 an 1915. Only four companies reported sales, a smaller number than in former years, and many of the sales in 1917 were made under contract entered into late in 1916, when building activity was at its height. The output in 1917 included rough stone and rough sawed stone. No sales of finished stone were reported.

Other products of the Bowling Green district in 1917, consisting mainly of flux and crushed stone, amounted to 22,537 short tons, valued at $20,240, or 90 cents a ton. The output of crushed stone decreased considerably, whereas that of flux increased, and the total value of stone other than building increased $3,747, or 23 per cent.

NEW BAND STAND AT THE INSTITUTE

(Copyright Boston Photo News Co.)

The latest addition to the "war buildings" at Technology is a band stand. This structure was erected especially for the band at the Naval Aviation School which had been practicing in the already too crowded Walker Memorial. It was designed by Professor Harry W. Gardner of the Agriculture Department at the Institute and certainly carries out the original idea of having a building which would serve its purpose as a "war necessity," and at the same time be an addition rather than a blot upon the appearance of the surrounding buildings. The stand is situated between the northeast wing of the Technology and Walker Memorial.

The band practices every morning and is enjoyed by both the passers-by and the men who are taking courses here at Technology this summer. It has been rumored that concerts are to be given once a week during the summer months, but this statement has not been confirmed as yet.

CREW RACE TODAY

Institute Shell Meets West Lynn Boat Club

The Institute Crew will bring its official summer season to a close today when it meets the West Lynn boat Club in a race at Lynn Harbor this afternoon at 3.00 o'clock. The crew has been working hard every afternoon and expects to win the race. There have been several changes from the regular lineup due to accidents and calls to duty "Pete" Merrill, '21, blew up a hydrogen generator the other day, cutting his eye, and will therefore be unable to row. B. H. Sherman, '19, has enlisted and was recently called to Virginia, so his place at number two has to be filled. The course over which the race will be held is one and one-half miles in length.

The line-up for the race is as follows: M. Burroughs, '20, 8; M. Untersee, '19, 7; A.Wason, '20, 6; R. Lee, '21, 5; M. A. Michaels, '19, 4; J. J. Falkenburg, '19, 3; F. Murdough, '19, 2; D. Webster, '19, 1, and R. Felsenthal, '21, coxswain. Mr. A. W. Stevens, who has been coaching the crew for the past two years, has recently resigned. He has worked very hard for the crews, and much credit is due him for their success. At present Pat Manning of the B. A. A. is acting as coach. He is an old man at the game, and is getting good results.

Prespects for a successful season next year are bright. There will be a varsity crew composed of the best men

(Continued on page 3)

Do not expect our men to die for you if you are not worth living for. Show our Army and Navy that you are worthy of protection. Save to the utmost of your ability and buy W. S. S. with your savings.

If you will think more of saving than of spending you will be surprised to learn that there are many things which you do not need after all.

Buy War Savings Stamps to the utmost of your financial capacity, and then increase your capacity by saving more.

INSTITUTE TO RECOMMEND MEN FOR TRAINING CAMP

The Institute has an opportunity of recommending to the next Engineer Officers' Training Camp graduates of the Institute, which will probably be held at Camp Humphreys in Virginia near Washington, the latter part of August or early in September. The candidates for training must be under 29 years of age. Those who desire an opportunity of being recommended to the Engineer Corps for appointment should address the Registrar, giving memoranda concerning present military status, rank, name and location of organiation, work done since graduation, whether or not the candidate is married or single, number of dependents and status in the draft. Those who are interested in this opportunity should send word to the Registrar at an early date.

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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

R. H. Smithwick '21 .....Night Editor

SATURDAY, JULY 13, 1918

SUMMER READING A DISSERTATION

BEFORE the war, when we had time to think and breathe comfortably, we used to say a great deal about the appaling lack of liberality in an engineering education. The product of the engineering school, they would have us believe was only a gigantic trained computing machine. Since the war, care only that he shall be a good machine and worry not at all about his liberality in any thing but paying Liberty Bonds.

The English Department has been taking advantage of all this, and while our mind has been diverted elsewhere has been using us to experiment on and has been infusing the liberal into our flat and tasteless life whether or no we assent. Not content with the regular English courses and a history cours e to play with(they take a few of our summer hours and tell us what to do with them. We are now hinting at summer reading.

Summer reading fills, to our mind, a long felt want and a real place in our private economy. There are a lot of good and classical books that we have heard refered to so many times that it becomes like the hackneyed acknowledgmnt of introduction: "No, I've never met Gwendolyn but I've heard Herbert speak of her so much that I feel quite as if we were old friends." The spell is frequently broken, and we find that we were not such old friends after all, but frequently find that we should have been, and good ones too. The effect on the whole is really good though and the compulsion behind it sort of relieves us of responsibility just like the draft. The course opens up a new point of view, as the gentleman said when he turned the corner. Can you imagine some people reading poetry! Why, even figuring out how to get reading done in the least possible time is an education all by itself.

It is with regret that we announce the resignation of Donald D. Way '19 from the office of General Manager of THE TECH, due to press of academic work. Mr. Way has served THE TECH faithfully and efficiently for three years starting at the bottom when a freshman and working his way to the top by shear merit. During the summer of 1917, when it was decided the paper should run throughout the summer months, Mr. Way threw all his energy into The War-Time TECH, and it was mainly his skill and endeavor that maintained in the face of a shrinking staff the necessary work of publishing the accurate news of Technology's part in winning the war. Issue, after issue that summer was written and made up by Mr. Way. In the fall following, when the Institute was once more filled with men, the staff was again replenished, but a new difficulty arouse in the shape of enlistments from the staff. THE TECH'S service flag would show many stars. Mr. Way nevertheless has gone bravely on, getting out the paper with a staff which changed its make-up with amost kaleidoscopic rapidty.

In addition to the hard work which he has done for THE TECH, Mr. Way has engaged in several other activities. He was a prominent member of the Institute Committee and is well known as the Chairman of the Technology Committee on Shipyard Employment.

We hear that a large percentage of men from training stations have been dismissed from the Navy because of chronic seasickness. The local stations need never worry about this. A trip in a flivver over the wavy tar road in front of the buildings would determine once and for all a man's susceptibility to "mal de mere" and would serve an admirable seasickness test for applicants.

We never felt worried over the possibility of air attacks until we heard that anti-aircraft guns were to be mounted in the Public Gardens. Somebody is always taking the joy out of life.

PERSONALS.

Announcement is made of the marriage of Miss Doris Catherine Shattuck, daughter of Frank Herbert Shattuck of Florida street, Springfield, to Lieutenant Henry Lafayette Miller '17, of Fort Banks, Winthrop, son of Mrs. Jennie Elizabeth Miller of Manchester N. H. The ceremony was performed on Saturday evening at the home of the bride's brother and his wife, Mr. and Mrs. Raymond Shattuck of Florida street. Rev. James Gordon Gilkey, pastor of South Congregational Church, officiated. The bride had for her matron of honor her sister-in-law, Mrs. Raymond B. Shattuck, whose husband attended Lieutenant Miller as best man.

LIEUTENANT H. L. MILLER.

A military note predominated in the decorations which consisted of flags intermingled with palms and flowers. Lieutenant and Mrs. Miller were assisted in receiving their guests by the bridegroom's mother, the bride's father, and by Mr. and Mrs. Raymond Shattuck. Lieutenant Miller and his bride came to Boston on their wedding trip. They will make their home for the present in Winthrop Highlands, as Lieutenant Miller is stationed with the United States Coast Artillery Corps. Lieutenant Miller was graduated from Technology in the class of 1917.

Harold G. Watkins '17 of Wakefield, reported slightly wounded, is a master engineer with senior grade in the Fourteenth Railway Engineers. He attended Technology where he was track and cross-country captain in 1910-'11 and leading two-miler of those years. In 1911, he left college to work with the engineering staff of the Boston & Maine Railroad, where he remained until his enlistment in June, 1917. For a time he lived in Fitchburg, but removed to Wakefield before he went to France. He is married and his wife and child are living in Fitchburg. His mother and father, Mr. and Mrs. Sidney G. Watkins, live at 43 Elm street, Wakefield.

LEAD AND ZINC PRODUCTION

The productive lead and zinc territory in the Central States naturally falls into seven regions, three of which, including two of the most productive, are not limited to any single State. Tables showing the quantity of "dirt" treated. the quantity of each kind of lead and zinc concentrates recovered, and the recoverable content of such concentrates by States are desirable, but tables showing the production by natural regions, irrespective of State lines, are also desirable.

As stated by J. P. Dunlop, of the United States Geological Survey, Department of the Interior, the southeastern Missouri region produced more than 75 percent of the lead output ot the Central States in 1917. The production from central Missouri was less than usual, and for convenience it is included with that of southeastern Missouri. The output of zinc in these two regions remained comparatively insignificant. The Joplin region produced 22 per cent of the lead and 77 per cent of the zinc of the Central States in 1917 and continued to be much the largest producer of zinc in the United States.

The Upper Mississippi Valley region yielded 1.7 per cent of the lead and about 20. per cent of the zinc output of the Central States in 1917.

Approximately 25,000,000 tons of ore was mined and treated to obtain lead and zinc concentrates valued at $77.597.-763, an increase of about 500,000 tons in quantity of ore treated and of $12.-200,000 in value of the concentrates recovered. The average value obtained by the operators of lead and zinc mines in the Central States per ton of crude ore mined and milled in 1917 was $3.06. an increase of 39 cents a ton over 1916. The increase was comparatively small and was more than offset by the increased cost of mining. Moreover, the increased value was confined entirely to lead concentrates.

The total value of lead concentrates ot all classes sold or treated by producers in the Central States in 1917 was $38,-506, 878, against $26,070,323 in 1916.

IN WAR-TIME

BUSINESS MEN

SUPPORT ONLY

THOSE ENTERPRISES

THAT ARE NECESSARY.

THE TECH WILL

BE PUBLISHED

THROUGHOUT THIS

WAR BECAUSE

IT IS NECESSARY

TO THE ALUMNI

AND UNDERGRADUATE

ASSOCIATIONS OF

TECHNOLOGY

IT'S TIME TO

SUBSCRIBE AGAIN.

DROP A

DOLLAR AND

A HALF

TO 75 MASSACHUSETTS

AVENUE AND GET

FOR SIX MONTHS.

The Tech

Established 1881

A war saver is a life-saver.
Make "W. S. S." your buy-word.

Many are giving their lives; you are asked only to loan your money.

National War Savings Day is the stay-at-home's day.

Luxuries as usual means a victorious Germany. Save and buy War Savings Stamps.

PUBLIC HEALTH SCHOOL

(Continued from page 1.)

has been on a mission to Russia, and now on his return has started this great summer school for women. The young women are under instruction in nursing and other vocations of mercy and in splendid numbers. Dr. Sedgwick was a speaker before this school and later in the season Professor Winslow will be a lecturer in the Harvard-Technology school here.

Among the other colleges for women which have started to do war work is Mount Holyoke, while various of the co educational institutions have taken up one kind of work or another, and still other schools like the Lowthorp School of Landscape Architecture at Groton, which is instructing women along gardening and farming lines, are pursuing courses closely in touch with war needs.

Technology finds itself conducting a school composed largely of women with the ease and lack of self-praise that has characterized its other bits of educational work since the war began. The courses in which the Institute has been interested have from the beginning been open to women as well as men and has expected of them the same work that it has demanded of the men. Ellen H. Richards in her quiet country home learned of the Institute, and coming to Boston entered its halls in the Rogers Building and opened the way for women. She made the path easier for the women who came after her. She and her successors in the student ranks have made the presence of women no novelty, and the coming of so large a group at one time demands no changes at Technolog.

But although the event is a matter of course at the Institute, its meaning to the outer world is of great importance. Under stress of war conditions, especially in the Allied countries of Europe, women have taken up work normally unsuited to their strength, or their natural inclinations. In foundries, amid the whirring machine tools of the munitions factories and in heavy labor they are to be found in thousands. At the close of the war they will return to their former stations in large degree for manual labor of the kind is unsuited to the "gentler sex." But the work undertaken by the school of Harvard and Technology is very different in its character. Chemistry has been appealing more and more to women and laboratory assistants have been making good the world over. In public health work there is a field equally suitable and even more promising. This is due to an extent to the changing position of the public health worker. More and more the sanitary engineer has divided with the physician the duty of caring for the health of the people and in the analysis of modern health administration, quite as much appeals to the engineer as to the medically trained man. But both of them must depend upon the bacteriological laboratory for their diagnostic work and every year there is more and more demand for intelligent and practised bacteriologists. The work is light, much of it delicate and refined and it is eminently suited to women. The young people just enrolled have for their present goal at the end of a season with the co-operative school, an xperience in the base hospitals of the army in this country, and without doubt, although no word of it has yet been whispered, in the hospitals abroad. But this is by no means the finality of the moment. For the needs of the war health offices are being drained of their assistants and through the war attention is being focussed enormously on health needs. The war is itself an efficient though unfortunate means of educating the people in this essential.

When the war is over there will be two new conditions; there will be a demand by the people for health administration on a scale never before dreamed of on the one hand, and on the other, comparative scarcity of health officers, for many of those surviving will drift into other branches of service or other employment. To fill partially the demand such men and women, and particularly the women since they are a new source of supply, will be demanded for health officers and for laboratory work.

The Harvard-Technology School of Public Health is one of half a dozen colleges in the country carrying forward parallel courses in bacteriology and public health at the instance of the War Department acting on the initiative of Professor Sedgwick, and the work is big with results favorable to the future of intelligent public health administration.

STATUS OF ALIEN SOLDIERS

Speaking to the House of Representatives on June 3 Representative Meeker, of Missouri, presented data to show that in the not far distant future it may become necessary to hold a council of nations to work out a system of caring for alien soldiers who may pass from one country to another. Mr. Meeker, who has given a year to an investigation of the subject, said: "About a year ago, after we had entered the war, we discovered that some 40,000 or 50,000 American citizens had entered the armies of England and France, and Canada especially. We learned at that timethat the men who had taken the oath of allegiance to the British Crown had decitizened themselves. Steps were taken to repatriate those citizens. That legislation has already been enacted. However, at the time that bill was under discussion in the Committee on Immigration and Naturalization the question came up as to the status of alien soldiers in the different nations throughout the world, and, upon my suggestion, I took up the question with the representatives of the several countries throughout the world. I first requested that they provide me with the oath which one who desires to enter the military or naval service must take. I also requested that they supply me with information on the following subjects: First, as to how the taking of this oath affects the citizenship in the nation whose army the alien enters. Second, does thetaking of the oath make him a citizen in whole or in part in that country? Third, how does it affect him as regards the right of franchise, devolution of property, marriage and divorce and receiving a pension from the government? Fourth, should an alien, who has taken the oath of allegiance and served in the military or naval forces and for that service has been granted a pension, become a citizen of another nation, would he thereby forfeit his pension?

Mr. Meeker found that a search in the Congressional Library failed to discover any book showing how aliens enter the armies of the several nations. After this he took up his correspondence, with the resultant discovery that not fifty per cent. of the representatives of the different governments of the world know anything about the laws bearing on the question. From data which he has collected, he submitted to the House as much information as he has been able to obtain. These data, though incomplete, are amply sufficient to show that practically no two nations have the same system of taking aliens into service, or the same rules providing for the men after their service. The question of pensions, their grant, extension and forfeit, is also a very important part of this subject. No two nations have the same rules on that question; some have none; others still are very loose and uncertain in their laws and regulations. In all twenty-nine nations are represented in Mr. Meeker's data. In concluding his address he said: "This correspondence has convinced me that the United States has gone a century ahead of any other nation in providing and caring for the aliens who enter her military service. There is much work yet to be done looking toward the final adjustment of the relations that should be maintained between our Government and the aliens who have served under the colors of our co-belligerents who are returning to this country in the hope of once more being with their families."

RATING OFFICERS

The new plan of rating officers is being thoroughly discussed throughout the Army and there is decided difference of opinion as to its entire success. A great many officers do not consider the plan as at all necessary in making ratings for the officers of the Regular Army. It is their contention that the old system has been tried out and has worked successfully, and that it is rare that during the years of service an officer does not ultimately find his proper place. If one officer in an efficiency report did another an injustice, in view of the number of times the report is reviewed, there was little chance that the injustice would become permanent. On the other hand, there is little question of the value of the system and its usefulness in arriving at an estimate of the thousands of officers who comprise the commissioned personnel of the National Army. The officers new to the Service in the National Army and the Reserve Corps, through the medium of the complete card system are enable to acquaint their superiors with their every qualification. There is little likelihood of studied injustice in making the ratings under the five required points, and so far there has been no intimation that the ratings have been unfair, though unintentional injustice may occasionally have been done and the personal element cannot be ignored.

What has been said of the Regular and the National Army regarding the rating system does not altogether apply to the National Guard. Officers who have examined the ratings sent in from some of the National Guard units do not hesitate to say that politics have played a part, and there have been a number of instnces in which it was thought that rating officers had allowed their personal feelings or prejudices to effect materially the rating given their subordinates. Some of these cases are being reviewed and an effort will doubtless be made to readjust the ratings on a basis that will be fair. In some of the staff corps where so many additional officers have recently been commissioned the lack of opportunity for personal observation upon which the points of ratings are necessarily based has been a difficulty, the rating is being carried out as rapidly as is consistent with justice.

CREW RACE

(Continued from page 1)

in the Institute, and besides this there will be the regular class crews. It has been decided to count the crew race in the final Field Day score. Because the success of a crew race is largely dependent upon the weather conditions, it was formerly thought impractical to have the race count in the Field Day score, but from now on it will count four points, and he members of the winning crew will get their numerals.

OUR SHORTAGE OF NAVAL OFFICERS

The statements presented to the chairman of the House Committee on Naval Affairs by Admiral Benson and Rear Admiral Palmer, present a most striking picture of the difficulties under which the officer personnel of the Navy is struggling at the present time. The potency of these Navy officers' facts as arguments in favor of the desired increase, backed up by the non-professional appeal of Secretary Daniels, was shown on June 18 by the action of the House voting to grant the increase of the permanent enlisted strength of the Navy to 131,485 men. In his statement Admiral Benson expressed the hope that no amendments would be added to the bill that "further limit the number of officers in the higher grades by still further restrictions." By this he doubtless was referring to the previous action of the House, which was nullified in the Senate by striking out the proviso, in attempting to limit the number of higher grade officers to be temporarily appointed by the President to "four captains and seven commanders."

The increase in the permanent enlisted strength to be added to the Navy will be 44,485 men. This will require an additional officer personnel of 1,779 on the four per cent. basis established by the personnel section of the Act. of Aug. 29, 1916. Worked out by the percentages established by that act, this would call for only eighteen flag officers, yet Admiral Palmer states that we should have not fewer than twenty-seven additional rear admirals immediately "merely to man our fleet properly and to make our war organization efficient." He also states that by July 1, 1919, we should have six additional rear admirals, making thirty-three additional in all. This would be almost double the number of flag officers provided by the Act of August, 1916. In the proportions established by that law to make our officer personnel maintain a proper balance with the increased enlisted strength now granted we must have the following number of new permanent officers: Captains, seventy-one; commanders, 126; lieutenant commanders, 249; lieutenants, 578; lieutenants (j.g.) and ensigns, 729.

These figures and estimates, of course, are simply for the permanent establishment and do not provide for the temporary increases that Congress may grant. As Admiral Benson so wisely and prudently says, the affairs of the world will be in a troubled state for some time to come if peace should be declared tomorrow. And to meet these conditions adequately we must have a properly manned and officered fleet in being. To put the fleet in its most effective state there should be no hesitation in granting to the Navy its additional flag officers, for as Admiral Palmer shows through many illustrations that part of our Military Establishment is prievously hampered by its lack in this respect. His presentation of the fact that our cruiser force is not ready to operate as a scout force (owing to the fact that the rear admiral commanding the cruiser force is also commander of the transport force, "to which most of his attention is given") is a complete justification of the repeated warnings voiced in the past by our farsighted Navy officers that if we ever went to war we should find our fleet sadly crippled by just such conditions as are before us in actuality. And unfortunate as is the shortage of officers required for the most effective operation of the fleet, conditions ashore are in an almost impossible state. For example, one flag officer, as in the case of Rear Admiral Coontz, is supposed to be on both sides of Puget Sound at once in performing the double duties assigned him; and Captain Moffett has to administer the affairs of the largest naval training station in the world and the business of a naval district at the same time, his two stations being forty miles apart.

The granting of the permanent increase of the enlisted personnel by Congress now puts us in the position of being able to man our fighting fleet with other than temporary forces, which was the chief weakness of the former position. According to Admiral Palmer's tables, we are to have four new battleships in commission within the coming fiscal year, requiring 4,400 additional men for these ships alone, while the fleets of destroyers and of the Eagle class will require 25,992 men beyond those already on destroyers and torpedo-boats. In fact, the Eagle class fleet in itself "will require probably two rear admirals for its organization if it is to be operated properly." This final statement is proof of how utterly inadequate is the number of our flag officers, to say nothing of the shortage in all the grades below them.

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FIELD ARTILLERY CONCENTRATION PLANS

All Field Artillery activity in this country henceforth will be concentrated at four camps. Three of them have been designated and the fourth will be selected within a few days. The three are Fort Sill, Okla. (embracing both the old Regular Army military reservation and the former National Guard camp known as Camp Doniphan); Camp Jackson, Columbia, S. C.; and Camp Zachary Taylor, Louisville, Ky. Fort Sill and Camp Jackson are in operation as Artillery camps and activity will start at Camp Taylor within a week. At all four camps Artillery brigade training centers will be located. There will be Artillery replacement depots also at Camp Jackson and Camp Taylor. Only one Artillery officers' training school will be conducted in the future. Th- will be at Camp Taylor. The school of fire for Field Artillery officers, where a post-graduate course is given, is located at Fort Sill.

Lieut. Col. A. H. Carter, who will command the Camp Taylor Officers' Training School, reached Louisville on June 14. The school will be opened about June 20 with an attendance of between 2,000 and 3,000 men who now are in the midst of instruction in the fourth series of training schools conducted at the various divisional camps. They will complete their course at Camp Taylor. Following their graduation, new men will be received, starting probably in August. Thereafter, a new class will be started every two weeks for a twelve weeks' course of training. Eventually 200 officers will be graduated every two weeks The maximum capacity of the officers' training school at Camp Taylor will be 5,000. Regulations regarding the admission of men in the Service and also civilians with special qualifications to the school in the future will be announced soon. Lieut. Col. Charles S. N. A., will command the Field Artillery brigade training center which will be established in connection with Camp Taylor. This will be located about fifteen miles distant, at West Point, Ky., where there now is an Artillery range. The training center will be established within a week. A Field Artillery replacement depot also will be established at Camp Taylor soon with accommodations for about 20,000 men. The commanding officer has not been selected as yet.

Col. Laurin L. Lawson, U. S. A. has been made commander of the School of Fire for Artillery officers at Fort S-- About 1,200 Artillery officers are given an advanced course there, the course continuing for ten weeks, and a new class of 120 officers starting each week. Besides the officers, a brigade of Artillery is located at the post. The equipment at the school includes a number of 155-mm. howitzers and French 75-mm. guns. Fort Sill is the only place in this country where the French 75-mm. guns have been used in training so far. Additional guns, sufficient for four battalions however were sent to this country by the French government a month ago. Some of these will be in that part of the military reservation known as Camp Doniphan where a National Guard division was trained. One brigade of Artillery already is in camp and another is moving in. Lieut. Col. Edmund L. Gruber N. A., is in command of the training center. Complete Artillery brigades will be put through an intensive period of training for eight to ten weeks. Two brigades will be handled at a time receiving final preparation for service in France. Each Artillery brigade includes about 4700 men.

The Artillery brigade training center at Camp Jackson also has facilities for two brigades. One brigade is there now and another will arrive shortly. Lieut. Col. Thomas D. Osborne, N. A., is in command. The Field Artillery replacement depot at Camp Jackson is in command of Lieut. Col. Robert M. Danford, N. A. Artillery recruits, including drafted men from all parts of the country, are being sent there. The replacement depot acommodates about 24,000 men. Surplus and unassigned Artillery officers are stationed there also, about 2,000 being there at present. The summer training camp for Artillery units of the Reserve Officers' Training Corps of Yale University and Virginia Military Institute will be conducted from Aug. 1 to Sept. 1 at this camp under Colonel Danford. The fourth Artillery camp, the site of which has not yet been determined, will consist only of a brigade training center.

The plan for the reorganization of Artillery activity with all units concentrated in four camps, instead of being scattered throughout divisional camps, has been worked out by Brig. Gen. William J. Snow, Chief of Field Artillery. The advantages of concentration include economy in the use of trained officers, guns and money, and uniform instruction centralized under the control of one man.

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U. S. CHEMICAL GLASSWARE STANDS DIFFICULT TESTS

Prior to the summer of 1914 the greater part of the chemical laboratory glassware used in this country was imported from Germany and Austria. The cutting off of imports from these countries caused a very serious shortage of glassware in this country, which is not yet entirely overcome. However, within the past two years a number of American manufacturers have increased their production of such ware, or are manufacturing grades of chemical glassware that they did not produce before. It is probable that practically our whole available supply at this time is of domestic manufacture, much of which is ware sold under brand names which were unknown a short time ago.

In order to furnish to chemists information regarding such domestic brands, it was decided by the United States Bureau of Standards to compare them with those of foreign make. These results of the bureau's tests indicate that all of the American-made wares tested are superior to Kavalier and equal or superior to Jena ware for general chemical laboratory use. Results of these tests are given in Technologic Paper No. 107, "Comparative Tests of Chemical Glassware," which may be obtained from the Superintendent of Documents, Government Printing Office. (Commerce Reports.)

A. E. F. PARCEL REQUEST RULE

Every effort is being made by the War Department to reduce the quantity of unnecessary parcels sent to American soldiers in France by relatives and friends. The Adjutant General's Office gives notice that it will no longer pass upon requests for shipment of parcels which have not been approved in the required manner by the military authorities in France. Hereafter no exceptions will be made to the rule that parcels when presented to post offices, express companies or freight stations for shipment must be accompanied by a written request from the soldier approved by a major or higher commanding officer. Persons connected with the Y. M. C. A., the Red Cross or other organizations in France must make a request for articles in a similar manner, the approval of an executive officer of the organization being necessary in such case. About 1,000 letters in which requests are made for permission to send parcels to France have been received daily recently by The Adjutant General's Office. Up to this time it has been possible for relatives and friends to submit to TheAdjutant General's Office for approval requests from France made prior to May 1, which did not bear the signature of a major or higher commanding officer. Sufficient time now has elapsed to withdraw this privilege. In the future letters will be returned to the sender without action. Parcels with the proper approval by he authorities in France will be received at post offices, express companies or freight stations without any reference to The Adjutant General's Office. The original order provided that a regimental or higher commander should approve a request. This has been modified so that a major or higher commander may do so. The approval of a company commander is not sufficient.

SULPHUR DEPOSITS 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. Deposits on Unalaska and Akun islands and near Stepovak Bay, on the Alaska Peninsula, were examined in the summer of 1917 by A. G. Maddren, of the United States Geological Survey, Department of the Interior.

The examination showed that although there is some sulphur at each place examined there is little probability that any of the deposits can be profitably mined at present or in the immediate future, for they are not of large area, most of them are probably shallow and contain only disseminated sulphur, supplies and labor are not obtainable near the deposits, the open season is short, the work of transporting the sulphur from the mines to the ships would be difficult, and the haul to the larger markets would be long. However, these deposits from part of America's sulphur reserves, and similar deposits undoubtedly occur at many other places in the volcanic belt of southwestern Alaska. When material and labor are more easily and cheaply obtainable, when transportation is cheaper, and when the demand for sulphur on the Pacific coast is larger, the sulphur deposits in Alaska can doubtless be mined profitably. The area within which workable deposits of sulphur may be found in Alaska is large and most of it is unexplored, so the place at which sulphur can be first and most profitably mined is not certainly known.

Sulphur claims have been staked on deposits in the crater of Makushin Volcano, on Unalaska Island; on Akun Island; and near Stepovak Bay. No sulphur has yet been marketed from these deposists, but during the last year they have attracted the attention of prospective investors with a view to their exploitation. Unalaska and Akun Islands are near the east end of the Aleutian Islands, in latitude 54 degrees N., longitude 166 degrees W., about 1,750 miles from Puget Sound. Stepovak Bay is on the south coast of Alaska Peninsula, in latitude 55 degrees 50 feet N., longitude 159 degrees 40 feet W., about 1,600 miles from Puget Sound.

The sulphur deposit at Makushin Volcano is about 12 miles west of Dutch Harbor, or 5 or 6 miles north of Makushin Bay. It is about 5,500 feet above sea level, in the only part of the crater that appears to be permanently bare of snow and ice. This bare area covers 20 to 30 acres. The surface here consists of loose, porous, disintegrated, and decayed lava. In the floor of the crater there are many cracks, pits, and other openings from which hot volcanic vapors issue constantly. In several auger holes drilled in the cooler parts of the earth hot sulphurous vapor was tapped at depths of 4 to 8 feet. The ground is so hot that deposists of sulphur are not at all likely to be formed except near the surface.

The deposits includes a richer surface zone, 1 to 2 feet thick, which forms a crust, because of the sulphur deposit in it, and a subsoil zone which consists in greater part of moist, hot, porous decomposed material, in which a small quantity of sulphur is disseminated as grains and blebs to a depth at some places of at least 16 feet.

CRITICISM OF HONOR MEDALS

The National Sculpture Society, whose headquarters are in New York city, has sent to Secretary Baker a letter protesting against the present designs of the Distinquished Service Cross and the Distinguished Service Medal recently authorized by the War Department. Paul W. Bartlett, sculptor, president of the society, signed the letter, which expresses "the sincere regret of the society concerning the commercial designs which are being used for the Medals of Honor and the War Merit Crosses that are to be given to our soldiers abroad for heroic deeds in battle." The society then expresses surprise and disappointment that its members were not asked to make designs, and points out that in view of what the medals mean, "how they will also be awarded to heroes in the Allied armies and be worn side by side with the medals of other nationalities, some of which are pure masterpieces of art, it becomes apparent that the greatest care should be used in the designs and every effort made to secure for this purpose the best available talent in the country." The hope is expressed that the first medals should only be used as a matter of temporary expediency and that Mr. Baker will give the American artists the opportunity to design a medal worthy of the cause, the country and the heroes who will wear them. It was stated by members of the society that little hope was held of having their protest heeded "as the medals were being made by a Philadelphia firm of silversmiths."

This is a striking example of so much of the criticism "after the event" that twe hear of the War Department from civilians. The history of these two new war honors is very clear and should be particularly well known in New York city, where practically every member of the Sculpture Society lives who atte- the meeting at which the above action was taken. Agitation for additional war medals was conducted last winter with a great deal of vigorous public spirit and patriotism by Dr. W. T. Hornaday, director of the Bronx Zoological Garden. He wrote letters to the papers, several of which appeared in the columns of the Army and Navy Journal, and with force, variety, and frequency of exurged the creation of such war medals pression. The members of the National Sculpture Society appear to have taken no notice of that commendable agitation nor of the passage of the bill creating the new war honors. And naturally enough in the press of its many duties the War Department had not time to think of a society with which it could not be very familiar.

On the other hand, there were three New York City artists who in winning commissions and enlisting in the Camouflage Section of the National Army did not wholly forget their antecedent professions. They were Capts. Andre Smith and Aymer E. Embury, 3d, and Pvt. Gaetano Cecere, all of Co. B, 40th Engrs., then stationed at Camp American University. Captain Smith, etcher in private life, Captain Embury, architect by profession, and Private Cecere, scultor, comined in working out a model for the Distinguished Service Cross and offered their design to the War Department. The crux of the matter is that these three artists had become imbued with the Army spirit of "doing something" instead of such belated discussion as that of the members of the National Sculpture Society.