

**HEARING BEFORE THE COMMITTEE ON  
MILITARY AFFAIRS, HOUSE OF  
REPRESENTATIVES ON H. R.  
7117; A BILL TO INCREASE THE  
EFFICIENCY OF THE ENGINEER CORPS OF  
THE UNITED STATES ARMY**

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Hearing before the Committee on Military Affairs, House of Representatives on H. R. 7117; A bill to increase the efficiency of the engineer corps of the United States Army by Various

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# HEARING

BEFORE THE

U. S.

COMMITTEE ON MILITARY AFFAIRS

HOUSE OF REPRESENTATIVES

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ON

## H. R. 7117

A BILL TO INCREASE THE EFFICIENCY OF THE ENGINEER CORPS  
OF THE UNITED STATES ARMY



WASHINGTON  
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**INCREASE OF EFFICIENCY OF ENGINEER CORPS, U. S. ARMY.**

**COMMITTEE ON MILITARY AFFAIRS,  
HOUSE OF REPRESENTATIVES,  
Washington, D. C., Tuesday, March 8, 1910.**

The committee met this day at 10.30 o'clock a. m., Hon. John A. T. Hull (chairman), presiding.

The CHAIRMAN. Gentlemen, the bill under consideration this morning is H. R. 7117, to increase the efficiency of the Engineer Corps of the United States Army.

General Marshall is not here, but his corps is represented by the ex-chief and by present officers on the active list. We do not care to designate who will be heard. If the engineers will designate whom they desire first, we will be glad to hear from them.

**STATEMENTS OF BRIG. GEN. ALEXANDER MACKENZIE (RETIRED), FORMER CHIEF OF ENGINEERS; COL. FREDERIC V. ABBOT AND MAJ. WILLIAM B. LADUE, U. S. ARMY, ASSISTANTS TO THE CHIEF OF ENGINEERS; AND MAJ. GEN. J. FRANKLIN BELL, U. S. ARMY, CHIEF OF STAFF.**

Colonel ABBOT. General Marshall was very anxious that General Mackenzie should be heard first. Otherwise, I am the Acting Chief of Engineers.

General MACKENZIE. Colonel Abbot, of course, is the acting chief, and he represents now all the corps, and while I am glad to be here and will be glad to give the committee any information I may have on the points discussed, it struck me that perhaps the active representatives of the corps should present the matter.

The CHAIRMAN. That is a question for you to determine. I think the committee will be glad to hear all of you. Colonel Abbot, you, of course, have read this bill?

Colonel ABBOT. Yes, sir.

The CHAIRMAN. Now, to get it in the hearing, can you tell us the number of colonels you have now in the corps?

Colonel ABBOT. Ten colonels, 16 lieutenant-colonels, 32 majors, 43 captains, 43 first lieutenants, 43 second lieutenants, which with the Chief of Engineers make 188 total.

The CHAIRMAN. How many majors have you now?

Colonel ABBOT. Thirty-two.

The CHAIRMAN. How many captains have you on the roll?

Colonel ABBOT. Forty-three.

The CHAIRMAN. How many first lieutenants?

Colonel ABBOT. Forty-three.

The CHAIRMAN. How many second lieutenants?

Colonel ABBOT. We should have 43, but there are some vacancies at the present time which we have not been able to fill.

The CHAIRMAN. Forty-three is the number provided by law?

Colonel ABBOT. Forty-three is the number provided by law.

Mr. STEVENS. Colonel, how many vacancies?

Colonel ABBOT. There are ten vacancies to-day.

Mr. MORGAN. In all the grades?

Colonel ABBOT. In the lowest grade, that of second lieutenant.

The CHAIRMAN. You have no vacancies in the upper grades, of course?

Colonel ABBOT. No, sir.

The CHAIRMAN. I see you provide here that it is to take five years to make these increases. It is desired that the period be extended over five years. Is that so that you can secure graduates from West Point?

Colonel ABBOT. It is so that we can increase the corps symmetrically and secure the class of men that we need to fill these positions. We do not want to take in too many at the same time of exactly the same age.

Mr. STEVENS. Colonel, why can you not fill those ten vacancies of second lieutenant. Are you saving those for a nucleus?

Colonel ABBOT. No, sir; we were near filled up last June, but vacancies occurred, and we propose to fill up when we can. We estimate that with the present vacancies and those covered in the bill it will take about six years before the new organization, if this becomes a law, will be entirely filled.

Mr. STEVENS. Can you tell us how many of these 188 officers are under the direct charge of the Chief of Engineers engaged in military work, how many in river and harbor work and public improvements, and how many on detached service?

Colonel ABBOT. We have that all tabulated here. At the time this statement was made, which was at the close of 1909, there were in the office of Chief of Engineers 7 officers; there were on duty of a character not strictly military, 50; there were on strictly military duty, 77; there were on duty of a military nature and not strictly military duty combined, 29 officers; there were those on leave of absence and on sick leave, 20. That, at this time, included the graduates from West Point. There were 15 men assigned to the corps, and they were at that time on graduating leave. This is dated June 30.

Mr. YOUNG. So that that would leave only 5 actually on leave of absence and sick leave?

Colonel ABBOT. Yes, sir. The total that were under the absolute control of the Chief of Engineers was 46. There were 24 additional officers, who were partly under the control of the Chief of Engineers and partly on duty not under his control. There were 92 officers that were beyond the control of the Chief of Engineers.

Mr. STEVENS. What do you mean by that?

Colonel ABBOT. Those who are assigned to troops; those who are on light-house duty in the Department of Commerce and Labor; those who are instructors at West Point; duty that is entirely beyond the charge of the Chief of Engineers. His hold on these men is only that he can ask to have them relieved when they get to the end of the tour of duty to which they are assigned, and replace them by somebody else.

The CHAIRMAN. Colonel, how many have you on duty with the Light-House Board?

Colonel ABBOT. Eleven, as I recollect it.

The CHAIRMAN. My understanding is that they will be relieved of that duty if a certain bill passes.

Colonel ABBOT. The officers that are on actual duty with the Light-House Board and not under the Chief of Engineers are only two. That is the engineer secretary of the board and the engineer officer in the third light-house district. The others are simply officers who are now under the Chief of Engineers on river and harbor duty, but in addition perform light-house duties under the Secretary of Commerce and Labor; so that bill you are speaking of would only affect two officers. If the light-house work was taken away, we would thereby gain only two men, who are now entirely out of the control of the Chief of Engineers.

Mr. STEVENS. How many have you on the Panama service?

Colonel ABBOT. We have at the present time 10 on construction duty and 15 under instruction. This is the same 15 that were on leave of absence on the 30th of June, new officers; they are now down at the Panama Canal on a temporary assignment for instruction. It takes the place of a portion of a year's instruction at the school.

Mr. STEVENS. A part of them will come back here to this country?

Colonel ABBOT. Yes; at the end of a short tour, during the first year of a young officer's service, the custom is that they shall pass from one large work to another, spending a short time at each, writing a thesis on what they have seen and learned and then moving to another large work and examining it and submitting a thesis; so that these young officers who are now on the Panama Canal will about the 1st of April be returned to this country and assigned to important works here, still under instruction. For two years they are under instruction. One year is spent in the actual examination of practical work with the officers in charge of districts as actual instructors; the second year they come and perfect their theoretical knowledge at the Engineer's School at Washington Barracks.

Mr. YOUNG. That process will go on with the new men, so that there will always be that number or more?

Colonel ABBOT. Yes; depending on how fast we succeed in getting officers added to the corps. They will always be distributed that way.

Mr. YOUNG. In other words, when the new men come in they have to be trained?

Colonel ABBOT. Yes. They are crude material, which must be formed, and that is the way we form it.

The CHAIRMAN. What rank are the officers in charge of the main works of rivers and harbors?

Colonel ABBOT. The largest district and division engineers are, or should be, colonels and lieutenant-colonels. The smaller districts are, as far as we can make it so, in charge of majors and captains. The lieutenants should be learning largely as assistants. It is not always possible to divide the assignments exactly in that way, because we have to use officers wherever we can now.

The CHAIRMAN. It looks to me, Colonel, in your scale here as though you have a very large number, say, of lieutenant-colonels, compared with the number of first and second lieutenants. You have 43 second lieutenants and 56 first lieutenants. That is a little more than 2 lieutenants to 1 lieutenant-colonel; more than that.



Mr. YOUNG. How does it compare with the Ordnance Corps?

Colonel ABBOT. This is formed on the ordnance organization almost exactly, eliminating the second lieutenants, because the Ordnance Department has no second lieutenants.

Mr. YOUNG. So that your grade is lower than the Ordnance Corps on account of not having second lieutenants. Otherwise it would grade the same?

Colonel ABBOT. Yes. We have 204 officers, excluding second lieutenants, and one brigadier-general, who is Chief of Engineers, and who is at the head of 204 officers of engineers, whereas the brigadier-general of ordnance is at the head of only 88 officers of ordnance.

Mr. STEVENS. Is that the thing we want to base this action upon? Is it not rather the particular kind of work this corps has to do? How many classes of duties has the Engineer Corps to perform?

Mr. YOUNG. Before you go into that, let me complete my question on this line. I just wanted to ask one question along the line of yours. Both of these corps, the ordnance and the engineer, are highly specialized corps, are they not?

Colonel ABBOT. Yes, sir.

Mr. YOUNG. Doing a special kind of work?

Colonel ABBOT. Yes, sir. The officers of the Corps of Engineers on January 20, 1910, were performing 1,724 different independent pieces of work of different characters.

Mr. STEVENS. Classify them.

Colonel ABBOT. There was in command of the corps, 1; officers on boards and commissions, 137; acting as division engineers, 9; in light-house districts, 16; on river and harbor improvements, 791; on fortifications, 25; on surveys, 100; on supervision of the construction of commercial bridges, 471; chief engineer officers of military divisions and departments, 9; on Isthmian Canal, 25, of which 10 were engaged in actual construction and 15 were being instructed.

Mr. YOUNG. You are giving the jobs of the men?

Colonel ABBOT. Yes; I am giving the jobs of the men. On construction of buildings, 2; the government of the District of Columbia, 3; erection of monuments, 10; the purchase of equipment and search-lights, 3; with troops, 56; at engineer and service schools, 33; on the surveys of northern and northwestern lakes, 1; public buildings and grounds, District of Columbia, 1; Washington Aqueduct, 2; on the General Staff and at the War College, 2; at the United States Military Academy, 10; in the Yellowstone National Park, 1; in charge of the State, War, and Navy building, 1; assistants to the Chief of Engineers, 6; and assistants to the District officers, 9; making a total number of individual duties that are assigned to the 178 officers now actually in our corps on the 20th of January of 1,724, which means about ten different classes of work to each individual officer of the corps at the present time.

Mr. STEVENS. Now you have the strictly military work of engineers and fortifications?

Colonel ABBOT. Yes, sir.

Mr. STEVENS. What other military work have you?

Colonel ABBOT. The work of chief engineers of military departments, which are important places and to which an officer should be assigned. We can give these military departments only a very small fraction of one of our officers whose time is fully occupied with other

classes of work, and we consequently hear from the commanding generals of the department that they would like to assign a good deal of important work to the chief engineers of their departments, but they can not get the service from them. They are too busy. We can not fully cover that military duty, because we can only lend to the military side a small fraction of a man whose main duty is probably fortifications and river and harbor work, and possibly light-house work at the same time.

Mr. STEVENS. Now, the assignment to West Point is part of the military duty?

Colonel ABBOT. Yes, sir; instructors. Then we have instructors out at Leavenworth also.

Mr. YOUNG. You regard this all as military?

Colonel ABBOT. Yes; we regard this all as military. The river and harbor work is also military in its character. We thereby provide harbors by which our navy can get to their navy-yards. There were only three harbors in the whole country, originally, which one of these modern vessels could enter, but we have made it possible for them to get to the navy-yards the large ships which they are now building.

Mr. STEVENS. You would not assume that more than a very small proportion of the river and harbor work is military?

Colonel ABBOT. It is also military in this sense, that it is military training for the officers, who would do exactly the same work as they would do in the case of war.

Mr. STEVENS. We would not spend \$40,000,000 for that work?

Colonel ABBOT. No, sir; but while we are learning our profession by doing this work it is also work that is of value to the United States, and gives back the pay and other expenses of keeping the officers.

Mr. YOUNG. This kind of work dates back since the beginning of the Government?

Colonel ABBOT. Yes, sir.

The CHAIRMAN. Going back to one proposition, you have compared it with the Ordnance Corps. Is yours a detailed corps?

Colonel ABBOT. No, sir.

The CHAIRMAN. Is the Ordnance Corps a detailed corps?

Colonel ABBOT. Yes, sir.

The CHAIRMAN. Do they get their promotion from the line or from the corps?

Colonel ABBOT. They get their promotion up through the line, with an advantage which General Mackenzie is particularly fitted to explain.

The CHAIRMAN. They get one grade higher while serving?

Colonel ABBOT. Yes. They can get to be majors of ordnance as soon as they become captains of the line. After they get to be majors they do not go back to the line unless the Ordnance Department wants to get rid of them.

The CHAIRMAN. That is to say, they are not permanent officers in the corps?

Colonel ABBOT. They might go back to the line, but the probability of their being sent back is not great.

Mr. YOUNG. As a matter of fact they do not go back unless they prove inefficient?

Colonel ABBOT. No; they do not go back unless they prove inefficient. If they do, they leave a vacancy in the ordnance corps which

is filled either by promotion of one of the captains or transfer of a man from the line.

The CHAIRMAN. My impression is that the ordnance is a detailed corps, and that after they reach a certain rank they may be detailed without going back to the certain rank in the line.

Colonel ABBOT. Yes, sir.

General MACKENZIE. At the present time there are only two field detailed officers in the ordnance.

The CHAIRMAN. That is true of several detailed corps, is it not; the quartermaster's corps and others?

General MACKENZIE. At the time the change of detail was made from two years' service to one year's service, the reason was given by the Secretary of War that this change would make the service in the ordnance more continuous, not with the idea of changing, but it will result simply in men coming back who have served previously in the ordnance.

The CHAIRMAN. When a man has done good work you want him back?

General MACKENZIE. Yes. When a man has been detailed as major he will have served one or two terms as captain and proved himself useful, and the chances are almost certain that they will stay there when they reach there. After they reach their majority, theirs will be a continuous service.

The CHAIRMAN. But their permanent positions come from the line, practically?

General MACKENZIE. Yes.

Mr. HAY. Colonel, when was the Engineer Corps increased before?

Colonel ABBOT. In 1904.

Mr. HAY. By how much?

Colonel ABBOT. By 28 officers.

Mr. HAY. Have you the hearings there that we had on the bill at that time?

Colonel ABBOT. No, sir.

Mr. TILSON. Mr. Chairman, I would like to ask the Colonel if he will repeat the number of engineer officers on service in the District of Columbia. It impressed me, as you read the list, that it was rather an unusual number.

The CHAIRMAN. You do not mean working in the War Department?

Mr. TILSON. No; I mean in the government of the District of Columbia or stationed here in the District of Columbia.

Colonel ABBOT. That is a different thing.

Mr. SLAYDEN. How many are there within the boundaries of the District of Columbia?

Mr. TILSON. Yes.

Colonel ABBOT. The officers going to school at Washington Barracks are within the limits of the District of Columbia.

Mr. STEVENS. It seems to me we have the strictly military service. I was trying to find out how many were engaged in strictly military service, and then there is a semimilitary service, as you claim, and then there is service in the schools.

The CHAIRMAN. It would not be fair to charge the student officers as being occupied here, because they are solely students. But that can be explained in his answer.