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INTRODUCTORY REMARKS.

Dec. 11, 1925

By

Gen. C. McK. Saltzman, Chief Signal Officer.

Gentlemen:

Whenever a person who is unfamiliar with the problems of industrial mobilization becomes interested in this College, he is impressed with the very wide range of the economical and industrial subjects that are studied in this institution. He is impressed because he does not associate the study of those problems with our profession, and the question "Why do Army officers study all these economical and industrial subjects?" is often asked.

Any officer who was unfortunate enough to have served in a supply branch in this town during the war does not ask that question. That officer has in his mind a picture of certain scenes of confusion, of times of great delay, of periods of great costliness, all due to the fact that these subjects had not been studied by officers of our Army; he also has a picture of the value that that study, which you are doing now, will be to our Army, our country and to our tax payers should our country ever get into another great emergency.

I wish that every officer in this College could have an opportunity to fly in an airplane over the Baldwin Locomotive Works in Philadelphia. If you did so, you could look down on that plant from the air and get a picture of the bigness of the industrial organiza-

tion which furnished a large amount of intricate and important munitions, not only to our Army but to the Allies; you could see the little army of workers and get a composite picture of the problems that confront the operation of a big plant like that. It is very hard for us, as Army officers, to enter into the business atmosphere of these organizations; our profession keeps us away from them. Therefore, the greatest aid that can be given to us in this College is by these captains of industry visiting us and giving us the benefit of their years of business experience.

We are very fortunate this morning in having with us the President of the Baldwin Locomotive Works, the man who is responsible for the solution of all problems in that institution. The Government of our country is under many obligations to this man. At the beginning of the war the Secretary of War asked him to come to Washington and work with the Council of National Defense. He rendered aid to this Government also in ways that are not down on record. On record, it shows that he became chairman of the General Munitions Board, then Chairman of the Committee on Production; and finally, Chairman of the Advisory Committee on Plans for Munitions in the War Industries Board.

It is a great pleasure to me to introduce to you, this morning, a speaker who will address you regarding Some Phases of Industrial Mobilization, a man who came here at the very zero hour of our industrial mobilization during the war, who came at a time when our plans were rated at about one-tenth of one percent, who came and stuck it through, and who is only one of a few men in this United States who

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can give you a picture of the evolutions and developments of these super-agencies that controlled our industrial mobilization during the war.

It is a great pleasure to introduce Mr. Samuel ^M~~X~~ Vauclain,
President of the Baldwin Locomotive Works, of Philadelphia, Pennsylvania.

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SOME PHASES OF INDUSTRIAL MOBILIZATION.

By
Mr. Samuel *M.* Vauclain.

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Dec. 11, 1925

Mr. Chairman and Gentlemen:

It is not only a pleasure but a peculiar pleasure to me to have the opportunity of saying a few words to you this morning upon this matter which is now foremost in your thoughts, and which calls for the utmost endeavor on your part for the accomplishment of that which is required of you who are interested in the Army Industrial College.

If I understand this matter correctly, Congress, in amending the National Defense Act of June 4, 1920, made a fundamental change in the business organization of the War Department.

The Assistant Secretary of War, under the supervision of the Secretary of War, was made responsible for the procurement of all military supplies by the War Department, and for making adequate provision for the mobilization of materiel and industrial organizations.

In furtherance of the above policy, the Army Industrial College was created by the Secretary of War for the purpose of instructing officers for the procurement branches in the higher duties of their profession in connection with procurement of supplies and direction of industrial power in time of war.

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The College, established in the office of the Assistant Secretary of War, opened for its first term in the early part of 1924, with an enrollment of five months. These student officers are instructed in "Industrial Mobilization", i.e.,

- (a) What will be required,
- (b) How much will be required;
- (c) When and where it will be required; and
- (d) Ways and means of procurement.

Those four items alone would appear, to an ordinary business man such as myself, sufficient food not only for thought but for conscientious and persistent endeavor for some time to come.

I am also informed that it is impressed upon the students that back of every article required in time of war the following contingencies have to be provided for:

- (1) Capital;
- (2) Facilities and Equipment;
- (3) Raw Materials;
- (4) Power,
- (5) Labor, and
- (6) Transportation.

If this is true, the above course must be made up of extensive and intensive industrial research work; the study of report of errors committed during the World War; lectures given by prominent business men representing all classes of industry. During the course personal talks are given by the student officers.

With the success of this College assured, it is expected that the

Government, in time of war, will be able to:

- (a) Prevent profiteering,
- (b) Stabilize prices,
- (c) Insure a proper distribution of labor;
- (d) Equalize industrial production;
- (e) Provide for distribution of raw materials,
- (f) Provide for constant supply of raw materials;
- (g) Maintain transportation efficiency.

Cooperation with the Navy will be accomplished by the recently created Army and Navy Munitions Board. In case of war it will be necessary to create an agency similar to the War Industries Board to coordinate the civilian demands with those of the Army and Navy.

As the College enrollment and efficiency increases, it may become necessary to extend the length of the course and procure a faculty whose whole time can be devoted to instruction.

That is my understanding of the Army Industrial College, what it expects to accomplish, and of the various lines in which the student officers are to receive instruction.

Now, of course one can only speak from the experiences of the past and my experience in the past, if you will permit me to say so, was not to educate others but to become educated myself. I was first called to Washington to help do work of which I knew absolutely nothing, because I am not a warrior, never was and never had the slightest inclination to be. When I am sent for, however, no matter by whom, I generally go and find out what is wanted.

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A Congressional Committee sent for me to ascertain whether, in my judgment, it would require two years to produce military rifles in quantity. I told them that if they would give me an order for military rifles, I would give them the first rifle in four months, begin quantity production in six months and complete the first million within a year after the receipt of the order. Mr. Clark, the Speaker of the House at that time, and Mr. Kahn of California were satisfied with my answer.

A week before war was declared I was asked to come to Washington by the Secretary of War. I had never met the Secretary as he was not of my political faith, but nevertheless, when asked to come I came. He told me what he wanted. I replied, "You don't want me. I am one of those so-called captains of industry who are interested in large manufacturing concerns, and if you were to have me on this committee people might say that I was on it for my own profit and benefit".

The Secretary made the reply, "We know all about you. That is the reason we want you, and you cannot tell us anything that we do not know". I said, "I am at your service".

Before I came to Washington to ^{stay} say, and immediately after people found out that I was going to Washington to assist, they said I would find everything all to the bad, the Army no good, the Navy no good; the officers of both services poor and not knowing their business - knowing this and not knowing that, etc. Having been in the locomotive business for so many years, and having listened to so many people criticise our firm, I realized I had better wait until I arrived in Washington to make up my mind regarding the existing state of affairs.

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This is what I found - that sofar as possible everything was *all* ~~at~~ right in Washington, the men, officers, and the Government officials. The officers of the Army and Navy were too few in number to cope with the situation which suddenly arose in the night, but in all my experiences covering the entire period of the war, I never found a single military officer, either in the Army or the Navy, who did not know his business and who did not know a great deal more about his business than I knew.

Therefore, in order to give this Government the very best service I could, I began to take lessons, immediately, not from the older men in the service alone but from the younger officers - young men who had probably not yet won their spurs and had not done anything to attract very much attention. These men were all educated in the art of war, as far as that art had progressed in the United States, and were cognizant of what was going on in other countries.

The same plan I pursued when I came to Washington is the one I recommend to this College to pursue - It is your duty to acquaint yourselves fully with the resources of the country, what can be supplied, how it can be supplied, and under what circumstances it can be supplied.

I do not believe your effort of today would be worth very much if we were to have a war ten years from now, because constant evolution is not only going to change the types of our engines of war but it is going to change the requirements of armies in the field and our requirements at sea. No one can prevent it. It has taken place in the past, and by the past we must estimate for the future.

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Those of us who are willing to go back in the past and realize the incompetency of the people, sixty, fifty, forty or thirty years ago, would find a constant evolution, consistent advances in all requirements - in the requirements of business, in the requirements of pleasure, and in the requirements of life. The radius of life of the ordinary workman today is one hundred fifty to one. Twenty-five years ago a workman went to his work and back to his home, there was nothing else for him to do. Today, with a cheap automobile within the purchase power of every workman, cash or credit, not only is his radius of life increased by this machine, but also the radius of life of his entire family, and there is an improvement of the plain people that could not have been brought about in any other way.

Our powers of observation are increasing. The world is gradually growing smaller. We have a more diffusive capacity, and this is what we are going to find out as time goes on. While we should work today to acquaint ourselves with what we have and what can be done were we to have war tomorrow, we must not feel that this work is useless when we make the statement that in ten years things will be different. We cannot afford to go to sleep or to let things rest until war comes, or we will be just as we found ourselves in 1917.

Now, what are we going to do? It is all right to go on with these numerous ideals that I have tried to pick out as to what the Army Industrial College is aiming to do, but what I want the Army Industrial College to do is to call in "thinking men". I want those who are being instructed to have an opportunity to become personally acquainted

with the personnel of the industries that will probably be required in case we have another war.

It is not the industry itself that produces. It is the personnel that controls the industry. You will remember that during the war the whole steel situation (and steel was the foundation upon which we built our success) gave us the least trouble of any one thing that was required by the Army. Why? Because the steel industry of the country was in strong hands, practically in the hands of one organization controlling from forty to forty-five percent of the output of the nation. When this organization said "Thumbs up", thumbs were up - not only with the Government but with every other person associated in the industry. There was not a small fry operator in the United States who dared say "No" when the organization said "Yes".

And so it is with all the various industries upon which this Government places the most reliance in time of war. We should become acquainted with their personnel, be able to "card index" the leading figures, the strong men - those who are not only leaders in themselves but have the faculty of commanding leaders.

Well do I remember the time that the Navy wanted to put some huge gun mounts in France. They came to me about it. I told them we would help design the trucks but the Navy would have to design the shooting mechanism itself. Various manufacturers were called in on the proposition but could not reach a decision as to time of delivery. At my suggestion the Navy Department recalled these men to Washington for another conference. We held a meeting, the representatives still maintaining that the job could not be accomplished in less than nine

months. After seeing that these men were determined not to change their first decision, I agreed to take the contract and deliver the finished gun mounts for shipment to France within four months. I did not do very much. I knew these men, knew what they could do, what their factories could do, and knew that with their brain capacity, if their brains were applied to the job, nothing would prevent it coming out in the time I wanted.

The United States Steel Corporation agreed, finally, to deliver the required girders in two months and made actual delivery in thirty days - one month - and also delivered the most magnificent piece of workmanship that I have ever seen.

All I had to do was to merely handle the telephone, but I knew to whom to give the work. That is what the students of this Army Industrial College should find out far better, far greater, and far more accurately than any question of supply. You want to know who the fellows are. There is vast material in this country if you go get it, but you have to know the go-getters in this country, and if you have a thorough knowledge of these people, you can obtain them and have them in the service before the dawn of another day. All of those men, men of that caliber, are big men, they are modest men but when they are asked to do a thing, they come right up to the front and do it. It is not a question of pay, but of what is wanted. All that is required to enlist the services of these men is an invitation delivered in the right way.

We received courteous treatment in Washington throughout the late war. Probably at some time a question mark was put upon us, but

was so placed by another civilian and not by a regular Army officer. I was never partial to civilians being brought here and put in uniform. No one was ever able to fasten one on me because I would not disgrace a uniform by getting into it. I knew how to work and, if left alone, would work--and they left me alone. I was probably one of the few who remained here in Washington throughout the entire struggle. I will always feel proud of the fact that I was able to stay here, especially so because I was a Republican and not a Democrat. I never failed to tell my friends, who were in Washington, my associates of the opposing party, that I was a Republican and that we proposed to rescue this Government some day.

We have, and we are going to keep on. We have the greatest Government on the face of this earth, we have the greatest and most intelligent people, we are making the greatest progress of any nation. You gentlemen who have your entire time taken up with the affairs of state in Washington do not have ^{the same} an opportunity ^{as I} to visualize what is going on in the business world, ~~as much as I do.~~

Take electricity, for instance. You read in the newspapers about some wonderful electrical development in Europe and wonder why we do not do something like that. If our Government records are of any value, the Public Utilities of this country, in 1926, only manufactured about 55,000,000,000 K.W. hours of electricity; New York State, alone, 9,000,000,000 K.W.; Pennsylvania, 5,500,000,000 K.W. We used it all and manufactured more privately, which was consumed by the plant people of this country. If you do not believe it, another example is that of the Metropolitan District of New York. In the five

burrongs there is a population of 6,000,000 people, they use more electricity than twelve European countries with a combined population of 109,000,000 people.) Then we marvel at some little electrical job pulled off over there. The district comprising New York, Sound Shore, and Boston, inclusive, is today consuming about 13,000,000,000 K.W. hours of electric current. Why don't we know this? Why does ^{not} everybody that reads the newspapers read these articles and announcements?

Take your telephone, for another example. Our country is three thousand miles wide but you can reach any part of it in a moment or two. In time of war the telephone girl is of more value than a private secretary. That is no joke, because I found that the best help I could get, during the last emergency, was from the girl at the telephone station.

Things given to me in the evening were accomplished by morning. The Secretary of the Navy asked me how I got things done so quickly, and I told him that he should not ask me that question. ~~When~~ Mr. Howard Coffin, whom some of you may remember, was called in by the Council of National Defense, and after we had been here three months, ^{he} sent for me to come to his office. He asked me if I knew that I had broken more laws, committed more crimes against the law than anybody else had, and that the sum total would put me in jail for one hundred and sixty years. I replied that I was glad to hear it for I could not possibly be in danger for anything which I might do in the future since there was so much already against me. Mr. Baruch often said, "Take it to Uncle Sam and he will get it done. Don't

ask him "How", and don't ask me".

Each and every man in this College who expects to be a military officer for years to come, and who will not allow himself to be persuaded away from his chosen vocation by some industrial outfit that wants to pay him more money for the time being, should do the same thing - he should acquaint himself with the personnel of the country he has to depend upon.

Among the studies you have listed, I notice Capital is mentioned. You can get all of that you want if you are an aggressive individual. Capital follows the earnest man, the man who can do things. You know who to depend upon - he is the fellow. What I am trying to impress upon you is that the Army officers of this country should be so thoroughly acquainted with the industrial personnel of the country, that should we have any trouble tomorrow they would know who to call and, when you do call them, let me advise you to keep them as civilians. Do not harness them up to look like soldiers - because they are not soldiers. I believe a uniform should be worn only by a man who has earned it, paid the price, given his life, served his apprenticeship, received his military education, and given himself over to the service of his country for all time to come and not temporarily. We who have been through the mill know how the appointment of civilians as temporary or reserve officers works.

Throughout the five years of the war I served the Allies from 1914 until this country started, and this country for the remainder of the time. When the Armistice was announced, I quit ^{the} business. I have this satisfaction, pleasure and comfort in life - I never permitted myself to receive one cent of compensation for ^{war} services rendered in any capacity. I received a small salary from the Baldwin Locomotive Works, as manager

of that Company, but ^{from} for all the other military establishments which I created and which I helped put on the map I never accepted one cent as compensation for services rendered. I wanted to feel that I was giving something to this work. If our boys could go to foreign countries, baring their breasts, we would do without compensation over here, do our work freely and willingly. That is my satisfaction at this time of life, and there are thousands of other men in this country who did the same thing.

You often hear "profiteering" and "prevention of profiteering" mentioned. You will never prevent profiteering because, as life goes on the old die off, the young men coming up all want to try their hand at profiteering. "Get-rich-quick" men grow like weeds in the field, you have to keep cutting them down and turning them over. That is the situation ^{with which} you will come in contact, ~~with~~. The officers who are receiving an education in the Army Industrial College will prevent this - you will be preventing it all the time. Do not be discouraged, it is not really as bad now as it used to be. In olden times it was much worse than it was fifty years later, and then worse than it is today.

The American people are a law abiding people (probably with one exception - Prohibition), or rather as a rule they are law abiding people and those who have charge of the law, even in these particular cases which I might refer to, administer the law severely even though when you are dining with them in the evening you are offered a cocktail - but when the question is put up to them as to the law, that is the law. So it is when this Government goes to war. Every reason-

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able, dependable man, every industrialist understands that if his services are needed, he is ready and willing to drop what he is doing and go to his country's aid.

Therefore, even though you do not finish your education in connection with all the various items I have mentioned, there is a lot of work that must be done regarding the solution of the industrial personnel problem. It is a big proposition. / As I have said before, the one thing the Department should insist upon is a card index, an ever changing one - to be gone over constantly, those who die eliminated, those who rise to greater or more important positions in the world substituted - so as to be able to locate them when needed and not have to do as we did in 1917, go asking each other the right fellow to get for specific positions.

The Army Industrial College will, in time, have educated both the Army and the Navy as to where various materials can be had and who are the people to produce them. When we are in trouble we want all the help we can get, but when we are not in trouble we ought to have all the help we can get just the same - that keeps us out of trouble.

I pay my lawyer a large retaining fee to keep me out of trouble, so that I won't have any law suits. In my own personal affairs my health is the first requisite, and is worth quite a bit to me every year. My earning power still keeps fairly good - I do not have to pass around the hat. But what do I do? I say to my physician, "I want you to keep me well. I will pay you to keep me well, and when I am sick, you pay me for being sick", and I ~~pay~~^{have} a contract with him,

legally drawn, to that effect. I have not been sick a day since that contract was signed. I merely cite that to impress upon you the necessity of putting the job up to the other fellow and you must know - you who are studying the situation - who the other fellow is to put it up to.

Go on with the studies listed for the College, but add to those this one great knowledge of the situation that exists at all times sofar as the producers of the country are concerned.