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THE ARMY INDUSTRIAL COLLEGE

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PLANNING BRANCH
PROCUREMENT DIVISION

OPENING EXERCISES

Addresses by

Major General Harry L. Gilchrist,
Chief, Chemical Warfare Service.

Colonel W. P. Wooten, C.E.
Director, Army Industrial College.

September 4, 1929.

Remarks by Colonel W. P. Wooten, C.E.,
Director, Army Industrial College.

General Summerall, Student Officers:

I am sorry to have to announce that the Secretary of War, who expected to be here this morning, found at the last moment that he could not come. The Assistant Secretary has had to go out of town, but we have with us General Summerall, Chief of Staff, and other distinguished guests.

Just a word to the student officers assembled here to take the course of instruction at the Army Industrial College. Today marks the beginning of your course at the Army Industrial College. The purpose of this course is to give you a groundwork of instruction in the basic principles underlying this country's great industrial development and the business methods involved in the procurement of military supplies.

There is no country in the world so well supplied as our own with natural resources and the industrial skill which contribute so vitally to success in modern war. These resources do not, however, become automatically available. They must be carefully studied and plans must be evolved through the operation of which we may easily and smoothly shift our industrial effort from its peace time production of wealth to an emergency production of munitions.

Each of you has been specially selected by the Chief of your Branch to take this course in order that you may be the better fitted to perform your part in the procurement work of our Army in peace and

the vastly greater procurement work which will confront our Army in war. The faculty of the Army Industrial College extends its welcome to you in the full assurance that it will receive your active and enthusiastic cooperation throughout the coming year.

It is now my pleasant duty to introduce to you the speaker who will deliver the opening address, Major General Harry L. Gilchrist, Chief of the Chemical Warfare Service.

Remarks by Major General Harry L. Gilchrist,
Chief, Chemical Warfare Service.

In welcoming you to this splendid school, I realize that you are the representatives of all branches of our national defense. While each of the services you represent has its own peculiar problems, yet when we speak of procurement planning we are on common ground, for such work is of vital importance to each and every one of us - whether we are of the Navy or of the Army.

In the final analysis, the fundamental object of procurement planning is the conservation of time. It matters not how rapidly the mobilization of our military man power may be consummated; if the supplies and equipment essential to their battlefield efficiency are not at the same time provided, the maximum military effort cannot at that time be achieved. It follows then that serious consideration must be given to conserving this factor - time-the time required to so develop the industrial effort of the nation that the mobilized troops may be properly equipped. Other things being equal, victory will come to that nation which first adequately supplies her fighting forces.

Prior to the last war but little attention was paid to the question of procurement and supply. As compared to the forces we speak of today, our army of the pre-war days was practically negligible. Few of us, if any, could visualize placing three or four million men under arms, and it is doubtful if any one had the slightest conception of the supply problems confronting the commanders of armies of present day strength. Our industrial nation

seemed large - large enough to readily solve our military problems without interference with civil requirements or activities. Therefore, the supply problem was given very little consideration.

In early 1917 when our participation in the world conflict could no longer be delayed, plans existed for the mobilization of our strictly military man power. Further, detailed plans existed showing the method of defense for our harbors, our coasts, and our borders. But these plans did not include the method by which the supplies for these forces were to be obtained. Further, supply requirements were unknown. Yet again, the productive capacity of this nation had received no consideration. In truth, no serious thought had been given to the question of industrial mobilization - the factor which very shortly was recognized as the key to the situation.

Let us review briefly what the mobilization of a large army means to a nation. During the recent war over four million men, or nearly one-twenty-fifth of our entire population, found themselves in our army. Initially, these men left their homes for assembly at various mobilization centers. Later, they moved, some to the theatre of operations, others elsewhere. What these concentrations and movements meant to the supply problem was little realized. Consider the question of food alone. While it was believed a soldier under arms would require no more food than he did at home, yet in reality it was found a much greater amount was necessary. The reasons for this augmented supply were that to the stock locally available for consumption, there was added a certain reserve supply

in this country. Further, and in addition thereto, certain stocks had to be provided to cover periods of shipment, and for troops in Europe, additional supplies were necessary to replace any lost at sea or in transit.

To show again what the mobilization of nearly four million men meant to our industrial nation in the way of increased consumption, the case of blankets is even more to the point. Briefly stated, more blankets were purchased for our soldiers than constituted the normal consumption of the entire American public for two and one-quarter years. Parallel to the two situations just stated, the matter of consumption and supply may be summed up by showing that for every soldier at the front, four uniform blouses were required - one on his back, one in reserve in oversea storage, one in transit from the zone of the interior, and the fourth in reserve at home.

The question of increased consumption, or of a consumption differing from that of normalcy, is by no means the only question involved. As a result of our World War experiences we now admit that the questions of allocation of raw materials, of productive equipment, and the transportation of these things, are of importance.

The experience of 1917-1918 was a lesson of the time it takes to determine types and requirements, provide facilities, and to establish production. Many of the thirty thousand articles necessary to equip a modern army were of types unknown to us in early 1917. This may be accounted for by the rapidity with which methods of warfare change. What we accomplished in the last emergency by the unstinted expenditure of our unprecedented wealth and the energetic

employment of our unparalleled industrial efficiency may best be stated in the words of the Secretary of War in an address at St. Louis on November 24, 1925, in which he said:

> "In the World War, without an industrial plan, without any preparation of that kind, we put four million soldiers in the field and equipped them fairly well in seventeen months. This equipment was not complete, however. We used allied airplanes and allied artillery most extensively on the fighting front, and to a great extent we used allied machine guns and automatic rifles. We spent fifteen billion dollars on what we did provide in the way of equipment, and without going into the question of whether we paid too much for what we got, it is possible to say that if we had to do it over again we could equip four million men more satisfactorily and more completely in a shorter time and for a few billion dollars less. This is because we now have this industrial mobilization plan, and in 1917 we had none".

I have said that practically no attention was given the problem of supply prior to our entrance into the world struggle in 1917. It is true many service schools were in existence at that time for the instruction of officers and men, but their studies and teachings were limited chiefly to the subject of tactics. However, it is now realized, as a result of the lessons we learned during the War, that the study of the supply problem is comparable in importance to that of tactics. Hence another school has been added to the

educational system of the Army. It is this school - The Army Industrial College - that you gentlemen are today entering. You are here as the chosen representatives of the several branches. Upon each of you there rest certain responsibilities and obligations. You are here to learn more of the supply problems facing our military leaders during the war; to study how those problems were attacked and solved; and to learn how to plan future operations so that time and money may, in another emergency, be conserved to the maximum extent without loss in efficiency.

The World War cost considerably more than a million dollars per hour for over two years. The twenty-two billion dollar direct cost was nearly equal to the total cost of the entire United States Government from 1791 up until the outbreak of the war. There is no doubt but that much of this cost could have been eliminated had it been expended by trained minds.

Just as industry long ago realized its existence depended upon men specialized in particular lines, so our leaders today realize that preparedness for industrial mobilization is as essential as plans for the mobilization of our strictly military man power. It is now admittedly just as important to have men thoroughly trained in the industrial game as in strategy and tactics. The same qualities that make a nation successful in commerce and industry, will give it material advantage in war. In estimating belligerent assets, horse power counts for more than man power for the reason that resourcefulness is more important than resources.

The Army, the Navy and the Marine Corps, whose primary function is to protect this nation from force, must lay the broad foundation for the guidance of the nation in war. Where that

function involves procurement, our mission cannot be performed without the cooperation of industry. We cannot achieve efficient cooperation with industry unless we know its problems. The last war proved this statement beyond all question of doubt. When it is realized there are, in this country, three hundred and forty-four industries with which the military establishment will have to deal, the size of the task confronting us may well be understood.

As in the past, the next emergency may well bring into use new methods of warfare. There is ever present the possibility of weapons being introduced of which we know nothing; and it may be that the decisive factor will be neither artillery, cavalry, infantry, nor any of our present arms. It may be something as unexpected as was the introduction of chemical warfare. Against such unknowns, neither military preparedness nor peace treaties can protect. The most effective form of preparedness lies in general scientific research and industrial development.

When that great cloud of chlorine gas suddenly enveloped the French and Canadians on that April afternoon of 1915, a new weapon was introduced into war. It was a powerful weapon; it produced nearly onethird of the casualties of the war. This nation had had no experience in the procurement or manufacture of toxic gases; in fact, there were few existing facilities suitable for the production of these agents. For these reasons it was necessary for this Government, after its entrance into the struggle, to build its own chemical plants and to finance certain private concerns. Such operations required fabulous sums of money and a great deal of time. Material savings could have been effected had we had

experienced men and closer relations with industry. Today, with these lessons still fresh in our minds, the Chemical Warfare Service, which Service I have the honor to represent, has its plans for the procurement of these essentials; and, as a result of the training some of our officers are receiving at this school, the conditions previously cited will not again exist.

It may be said, in closing, that our plans for procurement today are quite different from those of 1917. Today, our supply branches are well organized, our requirements are known, and the procurement of the important items of supply are covered by specific plans. It is not unlikely that some of you will be given, in the next emergency, positions of great responsibility. During your course here you will be given training intended to fit you to assume those responsibilities. I trust you will take advantage of this opportunity. This College is an excellent one; and, as a constructive agency in aiding in the solution of procurement problems, it is filling an important place in our military system. For my own part, I believe this College to be of as great importance as any of the general service schools, and I wish to congratulate you on being detailed for the present course.