

Orville Wright Says 10,000 Airplanes Would End the War Within Ten Weeks

Building a Vast Aerial Fleet Is "the One Thing That the United States Can Do and Do Quickly"—Our Plants Equal to the Task

TELLING POINTS FROM ORVILLE WRIGHT'S FIRST ANALYSIS OF AMERICA'S BATTLEPLANE PROSPECTS

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"When the Germans have been driven out of the air, the Allies will be supreme and the war will end."

"At present the difference between five years or more of war and an early victory for the Allies is 10,000 airplanes."

"We have the industrial plants, which could soon be adapted for the turning out of airplane motors. * * * There seems no reason to doubt that in a year hence we will have sent abroad thousands of fighting airplanes that will be better than anything yet produced."

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"We are bringing over to this country foreign motors which * * * will be duplicated here."

"Essen, the site of the Krupp gun works * * * could be reached, bombed, and put out of business."

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WHEN Orville Wright, inventor of the flying machine and the first man in the world to fly, was asked to express his opinion as to the probable effect of an efficient carrying out of the Aircraft Production Board's plan for an appropriation of \$630,000,000 for 35,000 airplanes and thousands of aviators, he replied that, as the war was now being run absolutely from above, the United States could win it in the air. Ten thousand flying machines, he said, would end the war in ten weeks.

Mr. Wright has fitted up an experimental laboratory in Dayton, Ohio, at his own expense, is running it at his own expense, and offers entirely free of cost to all persons engaged in helping the Government obtain the tremendous air fleet required to defeat Germany any advice or other assistance, including the making of laboratory tests, that he has it in his power to give. He is busy today, with a few assistants, including Charles E. Taylor, who has been with the Wrights since 1900 as chief mechanic, working out new problems which are presenting themselves to the flying men at the front. From that scientific centre, discoveries which will tend further to perfect all kinds of aircraft may therefore be expected to come.

It was in Dayton that Mr. Wright talked about the Government's airplane program and the outlook for victory in the air.

"It is my opinion," he said, "that a large airplane fleet is the way to stop the war. If it were possible for the United States to deliver tomorrow several thousand flying machines in France, the war would be won by the Allies in a few weeks. The way to stop the war is simply to drive the Germans from the skies, and this can be done only by a preponderance of fighting machines. By fighting machines I mean little airplanes carrying one man and a rapid-fire machine gun.

"When the Germans have been driven out of the air, the Allies will be supreme



Orville Wright, Inventor of the Flying Machine.

He Regards Bomb-Dropping as a Secondary Function of Warplanes, Which Should Be Provided in Such Numbers That They Can Destroy All German Aircraft, Thus Blinding the Enemy's Army and Enabling the Allies to Execute Great Surprise Movements.

and the war will end. To do this we need a great number of small airplanes of the sort that have successfully chased the Zeppelins. At present the difference between five years or more of war and an early victory for the Allies is ten thousand airplanes.

"How long the war will last depends therefore on the capacity we show in coping with the very great problem of producing without unnecessary delay the small fighting machines needed at the front. The Allies long since obtained control in the air, but their present ad-

vantage in this respect falls short of being an overwhelming superiority.

"We have the industrial plants which could soon be adapted for the turning out of airplane motors. We have the men to supervise the industry, the inventive genius to adapt and improve upon the developments that have been made abroad, and, now that we are assured of the money to pay for the labor and material, there seems no reason to doubt that in a year hence we will have sent abroad thousands of fighting airplanes that will be better than anything yet produced.

"The reason for this optimistic feeling is that the United States will immediately go about the business of making a huge airplane fleet, and go about it in a businesslike way. Heretofore, airplane development in this country has been seriously handicapped by the fact that the problem has not been attacked in a large way by men with money. At the present time, due to the exceptional need for straining every nerve to win the war, the airplane industry will benefit by the expert advice of various large manufacturers experienced in great output production.

"The country will also be helped by advice of men from the front who have been actually flying in fighting machines.

"The business men who will handle the tremendous problem of assembling the machines and motors are public-spirited and already have expressed their willingness to forego any personal profit, many of them even making extraordinary sacrifices in order that there may be organized at once a harmoniously working airplane industry, which will mean victory for the Allies and the end of the war.

"To my mind there is not the slightest doubt that the personnel of the Aircraft Production Board, in charge of the work of getting to the other side enormous quantities of airplanes, is of such calibre as to assure all of us that they will carry on the undertaking until the entire program has been put through. The men of this board have made a habit of suc-

cess; each man on it has a record of definite accomplishment in whatever he has undertaken. And these men are working night and day, without salary and to the financial detriment, of course, of the concerns of which they are the moving spirits. They are actuated by no motives other than that there shall be assembled the greatest number of airplanes of the best sort in the least time.

"The civilian members of the Aircraft Production Board, which is the sole organization charged by the Government with the business of getting together the required number of airplanes, being responsible only to President Wilson's Cabinet, are Howard E. Coffin, Chairman; E. A. Deeds, former Vice President and General Manager of the National Cash Register Company and now at the head of industries in Dayton doing an annual business of \$80,000,000; Sidney D. Waldon, formerly Vice President of the Packard Motor Company, and Robert L. Montgomery, senior partner of the banking firm of Montgomery, Clothier & Tyler of New York and Philadelphia. The army is represented by Brig. Gen. George O. Squier, and the navy by Rear Admiral David W. Taylor.

"The spirit of co-operation which they have discovered to exist among the various manufacturers to whom they have talked with a view to utilizing their plants for an intensive production of machines has really been wonderfully fine. The automobile industry, which is one of the best organized in the world, already has shown a keen desire to help.

"Owing to the backwardness of this country in airplane development from the manufacturing standpoint, it will be necessary to call upon the automobile industry for probably nine-tenths of the production needed. The existing airplane plants will, of course, receive as much of the work as they are capable of turning out; but they have not the equipment to handle this large program."

"Do you think that it would be possible and expedient to attempt to blow up Germany's submarine bases with bombs dropped from airplanes?" Mr. Wright was asked.

"That would not stop the war," he replied. "Suppose you did blow up the submarine bases, suppose you sunk every submarine today—that would not end the war. It would mean ease of mind for England, of course, because of the freedom from fear of a lack of food, but the German Army would still be as strong as ever on the western front.

"I have never considered bomb-dropping as the most important function of the airplane, and I have no reason to change this opinion now that we have entered the war. The situation shows that, as a result of the flying machines' activities, every opposing General knows precisely the strength of his enemy and precisely what he is going to do. Thus surprise attacks, which for thousands of years have determined the event of war, are no longer possible. When the United States sends enough airplanes abroad to bring down every German airplane that attempts to ascertain the disposition of the armies of the Allies—literally sweeps from the heavens every German flying machine—the war will be won, because it will mean that the eyes of the German gunners have been put out.

"It is probable that Germany can be whipped without airplanes if we take time enough. But in that case five years would find us still at the job. To accomplish the desired end as soon as possible, the United States must be able to equip the Allies, between now and a year from now, with a vast air fleet. It is, by the way, the one thing that the United States can do and do quickly. If, for instance, we could have 10,000 machines at the front tomorrow morning it would be far more effective than sending,

if we were able, 1,000,000 men. If we could drop 1,000 airplanes and aviators over there today, everybody in Germany would know before night that we were there.

"We are bringing over to this country foreign motors which have stood up against the rigors of war usage, and these will be duplicated here. Our plants, when the proper adjustments are made, will be able to make quickly the motors needed for our battleplanes.

"Another encouraging feature of the entire situation is that there are men from this country now at work in foreign motor factories obtaining the required experience and information based on the accurate knowledge obtained by the Allies in actual conflict under all conditions.

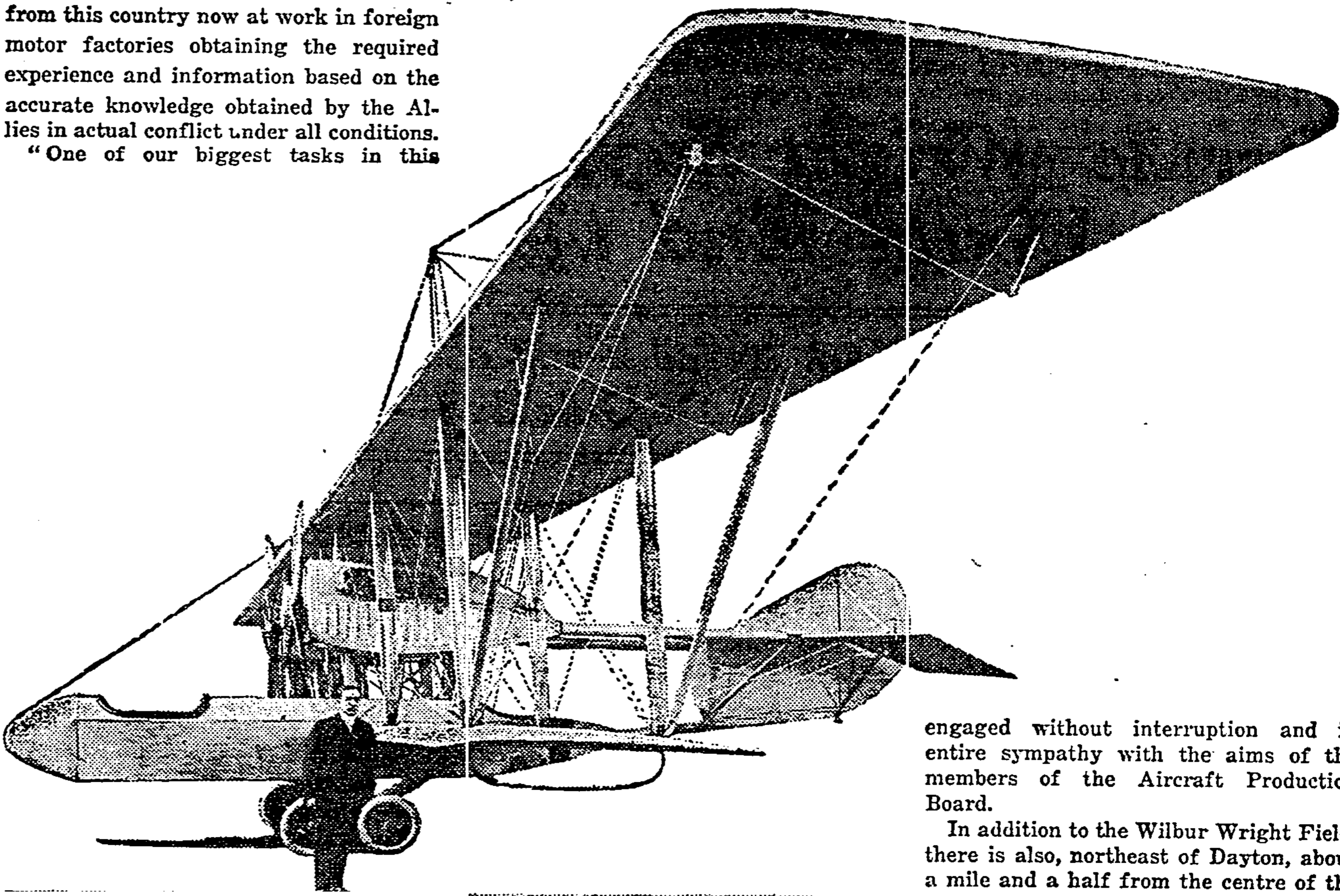
"One of our biggest tasks in this

Because, don't you see, by doing this the Allies will have made the German gunfire ineffective? It is the accuracy of aim now possible to both sides that results in such widespread destruction. Gunners on both sides now hit the mark because of the presence of airplanes to direct the fire. Take from Germany her aerial aids, and immediately they would begin to do what-most hurts the feelings of a German; that is, they would begin to waste ammunition and time. The war is being run absolutely from above.

"France and England have spent millions in experimental work and with satisfactory results. Naturally, with such

officers and men, mess halls, and so on, and in tearing down houses, barns, fences, and other obstructions on the 2,500-acre field. This training ground has been named the Wilbur Wright Field.

The Government has just started the construction of an airplane supply depot on that field to cost \$700,000. It is authoritatively asserted that Dayton, which gave the flying machine to the world, will in the greatest war of the world be the centre of the flying-machine development from the point of view of supplying aircraft to the Allies, training soldiers and civilians to fly, and in research work, at which Orville Wright is



One of Canada's Battleplanes, Capable of Traveling 102 Miles an Hour. The United States Has Not Yet Turned Out Fighting Craft of the Air, But Will Soon.

(Photo Brown Bros.)

country is going to be the taking over of the business of schooling aviators assigned to the battle fronts. This will enable the foreign factories to give their full time to manufacturing airplanes. Teaching aviators will not interfere with the work of our Government in assembling the machine for which the money will be appropriated.

"When I was in Europe in 1907 military authorities told me that when an airplane was three thousand feet up there was no anti-aircraft gun in existence that could reach it. Now machines at eighteen thousand feet—about three and one-half miles—make successful targets. This is one example of the great advance which the war has made in the development of both airplanes and guns."

"Do you think that with such a large fleet of flying machines as it is contemplated for this country to send abroad it will be possible to devastate Germany by flying over it?" Mr. Wright was asked.

"When this country has sent abroad an immense air fleet it may not be practicable, even though it were possible, to cover the entire German nation and destroy it with dynamite bombs. This would mean flights of at least five hundred miles, or one thousand miles counting the return trip. This, of course, would require a great quantity of ammunition and equipment. I mean by this that when the end of the journey was reached there would scarcely be enough ammunition aboard to justify the long flight.

"But there is one thing that could be done to the very great disadvantage of the German Government. Essen, the site of the Krupp Gun Works, is only about 150 miles from the present line of battle. This could be reached, bombarded, and put out of business. Raids could be conducted against other business and population centres in Western Germany, producing upon her irreparable injury.

"I am convinced that while, under existing conditions, the German line is practically impregnable, if once you give the Allies unchallenged supremacy in the air, a way will be found to break through the Teuton lines and get in behind them.

an incentive as they have had since August, 1914, they have made improvements, especially in the building of motors, and are far ahead of us at the present moment. One foreign motor in particular weighs only 374 pounds, has developed 150 horse power, and has the important quality of durability. This motor has given certain war airplanes a speed of 125 miles an hour, and with it the aviator can climb 10,000 feet in ten minutes.

"Germany all along has been conservative both of men and airplanes. She has not taken nearly so many chances as the Allies. Nobody seems to know how many machines she has in operation, but it is fair to say that, needing munitions and other supplies as badly as she does, she cannot manufacture flying machines any faster, at least, than France and England. I think it is conceded that the Central Powers cannot any more than compete with their opponents in the manufacture of airplanes. Therefore, the United States in this regard holds the balance of power.

"There are many things for us to learn in addition to the industrial problem of standardizing parts, speeding up production, and seeing that the flying machines reach the other side after they are built. Training aviators to endure the vicissitudes of flight under such abnormal conditions is, next to supplying our allies with the machines themselves, the greatest work of all. This phase of our co-operation will be carried on, with success I am sure, in the large training fields which are being laid out and developed as rapidly as possible by the War Department."

The largest of these training fields to be established by the United States War Department lies about eight miles northeast of Dayton. It contains four square miles of territory, beautifully situated. A bit of sentiment is found in the circumstance that it includes the original testing grounds of the Wright Brothers at what was then known as Simms Station. The old airplane shed is to be left standing in this cow pasture. A mile and a half away 3,000 men, under the supervision of Captain Warring, of the United States Army Signal Corps, are employed in erecting forty hangars, which will house 240 flying machines, barracks for

engaged without interruption and in entire sympathy with the aims of the members of the Aircraft Production Board.

In addition to the Wilbur Wright Field, there is also, northeast of Dayton, about a mile and a half from the centre of the town, another aviation ground known as Wright Field, where civilians are to be trained. Two other training grounds are south of Dayton, so that four large flying fields are in the immediate vicinity of the city. The visitor is impressed with the fact that things in this region will make appear all the more strange in the near future the figures of United States aeronautical activity for the eight years preceding the war, when the army ordered fifty-nine airplanes and received fifty-four. In 1916 it ordered 366 planes and received 64. Nine factories produced this output. It is believed in some quarters that we need forty to fifty aeronautical centres. We have at this writing four. Great Britain has 107.

As to what would be his contribution to the work of helping get together the flying machines which he thought would solve the whole problem for the Allies, Mr. Wright said:

"Several months before the United States entered the war I built, at my own expense, the experimental laboratory, fully equipped with machinery and the necessary testing devices, in order to do what I had long wished—spend my whole time in my own way, subject to nobody's rightful interference, in research work. For years after my brother and I invented the airplane we were both too busy demonstrating and perfecting it, and in the actual business of manufacturing, to devote much time to original research in aeronautics.

"The laboratory is amply large for the kind of experiments I wish to continue to make. I am rather of the opinion that the type of measuring instrument used by Wilbur and myself in 1901 gave results as accurate as those in the possession of any laboratories today. I have peculiarly good reasons for thinking that this is true.

"I will work in hearty co-operation with the members of the Aircraft Production Board. Already I am on terms of intimate confidential relations with these men who have undertaken the gigantic problem of putting the airplanes over on the other side. I am hopeful that in this way, and by giving free of all cost any information in my possession to all applicants who are behind the Government in doing this work, I may be of help. The laboratory will make any tests free of charge. The data which we have obtained in all experimental and practical work are at the service of the United States Government."