

# HUNDREDS OF FIGHTING PLANES NOW BUILDING

**Air Craft Production Program Well on Its Second Stage, That of Producing Actual Fighting and Bombing Planes—Giant Plane to Mount Small Cannon—Four Types.**

(By Frederick M. Kerby.)  
DAYTON, O. Sept. 12.—The concentration of the "Liberty 12" motor limited and determined the types of planes that might be built here. The principal problem was how to get an appreciable number of battle planes to the front this year, while aiming for a tremendous number next year.

It had been proposed to build the Spad fast pursuit plane over here; but the Spad could not stand the Liberty 12. So it was decided to leave the production of small, fast scout planes to the British and French and concentrate on the two-place battle plane, the second most valuable to an army.

The aircraft board selected the De Haviland 4, a British model, designed for the 300-horsepower Rolls-Royce, and fitted the Liberty 12 to it. This type was given to the Dayton-Wright Aircraft company to build. Although the first machine was completed in October, 1917, it was not until April, 1918, after the Liberty had been put through its final tests, that the "go ahead" order on the D. H. 4 could be given.

**1031 D. H. 4's Built**  
The Dayton-Wright had in the meantime equipped its factory, built 400 training planes and assembled an organization to take care of the D. H. 4. To date, 1031 have been built and more than 900 consigned to France. The Dayton-Wright plant's output of D. H. 4s is larger now than the combined output of any two aircraft factories in England or France. The D. H. 4, as a British plane, had one gun forward and one in the rear cockpit. The American D. H. 4 was equipped with two guns forward and two aft. In addition, it was fitted to carry 10 25-pound bombs; then it was given a radio and photographic apparatus. It thus combines the functions of the two-place fighter, the day bomber, and the army observation machine. It is three machines in one.

The Curtis company at Buffalo, which had built a tremendous new plant, was given the Bristol two-seater battleplane to build, fitted with the Liberty motor. But that machine never got out of the experimental stage. It was a failure, and was frankly abandoned. Now the Curtis company is going ahead on an order to construct the S. E. 5, a single seater fast fighting plane.

The Fisher Body company at Detroit was given a supplemental order for the De Haviland 4s. They, too, have built a big new factory and will soon go ahead with quantity production.

In addition, the Standard Aircraft corporation at Elizabeth, N. J., has been ordered to proceed with the Handley-Page heavy bombing machine, after completing one experimental machine equipped with two Liberty Motors.

**Enters Second Stage**  
The aircraft production program may be said to have entered its second stage; that of producing actual fighting and bombing planes. Certain other things are still in the experimental stage. The Glenn Martin company at Cleveland will produce a scout plane to be known as the "Martin Gun Machine," and it will mount a small cannon. Nothing can be said about this work as yet, however.

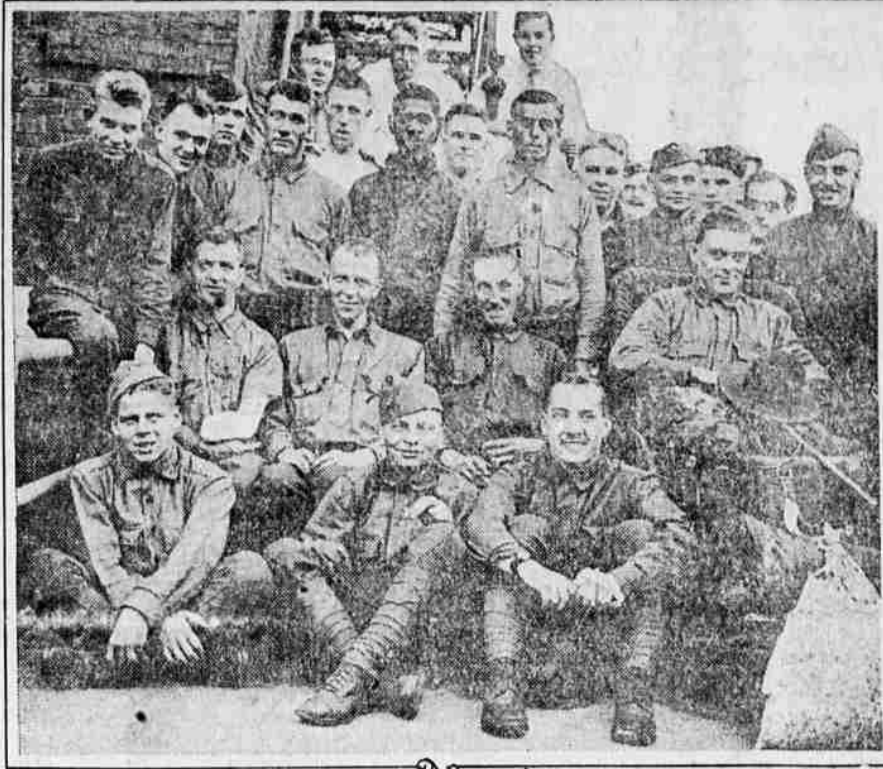
The plans for 1919 call for the production of four types of plane. There will be an American high-speed, single-seater, pursuit plane, the two-place De Haviland fighter, a day bomber and an army observation machine, which will be of similar type to the De Haviland machines—all equipped with Liberty motors.

The program is independent of the production of the S. E. 5, the Handley-Page and the Caproni.

We have experienced more trouble with our air program than with any other part of the war work; but that should have been expected when we undertook to do something about which we knew almost nothing. In the main, the performance has been an admirable one; the lessons learned are valuable; the experience of this first year of production is going to mean much next year.

WASHINGTON, Sept. 12.—An official dispatch from France says news from Teheran, Persia, confirms reports of murder of Christians by Turks.

## FIRST PHOTO OF WOUNDED BAC K IN U. S.



These are among the first wounded American soldiers to be invalided back home. They arrived in Boston this week and are convalescing and being treated at Boston City hospital and the Psychopathic hospital. All were wounded in the fighting around Chateau Thierry in June, some of the men, as the picture shows, have lost arms and legs. A number of them are marines.

## AMERICA SOLVES RECOIL PROBLEM FOR BIG GUNS

(By Frederick M. Kerby.)  
DETROIT, Mich., Sept. 12.—The most intricate, difficult, and unfamiliar job of the war work that we have had to undertake is successfully under way.

It is the production of the hydro-pneumatic recoil mechanism for the new 155 millimeter howitzer and gun which we are copying from French models.

This mechanism is being built by Dodge Brothers of Detroit, in a plant specially constructed since last November. The story of the building of this mechanism, and of much of the machinery with which to do it is an inspiring example of how American manufacturing genius has been applied to war problems.

Before the United States entered the war there had never been built in America a hydro-pneumatic recoil mechanism. It is easy to build heavy gun barrels. But the use of modern high-powered propelling charges has made the construction of a proper recoil vital factor in all heavy artillery. During the first part of the war, when spring recoils were used, guns were constantly out of commission because of broken springs.

When our ordnance department adopted the 155 mm. howitzer (the Schneider) and the 155 mm. gun (the French Filoux) it faced a new problem. Two unsuccessful attempts were made to induce American manufacturers to undertake the work. Then on Oct. 22 Dodge Brothers were called in. French blueprints of the mechanism were furnished them, and they were asked to undertake the work. In nine days Dodge Brothers designed the building in which the new mechanism was to be made, containing 12 acres under one roof. By the end of November a complete concrete floor had been placed over the whole 12 acres; on Dec. 12 steel was going up; on Jan. 4 the first section of the plant, 148 feet by 818 feet, was up and ready for operation. In the meantime many types of special machinery had been designed and built. This machinery began to move into the building, while construction of the other sections was under way. Street car tracks, sewer connections and a railroad siding were built.

**The Spirit of "Must Be Done"**  
In the meantime, in the Dodge automobile plant, a million dollars worth of machinery was running day and night turning out tools for the new plant. By the end of December the tool room of the new factory had \$800,000 worth of machinery in it. The first completed, tested mechanism was shipped to the ordnance department in July. The curve of shipments is rising now at a sharp angle.

As I stepped from the executive offices in front of the plant into the great glass roofed building, it was almost impossible to believe that nine months ago nothing of all this vast humming factory, with its millions of dollars worth of machinery was in existence, and that in its place stood a cornfield in the country. It typified the spirit of America at war—the spirit that says it must be done!

Dodge Brothers built 62 special machines for drilling and reaming

the borings in the great steel forging from which the mechanism is made. The machines were a new departure in ordnance work. The ordnance practice in making a boring is to revolve the gun barrel, while the cutting tool is held stationary. Dodge Brothers could see no reason why they couldn't revolve the tool, and use six drills at one time. Nobody had ever heard of boring more than one hole at a time. But Dodge Brothers started work on 62 huge machines without waiting for the first one to be tried out.

It works! I saw six of these drills each revolving at its proper speed—four drills, two from each end, destined to meet in the middle; two to drill the upper chambers half way thru the forging. Under the old method of drilling ordnance, it would require 60 hours work for each of the four chambers. With this machine, all four of the chambers are drilled in four and a half hours. These holes must be without a blemish, parallel, true to size, exactly round and so highly polished on the inside that not the most minute inequality remains.

**Paris Are Kept Secret**  
There are a hundred different processes of machining that a steel billet must go thru. There are many other parts that must be fitted to it, some made of solid silver. When finished, recoil and gun must be practically one piece of steel.

After the chambers are drilled, the forging goes to various shaping machines, where the surplus steel is cut from it. I went into the locked steel cage where only a half dozen men in the plant are permitted to go, and saw the parts of the mechanism laid out in order for study. Only two or three men know the names even of these parts; they are known in the factory simply by numbers. This is done at the request of the French government.

Because our government has undertaken to guard the secrets of this recoil, I cannot give a description of its workings. The reader has undoubtedly seen moving pictures of the 155's in action, and has noted how the "kick" of the gun is taken up by the recoil, and the gun barrel returned to its place by the recoil mechanism and its pistons. This must suffice as a description of the mechanism, for aitho the Huns have captured several 155's in action, they have never been able to find out the secrets of the hydro-pneumatic recoil.

But the fact of importance to the American people is that our manufacturers are making them successfully, and that the production figure to be reached by Jan. 1, 1919, is an impressive one.

In France, much of the work that this factory is doing by machinery is done by hand. That is the real significance of the accomplishment over here. The engineers of the Dodge plant have succeeded in working out machinery for the quantity production of this vital part of our new artillery equipment.

## BRITISH PRISONERS CONFINED IN CAGES

AMSTERDAM, Sept. 11.—About 25 British prisoners are confined like birds in a cage with sawdust floor to move about near the flying sheds at Mvere, a suburb of Brussels to protect the hangars against aerial attacks, according to the Libre Belge.

## CRUSADERS FIRST OF SERIES OF FILMS DEPICTING WAR

"Pershing's Crusaders" showing tonight at the Page for the first time, is the first of a series of government films depicting America's participation in the war. The Crusaders shows America's preparations on this side of the Atlantic for the world war.

"America's Answer," the second in the series of "Following the Flag to Success" pictures, has completed its successful four weeks engagement in New York, and is now being shown in other important cities. This picture visualizes the wonderful preparatory work accomplished by American engineers, in France, as well as the soldiers on the fighting front, under the leadership of General John J. Pershing.

"Our Bridge of Ships," which the Division of films has recently issued thru the General Film company, is rapidly being booked, both east and west, and will undoubtedly shortly be offered in the local film houses. This very comprehensive picture is condensed into two reels, but they are reels of the most timely character. They show pictorially the story of what America has already accomplished, and is accomplishing, in the building of ships for the transportation of hundreds of thousands of men and vast stores of munitions and other supplies to France. More films are to follow.

The "Official War Review," which is distributed for the government by Pathé, is being familiarized to patrons of movie theatres all over the United States, and has become an institution. Its single reel tells, in a tabloid form, just what is being done at the seat of war from week to week.

## YOUTHS REGISTER FOR STUDENT ARMY

Those enlisting in the S. A. T. C. will receive special military instructions and training under military officers and subjects in the regular college courses that will best fit them for military service. The men will not be called into active service until extreme necessity arrives. Registration opens Sept. 23.

About 15 interested persons met with L. J. Allen of the O. A. C. last night at the Hotel Medford. For information write H. M. Tennant, Registrar, O. A. C., Corvallis, Oregon.

**Students Army Training Corps**  
Regulations issued by the war department on August 23 provide that students of 18 years of age or over who are enrolled in the Student Army Training Corps but whose draft number has not yet been called will receive pay of \$30 per month. After their draft number is reached in addition to \$20 pay they will receive commutation for quarters and subsistence (room and board). All enlisted men receive full uniform and military equipment.

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AMERICAN SUPPLY HEAD-QUARTERS, TOURS, FRANCE.—(Correspondence of the Associated Press.)—Two cartloads of hair brushes abandoned by American soldiers in camps were among the wreckage of battle brought today to the great salvage depot of the American army here. This was only one little item in the list of debris and litter from the fighting zone which has been carefully gathered up and sent here for restoration.

Five thousand persons are employed in renovating and repairing this wreckage. The material thus saved and restored to use or sold amounted in value last month to \$2,500,000.

**Follow the Fighters**  
In the big battle around Chateau Thierry, as our fighting men went over the top they were followed closely by detachments of non-combatant troops to grope amid the wreckage and debris and save it from complete abandonment and loss. Each detachment comprised 20 enlisted men and an officer. They had trunks and duffels and all the paraphernalia for gathering broken down cannon, rifles, cartridge belts, helmets, clothing, and the vast stores of abandoned arms and material left in the track of a contest, and to send it back to the salvage depot here.

Strange things have come out of this war, but none stranger than this gigantic salvage plant where everything from crippled guns and cannon to old army shoes and caps is saved from total loss and turned back to some useful end at the front. At first people looked at it as a freak. There was nothing like it in the civil war or the more recent modern wars. It started on a small scale with 200 hands.

**Its Monster Industry**  
But now, after a few months, it is a monster industry, with huge buildings and towering stacks. It will save the government \$35,000,000 the first year, and it may reach \$50,000,000. This is no freak; it is cold, hard saving of millions of dollars at a time when material is scarce and shipping difficult. It is the anti-waste campaign brought to its highest development by a huge government undertaking.

Going over the plant today there was an opportunity to see the remarkable details of this salvage. The wreckage of the battle field is only one of the sources of this salvage, explained our escort, but it is the greatest source. As men spring into action, they throw aside everything not absolutely essential. There is besides the litter of the actual fighting, broken and abandoned goods of every conceivable nature.

It is not only what is left by our own troops, but what is left by the enemy, often great stocks of arms, ammunition, bayonets and every kind of fighting material.

Even when there is no battle, the mere shift of a division of troops leaves an enormous stock of abandoned goods. Moved on short orders, the men pick up a few fighting essentials—and leave the rest behind, books, extra clothes, shoes, etc. The men arrive from America with an ample amount of clothing; it is tramped down at the first training camp; again it is tramped down as they go to the front, and each new trimming of thousands of men means another huge stock for salvage.

William Beebe, an old soldier who resides at the state soldiers home arrived in the city this morning from Roseburg for a visit.

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