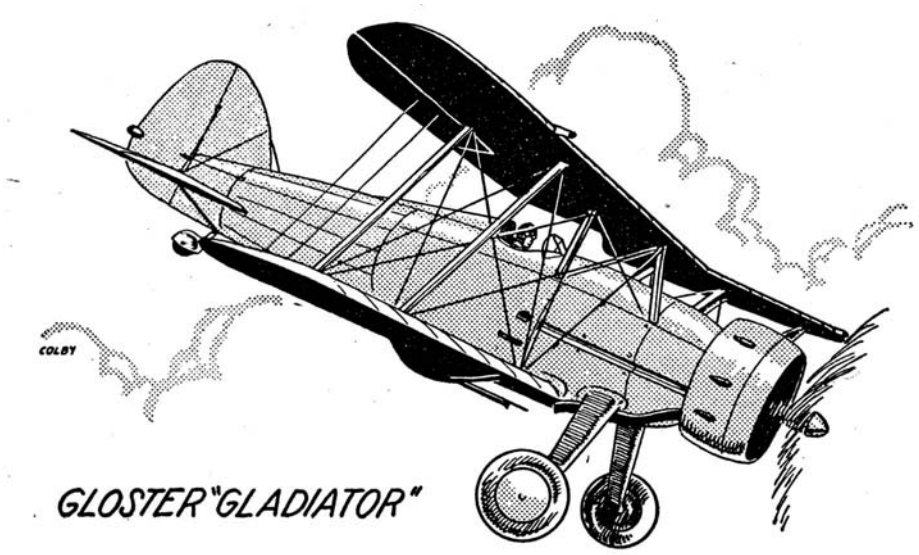
Modern Planes Album

THE LATEST IN FIGHTERS AND BOMBERS

The air powers are still busy turning out new ones – and here are a few that are outstanding: Britain's new 265 m.p.h. Gladiator Fighter; Fokker's speedy biplane bomber; France's unique new long-range flying fortress; and our own fast Boeing XF7B-1



THE GLOSTER GLADIATOR

THE Royal Air Force of Great Britain is fast filling in their new squadrons with speedy equip-ment.1 The new Gloster Gladiator, al-ready service equipment for two new squadrons, is about 15 m.p.h. faster than the Hawker Fury. With the new Bristol Mercury engine it has a top speed of 265 at 15,500 feet. It climbs to 10,000 feet in 4 min. and to 20,000 feet in 9 min. 20 sec. These figures are guaranteed with full military load, wireless, night-flying equipment, and oxygen tanks. Its total weight is 4,400 Ibs.

The Gladiator won the Royal Air Force military trials against a wide field and will no doubt become regulation equipment for day-and-night fighter squadrons of the important home-defense posts.

Actually, of course, the Gladiator is a development of the firm's Gauntlet, but this new machine has single-bay wings which have been stressed to give unusual strength in dives. Another interesting feature is the use of a single-strut cantilever undercarriage which is fitted with the new Dowty internally-sprung wheels. This undercarriage, once frowned upon abroad, was given a particularly rigid test in the military trials and came through to everyone's satisfaction.

The Gladiator carries four guns. Two are Vickers fitted into the nose and synchronized to fire through the prop. The other two are Lewis guns nested in streamlined cradles fitted under the wings.

The Mercury engine employed is rated at 685-715 h.p., which probably accounts for the great improvement in the Gladiator's performance over that of the Gauntlet even while carrying several hundred more pounds in fuel and equipment. The Gladiator has a service ceiling of 35,000 feet, which should be plenty high enough to nail any prowling raiders, be they Zeppelins or heavier-than-air machines.

THE FOKKER C.X. BOMBER

TONY FOKKER'S plant in Holland is still turning out some grand fighting craft and the Royal Dutch Air Force is using plenty of them. One of the most interesting models in service is the Fokker C.X. two-seater bomber, which is fitted with a British Rolls Royce Kestrel motor, and does 205 m.p.h. at 14,000 feet.

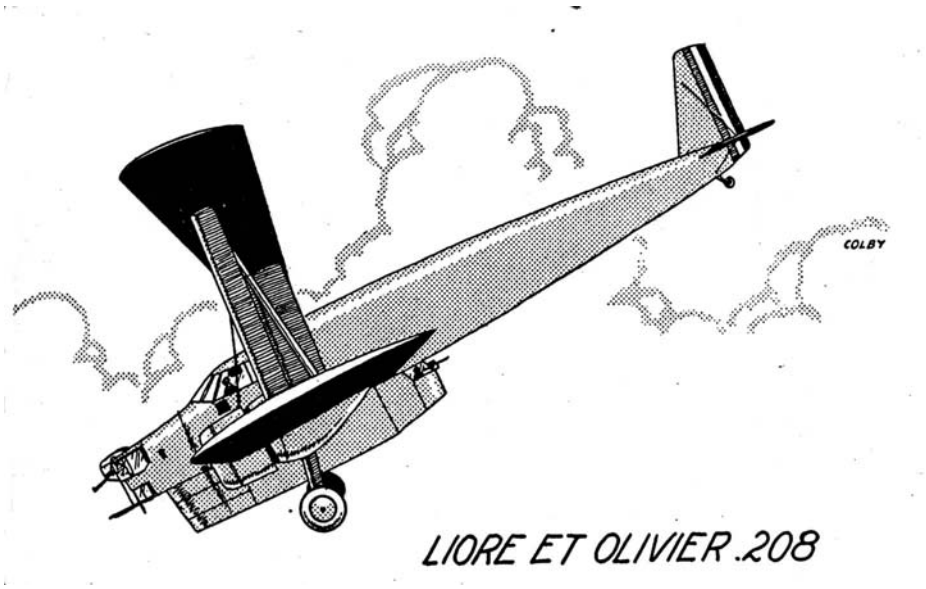
No matter what Fokker builds, one always finds a trace of his old war-time products. The splayed-out center-section struts and the N-struts between the wings all carry a certain significance; and in spite of the shatter-proof glass cowling over the cock-pits, we still notice the old Fokker line in the fuselage.

This fuselage is made up of steel tubing. The front end is covered with removable aluminum panels and the rear half employs fabric. The engine bed is welded directly into the fuselage.

The cockpits are fitted with dual control and the observer's controls are quickly detachable, but both pits are provided with full sets of instruments. The pilot has two fixed Vickers guns and the observer has a special mounting that will take one or two Lewis guns. Bomb racks taking four 50 kilo bombs are fitted to the underside of the lower wings.

The wings are of unequal span and they are tapered to a semicircular. The upper wing has a span of 39 ft 4 inches. It is built in one piece and is bolted to the cabane with four bolts. The lower wings are built in two parts and are bolted to the lower longeron of the fuselage. Box spars and plywood ribs are used in the upper wing and solid spars and plywood ribs in the lower:'

Fuel is carried in an aluminum tank holding about 100 gallons. The water and oil-cooling radiators are carried low in the fuselage and may be raised or lowered according to the desire of the pilot. The undercarriage does not retract.



LIORE ET OLIVIER BOMBER

IT is interesting to note how the trend from monoplanes to bi-planes swings back and forth like a pendulum as the years roll along. In this unusual model, developed by the Liore et Oliver company of France, the old reliable biplane design has been retained. But a revamping provides a better field of fire for the gunners.

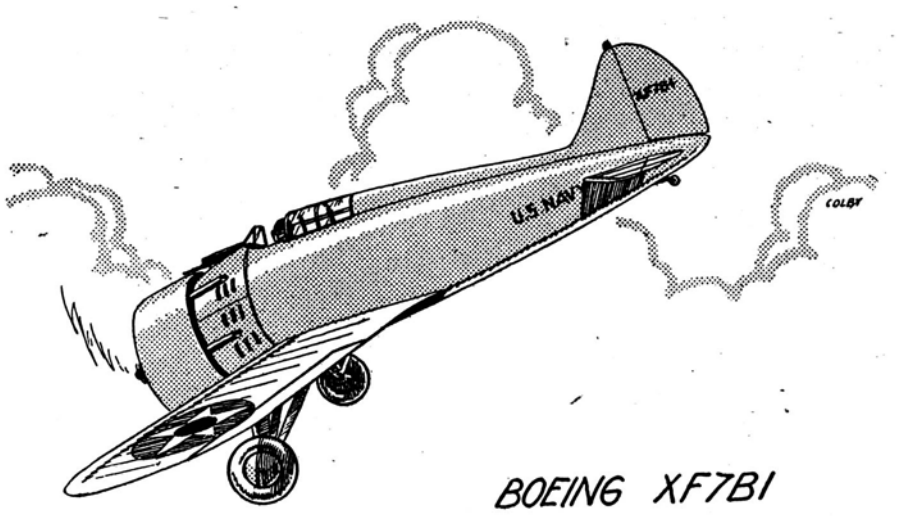
It will be noted that while the top wing is of equal span to the lower, it is much narrower in chord; and as the gunners have two turrets with guns pointing upward, as well as a special underslung car below, this narrow top wing allows a wider angle of fire on craft attacking from above.

The .208, as it is listed, carries 2,645 lbs, of bombs at a speed of 202 m.p.h. at 13,000 feet. The engines are Gnome-Rhones which give 815 h.p. at 7,5000 feet and 1,065 at the take-off. They are fitted with N.A.C.A. cowlings and controllable-pitch propellers. This unusual military load may be carried over a range of 1,243 miles.

In the nose of the .208 is one of these new swinging gun turrets, so popular now in large bombers all over the world. The turret swings with the movement of the gun so that the gunner is protected against slip-stream and thus is offered a steadier platform. The pilots sit in a compartment just forward of the leading edge of the upper wing. The underslung car carries a bomber and the bomb racks, while the rear gunner, who has an open turret high in the fuselage, may also drop down and

handle a lower gun that fires out below the tail. Dural tube and sheeting is used in the wings and fuselage. The interplane struts are broad "I" type affairs, and during flight the landing gear legs, which carry two wheels apiece, are carried up inside the engine nacelles.

While the back-stagger arrangement of the wings and struts give this machine an unorthodox appearance, there is every reason to believe that it is an unusually efficient piece of fighting equipment.



BOEING XF7B-1

THE United States Navy is still experimenting with fast single-seat fighters, as may be judged from the new Boeing XF7B-1—and we hope you can make out all those initials. This craft, a single-seat fighter built somewhat along the lines of the job is still very much hush-hush and gum-shoe. All we know about it has appeared, as it usually does, in foreign publications. One or two readers who have seen the machine in flight have also sent us rough drawings of it and their own personal ideas as to its performance. It travels at anything from 250 to 400 m.p.h., if we are to believe all we hear.

Actually, it is an all-metal fighter of low-wing design, carrying considerable equipment suitable for Navy flying work, and that includes flotation gear and certain equipment for deck landings and catapult work. In one or two instances it has appeared with the 550 "Wasp" engine, and we so have reports of its using the 700 R-1510 Wright "Cyclone."

The ship has all the outside dimensions of the Boeing P-26—or at least it started out that way. Since its first appearance, it has been sent back to the shops for several modifications and refinements. With the 550 Wasp it displayed a cruising speed of well over 200 m.p.h. It is fast in maneuvers and does tight vertical banks from 300 m.p.h. dives—and stays together. The wings are fitted with flaps and slots, which the P-26 did not have. The body is deeper behind the pilot, too, and the pilot has a completely enclosed cockpit. The fin is built directly into the body and the wing is neatly filleted into the fuselage, giving the ship neat lines.

A sane guess at its actual speed with the 700 h.p. motor and all the equipment necessary for Fleet work would be 240 to 260 m.p.h.