

How the French Developed Their Newest Type of Battleplane

FOR a long time the principal French reconnoitering and bombing airplanes were only slight modifications of the early Henry Farman type, well known in America. That airplane was stripped down to the last essentials: ailerons, elevator, rudder and a simple four-wheeled landing gear with rubber shock-absorbers (then a novelty). The pilot was perched on the front edge of the lower plane. A large fuel tank formed the back of his seat; directly behind it was the Gnome motor with a big, low-pitched pusher-propeller. That arrangement made a fuselage or hull impracticable. The big, double-control surfaces had to be carried by a wide open "cage" of poles (at first of bamboo) and wires. Farman was not a scientist, not an engineer, not an inventor, but a bicycle rider who knew what was practical in flying.

When the war began, Farman's homely type of airplane ousted the complicated Breguet biplanes and all the monoplanes because of its dependability. It was not improved much—simply given stronger, better engines, simpler control surfaces, some streamlining and an enclosed body for the aviator. All this was, of course, not sufficient to permit the development of modern speeds.

From the very beginning the French also had some Caudrons, large biplanes, from which the modern type of speed airplane was developed. In these machines the body was turned into a fuselage because there were twin motors and propellers out on the planes. A central

fuselage offered, therefore, the simplest mounting for rudder, elevator and stabilizers. This developed in it the germ of a speed machine. Thus it came about that the Caudron forged ahead more and more, as the science of aviation progressed and developed.

The accompanying illustration shows one of the latest developments of this type, a true, up-to-date speed machine. Streamlining is proclaimed paramount by the form of the engine housings which are so arranged that they permit the wind to reach and cool the machinery. Other obvious proofs of minimum head resistance are the characteristic nose of the fuselage, the remarkably slender struts and staywires made vibrationless by holding two parallel wires against an intermediate piece of wood.

Appropriately Enough—A Band of Brigands Were the First "Chauffeurs"

HERE is a justification for a bit of our American slang. It seems that the word chauffeur means "scorcher."

Over a century ago, some particularly brigandish brigands lived on the borderland between France and Germany. To force ransoms from their captives, these desperadoes grilled the soles of their victims' feet before a fierce fire. So the countryfolk referred to the band as scorchers or, in French, *chauffeurs*.

Not so many years back, when these same imaginative French were in need of a descriptive name for motor-car drivers, they hit upon the word chauffeur. Just how much "scorching" of a more modern kind these up-to-date brigands of the road indulge in is best divulged by police records of fines for speeding.



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This latest type airplane, intended for reconnoitering duty in the Marne sector, is just put together by expert workmen back of the French lines. It is built for speed