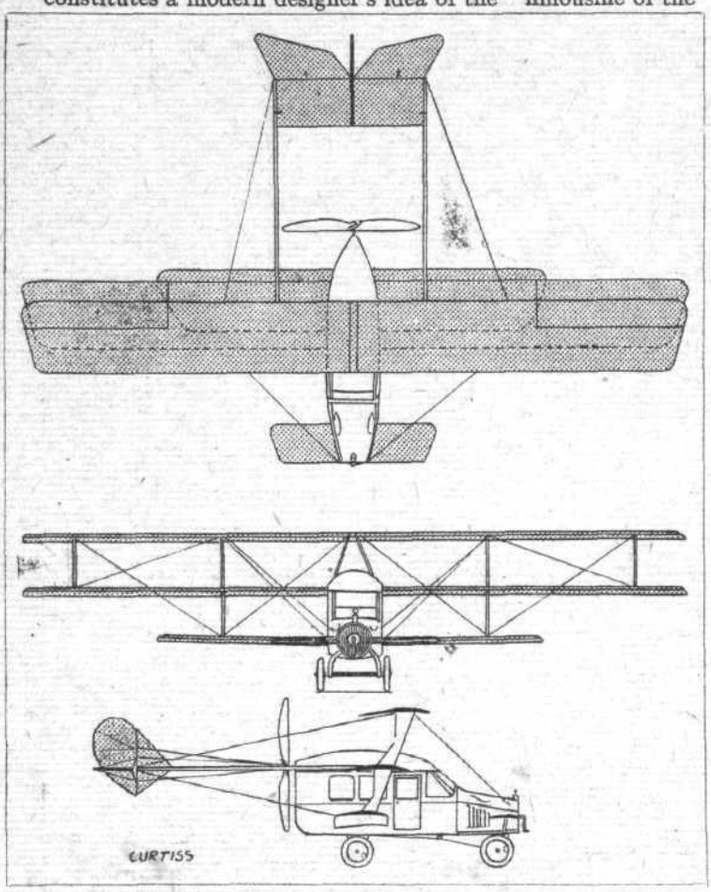
FLIGHT

# AT THE AMERICAN AERO SHOW—SOME NEW TYPES.

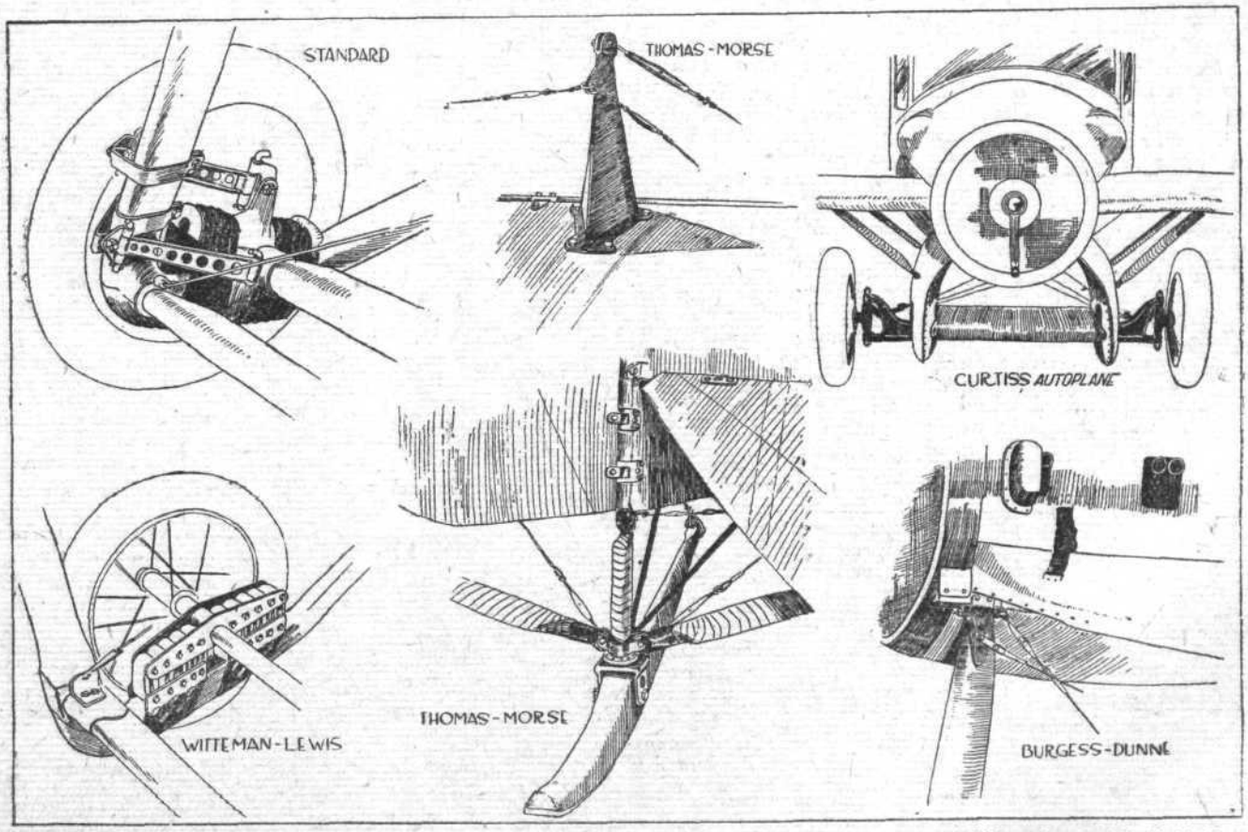
### The Curtiss Autoplane.

THIS machine, one of the greatest attractions of the exhibition, constitutes a modern designer's idea of the "limousine of the air." The body is a combination of motor car and aeroplane practice, and follows very closely the lines of a modern limousine or coupé car-body. It is constructed mainly of aluminium, the windows being of celluloid. Elaborate upholstery and tapestries are employed for the interior, which accommodates two passengers at the rear and a "chauffeur" forward. Right in front is a circular radiator, through which passes a starting handle for the engine, a Curtiss OXX 100 h.p., which is located under the bonnet. From the engine, power is transmitted through a shaft, extending to the rear of the body, to the four-bladed propeller located at the top. There is a pair of wheels fore and aft, mounted in a similar way as on the Curtiss tractor triplane. The axle of the front pair, however, follows motor car practice, in that the wheels are pivoted and connected to the control so as to enable the machine to be steered on the ground. The triplane wings are also similar to the triplane tractor, except that they are staggered and the lower plane is of shorter span. The wing section is "F-2" with an angle of incidence of 4° and a dihedral angle of 3° to the lower plane. The top plane is attached to a *cabane* mounted on the roof of the "car," whilst the centre and lower planes are attached to the body itself. Covered-in K-shape interplane struts separate the planes, and interconnected *ailerons* are fitted to top and centre planes. The tail is carried by a pair of horizontal tubular outriggers attached to the centre plane. The tail surfaces consist of a rectangular horizontal stabiliser, divided elevators, rudder and triangular vertical fin. Mounted on the bonnet, just above the front wheels, is a small plane. The general dimensions are as follows:—Span (top and centre) 40 ft. 6 ins., (bottom) 23 ft. 4 ins.; chord (top and centre) 4 ft., (bottom) 3 ft. 6 ins.; gap, 3 ft. 3 ins.; stagger, 11 ins.; overall length, 27 ft.; height, 10 ft.; width of body, 3 ft. 6 ins.; speed range, 45-65 m.p.h.; useful load, 710 lbs.




### The Cooper Training Biplane.

In general design this machine, built by the John D. Cooper Aeroplane Corp., of Bridgeport, Conn., mainly for training purposes, resembles the Caudron tractor biplane. The wings and tail planes have flexible ribs as on the latter machine. The single seater *nacelle* is also similar. As shown in the accompanying illustration, the machine is equipped with two floats, mounted on the skids, but for land use these can be substituted by Farman-type wheels. These floats measure 9 ft. long, 1 ft. 10 ins. beam, and 9 ins. deep, and each weigh 46 lbs. Two tail floats are also fitted. A 5-cyl. two-cycle




*The "Automobile," N.Y.*

**AT THE AMERICAN AERO SHOW.—Some constructional details. From left to right, top row: The shock-absorbing device on the chassis of the Standard tractor; control-surface crank-lever on the Thomas tractor; the front steerable wheels on the Curtiss "Autoplane." Bottom row: The Witteman-Lewis bridge-type shock-absorber; tail-skid on the Thomas tractor; the rear strut attachment to the *nacelle* of the Burgess-Dunne seaplane.**