

of tail to the leading plane, which is subjected, by assumption, to a higher intensity of pressure. The idea that a low centre of gravity, situated, pendulum-like, beneath the supporting surface, ought to prove advantageous to stability, is one which has naturally suggested itself to many. Lilienthal, by hanging beneath his glider, was a practical illustration of the principle, and also of its faults. The high inertia of such a system as this interferes with sensitive control.—ED.]

THE EARLY DAYS OF BALLOONING.

To the Editor of FLIGHT.

SIR,—I notice in *FLIGHT* of November 27th a speech made by Mr. Moore-Brabazon at the Authors' Club Dinner, in which he says: "Later on, in 1903, they (Mr. Rolls and myself) started ballooning together, when ballooning was quite a new thing as a pastime. In fact, they commanded one of the first private balloons in this country."

I beg to point out that as long ago as 1878, Colonel (then Captain) James Templar owned a private balloon, in which he took up many people, as a pastime.

The late Walter Powell, M.P. for Malmesbury in 1881, owned a silk balloon with a ripping panel in it, and he and myself owned a cotton balloon.

As so many errors have crept into the history of balloons in this country, I hope you will allow me to correct this slight inaccuracy in Mr. Moore-Brabazon's speech.

Believe me, yours faithfully,
FRANCIS C. TROLLOPE, Lt.-Col.

ELASTIC MOTOR.

To the Editor of FLIGHT.

SIR,—I have constructed an aeroplane on the Bleriot model, and I am in want of a motor. The span of wings is 30 in. by 5½ in. I should like to construct an elastic motor, and I thought that you would probably show in your valuable paper the drawings of such a one as I want. I have constantly read your paper, and I thought that you would oblige, as you constantly put drawings in for the respective parts of aeroplanes.

Respectfully yours,
EDWARD PEZARRO.

[We would refer our correspondent to a sketch which appeared on page 547 on September 4th, as showing an idea for an elastic motor which is a little out of the ordinary.—ED.]

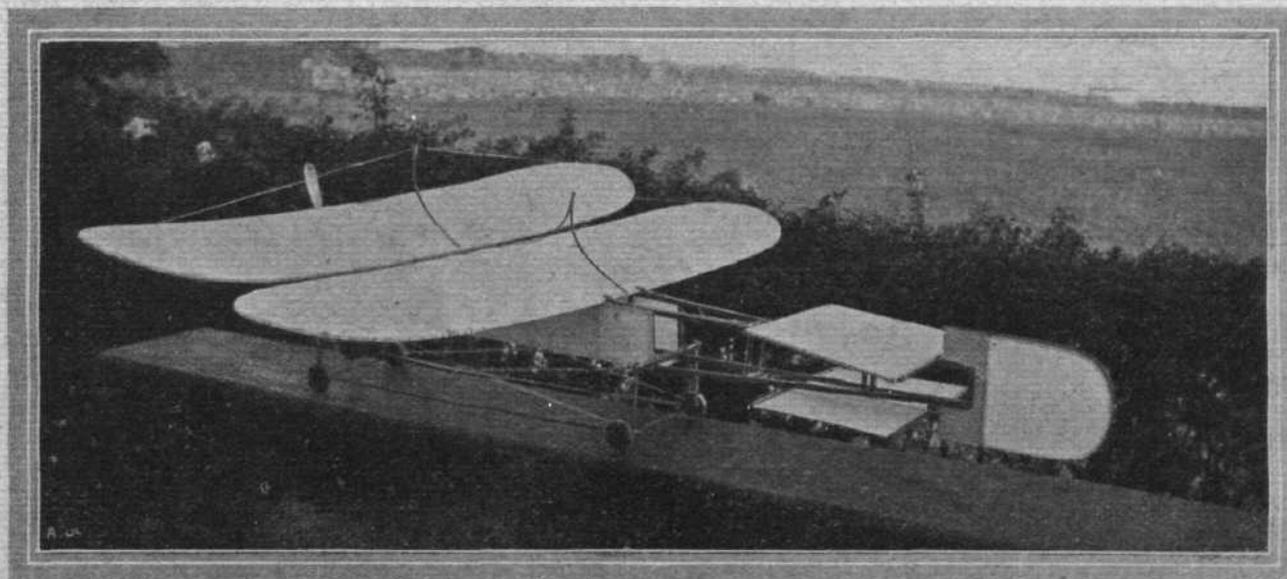
A FINE MODEL.

To the Editor of FLIGHT.

SIR,—I am sending you photo of aeroplane, 2 inches to the foot scale, thinking it may interest you. This machine will run along the ground, and rise in the air, and float on a perfectly even keel. You will notice that the dihedral angle is adapted on the main planes. This machine was made in the early part of the summer, and my own design.

I am, yours faithfully,
J. S. YABSLEY.

Hayle.



Mr. J. S. Yabsley's 2 ins. to the foot scale aeroplane.

POWER AND WEIGHT.

To the Editor of FLIGHT.

SIR,—Kindly pardon liberty, but as a subscriber to your paper I should be glad if you would, through the medium of your columns, enlighten me.

Would you inform me of the lowest horse-power a motor could be to have power enough for driving a small plane, about 15 ft. long, 12 ft. by 4 ft., weight unknown; also what size propeller needed?

Yours, &c.,
AMATEUR.

Paddington.

[It is impossible to estimate the power required without knowing the weight, because the power is essentially a function of weight and speed.—ED.]

To the Editor of FLIGHT.

SIR,—Should consider it a favour if you could inform me whether a monoplane weighing 250 lbs. (including pilot and engines) and having 70 square feet main-plane surface, would be capable of gliding. If not, what dimensions should the two tractor-screws, and what minimum h.p. the engines be to persuade it to fly.

Wishing your paper every success.

Yours sincerely,
"READER."

Manchester.

[The load on a glider of the above dimensions would be approximately 3.6 lbs. to the square foot, an intensity of pressure which it would require a very high speed through the air to produce. Some form of progress could probably be made with a machine of the above mentioned weight by equipping it with a 10-h.p. engine, but we would point out that, after deducting about 150 lbs. for the pilot, the remaining 100 lbs. is an inadequate allowance for such a machine, since even the engine would weigh as much.—ED.]

To the Editor of FLIGHT.

SIR,—I am building a model biplane, the main-planes of which measure 74 ins. by 18 ins. I intend to drive the machine by two 15-in. propellers, geared to a ½-h.p. motor. Could you, or one of the readers of your excellent paper, tell me the greatest weight the machine can be for it to fly.

Thanking you in anticipation.

Yours truly,
DONTON.

Courtenay.

GNOME ENGINE.

To the Editor of FLIGHT.

SIR,—Could you or any reader of your excellent paper tell me the reason for the peculiar position of the "Gnome" motor behind the propeller on the Farman flyer? In descriptions of this rotary engine, reference is made to a single cam-shaft with seven cams actuating the valves of all the cylinders, so that this shaft must be concentric with the crank-shaft. If it is not a hollow shaft outside the stationary crank-shaft (and I have never seen it mentioned as such), it would have to be on the opposite side of the engine to this shaft, i.e., behind the engine, where it would, of course, prevent the revolving engine being connected to any rotating propeller-shaft. Am I right in supposing this to be the reason for connecting the