

THE DUNNE AEROPLANE.

ONE of the most important items recently chronicled in *FLIGHT* was that recording the achievement of Lieut. J. W. Dunne, who, at Eastchurch in the Isle of Sheppey, flew a distance of $2\frac{1}{4}$ miles on a machine of his own design, which displayed so much natural stability as to render the use of the control levers totally unnecessary except so far as they were required for the purpose of directing the course. There is no doubt that this flight marks an important period in the development of the aeroplane, and although the outcome of it can only be

Lieutenant Dunne pursued his investigations of the problem of natural stability in the true spirit of science. He did not start with an idea and try to prove it; in fact, he has had very little time in which to evolve abstract theories that will fit in with the why and wherefore of every part of his machine. His is the sort of practice on which theory is founded. He set himself to observe. He made models and he watched them fly. He studied the works of others and he compared notes. As a result, he would tentatively adopt some general idea,



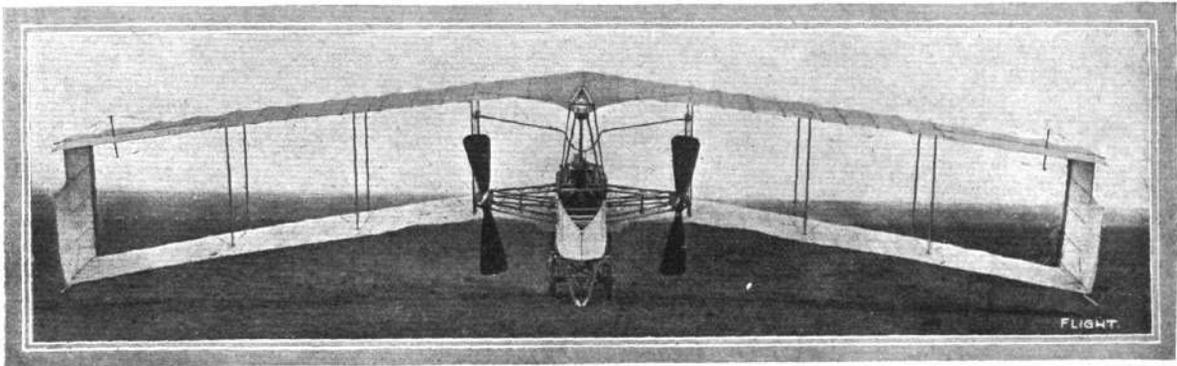
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The Dunne Biplane. View from in front, showing the machine in its natural position on the ground. The perspective caused by the slope back of the wings gives an erroneous impression in this view that the planes are greatly arched.

vaguely surmised, this in no way detracts from its present importance, and should increase, rather than otherwise, the amount of interest in the machine itself.

When a man pursues a line of thought for nine years and proceeds to evolve a system of construction from data collected in ceaseless experiment; when, having

such as, for instance, that in any stable flying machine, of which the main supporting surfaces are cambered aerofoils, the correct overall fore and aft length is very largely dependent upon that of the span. It is for this reason, among others, that the wings of the Dunne aeroplane slope backwards from the body to the extremi-



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Another view of the Dunne aeroplane taken from behind. In this photograph the rear wheel is resting on the ground. The supplementary camber that is given to the central portion of the trailing edge is very noticeable in this view.

built not the first, nor the second, nor third, not even the fourth, but the fifth machine, the inventor thereof flies at the first attempt under conditions that vindicated, at least so far as was possible on that occasion, the accuracy of his deductions, it is something for him to be proud of, and something for his country to be proud of, too.

ties. The machine has no tail, as ordinarily understood, but it has a very considerable fore and aft length beyond that represented by the mere chord of the supporting surfaces.

Another general principle that he was forced to adopt, as a result of his own experiments and those of others,