

CLUB CONSTRUCTED MACHINES

By "SEGELFLIEGER."

VII.—British Enterprise: THE "CRESTED WREN."

The "Crested Wren" is a real achievement, as not only was the machine built by an amateur, but it was also designed by the same man and eventually flown by him successfully.

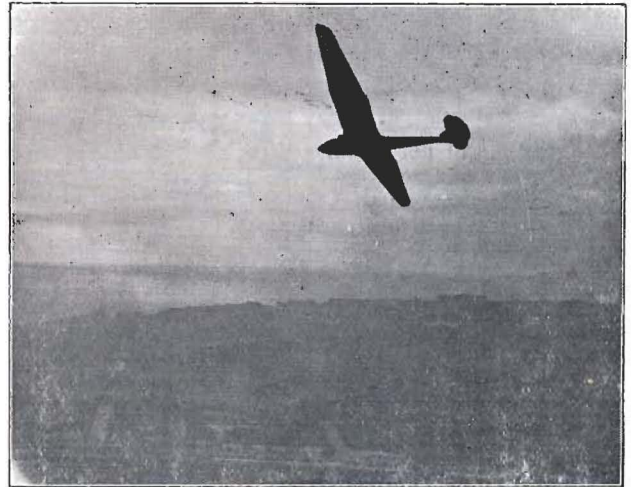
The enterprising enthusiast was Mr. Manuel of the Channel Club, and the machine can be described as an advanced soaring machine of the first class.

Rough dimensions of the machine are as follows:—Span, 40 ft.; Length, 19 ft.; Aspect Ratio, 12; Wing Area, 150 sq. ft.; weight (approx.), 190 lbs.; Flying speed (approx.), 30 m.p.h.; the machine is capable of soaring in a 10 m.p.h. wind off a good site.

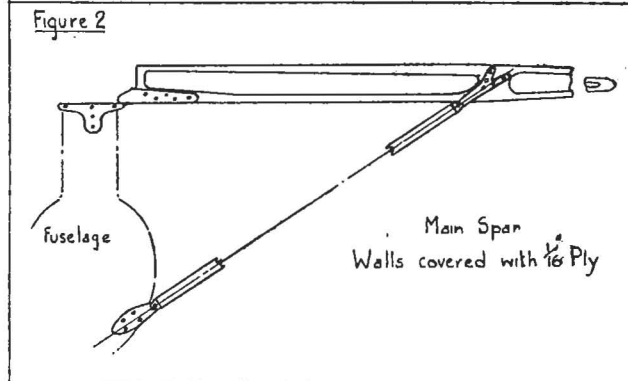
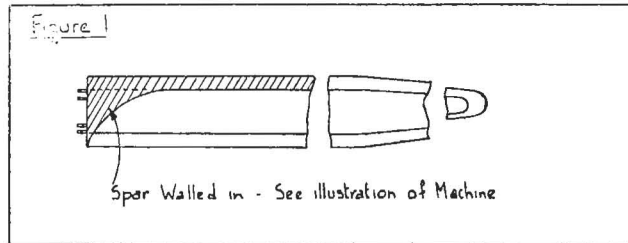
The method of construction followed was the Continental method, which has already been discussed earlier in this series of articles.

Mr. Manuel, being an amateur, was very wise in following German practice, which had already been proved a success; and his machine cannot, therefore, be regarded as a new experiment; although there are points which he has brought out which are new to British Gliding Construction. The main point is that he swept the wings back; this can be seen clearly in the accompanying illustration of the machine in flight.

The practice of bringing the nose three-ply from the top of the front spar round and right back to the bottom of the same spar was followed, in order to give extra torsional strength to the spar.



The "Crested Wren" flying over the "Valiant Sailor" site at Folkestone.



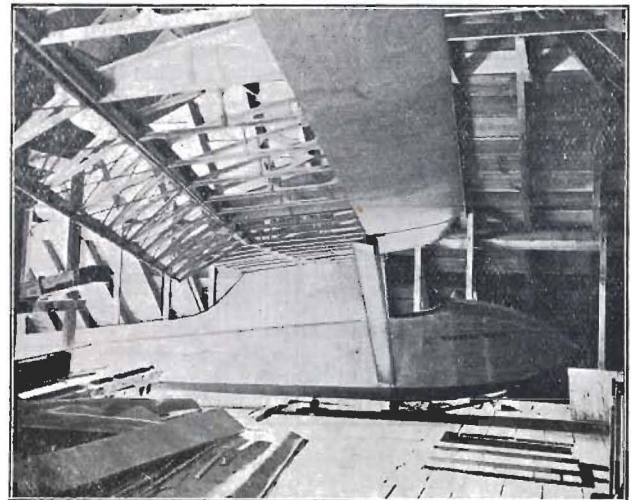
As the machine has only one strut, the ply takes the torsion and is transmitted to the root, as shown in the sketch and picture of the machine. (Fig. 1). A rough sketch of the main spar is shown in Fig. 2.

An interesting point in the "Crested Wren" is the novel method of constructing the ribs; this was evolved by Mr. Manuel and will be described more fully in the next

article.

Mr. Manuel is to be congratulated on his fine achievement. For not only has he designed and produced his own machine, but what is more important, he has succeeded in demonstrating its capabilities to soar. Already, at the time of writing he has flown it on 4 occasions, and has completed over one and a half hours soaring time on it. This kind of work will, in the opinion of the writer, leave a marked result on the Gliding Movement, and, by its fine example, will do more to stimulate others to similar achievements, than mere demonstrations and public exhibitions of the art of soaring.

Such achievements cannot but help the Gliding Movement to go ahead and grow in strength.



The "Crested Wren" in course of construction, showing one wing and strut and the fuselage.

CELLON DOPE

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