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Official Organ of the British Gliding Association

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The Subsidy

THE scheme whereby the Gliding Subsidy is being administered still appears not to be thoroughly understood in the gliding movement. The following puts the whole thing in a nutshell :—

The subsidy is available to assist any club or amalgamation of clubs that can train new glider pilots. The simple conditions are :—

1. The liability of club members must be limited to their club dues.

2. Chief instructors and the ground engineers must be competent.

3. The grounds used must be suitable for gliding and soaring, and the clubs have tenancies for not less than five years.

Then the Gliding Subsidy Trustees are able to give assistance up to 70% of the cost of grounds, ground improvement and hangarage, and up to 50% of the cost of training machines.

Claims have to be made to the British Gliding Association.

100 Silver C's

ON September 3rd this year the hundredth "International high-performance soaring badge" was granted by the International Commission for the Study of Motorless Flight ("Istus"). The recipient was Frau Lotte Tourné, of Berlin. The conditions for obtaining this badge and the accompanying certificate are familiar to most readers, but possibly unknown to some; they are: a soaring flight of 50 km. (31 miles) distance measured in a straight line, the loss of height not to exceed 1% of the distance; a duration flight of five hours, not to be combined with the distance flight; and a climb of 1,000 metres (3,280 ft.), either above the starting (or casting-off) point or above the lowest point previously reached during the flight.

It has taken over four years for the first 100 pilots to fulfil these conditions, for Certificate No. 1 was granted to Wolf Hirth on April 15th, 1931, No. 2 going to Robert Kronfeld, and No. 3 to Gunther Groenhoff on the same date. Some particulars of the remainder were recently published in *Luftwelt*, together with the names and numbers of all the non-German recipients, which are as follows :—

England: Collins, No. 26; Wills, No. 45; Robertson, No. 75; Humphries, No. 85.

United States: O'Meara, No. 12; DuPont, No. 32; Barringer, No. 65.

Switzerland: Schreiber, No. 70; Godinat, No. 86.

Austria: Kronfeld, No. 2.

France: Nessler, No. 66.

At the time when No. 100 was granted, applications had already been received from 39 more pilots, all Germans, who had done the necessary flights. Since then, two more British pilots have received the badge: J. C. Neilan (No. 174) and C. Nicholson (No. 177), the last being dated November 15th.

Especially interesting are the figures showing the total number of "Silver C" pilots in the world at the end of each successive year. They are: at the end of 1931, 6; 1932, 8; 1933, 18; 1934, 60. After the first eight months of 1935, as already stated, the figure was 100, and by now it must be pretty near the 200 mark. Readers might like to enter these numbers on a graph, and ponder the significance thereof.

Country Membership

WE would recommend to clubs with soaring sites the action which the London Club proposes to take in establishing "Country Membership" at reduced subscriptions, the definition being that a "country member" is one resident more than 120 miles from the club.

There must be many pilots, including private owners, who would like to be able to use these clubs for occasional long week-ends or holidays in the summer, but cannot afford full membership subscriptions to more than one club. It would be to the mutual advantage of all concerned if clubs which can offer facilities to those who live at a distance, whether of membership at reduced subscriptions or temporary membership for short periods, should not confine themselves to passing a resolution in committee, but should publish full details in THE SAILPLANE AND GLIDER.

To Eliminate Noise

WE have received from Mr. H. A. Searby, of the Nottingham Gliding Club, a "gadget" he has invented for inserting tacks, or rather sprigs, in absolute silence. A magnetised plunger picks up the spring and draws it into a tube; the instrument is then placed in position, and pressure on the knob of the plunger inserts the sprig. This gadget, which we have tried out, would, we imagine, be specially welcome in households where the proverbial "spare bedroom" has been converted into a glider workshop.

From Here and There

In the News.—Marianne Emig, mentioned in connection with the charges against a Dr. Gortz under the Official Secrets Acts, is stated to have told an aircraftman friend that she was "a girl glider from Germany."

* * *

Bird Flight Photographs.—The International Exhibition of Nature Photography in the Natural History Museum at South Kensington, which includes a large number of photographs of birds in flight, is now to remain open until January 18th, 1936.

* * *

Kronfeld Lectures.—On November 18th Herr Robert Kronfeld gave a lecture on "Modern Methods of Gliding and Soaring" to the Engineers' German Circle, at the Institution of Mechanical Engineers. He dealt with training methods (illustrated by slides) and with modern soaring technique, and is reported to have shown "how the study of gliding and soaring methods and the construction of light machines had already exercised an important influence on scientific aeroplane construction. He anticipated a further rapid extension of gliding technique."

* * *

Thermals in the Desert.—Mr. E. L. Mole writes from Atbara, Sudan: "This is supposed to be the hottest place in the world. Shade temperature was 110° when we got here, but will cool to 95° soon. Thermal soaring would be perfect—miles of sand desert on either side of the cultivated strip of the Nile. I watch the kite hawks with interest. Very knowledgeable pilots. They thermal-soar all day long at immense heights, and never flap their wings. THE SAILPLANE will be very welcome. . ." Doubtless Mr. Mole could also do with *a* sailplane, wherewith to keep the kite hawks company.

* * *

New German Gliding School.—A Press report states that a big new gliding school is to be opened next summer at Sensburg, Germany, with a hangar to hold 20 'planes and accommodation for 160 men. The only Sensburg we can discover is in East Prussia, among the Masurian Lakes. Twenty-five miles away is (or was) the gliding school at Ortelsburg, where tame falcons and eagles have been used for instructional demonstrations to the pupils (see THE SAILPLANE for March 17th, 1933). Other gliding centres in East Prussia are Korschenruhe on the shores of the Frisches Haff, where the world's duration record of 36½ hours was set up, and Rossitten on the shores of the Kurisches Haff, one of the oldest gliding schools in the world, founded in 1924.

Correspondence

Having received a letter from Miss R. H. Sinclair on behalf of an alleged "Federation of British Gliding Clubs," we wrote to ask (1) who are the officers of the Federation, (2) what clubs have joined it, and (3) what clubs have been invited to join? None of these questions has been answered.

Up-currents Over Sea.—At the inquiry into the loss of the ship "La Crescenta," a letter from the deceased captain to his wife was produced in which he wrote (on March 4th, 1934): "We have had a terrible day. During the night a storm got up and when daylight came in the seas had swept over everywhere. . . We had to heave to, and then a thunderstorm swept over us and nearly blinded us. The sand got everywhere. It must have come 400 miles from the Sahara." The persistence of up-currents in a thunderstorm over 400 miles of sea is remarkable. The north-east trades off West Africa only blow at about 16 miles an hour, though the wind was evidently stronger on this occasion.

"Daily Dispatch" Prizes

The main conditions for winning these prizes were set out on page 179 of last month's SAILPLANE AND GLIDER. Briefly, £100 is offered for a soaring flight from the club's site to Blackpool between November 8th, 1935, and September 30th, 1936; a further £25 is offered for a cross-country flight in a home-built machine on the occasion of the club's Easter meeting next year.

In addition to the conditions published last month, the following rules must be observed:—

1. Each entrant must be a member of a British gliding club affiliated to the British Gliding Association.
2. He must be in possession of a "B" or "B" and "C" Gliding Certificate issued by the Royal Aero Club.
3. Any aircraft entered for the competitions must have a current Certificate of Airworthiness issued by the British Gliding Association.
4. The owners or owner of the aircraft must produce a policy of insurance indemnifying the Derbyshire and Lancashire Gliding Club and Allied Newspapers, Ltd., in the sum of £1,000 against any claim arising from accident caused by his machine and involving damage to property of a Third Party or personal injury to a Third Party.
5. The take-off at the commencement of each flight must be witnessed by an official observer, who will sign a certificate of the time, method and place of launch. At the termination of the flight the competitor must obtain the name and address of two independent witnesses of the landing and the time and exact place of the landing must be entered on a form with which he will be provided on the commencement of the flight. Should an official observer witness the landing he will record such details as are necessary, and no further witness is necessary.
6. A sealed barograph must be carried on each flight. It must be produced for examination and sealing to the official observer. On the termination of the flight the barograph must be handed intact with the seals unbroken to the official observer who may retain it for examination and calibration.
7. Entries for the "Owner Construction" competition must be received either at the headquarters of the Derbyshire and Lancashire Gliding Club, Camphill, Great Hucklow, Derbyshire, or at the offices of Allied Newspapers, Ltd., not less than four days before the first day of the meeting.
8. Pilots desiring to make a flight in competition for the major prize are required to give as long notice as possible of this intention, but they are reminded that they must make arrangements for the attendance of an official observer. Application by letter, telegram or telephone should be made to Allied Newspapers, Ltd., or the Derbyshire and Lancashire Gliding Club, but whereas every endeavour will be made by Allied Newspapers, Ltd., and the Derbyshire and Lancashire Club to provide an official observer when required, neither accepts any responsibility for financial loss or inconvenience consequent upon any omission or inability to provide an observer.
9. No other method of launching than by shock-cord, winch or auto-towing is permitted.

Allied Newspapers, Ltd., or the Derbyshire and Lancashire Gliding Club do not accept any responsibility for loss or damage to the machines or equipment of competitors, neither do they accept liability for personal injury.

First International Meeting at the Jungfraujoch

By OTTO FRISCHKNECHT



Launch of an Austrian pilot at the International Soaring Meeting on the Jungfraujoch last September.
[Photo Steiner, Heiniger, Zurich.

FROM September 4th to 18th an international soaring meeting, organised by the Swiss Aero Club, was held at the Jungfraujoch, 3,470 metres (11,384 ft.) above sea level. The entries were:—

Germany: four pilots (Udet, Riedel, Dittmar, Hoffmann) with four machines.

Austria: four pilots with four machines.

Jugoslavia: two pilots and two machines.

Switzerland: seven pilots and six machines (RHÖNSPERBER, RHÖNBUSSARD, GRUNAU BABY, SPYR III.).

The sailplanes had to be stressed for aerobatics and every pilot equipped with parachute, food for two days, and signalling rockets. The machines were transported to the Jungfraujoch by train and lodged in the "Sphinx-Stollen" (ice tunnel). They were generally rigged there and flown to the Jungfrau glacier, where they were protected against the wind by snow walls. From the glacier the sailplanes were pulled by winch to the starting place on the Joch. To save time, pilots often preferred to be towed back [by aeroplane] from the valley to the Joch.

The chief task of the meeting was the study of high-alpine soaring flight. The pilots co-operated with the permanent meteorological station on the Jungfraujoch. The results of this high-alpine soaring camp are not to be compared with those of other meetings, as the soaring conditions in these regions are rather complicated and many problems have still to be solved.

There were distance, height and duration competitions; for the latter, pilots had to start and to land on the Joch. The greatest height above starting level, 1,070 m. (3,510 ft.), was reached by Dittmar in the CONDOR II. The next were Gumpert (Austria), 1,006 m. (3,300 ft.), and Udet, 696 m. (2,283 ft.).

The winner of the duration prize was Gumpert with 4 hrs. 48 mins. Dittmar made a flight of 3 hours. Although these flights were of no extraordinarily long duration, it must not be forgotten that flying at some 4,000 metres is physically very tiring.

It was obvious that for the distance prize pilots would leave the Alpine regions; in fact, nearly all the flights were made over flat land in the direction of Berne. The order of distance was as follows:—Hoffmann, 108 km. (67 miles) in RHÖNSPERBER; Riedel, 88 km. (55 miles); Baroni (Switzerland), 81·5 km. (51 miles); Dittmar, 81·5 km.; and Udet, 56·2 km. (35 miles). Several flights were made to Interlaken, Thun or Berne.

By this first international camp much experience was furnished from the sporting and the technical point of view, and the next meeting will be run on the following lines:—

1. The object is the study of high-alpine soaring flight and the training of suitable pilots in these regions.

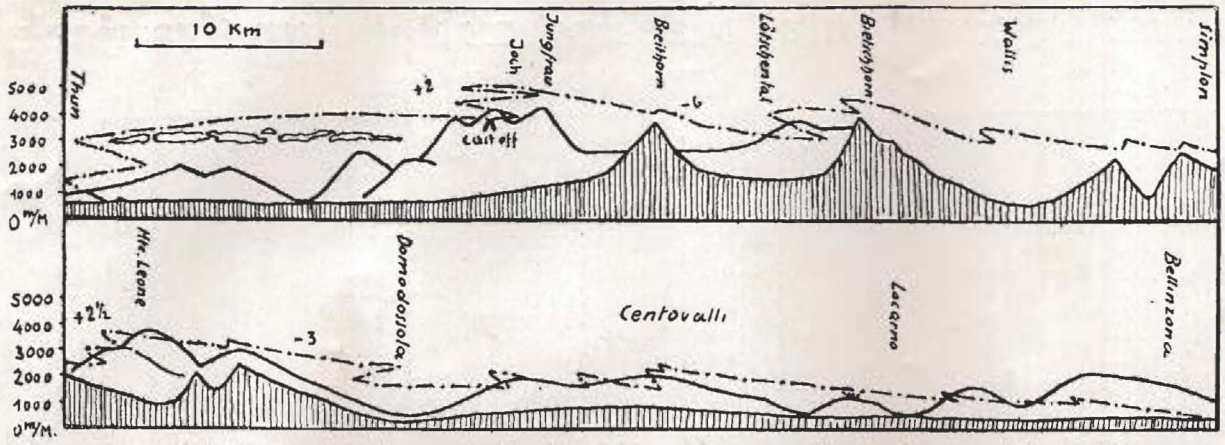


Diagram of Herr Schreiber's flight across the Alps, including the preliminary aeroplane tow from Thun to Jungfraujoch.
[From "Aero-Revue"

2. The competitions will chiefly be limited to the high-alpine region. The results will not be intended for comparison with those on flat land.

3. It seems to be essential for the competing pilots to stay on the Jungfraujoch, both for the study of soaring possibilities and to get accustomed to the height. According to the object of a flight, the start will be either on the Jungfraujoch or the pilot will be towed to a certain height.

4. The time of the meeting will be changed every year so as to obtain a more thorough knowledge of soaring conditions.

5. There will be daily and local competitions, such as flights to certain places in mountain valleys, out-and-return flights, and trans-alpine flights.

Schreiber's Flight to Bellinzona

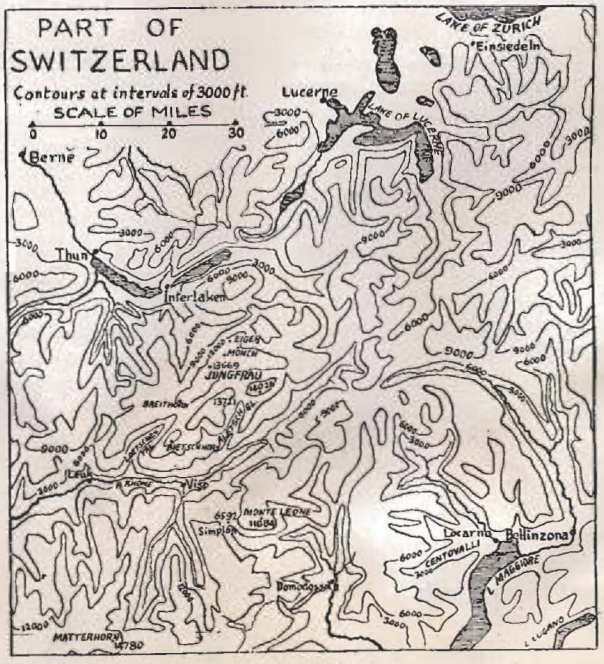
The account of this meeting would be incomplete without a description of the outstanding flight of our best Swiss pilot, H. Schreiber, who was then official observer.

During this summer Schreiber systematically worked at the problem of crossing the Alps in a sailplane. On one of his research flights, starting from Berne, he reached 2,650 m. (8,694 ft.) above sea level under an undulated cloud ("Moazagotl" or lenticular type).

On September 7th, during the competition, he was towed in his CONDOR to 3,650 m. (11,975 ft.) in front of the Jungfraujoch. Above 1,500 m. there was a closed cloud-sheet, 200 metres thick. Under it there was no wind, but above it the wind was N.W., increasing with height. At the Jungfrau was a regular upwind, and the CONDOR rose at 2 metres per second. The maximum height of 4,750 m. above sea level (15,584 ft.) was reached there. The wind velocity was so great that Schreiber had to fly at 70 km. per hour to stay at the same point. After two and a half hours he noticed that thermals began to develop in the "Wallis," and a cloudlet at the Matterhorn showed favourable winds. So he left the Jungfrau, crossed the Loetschental and the Wallis, and arrived over the Simplon with 500 metres to spare. This was the critical point of the flight, but thermals were picked up at the slopes of Monte Leone and the flight proceeded in the direction of Domodossola. There were southerly winds and sheet of mist up to 1,500 ft. over the Upper Italian Plain. Schreiber decided to follow the Centovalli, which runs parallel to the Alps from Domodossola to Locarno. There were some thermals, but the flight was rather difficult as the main wind was blowing parallel to the slopes and height could only be gained by circling in narrow side-valleys. After a flight of 5 hrs. 47 mins. the CONDOR landed at Bellinzona aerodrome. The straight-line distance from Jungfraujoch to Bellinzona is 90 km., but the distance flown was about 145 km. (90 miles).

The next step will be to reach the high-alpine soaring regions starting from flat land, which should be possible if the necessary height can be gained by strong cloud upwinds.

[*We are indebted to Herr Frischknecht for the photograph, and for the drawing from "Aero-Revue."* —ED.]



Map showing places reached by sailplane from the Jungfraujoch. Principal flights were: Guter to Berne; Udet to Bützelsflüh (36 miles) and twice to Berne; Baroni to Leuk and Dittmar to Visp, via Aletsch Glacier; Dittmar to Lucerne; Riedel to Einsiedeln (61 miles); Hofmann across Zurich Lake to Wald (67 miles—Distance Prize). Some flew to Interlaken and Thun.

"The Sailplane" Crossword

By CORUNUS

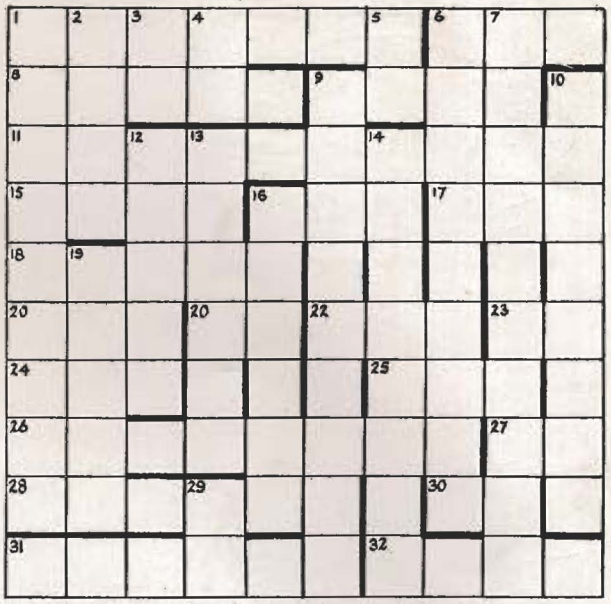
[*The solution will appear in our next issue. No prize is offered.* —ED.]

Across.

1. What the enthusiasm is all about.
6. To and fro what the weather usually is at week-ends.
8. What the Press Lords would like gliders to be.
9. You'll be there some day unless you learn to side-slip.
11. See 26.
15. Not, I believe, a soaring bird.
16. On a cross-country you cover as much as possible of this.
17. Has to be paid, though it's pretty low.
18. When you get a good one, you should send it to us.
20. Three-fifths of a Pou.
21. Pronoun.
22. Nationalism will creep in.
23. And the forces.
24. See 1 down.
25. This decoration can hardly ever be kept out.
26 and 11. Are we of? Hell!
27. A negative kind of course.
28. We dislike little ones intensely.
30. French 24.
31. See 1 down.
32. C. G. Grey makes this of us.

Down.

1. 24 across and 31 across. This is simply staring you in the face.
2. Two-thirds ornate.
3. You must start at this time to do much good.
4. Concerning.
5. Let ——!
6. Beheading it makes it most unsteady.
7. 1 across can only be done with these.



9. You might expect this sort of shop to be still.
10. It's taken years to get gliding this.
12. Just got his "C."
13. These new members hardly know whether they are on their heads or their heels anyway.
14. It's expensive not to get this right.
16. Committees and cars can pass nothing without this.
19. Hallo nurse, here's a Chinese district.
29. Upset this and it makes hedral very stable.

Sailplane Construction for the Amateur

10—The Main Plane and Supports

(Continued)

By W. BUTTERFIELD

THE last instalment dealt with the distribution of pressure over the profile of an aerofoil as affecting the design of the ribs and the attachment of the wing covering.

Wings of rectangular plan form have static as well as dynamic disadvantages, which, in machines of large span, cannot be ignored on the grounds of cheapness of production. The air loads fall away towards the wing tips and the distribution can be represented by an elliptical diagram. For calculation purposes, deductions are necessary, due to this loss of pressure at the wing tips, thus reducing the span to what is called the effective span. For the same form of wing tip these losses are constant for any span, hence the advantage of high aspect ratio.

It has been proved that wings of rectangular plan show first signs of stalling over the centre or mid span, and as the angle of attack increases the breakdown spreads outwards towards the tips; whereas triangular shaped wings show the first signs of breakdown over the wing tips, spreading inwards as the angle of attack increases, from which it would seem that the triangular shape is more likely to spin. This can be counteracted by a gradual washout of incidence towards the tips. On the other hand it can be proved that bending and twisting are relatively much greater for rectangular wings than for wings of triangular or tapering plan form. Consequently 30 to 40 per cent. in weight can be saved by adopting tapering, or triangular, wings.

The span loading is not uniform per foot run from root to wing tip, particularly so in the case of tapering wings, in which the centroid of the area will lie nearer the root than the tip. The result of this, in a braced system of suspension, may be a point of zero bending (contraflexure) between the strut attachment and the wing root. A rectangular wing supported in similar manner would have no point of inflection.

For stressing purposes the load on the main plane will be the estimated weight of machine and pilot minus the estimated weight of the main plane. If the plane is supported by a front and rear truss in way of front and rear spars, the loading of each truss is considered separately under maximum conditions, i.e., C.P. forward and C.P. back, and the appropriate load factor applied. In other words, when the machine is flown at high angles of attack, in which state the front truss takes the greater share of the load, a load factor of five is stipulated by the B.G.A. airworthiness panel. On the assumption that the machine, during flight, may be struck by a gust or loaded to, say, two and a half times the loads experienced during normal flight, the load factor also includes for a factor of safety of two to cover discrepancies during manufacture, therefore the load for calculation purposes is $2 \times 2\frac{1}{2}$ or five times the normal load.

Two good examples of wing construction are shown on pages 166 and 167 of the October SAILPLANE. Comparing the structure of the GOPPINGEN 2 with the

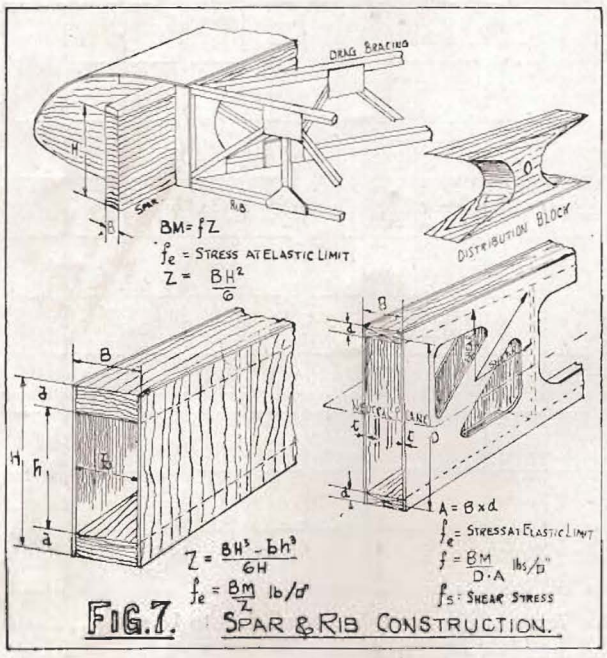


FIG.7. SPAR & RIB CONSTRUCTION.

single spar construction of the WOLF we notice that the former has but a small boxed-in leading edge, two spars and drag bracing, whereas the latter has a single spar which is designed to take bending due to lift, bending due to drag, twisting due to change in position of the C.P. and the resulting shearing forces.

We might argue that, if it be economical to construct machines in this way, why not let the whole wing function as a beam?

The now famous Douglas Air Liner had planes of "multi-cellular" construction, in which a number of relatively light spars are intersected by former ribs. This skeleton is covered with a stressed skin and the whole wing forms a light and elastic structure which sailplane designers may well copy.

Having surveyed the loads acting on the main plane, the next step is to calculate the bending set up in each spar. In a cantilever arrangement, the point of maximum bending will occur at the fixed end. This is found by multiplying the total load acting on the spar by the distance of its C.G. from the root fitting. For rectangular wings this distance $= \frac{\text{Effective Span}}{4}$; for moderately tapering wings approx. $= \frac{\text{Effective Span}}{5}$; and for triangular wings $= \frac{\text{Effective Span}}{6}$.

The shearing forces will also be greatest at the wing root and will be equal to the total load acting on the spar. The horizontal shear is equal to the vertical shear at any cross section and is greatest at the neutral plane.

The shearing force on the securing pins is found by dividing the maximum B.M. in inch-lbs. by the height between the pin centres in inches; the pins are generally in double shear.

Now in a braced and pin-jointed arrangement of the most common type, the max. B.M. generally occurs at the point where bracing is attached to the spar. It is due to that portion of the load acting on the overhang. It is the algebraic sum of the moments of all external forces, acting about the section, either to right or left. The axial loads must also be accounted for algebraically. The bending and shear forces are resisted by the internal stress set up in the material of the spar. The material at any cross section must be disposed so as to safely withstand the external forces and moments acting at that point.

To produce a spar of minimum weight for a given strength and deflection, the cross section of the spar will be graded throughout its length. The hollow box section spar is admirably suited for this purpose, since cross-sectional area of the flanges can be easily graded to suit, so that B.M. $= fZ$ at any cross section along the spar. See Fig. 7.

For primary machines, the spar is often made of a solid rectangular section of constant depth and width, and its moment of resistance to bending will be $\frac{B \times H^2}{6} \times f_e$, f_e being the elastic limit stress of the material. If the spar is well supported laterally, this fibre stress may be taken at 6,000 lbs./sq. in. The stress f_e is a working fibre stress derived from consideration of the proportions of the beam and the yield point of the material. The stress (ultimate) for spruce in tension is 10,000 lbs per square inch. By experiment the modulus of rupture has been found to depend largely upon the proportions of the section.

Tests upon hollow spars prove that a reduction in web thickness results in increased deflection and secondary stresses causing a serious reduction in the modulus of rupture. When the ratios $\frac{t}{B}$ and $\frac{d}{H}$ are low, f_e should not exceed 4,500 lbs./sq. inch, which is the stress at the Elastic Limit.

When $\frac{d}{D}$ is small, the stress in the flanges can be found by $\frac{B.M.}{D \times A}$ where A is the area and D the distance between the centroids of the flanges, in which case the flanges are assumed to resist bending and the webs to take shear.

Now the points where the maximum stress occurs are *just* the places where metal fittings are attached by means of bolts, etc., resulting in the removal of valuable material. The spar must therefore be thickened up locally to compensate for material removed by drilling. These distribution blocks must be graded to avoid abrupt changes of section. See sketch.

Joints in flanges should, where possible, be arranged in way of least bending, and joints in webs in way of least shear. When plywood webs are employed, the grain of the outer plies should be arranged perpendicular to the longitudinal axes of the spar, and supported also by frequent internal diaphragms. Laminated flanges can be built up to almost any length, and are very elastic. The scarfed joints are overlapped, and the finished spar is then stronger than flanges made from one piece.

News from the Clubs

Jersey Gliding Club

Sunday, October 13th.—Off from the top again, as a nice S.W. breeze was coming from the sea and we hoped to improve the flights this time. Glassford, Wagstaffe, and Bisson made some very fine flights up to 50 seconds. The SCUD I. was brought out and made several glides up to 60 seconds. A very fine day, enjoyed by all. For launching and towing on top of the hill we are now using an old Studebaker car, which is very successful.

Sunday, October 27th.—A W.N.W. wind of 35 m.p.h. prevented us from flying the DAGLING, and the only flight was one by Carter in his SCUD, of two minutes' duration.

First Soaring Flights.

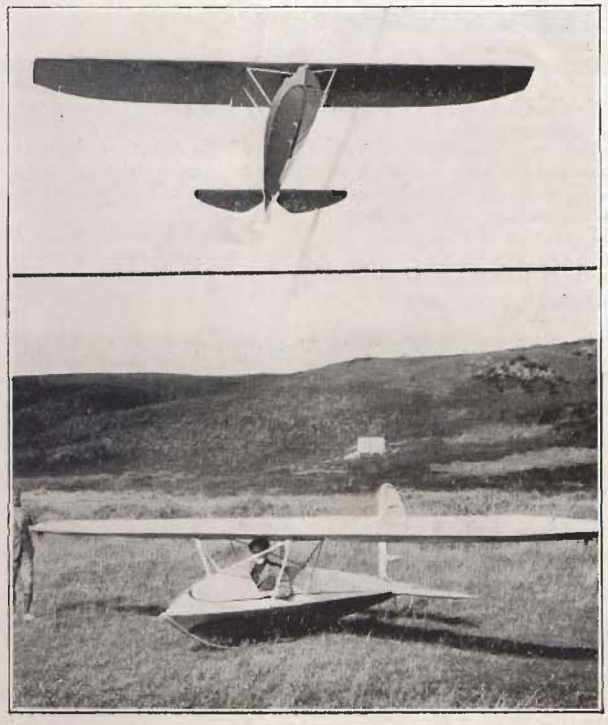
Thursday, October 31st.—The great day in the club's history. The first soaring flight in Jersey. A strong steady wind of 35-40 m.p.h. from S.S.W. made soaring conditions ideal, and as enough members and friends turned up, the SCUD I., with Carter at the controls, was launched from our main ridge and in a few seconds was very high, making a flight of 41 minutes, reaching a maximum height of 250 ft. above starting point. The SCUD was flown at 35-45 m.p.h. to make any headway against such a strong wind, and proved itself to be a good soaring plane. As a heavy rain squall was approaching, Carter landed, running into a hedge, but with no damage. Heavy rain now falling, the machine was put away, and so ended a most marvellous day.

Sunday, November 3rd.—A beautiful sunny morning and a wind from the S.E. enabled us to start with glides only from the top. In the afternoon a large crowd of spectators arrived, as the local Press had inserted a very fine record of Thursday's soaring, and it seemed that they would be disappointed, but the wind gradually turned to the south. The two machines were brought out, and when being towed up the hill, heavy rain fell; so everyone had to shelter under the wings for half an hour.

After a launch of the DAGLING and SCUD the wind improved in direction and the SCUD was launched off the main ridge. At first it seemed that no soaring was possible, but after two beats of the ridge, height was gained and the pilot managed to get to 150 ft. above the starting point, staying up for 43 minutes. The wind was only 15 m.p.h. and was nearly parallel with the ridge. A good landing was made just as it was getting dark.

The local interest in the club is now very high and we hope to increase our membership.

Sunday, November 10th.—A wonderful morning, as the wind was S.W. at 20-25 m.p.h. In the beautiful sunshine, Carter was launched in the SCUD I. from the gully, and started to soar below the top of the hill, soon making the height of 250 ft. above the ridge. After staying aloft for 1 hour 45 minutes he landed for lunch. Carter finds the SCUD a fine soaring plane, the performance being better than that shown on the blue prints, due perhaps to the very smooth finish and light weight of pilot. The whole glider has been painted silver and blue, and has had two coats of Valspar varnish. The sinking speed is 3 ft. per sec.; gliding angle is nearly 1 in 20. The best soaring speed is 25 m.p.h., and the stall, which takes place at 18 m.p.h., is very gradual. Turns can be made slowly or quickly according to the amount of bank given, but in a good wind very little bank is necessary. The ease with which the machine is handled and launched makes it ideal for a club with few members. It was launched this morning with one on each rope.



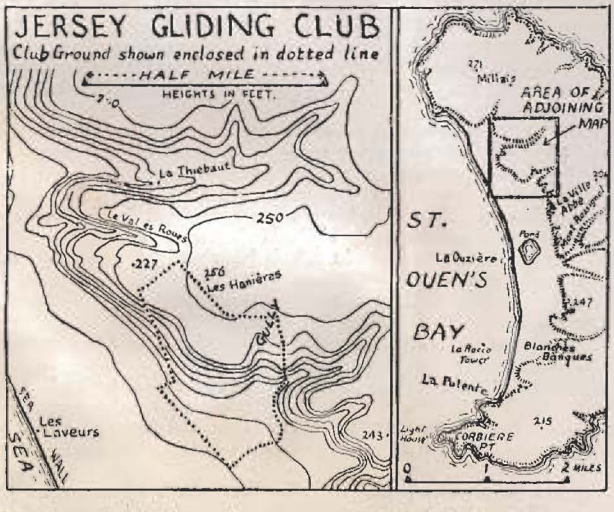
K. J. Carter in the "Scud I" in which he carried out the first soaring flights in Jersey. The lower photo shows part of the soaring ridge in the background."
[Upper photo: courtesy "Jersey Evening Post."

The DAGLING was also brought out and taken to the top of a smaller hill, and as a large number of spectators had arrived there was plenty of help to launch. Wagstaffe had the first flight and, after gaining lots of height, he turned and carried along the ridge, maintaining his height until he drifted over the top at the end of the ridge, where he landed owing to a slight down-draught. No damage was done, so the DAGLING was carried over to another part of the ridge for the next launch, which was taken by Glassford. After making a circle over our field, he turned back to the ridge, clearing the trees, and making a landing on the side of the slope near the bottom. The landing was perfect, but the glider slid down the slope and hit a tree head-on, which wrecked the nacelle and damaged a few ribs on the right wing.

In the afternoon the weather was inclined to be wet, the wind being much stronger. Carter had another launch from the top and made a flight of 1 hour 5 minutes, which terminated when nearly dark. The greatest height obtained was 600 ft. above sea level, from which he had a fine view of the whole island. The height of the ridge is nearly 250 ft.; the sea is only half a mile away.

This afternoon's flight was watched by hundreds of people, and their cars were on both sides of the main road for two miles.

[This club started flying only 17 months ago, and consists almost entirely of *ab initios*, though Mr. Carter has flown aeroplanes, but without taking a certificate. Gulls have been seen thermal-soaring to great heights over the sand hills at Blanches Banques, so we await further developments.—ED.]



The Jersey Club's site at the western end of the Island: showing the principal soaring slope, which faces south-west. Mr. Carter has already extended his beat to the bottom corner of the first map, and hopes eventually to reach La Pulente.

Yorkshire Gliding Club

Mr. Laver's Night Flight.

The fortnight immediately after the Competitions was one of mostly unsoarable winds, and during this time Laver, with the intention of attacking the British Duration Record, had been spending his time at Sutton Bank doing valuable work on our lighting plant.

On **Friday evening, September 13th,** prospects appearing quite hopeless, and his holiday being almost at an end, the FALCON which had been lent to him by Slingsby was derigged and returned to Kirbymoorside.

This was the signal for the Clerk of the Weather, in a more than usually perverse state of mind, to open up the tap marked S.W., and the following evening there was a fine soaring wind at the north end of the bowl.

Such was the intensity and bitterness of Laver's curses that with one accord we started to take down the hangar doors, and the next few hours were spent in fitting our FALCON with lights and making provisions for illumination of the ridge with storm-lanterns.

As there were only four of us beside Laver, it was arranged that two should take duty on the winch and the other two should give the launching signals and then make a hurried dash by car to the north ridge, there to complete the illuminations with their headlights; the winch crew were then to be responsible for lighting the flying ground and the bottom landing field with car headlamps at a moment's notice should it be seen that Laver was going to land.

At 1.02 a.m., "Right Away" was signalled by means of two flash-lamps, and immediately afterwards a small white light was seen to be rising steadily into the almost pitch-black sky, the moon being temporarily obscured by clouds.

The winch engine started to race, and we knew he had released. The light turned at right-angles towards the ridge and almost immediately vanished as the machine turned down wind towards the far end of the bowl. In incredibly short time Stedman's lights were seen at the top of the road, and a few minutes later the light on the FALCON could be seen making the return beat from the far point to the road at about 150 ft. above the top.

The sight of the FALCON flitting silently across the moon as it came out momentarily from behind the clouds was most eerie; we understand, in fact, that on the following day a record number of pledge-cards were signed in Sutton village.

Thereafter followed a very long, very tedious, and very cold business of waiting and watching, during which Laver gained a height of 800—1,000 ft., and the moon shone quite brightly.

Holdsworth and Stedman were kept busy at the top tending the storm lamps, while Wordsworth, in the bottom landing field, ran in tight circles (far from thermal) round his car. The fourth gentleman, whose name we will refrain from mentioning, returned to his hot-water bottle at the Fleece.

Dawn came at last, and the frozen watchers returned to the warmth of the clubhouse thinking that the worst was over and that Laver was there for the day.

But it was not to be. At 5.30 rain and low clouds came, and for three-quarters of an hour Laver flew, with remarkable doggedness, almost entirely by compass with only occasional glimpses of the ground beneath. Finally, however, conditions became too bad, and in driving rain he turned eastwards by compass and made a perfect landing at 6.17 a.m. in a field behind the Hambleton Hotel, having only seen the ground for the last 100 ft. of his descent.

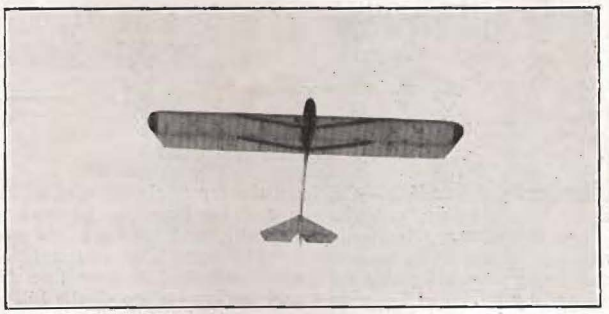
Bad luck, Laver; but the Bank will still be there next year!

September 21st.—Holdsworth tried out the rebuilt HOLS II. in a few test hops, and Fisher received instruction on DAGLING.

September 22nd.—Wind W., 20-25 m.p.h. Unfortunately, to mar the ideal wind conditions, the cloud base was only 30 feet above the ground, and there was a feeling that nobody wished to start cloud flying. Towards evening, when the clouds had risen to at least 200 feet above the Bank, Sharpe was launched in FALCON. He dashed about with the nose well down and the cloud base about two feet above him for four minutes, after which honour was satisfied.

September 28th.—Wind S., 10-15 m.p.h. Fisher received further instructions on DAGLING and showed considerable improvement.

September 29th.—Wind S.S.W., 12-15 m.p.h. Holdsworth started the day by taking up FALCON for 52 minutes. He was soon joined by Blakeston in HOLS I. who, in a flight lasting half an hour, occasionally beat the FALCON for height. Both club machines were in the air continuously during the afternoon and evening. Hastwell followed Holdsworth on the FALCON for



The Yorkshire Club's "Hols I" (type Hols der Teufel Mark III) which now—alas!—is no more. A view from directly below.

25 minutes, and he, in turn, was followed by Wordsworth (15 minutes) and Sharpe (35 minutes). HOLS I. was also piloted by Cox for a quarter of an hour.

Meanwhile Slingsby was launched in FALCON III. with Miss Horsley as passenger in order to give her some dual instruction (42 minutes) before she was sent off to qualify for her "C." He also put in two other passenger flights of approximately 20 minutes each in this machine.

After Cox's return in HOLS I., Pick was sent off for his "C," for which he qualified with a steady flight of 20 minutes. Then Miss Horsley was sent off for her "C," and in the failing evening wind she managed it with three minutes to spare, landing on the moor adjoining the club site. Sharpe, who was in FALCON at this time, threw circles over the congratulatory group round HOLS I. in celebration.

While all this was happening, the training section (Clemons, Fisher and Reid) had been busy hopping DAGLING.

October 6th.—Wind W. 4 m.p.h. or less. After two hops in DAGLING Fisher was passed out to HOLS I., and in seven flights, the last four being his first winch launches, made rapid progress.

About mid-day the wind freshened somewhat and Holdsworth took up the FALCON for 25 minutes. On his return the wind dropped again and Hastwell, in the same machine, after one beat, had to come in to land.

Slingsby had by this time rigged FALCON III., and after two circuits decided that it was soarable. In two flights of about ten minutes each in an apparently flat calm he gave two non-flying members (Mrs. Alderson and Miss Forster) their first taste of soaring.

Training continued throughout the day; Snadden on HOLS I. made his first attempts at turns, whilst Reid and Marshall hopped in DAGLING.

October 12th.—Sharpe and Stedman were the only two members to turn up so Stedman launched Sharpe in FALCON. Sharpe in a flight lasting one hour visited Sutton village up-wind and reached 700 ft. He reported that the lift was pure hill lift with no thermal lift at all.

October 13th.—Wind S., 20-25 m.p.h. Blakeston was launched over the South Slope in HOLS I., but owing to loss of height, due to the shortness of his beat, had to make a down wind landing after two and a half minutes. He was immediately sent off again, as nobody else had yet arrived to fly HOLS, with instructions to lengthen his beat. After four and a half minutes he developed a spin and piled himself up on the first terrace, escaping with a sprained ankle and facial scratches. Dear old HOLS; the first club machine to fly from this site, and now she ends her days keeping the clubroom fire going. After the bits had been picked up FALCON was brought out and was flown by Sharpe for 18 minutes. Heath, in his introductory flight in FALCON, did 24 minutes, and subsequently Neilan (whom we were very glad to welcome back for the day), in a half hour's flight, persuaded the same machine to achieve 400 feet.

Meanwhile Marshall was making promising progress on the DAGLING.

Before putting machines away, Miss Horsley, Alderson and Watson had their first hops in FALCON.

October 20th.—Wind in considerable quantities arrived from the west. The day was spent in pilgrimages to the edge, and eventually late in the day, when the wind had dropped considerably, Hastwell had a ride to the bottom in FALCON, finding that the lift was negligible.

October 27th and November 3rd.—Wind S.E. accompanied by rain. Frl. Emmy von Roretz visited the club, but conditions prevented her trying the FALCON III. as she had hoped.

November 10th.—Wind S.E. Holdsworth tested HOLS II. and subsequently Snadden received instructions on it between

showers, instruction only ceasing when the retrieving crew started wringing their clothes out.

November 17th.—Rain storms prohibited flying.

November 19th.—Slingsby brought up a new FALCON III. (destined for Hardwick, we believe) and, with Sproule as passenger, gave her a short soaring test.

November 24th.—A cold N.W. wind, occasionally rising to 15 m.p.h., kept Stedman and Sharpe hoping all day. Hastwell did a test circuit in HOLS II., and was followed by Blakeston, who flew for the first time since his argument with the South Slope. Snadden then put in training hops in the same machine, practising turns. The DAGLING gave a new member, Grice, his first taste of the air. Meanwhile the FALCON was being rigged and was later circuited by Holdsworth, Wordsworth and Heath, being finally flown home in two hops by Miss Horsley and Watson.

Ulster Gliding Club

The following news describes some flights by Liddell in his GRUNAU BABY II.

September 23rd.—Magilligan, light N.W. wind. Launch by tow off beach. Struggled around corner below cliff tops. Gained top at Hell's Hole, then up to 1,500 ft. Across to Binevenagh. Plenty of thermals off west slopes in strong sun and cloudless sky in front of hills. Clouds forming over Binevenagh and moors behind, but forming at about 1,500 ft. so could not fly back. Found two excellent thermals in front of Binevenagh and circled until over clouds. Barograph recorded 4,000 ft. Think it records on the high side. German baro' on dashboard stuck at 500 metres. Tons of lift, presumably from thermals, one mile in front of Binevenagh. Flew back over Downhill at approx. 2,500 ft. Over Castlerock to golf links then back in a long glide to land at roadway on top beach. Tide almost full in. Pilot's birthday, so it was a fine celebration. Flying time, two hours.

October 5th.—Launch from beach in north wind. Clouds about 1,800 ft. Extreme cold. Plenty of lift over Umbra. Height, 1,500 ft. Flew over Castlerock and landed on field used by Air Force. Time, 1 hour 15 minutes.

October 6th.—Had the thought in mind of finding safety landing fields cross country, owing to the fact that thermals do not start in north wind over immediate coast and therefore there is the possibility of forced landings if lift fails. Prospected beforehand along river and chose suitable field about three miles from Downhill, the idea being eventually to arrange for car to go ahead and have trailer there on arrival. Intended to stay up one and a half hours.

Wind north; launch from beach, the car splashing through edge of waves. Lift over Umbra to 2,000 ft. Into the worst rainstorm yet experienced, and after 15 minutes beaten right down to 1,700 ft. Flew to Castlerock to have a look at best direction, then back to Umbra and 1,800 ft. Crossed Downhill at 1,700 ft., set teeth and then across country. Reached objective when still at 800 ft. and landed as arranged. This is excellent practice for cross-country work, and by gradually trying out fields further back more confidence will be found in trying the real stuff. Flying time, 45 minutes.

November 10th.—Very light west wind; drizzle. Two beach tows. Second landing was half in, half out of river. Mackie, Mrs. Mackie, Metcalfe and a small army to the rescue of car—sunk to the hips—and glider in danger of rising tide.

Norfolk Gliding Club

Some information on the doings of this club has been furnished by a club member, who writes that the club has now a primary machine in regular use. It is made from a pair of "Avro" wings on a more or less standard fuselage made by club members. The fuselage was originally of the flat framework type, but a plywood body has been fitted to reduce the pilot's wind resistance. At first hand-launching was the rule, but lately a car has been used. None of the members are really experienced pilots, having only done an average of about 17 hops each. The club has the use of a hill at Skeyton with about 50 ft. drop, facing S.W., from which the average hop is about 250 yards from behind the crest of the hill. The usual altitude in flight over the crest is 25 feet or more.

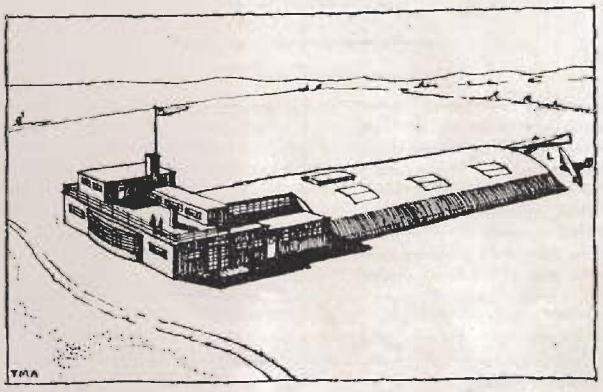
It is hoped to do some flights over the cliffs in the spring in a two-seater plane which is now under construction. The work yet to be done on this machine comprises the fixing of a final rib, the fabric covering, and the fitting of control wires.

Midland Gliding Club

November 2nd and 3rd.—A S.E. wind blowing down Handsworth Hill hampered flying. Felton's newly acquired HOLS DER TEUFEL was cleverly demonstrated by Hiscox (no longer possessed of the DEVIL). The first launch was down-wind, and as the machine passed over the crew, Hiscox was heard urgently invoking the assistance of the Junior Deity. However, adroit sideslipping saved the machine from hedge-squatting.

The club's new car winch was tested, but pilots found flying conditions in the lee of the hill somewhat disturbing. The winch is orthodox, but the roller-shears assembly is fitted with ball-bearings, which should considerably add to the life of the rollers.

[On a recent visit to Birmingham we found that copies of "The Silent Wing" had been placed on sale in all the principal book shops in the district; inside each was a prospectus of the Midland Gliding Club and a form of application for membership. The prospectus reveals an interesting scheme whereby a member can be relieved of all liability for damage to club machines by payment of two guineas a year; otherwise he is liable for the first £3 damage to a primary and the first £5 damage to a secondary or sailplane. A call on the club's chairman elicited the news that the hangar on the Long Mynd is going up fast;



The design for the Midland Club's headquarters at Long Mynd.

the club house will be built later on. The clubs which have been described in the Press as "affiliated" are really part and parcel of the Midland Club; the position is that the club has one common soaring ground for all, at the Long Mynd, while there are primary training grounds at Handsworth, Northfield, and Hereford, so that members can take their primary instruction at whichever place is most convenient.—ED.]

Harrogate Aircraft Club

A circular received from the hon. secretary states that the committee, at its last meeting, "came to the conclusion that the Government Gliding Subsidy would prove a liability and not an asset to the club so that until the conditions are modified it is not worth having. The committee has decided that the time is now ripe to go ahead with the aeroplane section of the club so that members after receiving their initial training on our Standard Training Glider can continue their training on a low powered aeroplane; soaring is regarded as more difficult than power flying and can more profitably be taken up after a number of hours in an aeroplane."

The Standard Training Glider is continuing to give every satisfaction; it has made well over a thousand flights and is in regular use each week-end. The subscription to this section of the club is 10s. per annum, plus 3d. per flight. As the club is acquiring considerable property through the efforts and generosity of the members, an entrance fee may shortly be required from new members.

The new S.T.G. fuselage is now complete except for the covering, which is not being put on until the machine is required. A spare pair of wings is under construction and members are asked to turn up regularly and give a hand. Arrangements can be made for members to make the smaller parts at their homes. The subscription to the constructional section is 10s. per annum.

Invitations to use soaring and gliding hills are thoroughly appreciated although it is not always possible to accept them.



The "White Wren" arrives at Dunstable Downs. D. M. Morland and H. L. Richardson, the builders, are seen on the left on either side of the cockpit, assembling the machine for its maiden launch. On the right: Mr. Morland about to take off.

London Gliding Club

A New "Wren."

Sunday, November 3rd.—Wind E.S.E., wrong direction for soaring, too blowy for primary instruction. Nothing happened until 4.10 p.m., when the place suddenly came to life as members came trooping out of the club house to view one of the chief events of the season—the arrival, assembly, and first trial hops of the new WREN, built by Morland and Richardson at the former's home some 15 miles away. It has taken two years to build, at a cost of 2,000 man-hours of labour and £30 for materials (they did their own metal work).

The machine is a WILLOW WREN, with some original features, together with several of the improvements already incorporated in the GOLDEN WREN, and a dihedral angle to the wings which will help to distinguish it from other WRENS in flight. As it is painted a very light grey, we don't know yet whether it is to be called the "White," "Grey," or "Silver Wren." So far there have never been more than three WRENS up at once; when all five get into the air together—grey, green, red, blue, and gold—the affair will be comparable to a one-design sailing race on water.

Morland, Richardson, and Major Petre had a hop each, and we all went in to tea.

Sunday, November 10th.—A strong E.S.E. wind again. Several people had practice hops on the nacelled DAGLING all afternoon; also Richardson had one in his new WREN, and Fox one in his SCUD II., just returned from overhaul.

Saturday, November 16th.—All those present turned out to give one beginner his first hops. With a DAGLING all to himself, he put in four slides and five "flights"; after which he generously offered to give everyone tea, but, not wishing to take advantage of his temporary exhilaration, they paid for their own as usual.

Sunday, November 17th.—Continuous rain. Very annoying, because, from 1 p.m. onwards, a perfect soaring wind blew straight up the hill. *If* the hangar had been on the hill-top and *if* the totally-enclosed HJORDIS had not been put away for the winter, it might have been possible to get someone into the air without drowning either the pilot or the launching crew.

Sunday, November 24th.—The KIRBY KITE was brought from Yorkshire by Slingsby and Sproule and delivered intact to its new owner, Hiscox. In a light wind, shifting about between W.N.W. and N., he managed to keep his height for about two beats along the stretch by the power cables. This is the only soaring flight done this month—in fact, somebody said it was three years since we had a similar month's run of bad weather.

While primary instruction went on at the bottom, descents from the top were made by Morland and Richardson in the new WREN, a few in the FALCON, and others in open and closed DAGLINGS; landings were often made by charging down-wind towards the ground-hoppers at great speed, further increased by diving, in order to land near the winch. Himmelreich had a thrill when a left turn took him too far south and he suddenly saw a high tension cable (*Hochspannung*) coming at him; with an almost vertical bank, and a scrape of the lower wing-tip through a hedge, he deposited himself without damage in the next field.

We were visited by Mr. Ronald Price, together with his wife (who has already been a member for some time under the name of Joan Meakin). They have just returned from a visit to Germany, where Mrs. Price has been taking an instructor's course at the Hornberg. While there she ordered a RHÖNSPERBER; this is expected to turn up at Dunstable in a week or two, as she has changed her plans and doesn't want it for herself after all; consequently it is going to be owned by a group of club members, including Wills, Dewsbery, and Mrs. Price herself. The Prices now intend to join another "circus" next year, taking round the WOLF sailplane (recently advertised in this journal), which the said circus has bought from Sir Alan Cobham.

Instruction Camps.—In addition to the week's camp next Whitsuntide, already announced, there will be another instruction course round about August Bank Holiday, 1936, likewise open to non-members.

August Camp Certificates.—Mr. E. S. Griffis, who obtained a "B" certificate at the instruction camp last August, writes that his name should have been included in the list of members of the Derby and Lancs. Club who attended the camp, published in "News from Derbyshire" last month.

Kent Gliding Club

September 1st.—Flying had been cancelled for this day, as various members were expected to be at Sutton Bank or on the Great North Road. Draper and Brunning worked on the B.A.C. VI., which we have recently acquired and which needs a good deal of overhauling.

September 8th.—Wind all wrong (E.N.E.) at first. Brunning, Potter, Gelston, and Draper all made short flights along the top of the ridge, and Triggs-Herbert and McManus had hops and slides respectively. Later the wind veered to S.E. and a few flights were made down the hill. Training was continued at the bottom of the hill until one member, deciding that he preferred earth to heaven, came down with a bang, burying the launching hook (with the wire still on) into the ground. The angle at which poor COLUMBUS landed must have been over 45°, and the member performed a glorious "forward loop." Somewhat to our surprise he unrolled himself quite intact if a little dazed. COLUMBUS also came off lightly—one or two fittings a bit bent and a new safety-belt indicated.

September 15th.—Wind variable, rain. Work was continued on the B.A.C. VI. by the half-dozen members who turned up. A prospective member (Chaundy, late of Jubilee Air Displays) came and helped as much as his broken arm permitted.

September 22nd.—COLUMBUS was thoroughly inspected and repairs to the B.A.C. I. (which was damaged in a heavy landing in August) were continued.

September 29th.—Rain. Work on COLUMBUS and B.A.C. VI. by four members (strange how the attendance falls off when there are repairs and construction to be done!). One member, on holiday, visited the St. Austell and S. Cornwall Club and examined some of their prospective sites.

October 6th.—Wind south. Repairs to COLUMBUS were completed, and an alteration made to the elevator gear-ratio in time for a test flight and one flight each for Brunning, Potter, Draper, Cross, and Triggs-Herbert.

October 13th.—A grand day. Wind S.S.W., 6—8 m.p.h. We had several visitors, including Wood (still a member actually, though we see too little of him), Simpson (an old member), and Marshall (a Pou enthusiast). Brunning, Gelston, Potter, Draper, Cross, Court, and Triggs-Herbert all had flights from the top of the hill or the pimple, according to their standard, Clarke had a couple of hops at the bottom, and McManus and Coote (a new member) had a slide each in the twilight.

A great improvement in the newer members' flying was apparent, especially that of Cross and Court. Draper and Potter (older members) have also made good progress, and Triggs-Herbert is beginning to realise that no hedge is as close as it looks (until one *does* get there, of course).

October 20th.—Wind N.W., strong. Repairs to B.A.C. I. continued.

October 27th.—Wind too strong for COLUMBUS. The Cross site, and the field behind (which we hope to use for auto-towing when the B.A.C. VI. is reconditioned) were inspected. Repairs to B.A.C. I. were continued, McIver (a prospective member with a "B" ticket who has since joined) lending a hand.

November 3rd.—Wind S. to S.E., 18-20 m.p.h. Flights were made in the West Field by Richards and Dugdale (both almost strangers), Brunning, Gelston, Potter, Draper, Cross, and McIver. Triggs-Herbert, Court, and Coote also turned up, but the wind was too strong for training.

November 10th.—Wet. Much hard work on B.A.C. I. Miller, who had been too busy to come over for some weeks, turned up once more.

November 17th.—*Very wet.* Work on B.A.C. I. by Sanguinetti and Draper.

November 24th.—Wind N.W. Flights on the Race Course by Brunning, Draper, Miller, Court, and Clarke, followed by work on the B.A.C. I. Turner, of the Channel Club, was in the thoughts of two members at lunch time. Finding themselves in the vicinity of Hawkinge the evening before, they had called to pass the time of day (or night) and were regaled with large helpings of cold duck, which was obviously meant for Turner's Sunday dinner! We hope he survived, and was not reduced to gnawing bits of the Channel "crashery" which he is housing.

This account of our activities for the last three months cannot be closed without reference to those who have worked on the repairs recently. Sanguinetti, of course, heads the list, with all the planning to do as well as hours of work. Brunning is a good second followed closely by Draper. Clarke, Coote, Court, Miller, Miss Sinclair, and Triggs-Herbert have done varying amounts of work, and Cross, Gelston, Potter, and Richards have put in spasmodic appearances. The B.A.C. I. is almost ready to fly again, but there is still a tremendous amount to be done on the B.A.C. IV. and VI. (besides odd jobs on, in, and round the hangar), and we hope to see more members getting down to it.

And talking of construction—Sanguinetti happened to overhear part of the broadcast of "Father Noah" last Sunday and came in to tea announcing that he had found a motto for the club: "*What virtue is there in making things for other men to destroy?*"

Leicestershire Air Sports Club

Sunday, October 7th, Clack Hill.—The PRÜFLING arrived in a west wind ranging from 20 to 40 m.p.h. After one wing and the fuselage had been removed, the trailer was promptly blown over, but mercifully the other wing was undamaged, and rigging was completed safely at 1 p.m. At 4.30, the wind having abated slightly to about 25 to 30 m.p.h., W. Adcock was launched off the 100 ft. west slope by catapult. He made a rather hectic flight of 34 2/5 seconds to the bottom and reported conditions *very* rough. Flying was thereupon abandoned for the day.

Sunday, November 3rd, Six Hills.—Wind 20 m.p.h., south-east. After waiting until 3 p.m. it was decided to abandon primary training on account of rough wind.

Clack Hill.—The Adcock Brothers took their PRÜFLING out and put in three useful 30-second flights, each off the south slope. Mr. L. E. Headley, our chief instructor, arrived very belatedly from Six Hills and made the longest flight of the day (35 seconds). This was his first flight on the site and he expressed delight at the prospects. All launches at Clack Hill are via catapult as our winch is operating at Six Hills.

Sunday, November 10th.—No flying on account of unsuitable weather. However, a deputation visited the "Leicestershire Flying Pou Club's" ground at Great Dalby with a view to future co-operation, whilst several members visited Dunstable.

Newcastle Gliding Club

Sunday, September 29th.—"Oh, what a lovely morn." Wind S.W., 15 m.p.h. The nacelled CRAMCRAFT (P4) and the DICKSON (P2) were in use for several hours, until the CRAMCRAFT lost its nacelle, and the DICKSON fractured its skid. The latter mishap was due, we think, to avoirdupois, as Coates, the pilot, turns the scales at about 15 stones. He is self-conscious about his girth, and intends to regain his school-boy figure by giving up his beer. (What man will do for the cause of art!)

Saturday, October 5th.—Bell and Tate devoted this afternoon to righting the wrong on the nacelled CRAMCRAFT.

Sunday, October 6th.—In spite of the railway company's posters proclaiming the east as the "drier side," it was definitely raining. Odd jobs were done in the hangar and club room.

We have now a field telephone, thanks to Mr. L. B. Tate, which will be of great assistance in winch launching, etc. It is not intended, as many members thought, for communication from the launching hill to the buffet.

Sunday, October 13th.—Another bad day, both from the point of view of date and weather. However, the spirit to fly was dominant, and the DICKSON was rigged. As there was not sufficient wind, the machine refused to disobey the accepted laws of flight.

Sunday, October 20th.—A very interesting ceremony took place to-day. The nacelled CRAMCRAFT (P4) was christened by Miss Ruth Runciman. The machine is the generous gift of her brother, Mr. W. L. Runciman, president of the club. The machine was christened "Hadria," it being decided not to call it Hadrian after the cattle boat of that name, in case our Mr. Coates thought it was associated with his bulk.

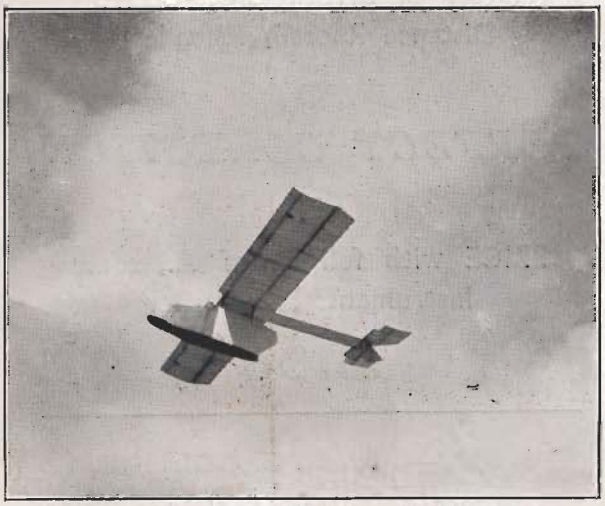
When the early members arrived to prepare for this event, the club house roof had apparently done a bit of soaring during the night, and stalled 40 yards down the field. (Wireless forecast: "strong to gale force.") In addition to this nasty mishap they could not find the nacelle for the CRAMCRAFT. We can understand the roof soaring, because it has so often overheard our instructor, but the nacelle was a worry. However, it arrived on Bennett's 'bus about half an hour before Miss Runciman. There are two solutions to this: (*a*) Bell made a record cross-country flight, or (*b*) it had been taken to Newcastle for a final touch up. It is generally agreed that (*b*) is correct.

Sunday, October 27th, to Sunday, November 17th.—During all these week-ends our secretary has been unfaithful in his attendances. He says he has a cough, but we think the subsidy complications have a lot to do with it. He has figured out already that the grant is actually a stone around our necks, and that we must all swim like H . . I for the shore. He says other things which we refrain from repeating.

Also, during these weeks, on a particular Sunday afternoon, Burningham thought fit to crumple the DICKSON. Prior to this he was a Canny Lad.

A workshop has been taken in Newcastle so that constructional work can be carried out on evenings during the week.

No record has been kept of the rainfall, but a meeting will shortly be held to consider fitting floats to all machines. Those members who wish to be in the swim must bring their own oars.



J. M. Feeny flying the nacelled "Cramcraft" at Moat Law.
[Photo by J. C. Burningham.

New Gliding Clubs

Austin Gliding Club.—Membership of this club, which has now reached 25, is not confined to employees of the Austin motor works, but is open to anyone interested. The club is affiliated to the Midland Gliding Club, whose facilities it has been using since it started activities in August. In November, however, a primary glider is expected, and training will then begin at Longbridge, south-west of Birmingham. The Midland Club's ground at Handsworth will be used for secondary training, and that at Church Stretton for soaring. Recently, Mr. Hardwick and Commander Williams, of the Midland Gliding Club, gave a lecture at the Austin works to club members and the Apprentices' Engineering Society.

Hereford.—At a meeting held on September 5th for the purpose of forming the club, the attendance was too small for this to be done, so another meeting is to be held at a later date. It is hoped then to get 25 members, and to affiliate to the Midland Gliding Club. A site four miles from Hereford is available for training up to "B" standard. Mr. L. C. Dugdale, of the Kent Gliding Club, gave a lantern lecture at the meeting, and Mr. J. A. Brook, of the Midland Club, outlined the proposed scheme.

A South Shropshire and North Herefordshire Gliding Club was formed about five years ago, and its membership was once over 100, it is stated. We visited its ground, a large field at Dinmore, one Sunday in the spring of 1931, and found it deserted. There was an open shed containing a primary machine rigged, and sections of another; for all we know they may be there still.

Shropshire.—Yet another body to be affiliated to the Midland Club is the Shropshire Gliding Club, formed last May, with headquarters at the "Travellers' Rest," Affcott, Church Stretton. Training is being carried on regularly at week-ends with a DICKSON glider, and Captain A. Bowen, a war-time pilot, is instructing. On September 8th he was flying the machine himself when it stalled at 70 feet. He flattened out too late to prevent a broken right wing.

Wombwell.—Pitboys of Wombwell, Yorkshire, having become "impatient at the lack of facilities for studying aviation under the education authorities," have started a study circle of their own in a room above a stable in Barnsley Road. Having made some 15 models, they now talk of forming a gliding club.

Report on B.G.A. Competitions

We have received the Report on this year's Competitions, signed by P. A. Wills, N. H. Sharpe and F. N. Slingsby, who form the Committee of Management of the Sutton Bank Site, appointed by the British Gliding Association.

After dealing with the finances, the Committee makes the following recommendations:—

"In the first place, regarding the composition of the Sub-Committee, we suggest that prior to its election the Association decide which are the possible sites for the forthcoming competitions, and then elect a Sub-Committee composed chiefly of members of the clubs concerned. Then when the site is finally decided, the relevant portion of the Sub-Committee will be available to share the work. The present system of having a member from every district in the country means that a full meeting of the Sub-Committee can never be held and the actual work has to be done by one or two of its members. The final selection of the site should be made by the Council early in the year.

"A second point concerns prizes. It seems unsound that money prizes, taken from gate-receipts, should be offered. We should like a discussion as to whether prizes, in future, should be in cash or such things as variometers, ash-trays, etc., and whether the necessary funds should not be provided either by the B.G.A. or by such means as increasing competitors' licence fees. An entrance fee of £1 1s. should realise an adequate amount for the usual small prizes.

"Thirdly, it is absolutely necessary to obtain a vacuum chamber in which all barographs must be corrected on the site at the beginning of the competitions, for a small fee. This will eradicate gross errors, and the few barographs used for height prizes during the competitions can be again checked afterwards."

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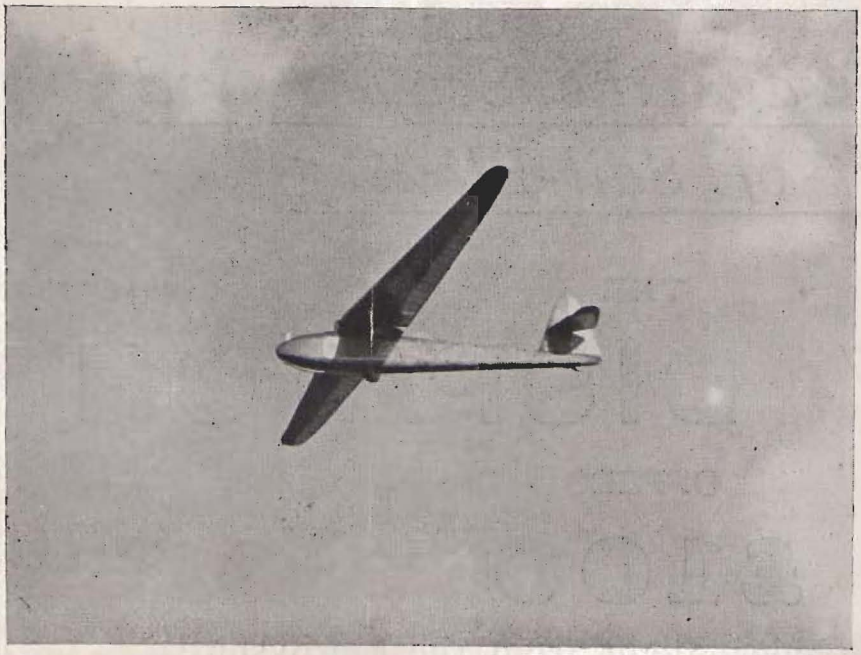
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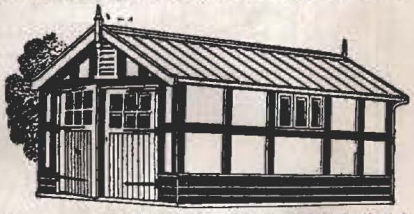
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