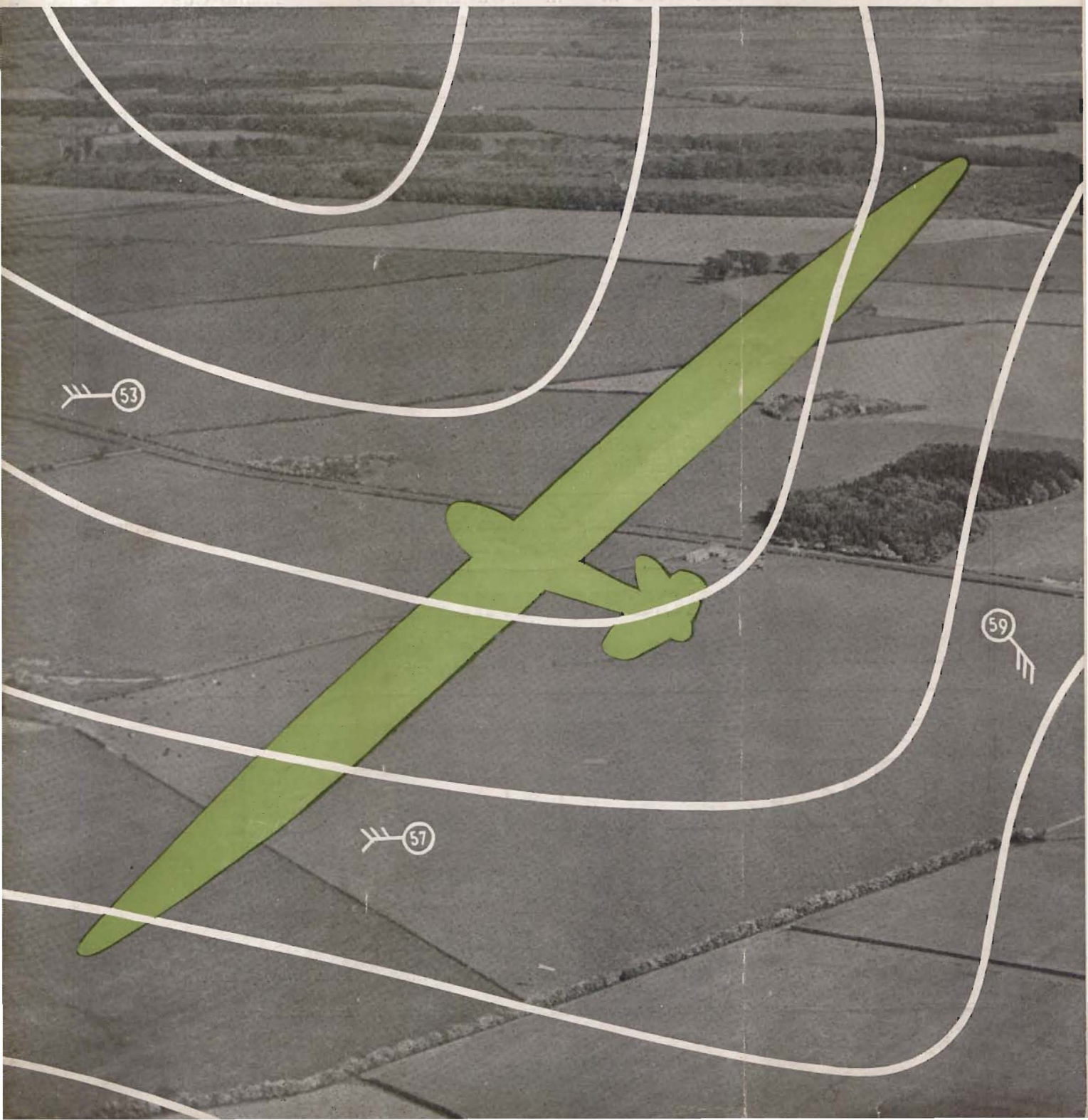
SAILPLANE AND GLIDER

NOVEMBER
1935
Vol. 6 No. 11

PUBLISHED
MONTHLY
Editorial Offices:
13, Victoria St., S.W.1

Official Organ of the British Gliding Association

EDITED BY ALAN E. SLATER



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Editorial Offices: 13, VICTORIA STREET, LONDON, S.W.1 Telephone: ABBey 2615-6-7

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"Daily Dispatch" Prizes

THE intention of the Manchester *Daily Dispatch* to offer two prizes for "the encouragement of the sport and science of gliding in Britain," announced in our September issue, has now been confirmed by publication of the conditions of the awards. The first is offered for a flight from the Derbyshire and Lancashire Club's site to Blackpool at any time from now to the end of next September, and the other for the best flight in a home-built machine during the meeting to be held at the club's site next Easter. The following are the published particulars of the conditions :—

£100

To be awarded to the pilot of any type of motorless glider or sailplane who completes a flight with the starting point at or near to the headquarters of the Derbyshire and Lancashire Gliding Club at Camphill, Great Hucklow, Derbyshire, and terminating at Stanley Park aerodrome or Squires Gate aerodrome, Blackpool, or any other suitable landing-place within the boundaries of the township of Blackpool. This competition is open as from November 8th, 1935, and if by September 30th, 1936, no pilot has succeeded in reaching Blackpool but has approached to a point within 20 miles' radius of Blackpool Tower, and has otherwise fulfilled the conditions of the competition, he shall be adjudged to be the winner of the prize. Should more than one pilot approach within a radius of 20 miles of the Blackpool Tower the winner of the prize shall be the pilot approaching within the shortest radius of it.

£25

To be awarded on the occasion of the gliding meeting to be organised by the Derbyshire and Lancashire Gliding Club at Easter, 1936. To become eligible to compete for this prize the pilot must be the owner-constructor or part owner-constructor of the motorless glider or sailplane he enters for the competition. The prize is primarily intended for a cross-country flight—the winner being the pilot who covers the longest distance determined by a straight line drawn between the point of departure and the first landing; but in the event of the weather proving unsuitable for cross-country flying the judges will award the prize at their discretion for either height or duration. No pilot making a flight of less than five miles, 1,250 feet altitude, or one hour's duration, will become eligible for the prize. A pilot may make any number of attempts during the meeting, which will take place at or near the headquarters of the Derbyshire and Lancashire Gliding Club.

Entry forms and full particulars are obtainable on application to the *Daily Dispatch* Gliding Competition, Withy Grove, Manchester 4.

It is stated that entrants must hold the "B" or "C" gliding certificate, and must be members of clubs affiliated to the British Gliding Association.

Technical Retrospect

IN *Aircraft Engineering* for October there is an article of great interest on "Glider Development in Germany since 1922," written by B. S. Shenstone and S. Scott-Hall, both acknowledged experts on the subject.

They attribute the failure of gliding experimenters to soar until that year to insufficient recognition of the importance of designing their machines for a low sinking speed. Reduction of sinking speed can be achieved either by reducing wing-loading (such as by increasing the wing area), or by increasing the span, and it is the second of these two lines of development which has led to the present progress. The most important structural innovations in the VAMPYR, the first glider to soar for one hour, were the use of a single spar and a stressed skin leading edge, and the elimination of an under-carriage. The next great contribution to progress was the development by the Darmstadt Group of the elliptical wing. But when the span of such a wing is increased beyond a certain figure, the resulting aerodynamic improvement is neutralised by increased weight, and this led Lippisch to introduce the PROFESSOR and WIEN types, with "V" struts to a heavily tapered wing. This taper had the further effect of reducing the turning and banking inertia, and so led to better manœuvrability.

The latest tendency is to design for increased flying speeds, which, of course, involves a corresponding increase of sinking speed, so that the question which was once regarded as of primary importance has in turn been relegated to a secondary place.

Correspondence

Correspondence between the "Federation of British Gliding Clubs" and THE SAILPLANE has been held over as it is still in progress.

From Here and There

Showing the Flag.—At the Milan Aeronautical Exhibition, held from October 12th to 28th, Germany was represented by four machines, three of which were aeroplanes and the other the sailplane SAO PAULO.

* * *

As Useless as Gliding.—"Electricity is universally allowed to be a very entertaining and surprising phenomenon, but it has frequently been lamented that it has never yet, with much certainty, been applied to any very useful purpose."—Dr. Charles Burney, writing in 1771.

* * *

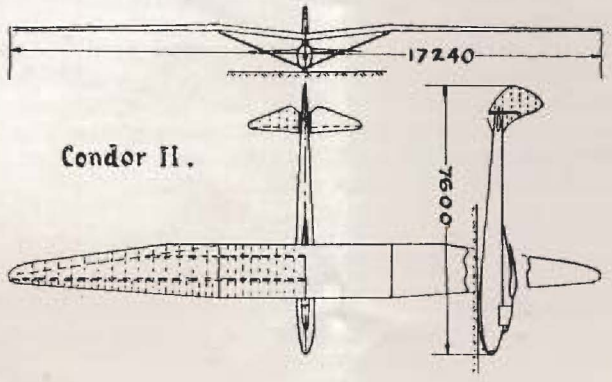
Birds in Flight.—An International Exhibition of Nature Photography is at present being held in the Natural History Museum, South Kensington, London, and will remain open until November 30th. (Open till 6 p.m. weekdays and Sundays.) A large proportion of the photographs are of birds, many of which are shown in flight. The exhibits have been assembled from all over the world.

* * *

New Duration Record.—The world's duration record of 36 hours 37 minutes, held by Kurt Schmidt of Germany, was twice beaten on October 2nd at the Russian soaring meeting in the Crimea. Soukhomlinov, in a single-seater, started at 8.20 a.m. and stayed up for 38 hours 10 minutes, and Lissitvine, in a two-seater, starting at the same time, soared for 38 hours 40 minutes. Kochits, in a *three*-seater, kept up for 11 hours 30 minutes with two passengers.

* * *

A Safe Bet?—"I am prepared to bet £5 to sixpence that after the first five years of the Government gliding subsidy have elapsed there will be more than three times as many gliding pilots in this country as there were aeroplane pilots after the first five years of the Light Aeroplane Clubs' subsidy. This in spite of the fact that the gliding subsidy is to be £5,000 p.a. against the L.A.C. subsidy of thousands of pounds. . . But I am going to allow myself one get-out. My bet is off if in the interval any considerable number of us are partially dissolved by corrosive fluids dropped on us by hirelings of a foreign nation piloting large numbers of your blessed smell-waggons."—P. A. Wills in a letter to *The Aeroplane*.



Euclid on Gliding

A point is the landing ground as viewed from above. It has no parts and no magnitude.

A straight line is the shortest distance between a given club member and the bar.

A glider is a three-dimensional figure consisting of lines, surfaces, points, tacks and whatnot. By construction it proves what mugs some people are.

The side of a given "B" pilot is equal to the sum of the sides of any two "A" pilots.

No two members of the launching crew lie in the same straight line.

A lady member is the centre of a circle of reporters. She is equal to anything.

Let A and B be two pilots recounting their exploits. Then the lies of A are equal to the lies of B. For if not, let A be the greater liar. Then B is less of a liar than he might have been, which is absurd.

An unparalleled lie may be produced any number of times in all directions, but will never meet its equal.

Let any given club official be described by an ordinary member. Then the description will be unprintable.

If a circle be described about the bar (centre "XXX") then all the members will lie inside it.

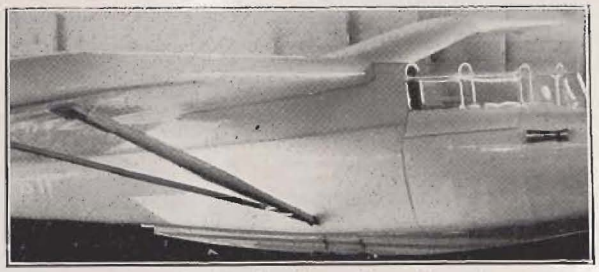
A subsidy is a magnificent figure, but it requires a lot of proof to draw on it.

Q.E.D.

Condor II

The recent very long distance flights in (or rather from) Germany have shown that for such achievements a sailplane needs to be able to fly at high speeds without much detriment to its gliding angle. This the old type of CONDOR was unable to do, so Dittmar has evolved the CONDOR II., in which the wing has a thinner and flatter section (Göttingen 532, with a maximum thickness of 7·1 ins.), and the "wash-out" of incidence towards the tips has been reduced so that the end of the wing does not bend downwards till a speed of 112 m.p.h. is reached.

The machine has a span of 56 ft. 7 ins., and a length of 24 ft. 11 ins. Its minimum sinking speed is 0·5 m. (1 ft. 7·7 ins.) per second at a flying speed of 55 km. (34 miles) an hour; when flying at 140 km. (87 miles) an hour the sinking rate is only increased to 2 metres (6 ft. 7 ins.) per second. (These are definite measurements, not estimates.) Dittmar has made it circle in 4½ seconds. Put into a spin its air speed was only 56 km. (35 miles) an hour, and it lost height at 12·6 m. (41 feet) per second.



The "Condor II." Note the thin wing-section. An outline drawing of the machine is shown on the left.

Dittmar at Dunstable

THE prizes distributed at the annual German soaring meetings have always included a few free voyages to England and back, offered by the German shipping lines. In consequence it has become an annual event for a well-known sailplane pilot from Germany to turn up unexpectedly at the London Gliding Club some week-end, there to be made welcome at the price of having to unload his expert knowledge before an unending stream of questioners from morning till night.

This year's visitor was Heini Dittmar, and he had so much of interest to say that we think some of it deserves to be passed on to readers of THE SAILPLANE.

Cumulus Clouds

There are two main varieties of cumulus cloud, possessed of very different properties from the sailplane pilot's point of view, yet no inkling of this fact is to be found in any book on the subject. The first is shown in Fig. 1; it occurs when there is a fairly strong inversion close above the cloud-base level, and this inversion prevents the cloud from growing upwards; it is therefore rather flat. As the up-current under this type of cloud lasts about a quarter of an hour, the pilot when he sees one can glide towards it knowing that the up-current will probably still be there when he arrives. It is therefore a useful cloud for distance flights, as the pilot can pick on one lying in the direction he wants to go. The compensating down-current, however, occupies *all* the space between the clouds.

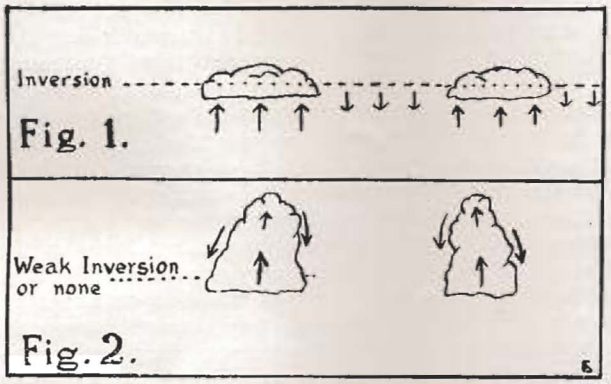


Fig. 2 shows clouds of greater vertical development; these are formed when there is no inversion, or only a slight one. In this case it is no use for a pilot to fly to a fully developed cloud, as the up-current beneath it will have already stopped. He must get under the cloud when it is just beginning to form. Such clouds are useful for making height records, but not so good for distance flights. For the latter, the pilot must climb *inside* the cloud, and then glide from its top to the next one. In this case no down-currents will be found in the spaces between the clouds, because these currents are concentrated just outside the cloud itself.

Cloud Streets

On the day on which four pilots each flew 310 miles from the Wasserkuppe to Brno aerodrome in Czecho-Slovakia, taking about six hours over the journey,



Heini Dittmar, holder of the world's height record, tells P. A. Wills what he thinks of the "Hjordis," in which he has just landed. Above: Dittmar starting for a flight in the "Scud II."

Dittmar was not able to start till later than they did; however, in the CONDOR II., he got as far as Pavlov, 267 miles, in three and a half hours. This gives the astonishing ground speed of 76 miles an hour, but his average air speed was even greater, being 140 km., or 87 miles an hour. These flights were, as one might expect, largely done by flying straight down-wind under cloud streets, though Dittmar says he did a certain amount of circling. The same applies to last year's flight when Dittmar put up a world's record of 232 miles. In the case of the four who flew to Brno, three at least of them were using one immense cloud street, and Bräutigam in the D.B. 10 overtook the two others without their seeing him.

A high wind facilitates such long distance flights, not only because the pilot has only a limited time at his disposal before the thermals die out in the evening, but also because it promotes the formation of "streets."

Spinning

One of the risks of flying inside a cloud with a machine of good aerodynamic design is the suddenness with which it will gather speed if the pilot gets inadvertently into a dive after an inadvertent stall. If the speed becomes too great, owing to the pilot not knowing what attitude he has got into, then there is a danger of the machine breaking up, especially if it strikes a gust. Dittmar's advice in such a case is to put the machine immediately into a spin, and to go on spinning until one comes out of the cloud. This will effectively prevent it from acquiring excessive speed.

Sailplane Construction for the Amateur

9—The Main Plane and Supports

By W. BUTTERFIELD

WHEN working from drawings prepared by a competent designer and approved by the airworthiness panel of the B.G.A., it seems a little outside the province of these articles to attempt to discuss features which influence design. It is, nevertheless, desirable that the builder should acquire a general knowledge of the distribution of the forces acting upon the structure.

The simplest form of main plane is a single rectangular plane, its length (span) being about six times its width (chord). This "aspect ratio" in sailplanes is often as high as twelve. A higher ratio is still more efficient aerodynamically but uneconomical in a structural sense.

For primary training the high-wing monoplane is most popular. A machine for beginners must possess reasonable inherent stability, i.e., the opposite of controllability, when in the air. Low position of the pilot's weight, coupled with a slight dihedral angle, ensures good lateral stability. Whether a high wing position reduces damage when landing is a debatable point, but perhaps the chief reason for adopting the high wing monoplane is that such an arrangement lends itself to a simple, cheap, and light form of braced structure.

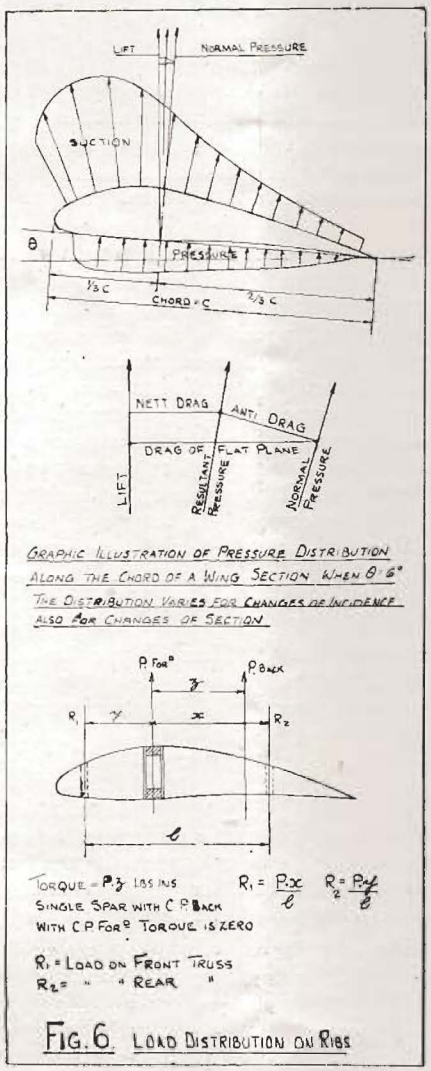


FIG. 6. LOAD DISTRIBUTION ON RIBS

Before the advent of highly cambered wings or aerofoils, the early pioneers devised ingenious methods of "parasol" suspension to minimize the bending action. It is now possible to utilise a thick aerofoil section which enables the loads to be carried cantilever fashion. The most popular method of support is a compromise between the two.

The diagrams shown in Fig. 5 illustrate six methods of suspension in use to-day: (*a*) Pure cantilever, (*b*) braced cantilever, (*c*) strut-braced pin-jointed at root, (*d*) wire-braced and pin-jointed throughout, (*e*) four-point support (as PRÜFLING and FALCON), (*f*) two-point suspension (as SCUD type). Each system produces bending in the wings, but the position and magnitude of maximum bending will vary widely and each must be considered on its merits.

Before the loads or bending forces can be determined it is necessary to know how the air loads are distributed over the surface of the wing. Fig. 6 is an attempt to illustrate some remarkable virtues of the cambered aerofoil. Note the intensity of the negative pressure (suction) immediately over the front edge of the wing when it actually faces the wind and should therefore be subjected to a positive force of direct impact; owing, however, to the existence of what Lanchester describes as a "cyclic upcurrent," the relative wind approaches the leading edge with an upward trend, so that the dipping front edge of the cambered wing section is actually on the lee side and receives the benefit of a very intense suction, that much exceeds the force exerted elsewhere. Note also that the vectors over this portion of the upper surface slope forward and that suction on this portion is bound to exert a forward propelling force in the direction of flight as well as an upward lift. At high angles of attack the pressure distribution on the upper surface becomes uniform and any upwind component is then neutralised by the downstream drag of the trailing portion of the wing; the lift also falls away abruptly, hence the stall.

It is interesting to note that, whether it be a flat plane or a cambered one, it is always the upper surface that contributes the greater part of the lifting effort. Wing sections such as used on sailplanes derive three-quarters of their lift from suction on the upper side, this fact is also of practical value, since changes in shape of the lower surface are relatively unimportant, and deep spars can be used without detriment to the lift coefficient. From this it follows that the upper surface should retain its true form under all circumstances and that the covering material should be well supported and securely fixed. This covering distributes the air loads via the former ribs to the main spar or spars.

The position of the centre of the resultant pressure is another important factor in design. With cambered wings the C.P. moves forward as the angle of attack

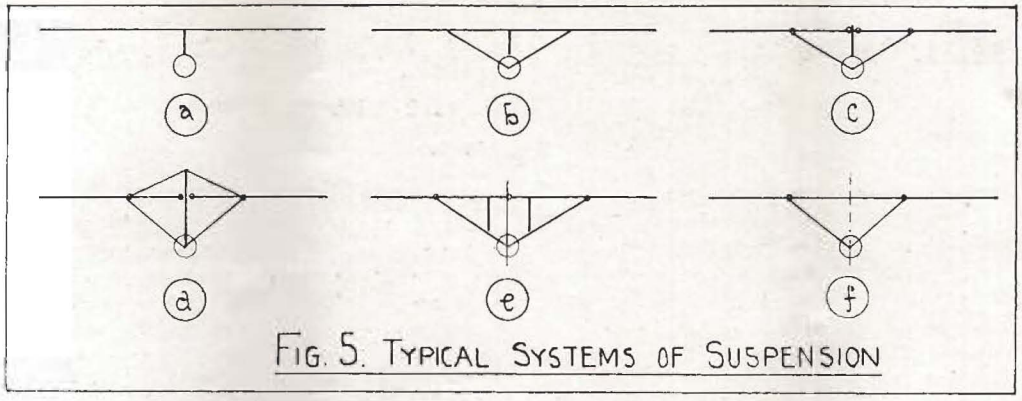


FIG. 5. TYPICAL SYSTEMS OF SUSPENSION

increases. (In the case of inclined flat planes it moves backwards as the angle increases.) If the wings are of two-spar construction the position of the C.P. determines the load on each spar for different attitudes of the wing and the load on each spar will be in inverse proportion to its distance from the C.P.

For stressing purposes the C.P. is assumed to act at one-third of the chord from the leading edge when the machine is at maximum angle of attack, the wings are then designed with a load factor of five for that condition.

In diving flight the position is assumed to be three-quarters the chord from the leading edge, and in this condition a factor of 3.5 is called for. Under these circumstances the rear spar will take practically all the load and in the case of single spar wings with the C.P. in the backward position considerable torsion is set up as well as bending and the leading edge is boxed in with plywood and suitable diaphragms, which, coupled with the spar, form an ideal member to resist this torsion.

The drag forces on a sailplane when in normal flight are very small and may be of opposite sense to those of powered craft, i.e., the component of weight acting forward may more than balance any backward drag and such forces are easily catered for.

The aerodynamic forces on the ribs are very low, and ordinary former ribs, built from ¼in. sq. members and 1/16in. thick plywood gussets, stand up to the task quite well. When the wing is of two-spar construction and the panels braced, a number of struts or compression ribs will be required. Two ordinary former ribs, placed about 1½ inches apart and covered with 1/16in. thick plywood, form very satisfactory struts.

The National Soaring Competition in Poland

By A. T. LUTOSLAWSKI

ON the 22nd of September the Minister of Transport declared open the National Gliding Competition in Ustjanowa, Southern Poland. It was the first National meeting of this kind, and as such it has attracted considerable public attention. There are now in Poland 104 gliding clubs, with a total of about 9,000 members, 1,200 of whom are licensed gliding pilots.

Polish gliding came into existence quite recently, as before 1929 no flights had been made except a few very short ones. The development was, however, fast, and it is a point on which the Polish gliding men pride themselves that at no time did they resort to the help of foreign instructors, nor were any foreign sailplanes used in Poland.

The plan of the meeting provided a special task for each day, and points were awarded for the accomplishment of the greatest number of these on successive days. For instance, the task of the third day was the following: Fly to Bezmiechowa (about 10 miles), return and land at the starting point. Some 15 pilots managed to do it on that day. The record for a distance flight with landing at the starting point is held by Mr. Brzezina, who flew from Ustjanowa to Sanok (nearly 40 miles) and back.

On another day distance was set as the goal, but the weather conditions not being what they might be, nobody equalled the 130 miles Polish record. Three competitors have, however, exceeded the 70 miles mark.

The duration of flight day was more successful; Mr. Olenski on a MOSQUITO held the air for 20 hours and 13 minutes, beating at the same time the night flight record with 11 hours and 15 minutes.

The altitude day brought some difficulties, as is usually the case when extra-delicate barographs come into the game. Mr. Wlodarkiewicz, a well-known pilot who distinguished himself in last year's challenge (then with an engine), topped the list with 8,800 ft. above starting point. Capt. Bleicher claimed an altitude of nearly 11,000 ft. but this was not officially recognised, although there is reason to suppose that he exceeded the existing record by a large margin.

There have been several women competitors and they attained excellent results, in some cases nearly equalling the men's records. Miss Mary Younga flew to 7,000 ft. above starting point, and she covered a distance of some 30 miles. Miss Modliborska improved her former duration record and went up for 9 hours 30 minutes.

The names of the winners of the competition have not yet been announced, but it is pointed out that the general standard attained by the pilots is more important than the peak results of some of them. Figures of averages are held in Ustjanowa to mean more than the records, even though the latter are eagerly sought after. For instance, on the 1st of October the 50 flights made contributed a total of



Scenes at the Polish Soaring Competitions. The lower picture onthe left shows the pilots who took part.

more than 60 hours' flying—which shows that of the many competitors very few had flown for less than an hour.

It certainly took away some of the spectacular interest for the mere lookers-on. On a good day, when the leading pilots were started by the rubber ropes, there was nothing for the poor journalist to do but try to pass his time for some six hours or so. On the last Sunday a concession was made to the public, which turned up in numbers. There were 15,000 spectators, although Ustjanowa is not in the proximity of any big town. An exhibition of aerobatics was staged by Mr. Offierski, a holder of a "D" international licence, on a HAWK. He was towed to a height of more than 6,000 ft. to save time—he might have been able to get there by his own means but we would have to wait for it some hours. Nearly everything that a fast service plane can do with its 800 h.p. or so was done by the beautiful HAWK with infinitely more grace, because more slowly and with more "feeling." The high aspect wings bend visibly under the strain, but never break. If they did, there is the parachute, always worn for these flights. There have been no casualties during the National Competition, and on the whole accidents are rare. Once the period of primary tuition is over, the gliding pilot is probably using the safest means of transport in existence, barring the wheel-barrow.

The meeting was completed by an Air Rally, which brought to the quiet Ustjanowa some dozens of light airplanes, most of them RWD's, of the type which won the last International Challenge Competition. It will not be out of the way to mention the fact that the French Air Ministry, as it purchased a D.H. COMET after the big race, also bought in Poland an RWD9 as an example for its designers.

The propaganda value of the meeting was great—thousands of people who have heard very little if anything about soaring have been forced to notice it—for a few days gliding was *the* news, even for those that always have stuck to the solid ground.

Another important lesson taught by that fortnight at Ustjanowa was that good pilots can soar in almost any weather. Flights have been carried out in a gusty wind which only a few months ago would have left everyone keeping the home fires burning and the gliders secure in their hangars. A few years ago it was almost universally recognised that there were no suitable soaring sites in Poland, and it had been scientifically proved that the climatic conditions could not permit a flight of more than about 10 minutes, which was then the Polish record. To-day, flights of several hours are considered the normal routine of any respectable club, and the attainment of 24 hours' duration remains only a matter of physical endurance, a feat which surely will be soon accomplished by someone and then by others.

The enthusiasm of a few men has made Polish gliding what it is to-day, in spite of the tremendous difficulties encountered in the development of this new sport. It is to be hoped that after the first National Competition there will be also International Contests which would certainly bring further progress, as is always the case when the powerful stimulant of emulation comes into play. The Polish gliding pilots could enter such a contest with the hope of an honourable placement, and if other nations should prove to be their superiors in the game, they would be glad to learn from them whatever there might be to be learnt.

News from the Clubs

Gliding Clubs in South Africa

[*The following account of South African gliding activities has been written by Mr. H. G. Horrell, who obtained his "C" certificate with the London Gliding Club last July, and has since gone out to South Africa.*]

In the past little has been heard of gliding in South Africa, and, apart from several unsuccessful attempts to form clubs during 1930–31, few flights of note have been made until the present year.

At the time of writing there appears to be every prospect of a strong movement being built up in the near future, as several machines which have been some time in the course of construction are now ready or about ready to fly; and, what is more important, there are now some four or five pilots in the country who have obtained their "C" certificates in England and Germany, and who are prepared to assist clubs with regard to instruction and organisation.

The following brief notes, apart from those of the Rand Gliding Club, are obtained from the local Press.

Rand Gliding Club.

This newly formed club has established its headquarters at Mulder's Drift near Krugersdorp. The place selected has a good site facing the prevailing north wind for all work up to the "B" stage, and within a five mile radius good sites are available for all winds. The main soaring slope is about half a mile from the primary one and also faces north; it has a drop of 720 feet and connects up with the Magaliesburg range, along which it should be possible to soar in a north wind for about 200 miles without resorting to thermals, which appear to be plentiful during most days of the year. In the past there has been much controversy concerning the feasibility of soaring at 6,000 feet above sea level, and we are glad to say we have already been able to prove that it can be done.

The club is working in conjunction with a club formed some time ago by members of the local German community, and between them possess a locally built ZÖGLING and a sailplane designed and built by S. W. Vine of Krugersdorp some three years ago. [See THE SAILPLANE AND GLIDER for November 20th, 1931, and January 15th, 1932.] The combined membership is about 60, two of whom, Davy and Ward, recently qualified for their "A" certificates.

The sailplane has been flown by members possessing "C" certificates, of whom the club has three, two English and one German. The best flight to date is one of 35 mins. 32 secs., which was made on August 29th by W. H. Pidsley, late of the London Gliding Club. Up to the present the chief difficulty has been transporting machines to and from Johannesburg, a distance of 20 miles, but the necessary hangar is now in course of erection, and on its completion serious flying will commence.

Swakop Gliding Club.

This club is reported to have a membership of 70, and operates from sand dunes near Walvis Bay. Since 1932 the equipment has consisted of ZÖGLINGS and a PROFESSOR built locally by Messrs. Winter and Guhl; three further machines have just arrived from Germany, thus making it easily the largest club in Southern Africa.

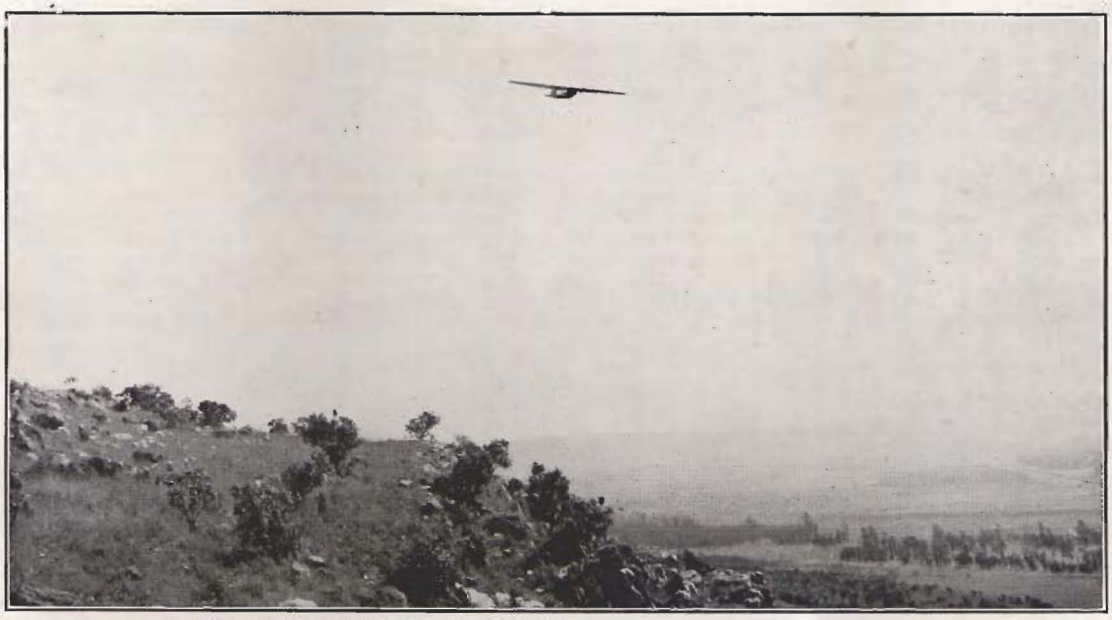
Several flights of note have been made during the present year, including one of 7 hrs. 10 mins. on September 9th by the club's instructor, Mr. von Arim, flying a machine named "Flamingo," presumably the PROFESSOR. The flight started shortly after noon from a few miles out of Swakopmound, the pilot landing in Swakopmound at 7.20 p.m., five miles from the starting point. The machine is reported to have reached a maximum height of 500 feet, and to have been flown on a beat of 15 miles between Swakopmound and Walvis Bay.

Paarl Gliding and Sailplaning School.

It is understood that this organisation has been flying a primary for some time past, and that the instructor is a Mr. Weitmann, a German "C" pilot. During the present month the construction of a FALKE has been completed, and this machine has been on view during the past week at the local Town Hall. Good soaring country abounds in this district, and flights of note should be made in the near future.

Other Clubs.—Further attempts are being made to form clubs at Cape Town and Port Elizabeth, and in Zululand.

A South African Association of Gliding Clubs is also being formed, and one of its first duties will be to make arrangements for F.A.I. certificates to be issued in South Africa, which cannot be done at the moment as the Royal Aero Club, who are responsible for their issue throughout the Empire, are not at present represented in the Union. The attitude of the Government towards gliding can truthfully be described as sympathetic, and it is felt that the formation of a central organisation will enable further discussions with the Minister concerned to produce something of more assistance to the movement than mere sympathy.



W. H. Pidsley soaring for 35 minutes on the "Avis" Sailplane, at Krugersdorp, on August 29th.

London Gliding Club

Sunday, September 22nd.—Yesterday and to-day, in response to a club circular, many members came and tidied up the remains of what used to be a couple of hangars. Representatives of glider-repairing firms were also in evidence. Club members were pleased to learn that all damaged club property was fully insured, and private owners could be heard making inquiries (better late than never) as to the premiums for such insurance.

The rain and S.W. wind of a "warm sector" cleared off in the early afternoon and gave place to a westerly breeze, which later backed to W.S.W. and became stronger. Cumulus appeared in the sky, but although the air was reported to be annoyingly "fidgety," it failed to produce any thermals. Another sign of its stability was that, while the wind was light enough at the bottom for primary instruction, up above it was so strong that a soaring DAGLING was being blown backwards. An occasional squall, however, penetrated to lower levels.

Dewsbery climbed to 800 ft. in the RHÖNRUSSARD, and Barker flew his SCUD. Humphries in the CRESTED WREN (which, though no longer his, he loves as much as ever), found that he only got up to 200 ft. when he flew it at 33 m.p.h., but reached 400 ft. by flying at 31 m.p.h. "The little more, how much it is; the little less, what worlds away!" The KEEBLING also flew.

Of club machines, the PRÜFLING, the new FALCON, and two GRUNAU BABIES were in action; Grant made an outstanding flight in the PRÜFLING, which qualified him for the FALCON. The former machine was later "concertina'd" by another pilot, who flew it into the ground at the take-off. (A wind of 25 m.p.h. and a launch of 25 m.p.h. add up to 50 miles an hour, at which speed the PRÜFLING is apt to be a trifle sensitive on the elevator.) The nacelled DAGLING and one of the open ones earned several certificates, as follows:—

"A's": Miss Archer, Himmelreich, Hartley, Evans.
"B's": Marshall, Gillett, Smith (and Jordan a "45").
"C's": Heath, Vigers, Ruffell, Bucknall.

The last two "C" men, Ruffell and Bucknall, recently joined (or became) the Transport Sub-committee, with startling results. Already two retrieving cars have been obtained, a new engine has been installed in the winch, and a garage for housing the said cars is being built. More surprises are expected to follow in due course.

Wednesday, September 25th.—The Wednesday half-day sessions have been carried on more or less regularly throughout the summer, the only difficulty being the raising of a launching team. To-day, for instance, only six people turned up, and flew a DAGLING off the top in turn. Each time a search had to be made along the Downs, and members of the public basking in their cars were rudely turned out and made to come and help. But while the DAGLING was coming back up the hill they would all wander away and the whole process had to be gone through again. One man parked his car a little further off each time he returned to it; but it was no use—he merely had longer to walk per launch as the evening drew on.

Sunday, September 29th.—In the morning, as a depression centre moved across London to the North Sea, the wind backed through S.E., N.E., and N., and finally finished up west at one p.m.; but the rain didn't stop till three. Then out came the machines.

In the FALCON some got up 200 ft. and some didn't. In the nacelled DAGLING nobody did.

J. C. Neilan, of Sutton Bank and Withernsea (not to mention sundry other landing fields in Yorkshire, and once round the clock in a PROFESSOR) has been turning up each week for the past month to watch other people fly. To-day he could stand it no longer, and decided to join the club. A GRUNAU BABY was forthwith rigged and Neilan was pushed off the top for his first view of Dunstable Downs from the air (but not before he had been asked his name by the instructor on duty!). He threw a few circles and looked down on Whipsnade from about 600 ft. Others flew the GRUNAU later, but the wind backed, and Fox caused some stir by always coming back below the hill-top whenever he went to the Zoo.

The DUNSTABLE DEVIL, Dudley Hiscox's Super-HOLS (some rude man christened it the "Dudling") made one of its infrequent appearances and thrice beat its own duration record, set up some time in August. Hiscox soared it for 22 minutes and again for half an hour, and Neilan also did a half-hour in it, gradually gaining height inch by inch till he looked to be one and a half times the height of the hill above its top. Both reported perfectly smooth flying conditions, and the machine even got above the GRUNAU BABY at times.

The original HOLS DER TEUFEL is now flying again at last, and was up with Pringle at the same time as its bigger brother, but did not compare with it in performance. The ailerons are now markedly turned up at their outer ends, which should enable them to be used for lateral control.

Three DAGLINGS, two open and one closed, went off the top and earned "B" certificates for Miss Archer, Pagnamenta, and Miss Evans, and an "A" for Goldsmith.

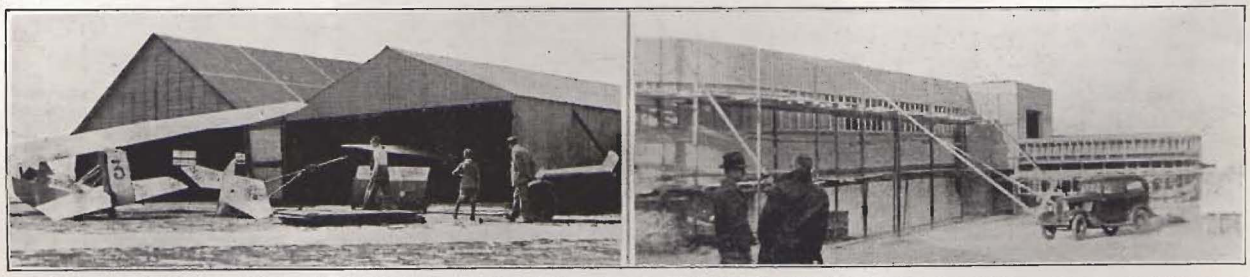
Among the visitors on this day was—who do you think?—C. G. Grey of *The Aeroplane*. We all rubbed our eyes. He had at last been induced to visit the "aeronautical monastery" and watch the Motorless Monks working their way heavenwards, while others took turns with the Nuns at descents from hill-top to nether regions. There was much speculation whether the great man had ever known before what a glider looks like. Some said he must have seen a few in the early days of aviation. Others remembered that *The Aeroplane* reported very thoroughly the Ilford meeting of 1922. Somebody mentioned a rumour that once he had even been seen incognito on Dunstable Downs, whereupon someone else exclaimed: "Incognito? Never!" The truth is that Mr. Grey saw Kronfeld cloud-hopping in the WIEN at Hanworth in 1931 and actually wrote an account of it in his paper. So there.

Saturday, October 5th.—Wind blowing practically along the hill, from S.S.W. The HJORDIS soared for about two minutes, and a DAGLING flew. On one flight the DAGLING, launched into wind, kept straight on along the hillside till it stalled and sank towards a hedge; the pilot, to avoid the hedge, dived it into a solitary bush. No other excitement.

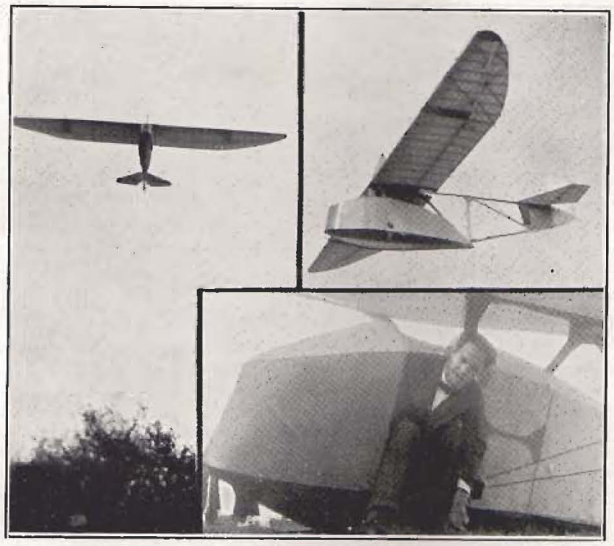
Sunday, October 6th.—Two distinct "fronts" crossed over. The first came at two p.m. and the order of events was: a wind of five m.p.h. up the hill increased to 10 or 15 m.p.h.; then Hiscox was launched in the DUNSTABLE DEVIL just as the rain arrived, and soared one beat before turning in to a landing; the wind increased to 20 m.p.h. and soon hail came clattering down on the wings still on the hill-top (there were just enough of them to shelter everybody); the hail continued quite a time while the wind gradually veered to north; there was a flash of lightning somewhere near the Bowl, half a mile away, and two men holding on to a DAGLING's wires received mild electric shocks.

The next storm arrived at three o'clock and only brought rain. Afterwards the wind became light and turned to south. The weather map shows a stationary cold front strung out on a line from Yorkshire to Devonshire from Saturday mid-day to Sunday morning; it then got a move on and by one p.m. had reached a line from the Wash to Southampton. After that it faded off the map, as its parent depression had gone to Sweden to die.

Apart from the modest little cold front flight by the DEVIL, only descents were made all day. The machines in use were: GRUNAU BABY II., FALCON, open and closed DAGLING, KEEBLING,



The Old and the New: on the left, the two hangars which blew down in the September gales: on the right, the new hangar-and-clubhouse which is rapidly nearing completion. The row of windows on the first floor belongs to the dining and sitting room, while the part jutting out on the right is the bar, with a "tea garden" on its roof.



The "Keebling": Mr. Keeble's high-performance version of a "Zögling," in soaring flight. Below: D. B. Rae demonstrates the mode of entry to its cockpit.

HOLS DER TEUFEL, HJORDIS, and DUNSTABLE DEVIL (which Sproule put into a side-slip; the original intention in the design was to put on brakes by splaying out the two rudders, but this has never been successfully done).

Stephenson and Pasold obtained "A" certificates.

Saturday, October 12th.—Wind west in the morning, backing to south-west in the afternoon. The FALCON was flown by Testar (on a visit from the Midlands), Rainey (who got above the GRUNAU BABY), and Davis. The GRUNAU BABY II. was flown by Fox, the nacelled DAGLING was used for attempts on the "C" certificate, and an open DAGLING was glided down several times with varying degrees of emotion.

Of private machines, Wills went up in the HJORDIS about noon and reached 1,000 ft., but "found nothing"; and the DUNSTABLE DEVIL took the air twice with Hiscox, and once with Ivanoff, getting up quite high at times.

B. S. Shenstone (once associated with Dr. Lippisch) turned up from Southampton, bringing with him Heini Dittmar, who had been landed there by the Hamburg-Amerika Line. Dittmar was on two weeks' leave from Darmstadt, but unfortunately had to leave England again next Thursday as the company's sailings were only weekly. He was immediately made a guest of the club for the week-end. After recovering from his surprise at seeing such an enormous building going up at a non-German gliding centre, he settled down to conversation with the aid of a pocket dictionary, and with astonishing rapidity picked up enough English to cope with any emergency (especially if the CONDOR was mentioned). Among the aerobatics performed on this machine, by the way, he has done a forward loop—but only once, "just to say he had done it."

On **Sunday, October 13th.**—Dittmar had a chance to try out two British designs, first the HJORDIS and then the SCUD II. For the HJORDIS flight the wind was nearly south, so he had to perform perpetual figures-of-eight over the Bowl, and this in a machine with wheel control for the ailerons, which he wasn't accustomed to; but he managed it well. In the SCUD he had a better wind direction, and did beats along the ridge, finishing up with a glorious side-slip to a spot-landing near the winch.

Wills soared in HJORDIS while Dittmar was flying the SCUD. Rainey again did well in the FALCON during a temporary veer in the wind, but others had it more southerly and couldn't keep up. A DAGLING, starting from the top, flew along southwards parallel to the hill and stalled gently down into the only gap in the first hedge. This sort of thing bids fair to become a regular weekly feature (see last week's news).

In the evening we visited the new WREN which is nearing completion in Morland's garage in Harpenden.

Sunday, October 20th.—In a N.N.W. wind, practically all the soaring was done on the stretch leading to the Zoo, where the power cables go up over the hill.

GRUNAU BABY was flown by Neilan (who tried a few circles) and others, one of whom wiped off the skid in a too-prolonged side-slip. Of those who soared the FALCON, Grant and Frl. von Roretz specially distinguished themselves, the former getting to about 800 feet. The DUNSTABLE DEVIL and a DAGLING made forced landings in another field; the KEEBLING soared, and a nacelled DAGLING rivalled the FALCON in a masterly flight by someone whose name we could not discover. The ALBATROSS turned up at dusk and ground-hopped; Thomas, who was allowed to try it, was delighted with the "cushiony" feeling of landing on wheels.

A "Drone" ("the machine which is going to revolutionise gliding") came "gliding" over from Cambridge, but overshot and landed at Hanworth.

"Ould Oireland" called and left his customary benefaction.

Saturday, October 26th.—Keeble and McClelland soared the FALCON, others soared the GRUNAU BABY II., somebody stalled a DAGLING, and Pasold got his "B."

Sunday, October 27th.—Half a gale up the hill. All ailerons working overtime.

The RHÖNBUSSARD put in an appearance and had a couple of lively flights. Cooper's attempts to get down through the acres of lift (and final success) were watched by a large and sympathetic audience. Nicholson found that, when he got up to 600 feet, he had to keep up 55 m.p.h. air speed in order to hover over one spot.

Both GRUNAU BABIES flew. The FALCON was soared by Rainey, Robertson, Davis, Payne, Grant, and Capt. Heath (who did a magnificent side-slip straight from 300 ft. to just in front of the hangars, with a landing run that finished on the very brink of the rabbit warren). Barker in the G.B. II. found, as a rather curious phenomenon, that the worst bumps were either low down over the hill or right up under the clouds; between these two levels was a layer where it was distinctly less bumpy. Why?

Whitsun Camp.—It has been decided to hold an Instruction Camp at Whitsun next year, lasting seven days. S. Humphries will be Chief Instructor. Further particulars later.

Cambridge University Gliding Club

The club's flying ground is at Caxton Gibbet, 9¾ miles from the town, and consists of three large fields, one of which is an A.A. landing ground. Flying started there at the end of **April,** when instruction was given on the Zander and Weyl NACELLED ZÖGLING, winch-launched. After a promising beginning, however, a wing got broken as the result of a stall near the ground, and was not repaired until after the beginning of the Long Vacation. In the meantime a certain amount of flying—instructional and otherwise—was done on the B.A.C. VII. two-seater owned by O. L. L. Fitzwilliam, the Duke of Grafton, and R. C. G. Slazenger.

During **July** and **August** a small group of enthusiasts foregathered and were given instruction by D. MacClement and Fitzwilliam. A simple wheel undercarriage had previously been fitted to the ZÖGLING and greatly facilitated the ground trundles across the aerodrome given to pupils before they left the ground. One hundred and sixty flights were made, and no damage done beyond one broken landing wire. The winch method of instruction caused general satisfaction, and is certainly quick. W. M. Colles, B. P. Griffin, Thompson, and V. Tuke-Taylor (*ab initios*) came near to their "A's," and K. W. Turner obtained his "B."

The winch is a 20 h.p. Chrysler car, converted by members of the club in the engineering laboratory. For towing the gliders across the field a Morris Cowley is used: the ZÖGLING is taken backwards, running on its wheels, with its tail on a platform at the back of the car.

October.—With the beginning of the new university year, flying is now starting in earnest. The Duke of Grafton and Slazenger have bought a WILLOW WREN. The only bad news is that the B.A.C. VII., having suffered a heavy landing, is now awaiting repairs to its fuselage.

The following Committee has been elected for the coming term: J. S. Paget (President), D. MacClement (Chief Instructor), S. G. Bauer, O. L. L. Fitzwilliam, R. C. G. Slazenger, J. W. S. Pringle (Hon. Treasurer), K. W. Turner (Hon. Secretary). The following are Honorary Vice-Presidents: Dr. N. A. de Bruyne, W. S. Farren, Esq., Lt.-Col. M. O'Gorman, C.B. There are at present 33 paid-up members, of whom six have "C" certificates.

Wednesday, October 2nd.—Pringle and Turner made five flights in the ZÖGLING.

Sunday, October 13th.—Slazenger found patches of lift in the WREN, but was unable to keep in them. Five instructional flights in the ZÖGLING.



"This sport is also suitable for ladies": and here are three of them photographed as they start off the top of Dunstable Downs. Left to right: Miss Evans, Frl. von Roretz, Miss Archer.

Sunday, October 20th.—Twenty trundles in the ZÖGLING. Slazenger took the WREN up to 700 ft.

Tuesday, October 22nd.—Constructional work on Slazenger's spectacles, which he broke while putting the WREN on. By the time this was completed, and he was in the air, the last cumuli of the day had disappeared. Three flights in the ZÖGLING.

Thursday, October 24th.—Twenty flights in the ZÖGLING, and one in the WREN.

Sunday, October 27th.—We were very pleased to have a visit from Mr. Robert Kronfeld in his "Drone." During the course of the day he gave us a lot of useful and interesting advice. Unfortunately the wind was too strong for gliding; however, Mr. Kronfeld was able to demonstrate the "Drone" and to fly it back to Cambridge. By way of contrast, we also had a visit from Mr. R. O. Shuttleworth in a "Gipsy Swift."

[In reply to a request for further information, we learn that the club operates with a winch cable 3,000 ft. long, and this accounts for the WREN reaching 700 ft. On another occasion it reached 900 ft., and the two-seater has got up to 700 ft. with a passenger. The club is shortly going to have 5,000 ft. of cable. So it is to be hoped the members will go on increasing their skill so as to be ready for the next "thermal" season when it arrives.—ED.]

Yorkshire Gliding Club

Annual Report.

The Secretary's Fifth Annual Report, which we have received, deals with the Club's activities up to July 1st, 1935, at which date the Club had completed the fifth year of its existence and its first complete year at Sutton Bank.

The change over to Sutton Bank has been the most important step in the Club's career, and the Report considers that the results of the past year's working have shown the move to have been fully justified. The flying has improved in quality and quantity, and the appointment of a full-time ground engineer has enabled repairs and reconstructions to be carried out expeditiously.

The buildings, which began as a mere shell, were gradually fitted out during last winter; the workshop has been extensively, though not completely, equipped. The hangar has withstood severe storms, but improvements are needed in its weather-proofing and ventilation. Accommodation, however, is becoming inadequate, but the question of putting up larger and more permanent buildings is bound up with that of the site. At present, owing to the efforts of Mr. P. A. Wills, the Club's security of tenure of Sutton Bank rests on a sub-lease from the British Gliding Association which, including options of renewals, carries the occupation of the site to April, 1941. But it is of the greatest importance that the site should be purchased as soon as possible because, until the Club actually owns it, the erection of really permanent buildings cannot be contemplated. It is hoped that this purchase may be effected during the coming year, with assistance from the Government subsidy.

With regard to the granting of the subsidy, mention is made of the Air Ministry's requirement that the B.G.A. should first have reformed its constitution so as to give effective control of the Association to the active flying side of the movement, and readers are reminded that the Club has consistently recommended this course ever since 1930. Further, the actual principles on which the subs'dy is to be administered, with the Air Ministry's approval, follow very closely on the lines of a Memorandum submitted by the Club to the B.G.A.

Flying.—When the Yorkshire Gliding Club transferred its entire activities to Sutton Bank, including the training of pilots, there were many who wondered how it could be possible to bring absolute beginners up to the soaring stage if instruction was to be confined to a large flat area at the top of a precipitous slope. Yet the problem has now been successfully solved, as the following extract from the Report shows:—

"The early part of the year under review was largely devoted to experimental work of elementary and intermediate training on the flat by means of the winch. We can now say that the method of mechanised training we have developed is *at least* as efficient as the old method of slope training. In addition it requires far less manual labour, and thereby enables training to take place when comparatively few members are present. A training course for *ab initio* glider pilots now includes:—(*a*) winch-bungy launches in primary machines, (*b*) winch launches in intermediate machines, including circuits and 'S' flights, (*c*) dual soaring instruction, (*d*) solo soaring practice. One effect of this method of training is that the pupil does not get his 'A' certificate until he is practically ready to take his 'C' certificate, but as the object of any gliding club is, or should be, to train 'C' pilots and not 'A' pilots who remain as such, this is not considered a disadvantage."

During the year under review, six "A," six "B" and five "C" certificates were obtained; this is claimed as a record for provincial clubs over the period in question. There was not a single accident to a member of the Club involving personal injury, though on two occasions machines have been so damaged as to need extensive rebuilding.

The machines now available are: one ZÖGLING and one DICKSON training glider, HOLS DER TEUFEL I., HOLS DER TEUFEL II., CLOUDCRAFT PHANTOM sailplane, FALCON I., PROFESSOR, and STEDMAN two-seater sailplane. The last three are privately owned, though the FALCON has been placed at the disposal of the Club by Mr. F. N. Slingsby pending its purchase from Slingsby Sailplanes. The Club's inability to buy new machines during the year is attributed partly to necessary non-recurring expenditure on buildings and site improvement, and partly to the fact that the cost of maintaining existing machines has exceeded by over £70 the revenue obtained from their hire. This state of affairs is now being rectified, and the Club looks forward to adding at least two more machines to the fleet in the immediate future.

Channel Gliding Club

We have not been absent from THE SAILPLANE'S columns through lack of interest in the movement, but mostly because everybody has been too busy making, repairing and flying machines to make notes of our doings. We use auto-towing for launching. When there is a S.W. wind the soaring site can be reached from the 'drome from a height of about 500 ft., and enough height can always be obtained to fly the machines back again.

Sunday, July 14th.—The B.A.C. has at last been finished, and tested by Mr. Turner, with Mrs. Whitnall and Miss Brown as passengers.

Sunday, July 21st.—Instruction was given to Miss Brown, and Messrs. Allen, Cooper, Billings, Frank, L. Griffiths, Beese, and Warrard, by Mr. Turner in the B.A.C. VII.

Sunday, July 28th.—Miss Brown and Messrs. Allen, Billings, L. Griffiths, Beese, and Warrard had flights in the B.A.C. VII. with Mr. Turner to see that they did not break things.

Saturday, August 3rd.—"Work."

Sunday, August 4th.—The morning being spent in clearing of the hangars, in the afternoon Miss Rowl and Messrs. Billings, E. Griffiths, Hessle, and two new members received dual instruction in the B.A.C. VII.

Monday, August 5th.—Poor old B.A.C.! Messrs. Allen, Billings, Gover, L. Griffiths, and Beese threw it about under the watchful eyes of Mr. Turner.

Sunday, August 11th.—South-west wind at last. The PROFESSOR was hurriedly rigged and Turner was towed up. He did not seem to lose any height in his flight to the hills. He soared for about half an hour, threw in a loop to show us how it was done, and then the long-suffering soul came down and instructed Miss Munro and Messrs. Allen, Billings, E. Griffiths, and L. Griffiths in the B.A.C.

Sunday, August 18th.—It rained, but cleared up towards the evening, and Allen, Eavens, E. Griffiths, L. Griffiths, Savage, Whitwell, and a new member had flights in the B.A.C. until dusk.

Saturday, August 24th, and Sunday, August 25th.—Demonstrations at Lympne Rally.

Wednesday, August 28th.—Savage, Peerless, and Wilson had dual in the B.A.C.

Sunday, September 1st.—Billings, Savage, Scotcher, and E. Griffiths had dual when the weather permitted.

Sunday, September 8th.—A very good day's flying was done by Allen, E. and L. Griffiths, V. Billings, Scotcher, Whitwell, and Vellicote.

On the following Sunday there was a gale. No flying.

Sunday, September 22nd.—Wind strong and gusty at first; calmed down about 5 p.m. V. Billings, E. and L. Griffiths, Scotcher, Senter, Reynolds, and Whitwell had instruction in the B.A.C. VII.

Sunday, September 29th.—Lots of rain again, but in spite of it E. and L. Griffiths, Senter, Watson, Reynolds, V. Billings, Whitnall, and Billings and some new members had dual in the B.A.C.

The B.A.C. IV. will be finished soon after its overhaul, when we hope we shall all go soaring and have something more interesting than dual training to write about.

Hull Gliding Club

This club is a continuation of the Hull Experimental Gliding Club, of which news and pictures used to appear in THE SAILPLANE up till about two years ago.

The club's machines are: one secondary type machine of club design and construction, and one primary trainer under repair and reconstruction.

The training site is Hull Airport, Hedon, approximately one square mile in area. Launching is by car tow on 400 feet of cable.

September 15th.—Members arrived to watch the machine tested in a 40 m.p.h. gale. After nearly crashing, Lawson decided to postpone the wonderful event until the "breeze" had dropped.

September 22nd.—Lawson put her through her paces and declared the performance better (if possible) than expected. Rain stopped play.

September 28th.—Lawson made two circuits from 200 ft. Ten members had half a mile ground run.

September 29th.—Flights of 78 and 74 seconds by Lawson preceded a perfect training day. Nine members each had six ground runs of one mile length.

October 6th.—Lawson again dashed the spectators' hopes with four splendid flights from 400 ft. Most members had improved enough to practise hops, and though there were thrills, spills were absent.

October 12th.—In a strong breeze, four members made training runs. Bowman, a power pilot, made his first flight.

October 13th.—Lawson demonstrated to the Press, and Bowman made his first circuit. The wind freshened and became very gusty, making the other members realise it is not "all beer and skittles." Unlucky 13th, Lawson finished the day by landing in the fence. Damage very slight, praised be it, for we expect to have a film taken on the 20th for exhibition in a local cinema.

Devon Gliding Club

After seven months spent in the construction of our DICKSON primary, and a further period of waiting for C. of A. inspection, we have at last started gliding.

On **Saturday, September 14th,** Mr. V. S. Gaunt, of Yeovil, representing the B.G.A., came to give the machine its final inspection, and he was accompanied by Mr. Penrose, who is well known as the constructor and pilot of the PEGASUS sailplane, who kindly gave our machine its first test flights. Mr. Penrose did two flights of ten seconds each, and he was followed by Mr. S. G. Tolman, Hon. Secretary of the Club, who did six seconds.

At present the Club has a 32-acre field, with a length into the prevailing wind (S.W.) of about 600 yards, and a slope of about 1 in 12, but it is hoped at some time in the future to obtain a soaring site.

Gliding has taken place each week-end up to October 5th with no more damage than a bent rudder-bar. On **Saturday, October 5th,** a member put the nose of the machine into the ground at high speed, with the result that the starboard landing-wires broke. This, however, was the sole damage, and we were flying again next day.

Car-launching has been experimented with quite successfully, and the more advanced members are being regularly sent off in this manner. This method is not without its hair-raising (and amusing) moments, as on **October 20th,** when the machine, which was expected to bear in another direction, passed over a number of pigs at about eight feet, the terrified animals scattering in all directions, but immediately afterwards showing the most remarkable intelligence in getting as far from the scene of operations as possible. Our sole lady member, in a very good flight, chased the launching car and almost succeeded in landing on the roof, to the great surprise of its occupants, the car succeeding in getting away "flat out" in bottom gear. The final flight of this day consisted of a climb to about fifty feet, and a spectacular right-hand spiral. To everyone's great surprise, however, there was no more damage than a bent wing-skid.

Jersey Gliding Club

Sunday, September 1st.—A splendid afternoon's sport, five members having 15 flights in a very light S.W. breeze. This is very good practice as we have to make landings on rough ground at high speed. The first "S" turn made on our ground was done by Wagstaffe.

Sunday, September 15th.—The weather was wet, and a strong west wind, up to 30 m.p.h., made gliding rather rough, so after a few trials with the DAGLING we gave it up rather than run the risk of damage.

To-day Carter brought out his SCUD I. sailplane, which is now completed after 12 months of spare time work. After some finishing touches are done, it will be ready to fly.

Sunday, September 22nd.—Great excitement to-day as the SCUD was finished and test flights made, which proved very successful, there being a strong west wind of 20 to 25 m.p.h. Finished in silver and blue, it was greatly admired, and has created a great deal of interest among the Jersey public. After putting it away, we brought out the DAGLING and six flights were made.

Thursday, September 26th.—This time we tried the SCUD from the gully between the two main hills, and had really lovely flights of 350 yards. Carter had great difficulty in landing in our own ground, as the SCUD gathered speed very quickly when put down for a landing, and soon gained lift.

Glassford in the DAGLING had two launches from the gully.

Sunday, September 29th.—A great day for us; at last we were launched from the top of the hill, Glassford gaining his "A" with a flight of 32 seconds. Wagstaffe, who already has his "A" and "B," made a flight of 34 seconds, and Carter, in the SCUD, two flights of 36 and 37 seconds, made at high speed. As the local Press had published photographs of our activities, a large number of the public came along and watched these flights.

Sunday, October 6th.—A very wet day, which cleared in the afternoon. The wind was west, but of little strength, so that although we had 12 launches it proved very disappointing, as we were unable to start from the top. So flights with the DAGLING were up to 16 seconds, and the SCUD up to 25 seconds.

The SCUD I. has a solid trailing edge to the wing and looks much better.



The Jersey Club's "Dagling" in flight at the club's site on the west coast of the island.

News from Derbyshire

The Derbyshire Gliding Club and the Gliding Section of the Manchester Branch of the Royal Aeronautical Society are now definitely under the management of one committee, and when all the formal business of forming a Limited Liability Company, etc., etc., is over, it is hoped that the Club-Section-Branch-Society-Company will be known by a representative if slightly shorter name. In the meantime, we will proceed with "News from Derbyshire."

Unfortunately we have to go back to the end of June to record our last activities not yet reported in THE SAILPLANE. The GOLDEN WREN made various flights, of no outstanding interest, except to its owners, and primary training proceeded apace at Camphill until Sunday, June 30th, on which date the last flight of the day resulted in what the London Club news writer would call "the worst stall in the memory of living man."

Sunday, July 21st, was a day in a thousand. Wind west, 30 m.p.h., with lots and lots of enormous cumulus cloud going over at about 3,500 ft. Smith succeeded in almost entirely wasting this opportunity, chiefly through inexperience, but partly (we hope) through a complete lack of upward view. To cut a long story short, the final result was 3,600 ft. and 17 miles. "Silver C" height has been claimed, but not yet officially confirmed. The upward view has now been remedied, but another such day has not presented itself so far.

Seven members of the club attended the Dunstable Camp: Booth, Brown, Cramp, Davis, Garner, Kaye, and Meads, the last-named, of course, acting as instructor and generally being of the utmost assistance to the organisers, as was the veteran PRÜFLING, which the above members took down with them, and lent to the London Club. Of the remaining six: Brown, Davies, Garner, and Kaye, got "B's," while Booth and Cramp got "A's." Well done, the London Camp! But don't forget the hard preliminary work put in at home.

The GOLDEN WREN was up at Sutton Bank for the Competitions, gaining both first and second height prizes in Class II., flying 15 hours during the week and celebrating its 100th hour in the air. A most enjoyable outing.

On **Saturday, September 28th,** Wills, Dewsbery, and Nicholson paid us a visit, complete with HJORDIS and RHÖNBUSSARD. The wind was south, 25 to 30 m.p.h., so Eyam Edge was the site chosen. The WREN and BUZZARD flew about four hours between them (four flights, maximum height 1,000 ft.), but Wills did not rig the HJORDIS, having seen five people fighting desperately with the BUZZARD wing while it forced them relentlessly back against a stone wall.

On **Sunday, September 29th,** the wind was west and not so strong, but the Lapse Rate was considerably better, with the result that our visitors were able to disport themselves over our "first string" slope—Bradwell Edge. Wills reached 5,000 ft. in HJORDIS and flew over Sheffield (12 miles) *and back*. The BUZZARD was not quite so ambitious, being content to tour about amongst the clouds within a radius of a mere five miles or so of home. Flying time for the day, approximately 5½ hours.

Sad to relate, the WREN was damaged at the launch, by using *too strong a launching rope*; i.e., two good ropes together. The result was that the tail crew could not hold on and the launch had little or no "elastic" about it. As a low stone wall had to be cleared to get over the edge, the pilot very rightly tried to spin round on the ground, but this was not quite successful, and slight damage was done to the neck and drag bracings. We have reported the incident fully as there are two morals to be pointed. Firstly, that about the launching rope, and secondly, that it *is* worth that extra quarter of an hour to carry the machine to that better launching ground a little further on.

A lot of useful training was also put in to-day on a new DAGLING (the other one is almost ready for covering again), and although little stress has been laid on primary training in these notes it will not be long before we are reporting a large batch of "A's," to say nothing of "B's," or "C's."

Sunday, October 6th.—Training at Camphill, also an attempt at a "C" by Saunders in the PRÜFLING. Unfortunately the attempt was made too late, after the wind had died, and although Saunders flew very nicely he just went down and down and down.

Saturday, October 12th.—Working party moving walls to give access to that better launching ground mentioned above, also test flights of GOLDEN WREN with new neck, etc. Flying time, 45 minutes.

Sunday, October 13th.—Instruction on primary, soaring on secondary and sailplane—all at once.

At first, much discussion as to whether it was a PRÜFLING day or not. Eventually the WREN was launched to see what it was like, and as it did not drown it was decided to give Saunders another chance. He responded with a very nice flight of ten minutes, *our first Derbyshire "C,"* and the WREN promptly lost 300 ft. in celebrating the event. Later, Davis made a "C" attempt, but the wind had died and he paid the inevitable penalty. Flying time for the day, 3 hours.

The Club House at Camphill Farm is now firmly established, and we have converted one barn into a workshop and another into a passable hangar. New members are coming in well, even at this time of the year, and good members at that. The sort who don't mind a lot of hard work and 20 seconds flying at the end of it. Our next most urgent needs are working parties, a new single seater FALCON, and a proper hangar. Suitable steps are being taken in all directions.



The "Dunstable Devil," a development of the "Hols der Teufel" type by D. G. Hiscox and H. E. Bolton, flying over its native heath at Dunstable. Note the twin rudders The machine has now been sold to a member of the Midland Gliding Club as the result of an advertisement in "The Sailplane."

Leicestershire Air Sports Club

Club flying has been curtailed somewhat the last month because we have been operating on two sites, some 30 miles apart. The B.A.C. II. has been flying at Six Hills as usual. The best day was October 20th. After the gale had subsided, flying was commenced about three o'clock and 17 winch launches were made before dark, seven members, including a lady member, having a good afternoon's sport in a biting north wind. The club's other flying has been done on a hillside near Market Harborough, about 17 miles from Leicester. The hill is a basin rising to 150 ft., but the rise is very gentle; some members, however, are of the opinion that soaring flight will be possible here; it would have a beat of half a mile and it faces due west. The PRÜFLING was first flown here on Sunday, September 29th, and six flights were made, 30½ seconds being the best of the day.

Sunday October 6th.—The PRÜFLING made three flights, and, as there was no wind, was packed up.

Sunday, October 13th.—The best day yet on this site. In a 15 m.p.h. S.W. wind six flights were made, all of over 30 seconds, the best being 45 seconds.

Sunday, October 20th.—The PRÜFLING was taken out from Leicester, where it is stored, but the wind was too northerly, and it was not rigged. Only the first 100 ft. of hill has been used on this site as yet, all launching being by usual catapult method. Efforts are being made to secure this ground for the club and to build a hangar there. Negotiations are, however, still in the primary stage.

Midland Gliding Club

After months of patient waiting members were rewarded by the inaugural meeting at the Long Mynd soaring site at Church Stretton on the week-end of **October 19th-20th.** The machines assembled were FALCON II., the club's PRÜFLING and notably HJORDIS. Unfortunately the club's PROFESSOR was damaged in transit and could not appear. For politic reasons we are unable to mention names at the moment, but distinguished visitors were staying in Church Stretton, whose presence added greatly to the event.

On the Saturday a westerly gale prevented flying but indicated some of the possibilities of the site. On Sunday morning the wind was light and N.N.W. HJORDIS ventured over the ridge, but the wind was too northerly to give hill lift. By mid-day the wind changed to N.W. and FALCON II. was hurriedly assembled. She was launched and sailed out and along the ridge for 20 minutes (as time was short) and made a good spot landing.

The PRÜFLING was also flown by two pilots whilst the FALCON was up for periods of twenty minutes or so during the afternoon. One luckless pilot ran into a snowstorm after ten minutes in the air, and at the approach of an unpleasant looking cloud at his level decided that a "C" test flight was not the time to practise cloud soaring, so made a hurried but safe landing on the ridge south of the club ground. Another club pilot distinguished himself by bringing FALCON II. in to land with two pretty but rather hair-raising side slips.

HJORDIS reached a height of 1,500 ft. above the ridge—in a *north-west* wind, so that great things are expected from the site when an ideal west wind is blowing. It was certainly delightful to see HJORDIS in the air.

FALCON II. was retrieved from the ridge after the snowstorm. An attempt was made to fly her back to the club ground, but the wind dropped and with it FALCON II. In dusk she was retrieved by trailer, and a weather-blown gathering of enthusiasts terminated proceedings quite normally in "The Hotel" of Church Stretton. A memorable week-end.

During the month of October we are happy to record that Meeke and Olver obtained the first "C" certificates gained by members since the club was formed.

October 26th.—Flying was restricted to the DAGLING at Handsworth. Holland must be congratulated on being the first member to obtain an "A" Certificate in an open DAGLING at Handsworth.

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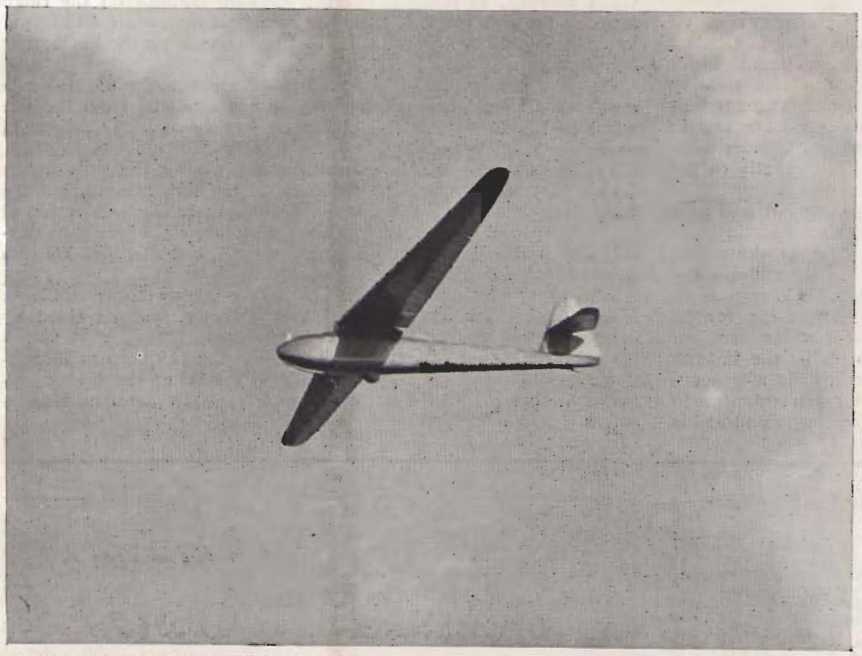
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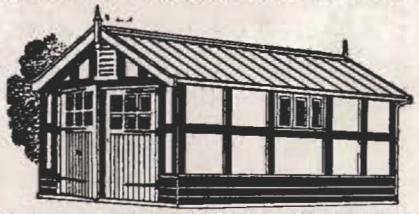
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